

Cradling babies on the left fosters sociality and brain development

New research shows women's empathy and attachment are associated with the 'left cradling bias'

Women prefer to cradle babies on their left side, a preference known since the 1960s, that is stronger during the first months of life of the baby and is generally absent in men. In a couple of recently published studies^{1,2}, researchers from the University "G. d'Annunzio" in Chieti (Italy) led by Prof. Luca Tommasi show that the 'left cradling bias' is associated to higher levels of empathy (our ability to place ourselves in another's shoes) and attachment (our emotional bond with significant individuals) to both the mother and the romantic partner, whereas the reversal of the bias is associated to higher levels of depression and non-optimal socio-emotional bonds. Their findings were just published online, in the journals [*Scientific Reports*](#) and [*Evolutionary Psychology*](#).

The left cradling bias, observed also in some other primates and vertebrate species, is still a puzzling phenomenon, originally explained by the idea that positioning the baby on the left would expose the infant to the pacifying sound of the maternal heartbeat, an explanation that has been discarded (the bias was also found in a mother with dextrocardia), as has been excluded the explanation that supposed that left cradling would leave the mother's dominant right hand free for other tasks (the bias is also present in left-handed women). Actually, the most acknowledged explanation of the bias points to the asymmetry of brain hemispheres in the perception and expression of emotions: given that most sensory information from one side of space is processed in the opposite hemisphere, cradling the baby on the left allows visual and auditory information coming from the baby to be analyzed preferentially by the right hemisphere of the mother, which is better than the left at processing emotional and social information; at the same time, the child is most exposed to the left side of the mother's face, which research has shown to be more expressive (that is, showing a greater intensity of emotion), again due to the connection of the left side of the body to the 'more emotional' right hemisphere. Recent evidence has accumulated linking the left cradling bias to the well-being of the mother and, thus, of the child.

In the *Scientific Reports*¹ paper it was shown, in a sample of 50 mothers, that those scoring higher on a depression test were more likely to show an atypical – that is, right-sided – cradling (both in an imagination test and from the inspection of their own family photo albums depicting episodes of cradling), whereas those scoring higher on an empathy scale were more likely to show the typical left cradling bias. As co-author Dr. Daniele Marzoli highlights, these results confirm that cradling side is strongly associated with a divide between positive and negative psychological aspects, and that it might serve as a potential diagnostic marker of the well-being of the mother, and of her ability to get emotionally attuned to the child.

In the study published in the journal *Evolutionary Psychology*², the research group tested almost 300 women, discovering that their attachment style to their mothers and romantic partners predicted the cradling-side preference (as measured using a realistic doll). Indeed, women that had had an optimal attachment to their mother until adolescence and those having a secure attachment to their romantic partner exhibited a stronger left cradling bias. Dr. Gianluca Malatesta, co-author of both studies, stresses that the simple observation of the side at which a baby (or a doll) is cradled could allow clinicians and

non-clinicians to determine, to a certain degree, the emotional state of a woman as well as the quality of her social relationships.

According to Prof. Tommasi these results, taken together, suggest that the maternal left-cradling bias helps setting the stage for the development of the social and emotional competencies of the infant brain, through the processing of key stimuli by the “right” (literally and figuratively) hemisphere in a time window (a ‘critical period’) during which the mother is the major environmental stimulus herself.

References

1. [Malatesta G, Marzoli D, Rapino M & Tommasi L \(2019\). The left-cradling bias and its relationship with empathy and depression. *Scientific Reports*, 9\(6141\). DOI 10.1038/s41598-019-42539-6](#)
2. [Malatesta G, Marzoli D, Piccioni C & Tommasi L \(2019\). The relationship between the left-cradling bias and attachment to parents and partner. *Evolutionary Psychology*, 17\(2\). DOI: 10.1177/1474704919848117](#)