

# Infants in poverty show different physiological vulnerabilities to the care-giving environment

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(Medical Xpress)—Some infants raised in poverty exhibit physical traits that make them more vulnerable to poor caregiving, according to new research published in *Psychological Science*, a journal of the Association for Psychological Science. The combination of physiological vulnerability and poor caregiving may lead these children to show increased problem behaviors later in childhood.

For [infants](#) growing up in poverty, the ability to adapt and regulate—both biologically and behaviorally—in response to various environmental pressures seems to be critical for successful development.

To explore why some at-risk children wither while others bloom, researcher Elisabeth Conradt and colleagues examined data from a longitudinal study that followed women at risk for parenting problems and their infants. Conradt, who is now a postdoctoral researcher at the Brown Center for the Study of Children at Risk, conducted the study as a graduate student at the University of Oregon.

To assess infants' vulnerability, the researchers looked at their respiratory sinus arrhythmia (RSA)—a physiological marker of the degree to which infants are attuned to their environment—when the infants were five months old. They also looked at infants' attachment style and level of problem behaviors at 17 months.

The results revealed interactions between physiological vulnerability and environmental context in relationship to infants' [developmental outcomes](#).

Infants who had high baseline RSA at five months and who were raised in an environment that promoted disorganization displayed more problem behaviors than did infants who had a high baseline RSA and were raised in an environment that fostered security.

These results support the idea that poverty is not a uniform stressor. High-RSA infants raised in disorganized caregiving environments faced the double whammy of an insensitive caregiver and poverty. For these infants, high baseline RSA may have increased their sensitivity to negative parenting experiences, leading them to develop coping strategies that became problematic later in childhood. Indeed, in this study, these infants fared the worst, showing problem-behavior scores that were far above clinical risk indices.

But poverty did not have the same effect for high-RSA infants who had nurturing caregivers. Physiological susceptibility—in the form of high baseline RSA—may have enabled these infants to be more attuned to, and affected by, a sensitive caregiver. The data suggest that these infants had the lowest levels of problem behavior, falling below community norms reported in other studies.

Infants with low baseline RSA showed higher than average problem behaviors, regardless of caregiving environment. The researchers speculate that, for these infants, [poverty](#) may be a more powerful predictor of problem behavior than the immediate parenting context.

Conradt and colleagues argue that this research may have important implications for efforts to identify the children who are most vulnerable to developing problem behavior given their biological and environmental

risk factors early in life.

Along with Conradt, co-authors include Jeffrey Measelle and Jennifer Ablow of the University of Oregon.

Provided by Association for Psychological Science

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