

Early olfactory newborn babies-mother recognition

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The literature on mother-infant olfactory recognition, although wide of experimental contributions, is controversial.

It is not completely clear at which age newborn-babies react to maternal stimuli (as milk, amniotic liquid, breast or axillary odours), as well as to body odours of unknown mothers or to artificial stimuli; and the extent to which other factors, as sleep and wake, could influence newborn-babies responses to biological or not biological stimuli.

Here, two experimentes were carried out, in order to examine newborn-babies response to maternal milk, maternal axillary odour and artificial milk.

Neonates were examined after a natural or caesarian birth at a mean age of 18 hours (1st experiment); and both asleep and awake at a mean age of 70 hours (2nd experiment).

Results show that almost all newborn-babies are able to recognize maternal odours. However these issues are affected by the kind of birth (natural or caesarian), the kind of odours and by their hedonic (pleasant/unpleasant) value. Particulary, in the 1st experiment all newborn-babies in the “natural birth” condition are able to recognize maternal milk and maternal axillary odour; while half of neonates in the “caesarian birth” condition recognize maternal milk, and almost all of them recognize maternal axillary odour. But only maternal milk stimulus give raises to pleasures hedonic responses. These issues were observed also in the 2nd experiment; but here the two conditions examined (sleep and wake) do not affect significantly recognition responses.

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