

The impact right or left handling has on development may determine emotional consequences

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An experimenter handling a foal by “rubbing” it vigorously. Credit: Séverine Henry

Certain events experienced at the moment of birth have consequences on the emotional reactions of animals at an adult age. French researchers from the Laboratoire d'Ethologie Animale et Humaine have tested the effects of unilateral tactile stimulation on newborn foals. Their results show that animals handled on their right side at birth avoid contact with humans more often than those stimulated on their left side or not at all.

Published in *Biology Letters*, this work raises questions on the organization of neonatal care in animals and humans.

Events experienced by [newborns](#) influence their behavior in the more or less long term. Certain events in early life are crucial for the behavioral and [neurological development](#) of animals and can have a considerable impact on the organization and the development of brain asymmetry in particular.

Having observed that handling at birth can have long term effects, a team from the Laboratoire d'Ethologie Animale et Humaine wondered what impact unilateral stimulation would have on [emotional reactions](#) later in life. The ethologists tested the consequences of unilateral tactile stimulations on 28 newborn foals: 10 of them were handled just after birth on their right side (the newborn foals were “rubbed” vigorously for one hour on a single side), 9 others on their left side, while the remaining 9 were not handled at all. The researchers then observed medium-term effects: the reactions of foals to a human approach, when they were 10 days old, differed according to the side stimulated at birth. The right-handled [animals](#) fled at the approach of humans more often than the left-handled or unhandled foals.

These results show that tactile stimulation at birth has a medium-term impact, the extent of which depends, among other things, on the side of the stimulation. Consequently, these experiments on foals demonstrate that handling a newborn on the right side or the left side does not have the same consequences. Scientists will henceforth study this unilateral sensitivity in newborn babies in maternity wards, with a view to improving [neonatal care](#) in humans and thus the well-being of infants.

More information: Differential outcomes of unilateral interferences at birth. Alice de Boyer des Roches, et al. *Biology Letters*, 2010

Provided by CNRS

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