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### The Interaction Between Endogenous Cortisol and Salivary Alpha-Amylase Predicts Implicit Cognitive Bias in Young Women

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#### Abstract

Both animal and human studies suggest that cognitive bias toward negative information, such as that observed in major depression, may arise through the interaction of cortisol (CORT) and norepinephrine (NE) within the amygdala. To date, there is no published account of the relationship between endogenous NE and CORT levels and cognitive bias. The present study examined salivary CORT and salivary alpha-amylase (sAA), an indirect measure of NE, in relation to masked affective priming of words in young female participants. Women with higher salivary CORT showed increased priming to negative word pairs only when sAA was also high; when sAA was low, no effect of CORT on priming was observed. These results are in line with previous research indicating that increased CORT is linked to enhanced processing of negative information. However, our findings extend this literature in providing evidence that CORT predicts enhanced processing of negatively valenced information only in the

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presence of higher sAA.

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