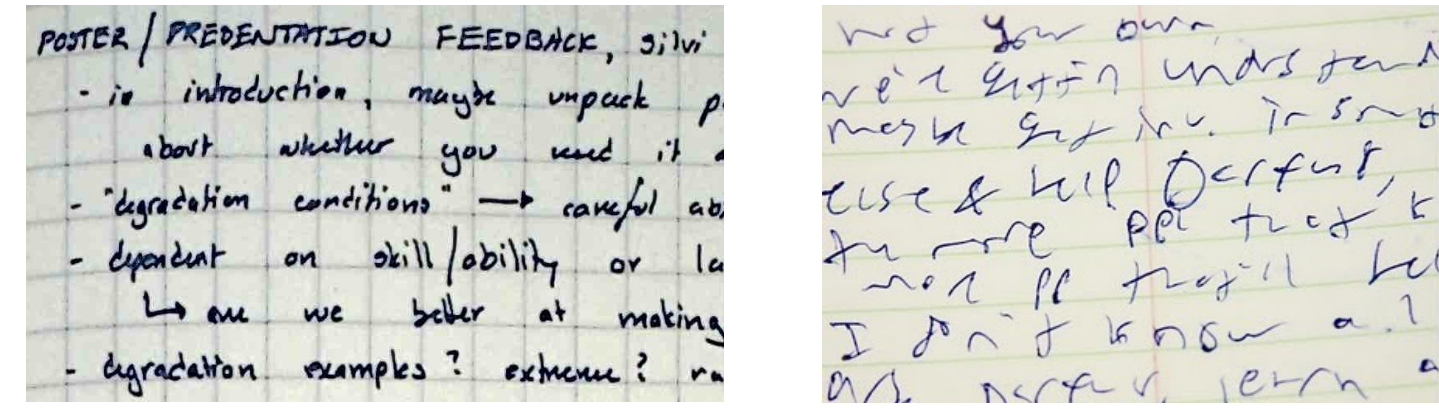


Introduction

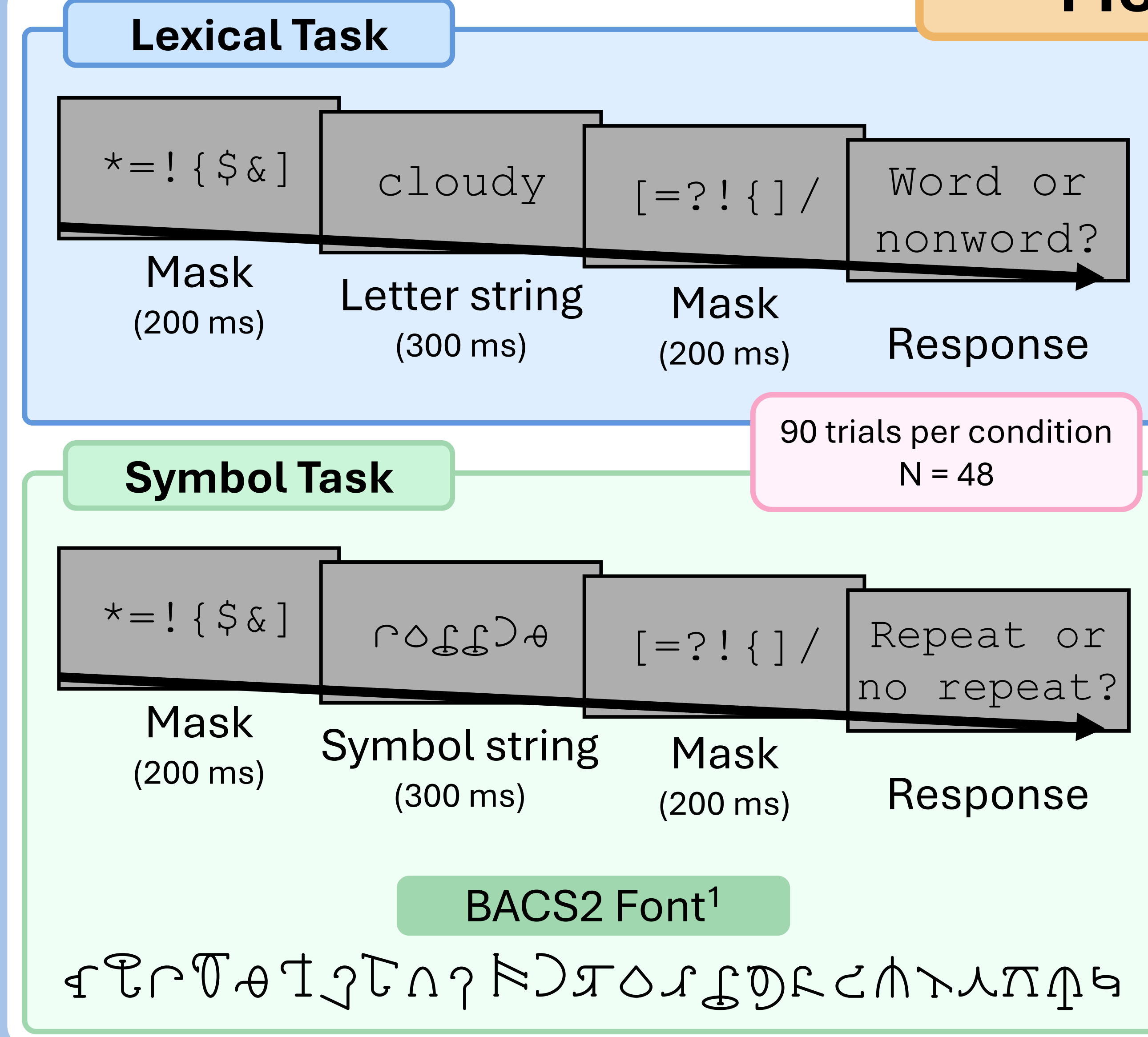
We often read degraded text, but the extent to which this ability is general across different forms of degradation and stimulus types is unknown.



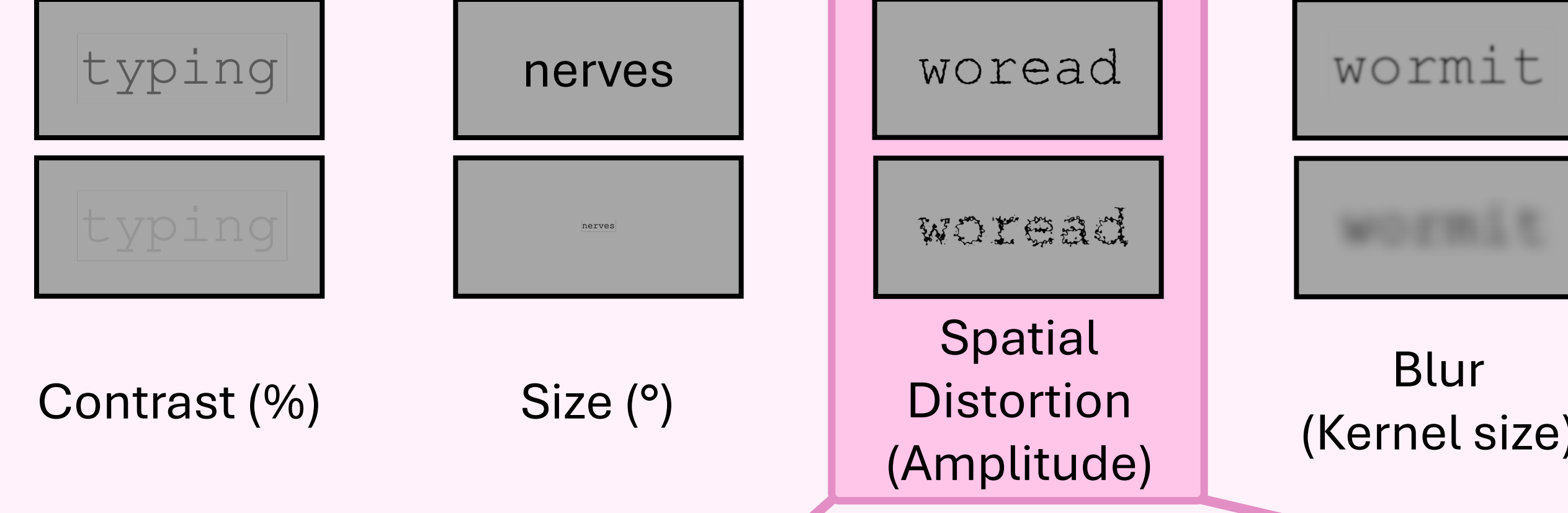
Research Questions

- 1) Are individual differences in resistance to different forms of degradation correlated?
- 2) Is resistance to text degradation specific to text stimuli?
- 3) Are there underlying factors that explain these resistances?

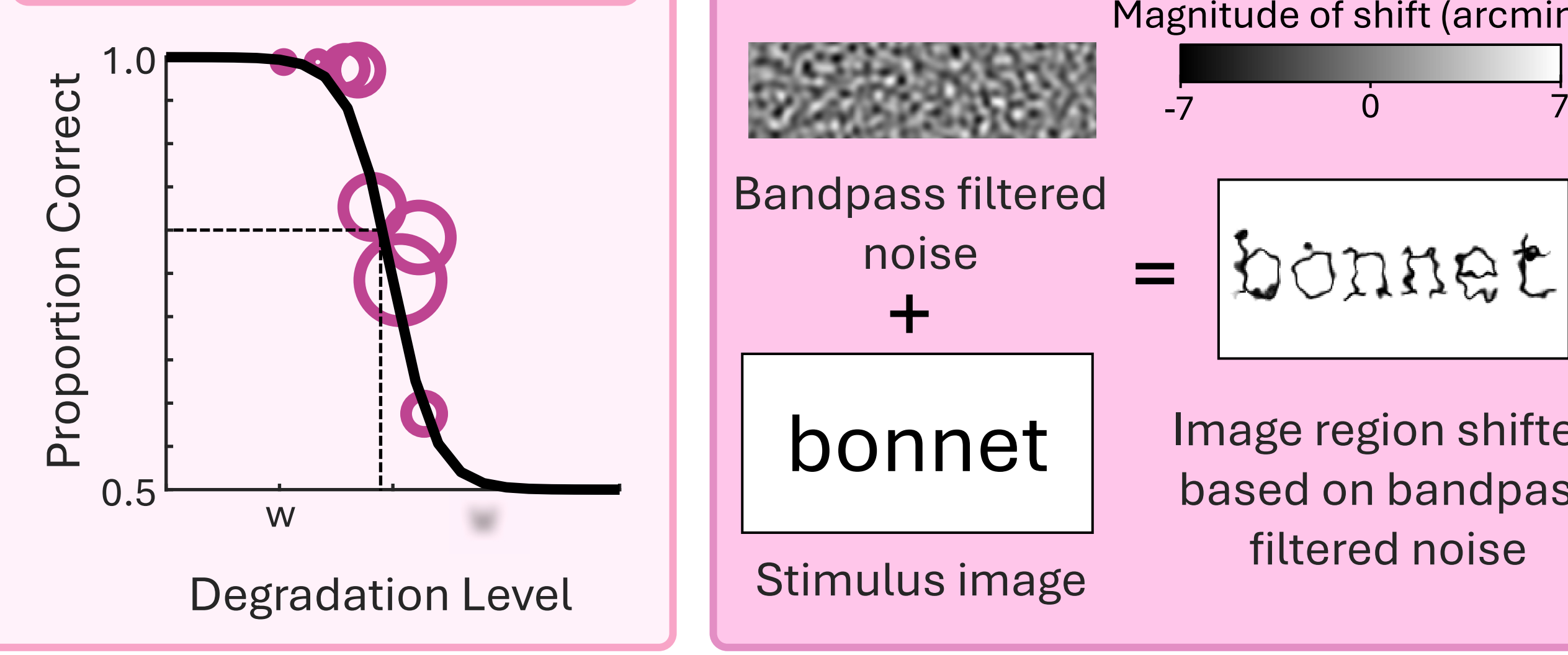
Methods



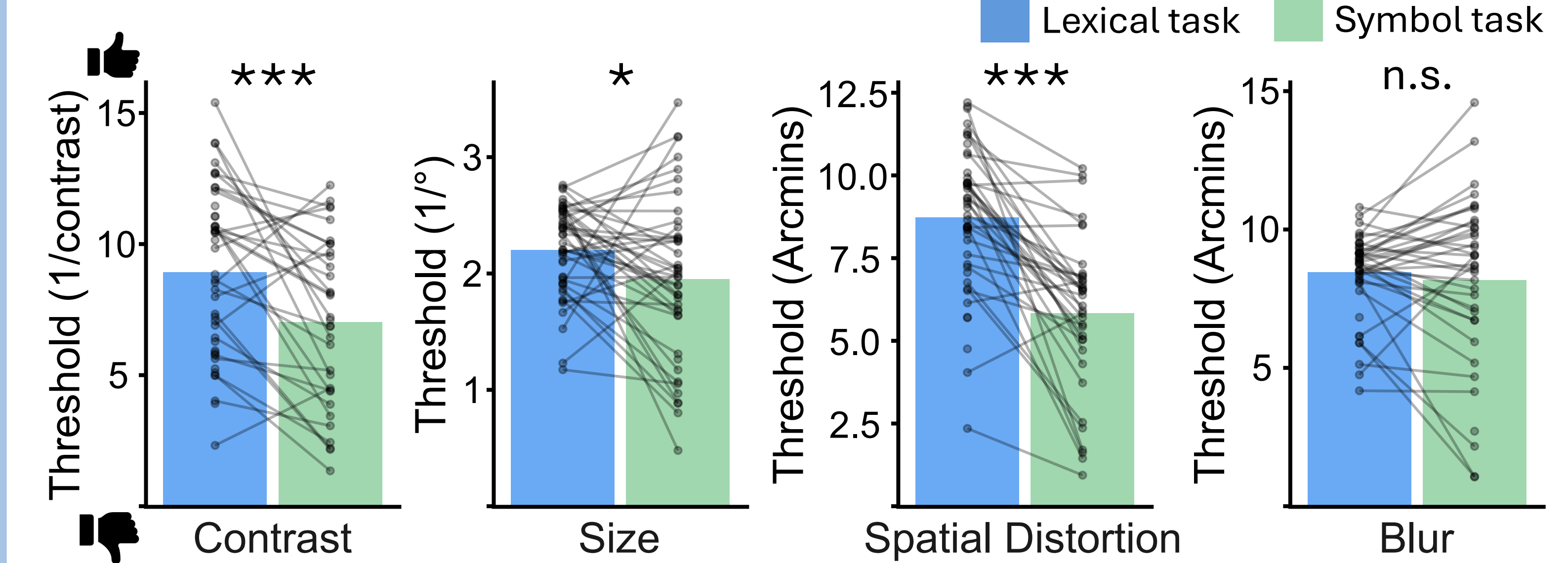
Degradation Conditions



80% Threshold



Performance Across Tasks



Between Task Correlations		Contrast	Size	Spatial Distortion	Blur
Lexical	Symbol	$r = 0.511^{**}$	$r = 0.13$	$r = 0.34^*$	$r = 0.621^{***}$
Split Half Correlations		Contrast	Size	Spatial Distortion	Blur
Lexical	Symbol	$r = 0.685^{***}$	$r = 0.627^{***}$	$r = 0.742^{***}$	$r = 0.601^{***}$
Symbol	Lexical	$r = 0.519^{***}$	$r = 0.539^{***}$	$r = 0.819^{***}$	$r = 0.825^{***}$

How correlated are individual differences in resistance to different forms of degradation?

Lexical Task:

Size	$r = 0.497^{***}$	Mean Fisher's z = 0.589	
Spatial Distortion	$r = 0.425^{**}$	$r = 0.505^{***}$	
Blur	$r = 0.668^{***}$	$r = 0.530^{***}$	$r = 0.523^{***}$
	Contrast	Size	Spatial Distortion

Symbol Task:

Size	$r = 0.506^{**}$	Mean Fisher's z = 0.406	
Spatial Distortion	$r = 0.281$	$r = 0.183$	
Blur	$r = 0.618^{***}$	$r = 0.471^{**}$	$r = 0.172$
	Contrast	Size	Spatial Distortion

Difference in Thresholds: (Lexical - Symbol)

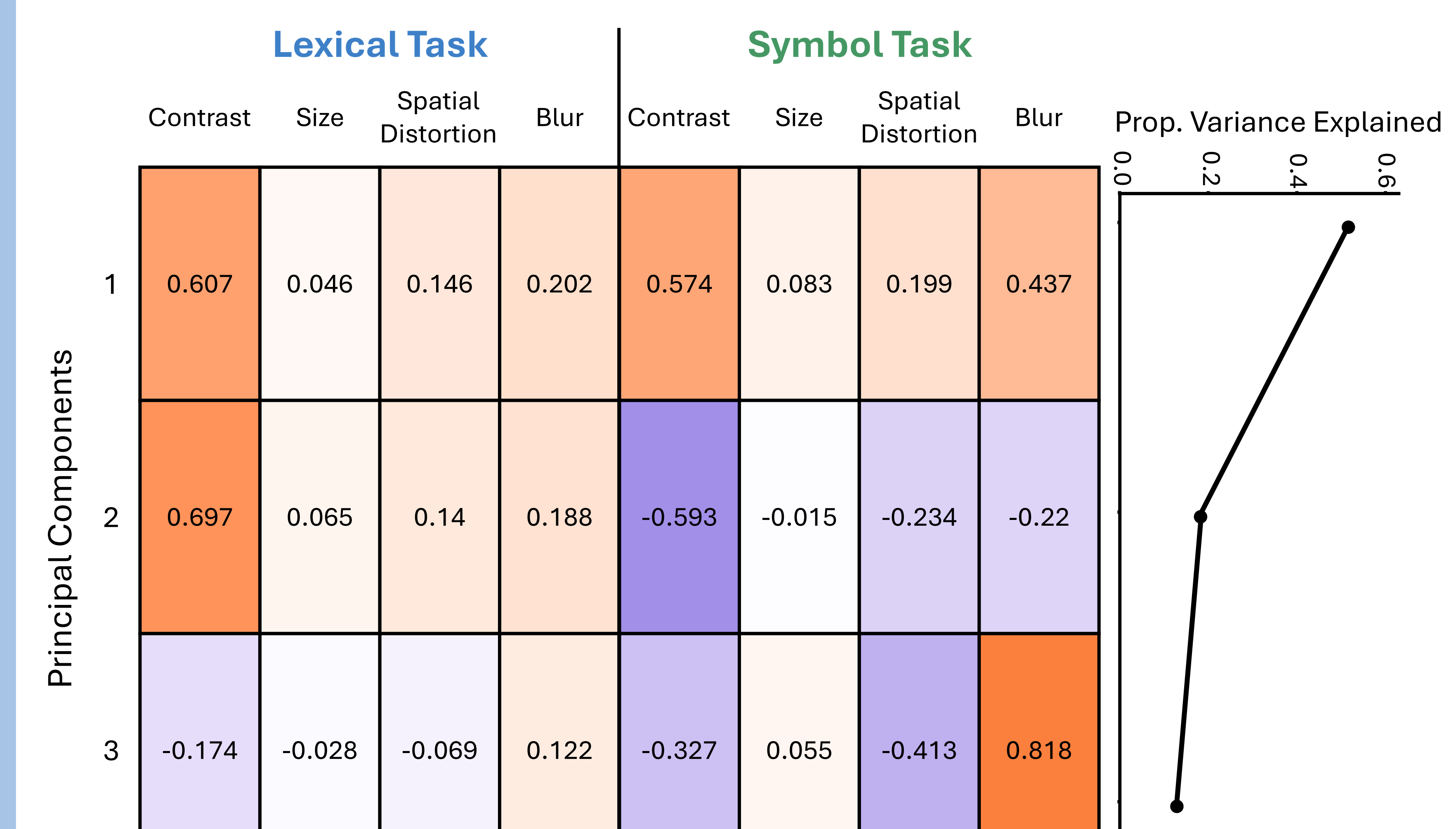
Size	$r = 0.214$	Mean Fisher's z = 0.238	
Spatial Distortion	$r = -0.03$	$r = 0.258$	
Blur	$r = 0.476^*$	$r = 0.374$	$r = -0.131$
	Contrast	Size	Spatial Distortion

Resistance to one form of degradation was correlated with resistance to others

Resistance to one form of degradation was not always correlated with resistance to others (e.g., distortion)

Text-specific improvements were not correlated across forms of degradation

What are the underlying factors?



Factor 1 is positively associated with **blur and contrast**. Factor 2 is split by **task**.