

# Current Equine Housing Practices and the Importance of Social Enrichment

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## Introduction

Horses naturally exist in social herds with a clearly defined hierarchy, so that all members receive and provide social interaction with, and education to, one another (Bourjade *et al.* 2008). Feral horses, exposed to continual changes and challenges in their environment, have adapted by developing a range of behaviours, such as standing on three feet. Domestic horses exist in confined controlled environments and, as a result of reduced environmental stimuli, express fewer behaviours than their wild counterparts (Benhajali *et al.*, 2008; Visser *et al.*, 2008). Not only has a reduced ethogram been noted, but the presence of abnormal behaviours also stimulates the equine industry to question current husbandry practices (Benhajali *et al.*, 2008; Visser *et al.*, 2008).

## Discussion

While stabling allows horse owners worldwide to manage horses more easily, certain abnormal behaviours have been associated with stabling, such as crib biting, weaving, box walking and wind sucking, and these are termed stereotypic behaviours (Visser *et al.*, 2008). Regardless of stable design, natural socialisation among animals is restricted, even to the point of isolation. Visser *et al.* (2008) chose to explore the behavioural impacts of individual housing on young horses compared with housing in pairs. The experimental group consisted of 36 two-year-old Dutch Warmblood horses, 18 housed in individual stables and 18 housed in pairs.

The distinct differences between the two housing methods were related to behavioural observations. Those horses stabled individually expressed more anxiety-related behaviours, such as vocalisations, pawing stable doors and defecating (Visser *et al.*, 2008). Similarly, individually housed horses showed significantly more stereotypic behaviours, which are commonly associated with frustrated attempts for social interaction (Visser *et al.*, 2008).

As with the Visser *et al.* (2008) study, Benhajali *et al.* (2008) focussed their study on dense housing of horses in stables and its impacts on behaviour. The experiment involved 44 pure-bred Arab mares aged between 3 and 22 being housed in individual stables at night for up to 16 hours, and released into a high-density common paddock during the day.

The results of this study showed that some characteristic social herd behaviour was completely missing in the stabled horses, such as lying down, defecating and urinating (Benhajali *et al.*, 2008). Observers also noted that other normal behaviours, including rolling and standing on three feet, were rare among the group. Along with large amounts of active walking, these behaviours strongly suggest stress among the herd when in the high-density paddock.

Another important finding was the low level of motivation for social interaction within the herd. The social interactions present were restricted to agonistic interactions, and animals showed poor social structure (Benhajali *et al.*, 2008). These results are particularly alarming considering the importance of social structure in the wild population and were largely attributed to individual housing at night.

Along with stabling of horses, it is common practice to house young domestic horses in same-age, same-sex groups from weaning until training. Bourjade *et al.* (2008) designed a study to investigate the impact these housing systems had on young horses' behaviour, and the effects of social enrichment. The social enrichment was in the form of temporary introduction

of adults into groups of young horses, creating a social group similar to those seen in wild populations.

As with the study performed by Benhajali *et al.* (2008), Bourjade *et al.* (2008) chose Arab and Anglo–Arab horse breeds as their experimental groups. These horses were divided into 4 groups, 2 male and 2 females groups, each comprising 1-year-olds or 2-year-olds. The experiment was designed in three phases: phase A, before adults had been introduced; phase B, while the adults were present; and phase C, after they had been removed.

It was found in phase A that the young horses, both male and female, showed significantly low occurrences of mutual grooming and high frequencies of agonistic interactions (Bourjade *et al.*, 2008). As adults were added to the groups, new behavioural patterns were observed, such as lateral recumbence, snapping, flehmen and kicking. Importantly, multiple young individuals performed adult-like patterns, such as head-bowing and striking. It is evident that the young modified their behaviour when introduced to adults, including an increased repertoire of behaviours, reduced agonistic behaviours and increased preferred spatial partners. These findings emphasise the important influence that older animals exert over their young conspecifics. It is important in all species for young animals to undergo behavioural development along with physical maturation. Bourjade *et al.* (2008) have linked this process with adult influence and interaction. This has significant implications on the future management of young animals, and the move towards greater social stimulation.

While the Bourjade *et al.* (2008) study made important findings related to the influence of older horses on young horse behaviour, it is important to compare these findings with the Benhajali *et al.* (2008) study. In this second study a range of horse ages was included. However, evidence of agonistic social interaction was observed in both instances, regardless of age. This may expose the important role of stabling on limiting social motivations on horses of all ages and the different impacts of well-socialised adults on young animals compared with adults that have lived in restricted housing for a significant period.

## Conclusion

Presence of abnormal or lack of normal behaviours in these studies are seen as inability of the animal to express natural behaviours due to the restricted nature of their housing. This restriction of social interaction does not allow young horses to develop behaviours essential for appropriate social contact with other conspecifics.

It is impossible to recreate a natural environment for domestic horses primarily due to land availability and the need to closely manage the animals. However, horses should be housed in social groups and, if it is necessary to stable horses due to extreme climatic conditions, stables should be designed so that horses can interact with conspecifics. Welfare of horses should be the manager's main concern, therefore social enrichment should be a primary goal of future housing conditions.

## References

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