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accompanied by an immediate reduction in serotonin neuronal activity to, or below, baseline levels, coordinating autonomic, motor, and sensory functions, and modulating dopamine, which optimizes response organization and working memory and regulates the microvasculature.² These findings tend to implicate cognitive, social, and physiologic determinants of emotional states, as suggested by Glynn et al.¹

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Neurobiology of decreased sensitivity to stress as pregnancy advances

To the Editors: Glynn et al¹ find that women become decreasingly sensitive to the effects of stress as pregnancy advances. This decrease in vulnerability may reflect increasing protection of the mother and fetus from adverse influences during pregnancy.

Neurobiologic features are suggested by the remarkable neural plasticity that is inherent in reproduction itself and that underlies the subsequent behavioral changes, particularly those unique to late pregnancy and the postpartum period. To consider the relationship of a mother caring for her children as unidirectional disregards the potentially rich set of sensory cues in the opposite direction that can enrich the mother's environment which may ensure the development and survival of both. One recent animal study suggests that motherhood improves learning and memory.

This hypothesis is supported by (1) a report that language discrimination by human newborns may be influenced by hearing rhythmic aspects of speech while in the womb, a period in development during which exposure may have a more profound impact on the organization of the brain than does learning after birth; (2) participatory matching of pauses at moderate arousal in spontaneous dialogues—joint, mutually responsive rhythms, which have prelinguistic origins; and (3) brief spontaneous pauses (1-5 seconds) in ongoing patterned behaviors ac-