

Model of visual and tactile character recognition
(Loomis, 1990)

Stimulus representation	$A(x,y), B(x,y), C(x,y) \dots Z(x,y)$
Spatial filtering	$A'(x,y) = \sum_i \sum_j A(i,j) \exp(-\pi((x-i)s_x c)^2 + (y-j)s_y c^2))$
Nonlinear compression of image	$A''(x,y) = A'(x,y)^{0.5}$
Ignore intensity	$A'''(x,y) = A''(x,y) / \sum_x \sum_y A''(x,y)$
Dissimilarity of A and B	$D(A,B) = \min_{\Delta_x \Delta_y} (\sum_x \sum_y (A'''(x,y) - B'''(x+\Delta_x, y+\Delta_y))^2)^{0.5}$
Similarity of A and B	$S(A,B) = \exp(-\tau D(A,B))$
Probability of B given A	$P(B A) = S(A,B) / \sum_K (S(K,A))$