

The effect of mirrors on the behaviour of singly housed male and female laboratory rabbits

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Abstract

It is widely recognised that single housing is detrimental to the welfare of social species. However, some experimental procedures dictate that laboratory animals are housed individually. There is evidence to suggest that, by mimicking social contact, mirrors are beneficial to the welfare of singly housed horses and heifers. However, experiments with singly caged laboratory mice have found mirrors to be mildly aversive. The present study investigated the behavioural response of singly housed male and female rabbits to a mirror in their cage. After a period of pre-trial behavioural observations, rabbits were provided with an acrylic mirror, either at the front or the back of their cage, for a period of seven days. This was followed by a post-trial period, at the beginning of which all mirrors were removed. Both sexes showed some changes in behaviour and in the use of space within the cage. The addition of a mirror significantly reduced grooming in females, which was previously considered to be at high levels. Both males and females showed an increase in investigatory behaviour, although the patterns of change differed between the sexes. Differences between males and females are attributed to differences in socio-sexual strategies between the sexes. It is concluded that, when single housing is unavoidable, mirrors might be appropriate to partially compensate for social contact in female laboratory rabbits. Further research using a wide range of welfare indicators is needed to establish whether the provision of a mirror could be used as a successful method of improving laboratory rabbit welfare.

Keywords: animal welfare, behaviour, laboratory rabbit, mirror, single caging, social isolation