

## Fear, anger or pain: Why do babies cry?

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(Medical Xpress)—Spanish researchers have studied adults' accuracy in the recognition of the emotion causing babies to cry. Eye movement and the dynamic of the cry play a key role in recognition.

It is not easy to know why a newborn cries, especially amongst first-time parents. Although the main reasons are hunger, pain, anger and fear, adults cannot easily recognise which emotion is the cause of the tears.

"Crying is a baby's principal means of communicating its negative emotions and in the majority of cases the only way they have to express them," as explained to SINC by Mariano Chóliz, researcher at the University of Valencia.

Chóliz participates in a study along with experts from the University of Murcia and the National University of Distance Education (UNED) which describes the differences in the weeping pattern in a sample of 20 babies between 3 and 18 months caused by the three characteristic emotions: fear, anger and pain.

In addition, the team observed the accuracy of adults in recognising the emotion that causes the babies to cry, analysing the affective reaction of observers before the sobbing.

According to the results published recently in the '[Spanish Journal of Psychology](#)', the main differences manifest in eye activity and the dynamics of the cry.

"When babies cry because of anger or fear, they keep their eyes open but keep them closed when crying in pain," states the researcher.

As for the dynamic of the cry, both the gestures and the intensity of the cry gradually increase if the baby is angry. On the contrary, the cry is as intense as can be in the case of pain and fear.

The adults do not properly identify which emotion is causing the cry, especially in the case of anger and fear.

Nonetheless, "although the observers cannot recognise the cause properly, when babies cry because they are in pain, this causes a more intense affective reaction than when they cry because of angry or fear," outlines Chóliz.

For the experts, the fact that pain is the most easily recognisable emotion can have an adaptive explanation, since crying is a warning of a potentially serious threat to health or survival and thus requires the carer to respond urgently.

## **Anger, fear and pain**

When a baby cries, facial muscle activity is characterised by lots of tension in the forehead, eyebrows or lips, opening of the mouth and raised cheeks. The researchers observed different patterns between the three negative emotions.

As Chóliz notices, when angry the majority of [babies](#) keep their eyes half-closed, either looking in apparently no direction or in a fixed and prominent manner. Their mouth is either open or half-open and the intensity of their cry increases progressively.

In the case of fear, the eyes remain open almost all the time.

Furthermore, at times the infants have a penetrating look and move their head backwards. Their cry seems to be explosive after a gradual increase in tension.

Lastly, [pain](#) manifests as constantly closed eyes and when the eyes do open it is only for a few moments and a distant look is held. In addition, there is a high level of tension in the eye area and the forehead remains frowned. The [cry](#) begins at maximum intensity, starting suddenly and immediately after the stimulus.

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