《研究：家庭贫富改变婴儿大脑》

研究发现，贫穷不仅会影响孩子的学业成绩和未来收入，还会改变宝宝的大脑活动水平，而且这种改变在宝宝出生的第一年就开始发生了。

(Juan Encalada/Unsplash)

Putting cash in the hands of mothers can help shape the brains of their babies, according to a study in the United States.

美国的一项研究发现，母亲手里有钱有助于宝宝大脑的发育。

Family income has been linked to child development numerous times in the past in observational studies, but this is the first time researchers have found direct experimental evidence of how poverty drives such changes.

过去的观察性研究已多次表明，家庭收入与孩子发育有关，但这是研究人员首次通过实验发现贫穷影响孩子大脑发育的直接证据。

The findings come from an ongoing study known as Baby's First Year, which is attempting to assess how poverty reduction can impact the cognitive and emotional growth of very young children.

这项正在进行的研究名为“宝宝的第一年”，该研究试图评估减贫对于婴幼儿认知能力和情感发育的影响。

"We have known for many years that growing up in poverty puts children at risk for lower school achievement, reduced earnings, and poorer health," explains neuroscientist Kimberly Noble from Columbia University.

来自哥伦比亚大学的神经学家金柏莉·诺布尔解释道：“我们多年以前就知道，在贫穷中长大可能会导致孩子学习成绩差、收入低和健康状况不良。”

"However, until now, we haven't been able to say whether poverty itself causes differences in child development, or whether growing up in poverty is simply associated with other factors that cause those differences."

“然而，直到现在，我们还不能确定贫穷是否会导致孩子发育的差异，或者在贫穷中长大是否与导致孩子发育差异的其他因素直接相关。”

A thousand low-income mothers in the US were recruited for the study shortly after their babies were born.

这项研究在美国招募了1000名不久前生了宝宝的低收入母亲。

These parents, who came from either New York City, New Orleans, Omaha or Minneapolis/St. Paul, were then randomly allocated either $333 a month in unconditional cash payments or $20 a month in unconditional cash payments for the first four years of their baby's life – no strings attached.

研究人员给这些来自纽约市、新奥尔良市、奥马哈市或明尼阿波利斯/圣保罗市的父母在宝宝出生后的前四年随机每月拨款333美元（约合人民币2113元）或20美元（约合人民币127元），他们可以用这些钱买任何东西，并且没有任何附加条件。

The data show that giving low-income mothers financial support can directly change infant brain activity in the first year of life.

数据显示，在宝宝出生后第一年给低收入母亲提供经济支持可以直接改变婴儿的大脑活动水平。

Infants whose mothers had received the higher cash payments, for instance, had higher frequency brain activity than those infants whose mothers had received less.

举例来说，获得更多现金拨款的母亲养育的宝宝比获得拨款少的母亲养育的宝宝大脑活动频率更高。

Further research is needed to see whether these changes in brain activity last or whether they translate to improved cognitive development, but there's good reason to suspect they might.

大脑活动的这些改变能否持续或者是否会转化为认知发育的改善还有待进一步研究，但是研究人员有充分的理由相信大脑活动的改变会影响认知发育。

Some small studies have recently shown that high-frequency brain activity is more common in babies born into higher-income families. This type of activity is also associated with higher language, cognitive, and social-emotional scores.

最近有一些小型研究显示，高频率的大脑活动在高收入家庭的宝宝当中更常见。这种高频率大脑活动还与更高的语言、认知和人际情感得分相关。

Because of the nature of the study, the authors still don't know what environmental factors could have triggered the higher frequency brain waves seen in the trial. They are now investigating whether household expenditures, parental behaviors, family relationships, or family stress had anything to do with the results.

由于这项研究的性质，作者尚不清楚什么样的环境因素会引发实验中出现的高频率脑电波。目前他们正在调查家庭开支、父母行为、家庭关系或家庭压力是否与结果有关。

The study was published in the PNAS.

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