**Does smelling the mothers’ wool during social isolation affects the lambs’ behavioural response?**

Freitas-de-Melo, Aline1, Ackermann, Sofía1, Rodríguez Möller, Sebastián1, Janavel, Paula1, García, Ana María1, Menant, Ophélie1, Levy, Frédéric2, Ungerfeld, Rodolfo1

1Facultad de Veterinaria, Universidad de la República, Uruguay

2CNRS, IFCE, INRAE, Université de Tours, PRC, F-37380 Nouzilly, France

In situations of fear and stress, lambs seek protection from their mother and recognize maternal odours over odours from other lactating ewes. The aim of this study was to determine whether volatile chemicals from the mother’s wool affect the lamb’s behavioural response during social isolation. Twenty-nine Merilín singleton lambs (3 months old) were separated from their mother for 3-4 h before undergoing a social isolation test for 10 min. Ten min before the test, lambs got wearing a mask that they had been accustomed to over the past week, with different stimuli: the wool of their mothers (MW group; n=10), the wool of lactating-ewes (LW group; n=9), or an empty mask (NoW; n=10). The day before the isolation test, the wool was collected from both flanks, the udder zone, and mixed with the inguinal wax, remaining frozen until the test. The 4 m x 4 m pen test, where lambs were previously accustomed, had 2 m white walls and 16 squares (1 m x 1 m) drawn on the floor. The time each lamb spent in the periphery of the test pen, the number of lines crossed, vocalizations, eliminations (urination and defecation) and sniffing were recorded. The number of vocalizations tended to differ among groups (MW group: 118.2 ± 23.1, LW group: 103.7 ± 23.4, NoW: 83.6 ± 23.1; P=0.097). The other variables did not differ among groups. In conclusion, the lambs who smelled the wool of their mother slightly emitted more vocalizations in a stressful situation, possibly seeking protection.

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