## P-1. The Influence of Stroking Way on the Establishment of Human-cattle Relationships

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The influence of stroking way on the establishment of human-cattle relationships was examined. In experiment 1, 16 newborn calves were used. Six newborn calves were stroked by a trainer for 6 minutes once daily for 5 consecutive days after birth (F1), and six newborn calves were stroked by a trainer for 3 minutes twice daily for 5 consecutive days after birth (F2). For four newborn calves, the trainer stared without stroking as controls (C1). In experiment 2, 12 newborn calves were used. Four newborn calves were stroked by a trainer for 5 consecutive days, and four newborn calves were stroked by a trainer for 5 minutes twice daily for 5 consecutive days, and four newborn calves were stroked by a trainer for 5 minutes twice daily for 3 consecutive days after birth. For four newborn calves, the trainer stared without stroking as controls (C2). In both experiments, calves were assessed human-cattle relationships in a novel arena at 1 and 3 months. In experiment 1, both stroking groups approached significantly closer to the trainer than C1 at 1 month old (P<0.001). F2 still approached significantly closer to the trainer than C1 at 1 month old (P<0.001). F2 still approached significantly closer to the trainer than C1 at 1 month old (P<0.001). F2 still approached significantly closer to the trainer than C1 (P<0.001) at 3 months old, indicating that more frequent stroking establishes effectively a positive human-cattle relationships. In experiment 2, there was no difference in the closest approach distance to the trainer among treatments. However, the calves in both stroking groups stayed longer within a closer area to the trainer than C2 at 1 month old. From these results, it is concluded that frequent stroking per day promote the establishment of positive human-cattle relationships.