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Effects of gilts' social experiences on reactions to unfamiliar pigs

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Our research aim to develop management and breeding strategies resulting in gilts well prepared for group housing, where one important aspect is short and long-term effects of social training. In this study, we assess short term effects of gilts' breed and social experience on social and aggressive behaviour in interactions with unfamiliar pigs. In total, 103 gilts of two lines of Yorkshire were studied. In previous breeding these lines were either indirectly selected for single housing (Dutch Yorkshire, DY, n=54) or group housed systems during gestation (Swedish Yorkshire, SY, n=49), as the breeding animals were evaluated in these different housing systems. The gilts in this study were reared in different social environments during two phases of the rearing period, giving four different combinations of social experience (balanced across Yorkshire lines). From 2 to 5 weeks of age, half of the litters had access to the piglets and sows in the neighbouring pen (access pen, n=51 gilts) whereas the others did not (control pen, n=52 gilts). From 10 weeks of age to farrowing, half of the gilts were mixed with unfamiliar gilts (mixed groups, 52 gilts) and the other half were not mixed (control groups, 51 gilts). To investigate the effect of previous social experience the gilts, that were evenly distributed over the four treatments, met an unfamiliar gilt of the same age for 3 minutes in paired interaction tests. Tests were carried out when pigs were 5 and 20 weeks of age in a novel environment outside their home pens. Preliminary results indicate that extra social experience had little short-term effect on gilt response in the paired interaction test ($P > 0.05$ for all). There were tendencies ($P < 0.1$) indicating that SY gilts nibbled and bit the response pig, and that they explored the pen fitting, to a larger extent than DY gilts.