

Hestens adfærdsmæssige behov – hvordan bliver deres opfyldelse bedst sikret?

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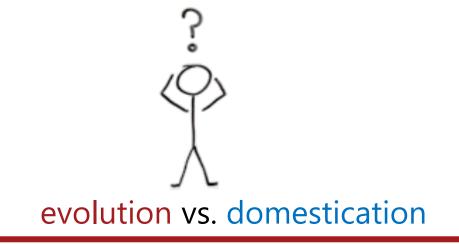
Behavioural needs

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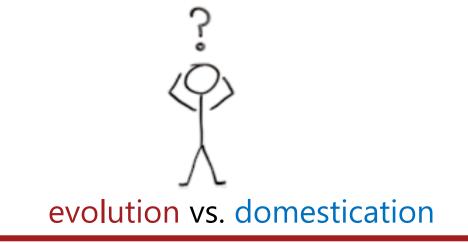
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Behavioural needs



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• Where do they come from? Which ecological niche have they adapted to?



 \rightarrow No new behaviours evolved during domestication \rightarrow No behaviours were lost (just changed in intensity)

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Behavioural needs



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Behavioural needs

evolution vs. domestication

- \rightarrow No new behaviours evolved during domestication
- \rightarrow No behaviours were lost (just changed in intensity)
- 2. Study of horses is seminatural environment: all behaviours as wild form
- \rightarrow A horse is still a horse

Behavioural needs – natural behaviour

• Where do they come from? Which ecological niche have they adapted to?



- Vendts, savannahs, tundra
 - \rightarrow Low temperatures at night, high temperatures at day
 - \rightarrow Hard lignified plants
 - \rightarrow Escape into the distance, social group as safety

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Behavioural needs – natural behaviour

- Herbivores (16-18h grazing, low energy food)
- Movement (walking)
- Social (small stable groups \rightarrow family, large anonymous, bachelor)
- Flight



Typical husbandry



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Typical husbandry



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- Even if turned out: often only a few hours and alone
- Group housing: often large dynamic groups

Stability of rank order in a group

Time point 0	3 months	6 months	1 year	2 years
Lorbas	Wotan	Earl	Earl	Earl
Domino	Domino	Atlas	Wotan	Wotan
Caesar	Lorbas	Wotan	Atlas	Atlas
Wotan	Caesar	Domino	Domino	Domino
Atlas	Atlas	Lorbas	Lorbas	Lorbas
Earl	Earl	Caesar	Caesar	Caesar
Whisky	Whisky	Whisky	Whisky	Whisky
Achat	Filou	Filou	Filou	Filou
Filou	Achat	Achat	Achat	Achat
Elliot	Elliot	Elliot	Elliot	Elliot

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Typical husbandry



• But large dynamic groups on the rise

Husbandry	Distance
(Semi-)natural	6-17km



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Husbandry	Distance
(Semi-)natural	6-17km
24h pasture	8km
Day time pasture	3-4km
Open stable without functional areas	2km
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Husbandry	Distance
(Semi-)natural	6-17km
24h pasture	8km
Open stable with functional areas	5km
Day time pasture	3-4km
Open stable without functional areas	2km
Single box	0.17km



Husbandry	Distance
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Open stable with functional areas	5km
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Open stable with functional areas: HIT active stable

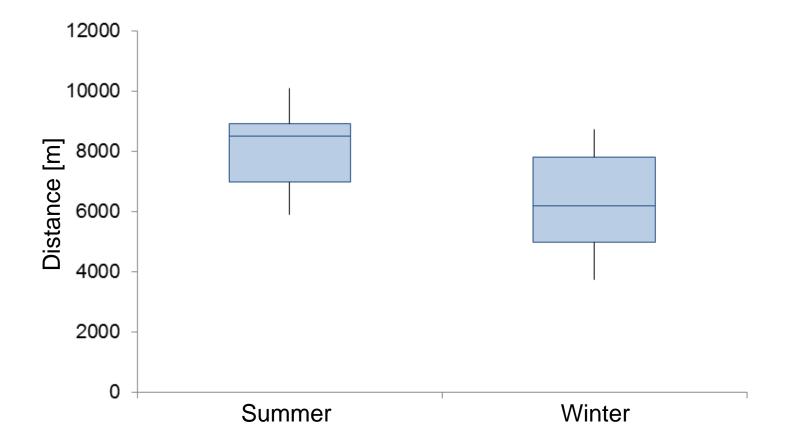


HIT active stable in Northern Germany

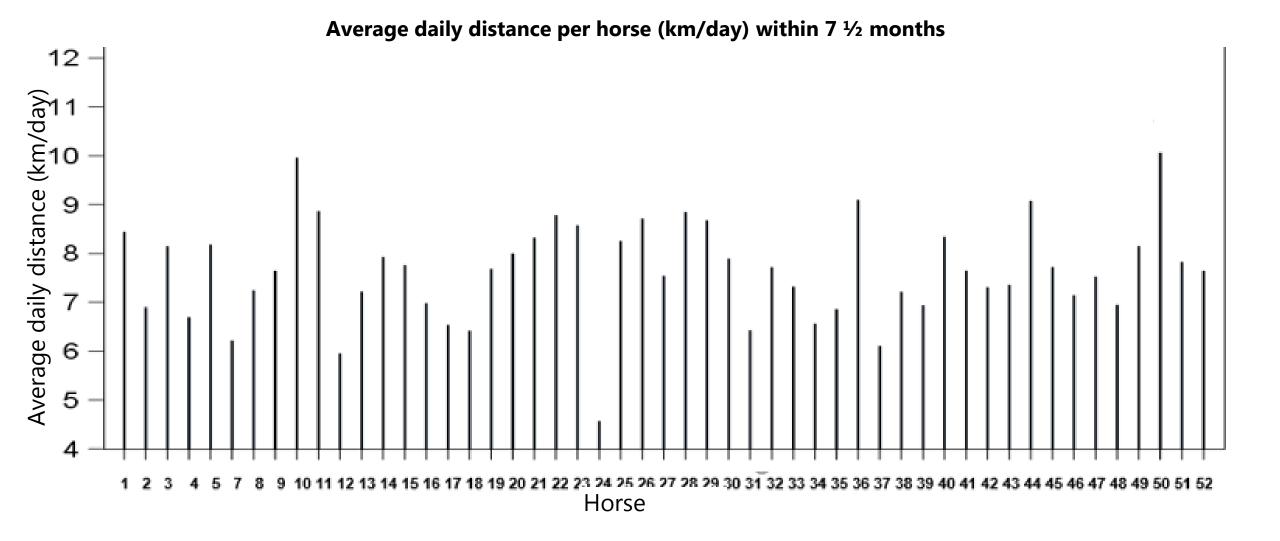
- 60 horses in a large dynamic group
- Geldings + mares (2-29 years)
- German Warmbloods, Ponies, Others
- 10.000m² paddock
- In summer pasture for a few hours



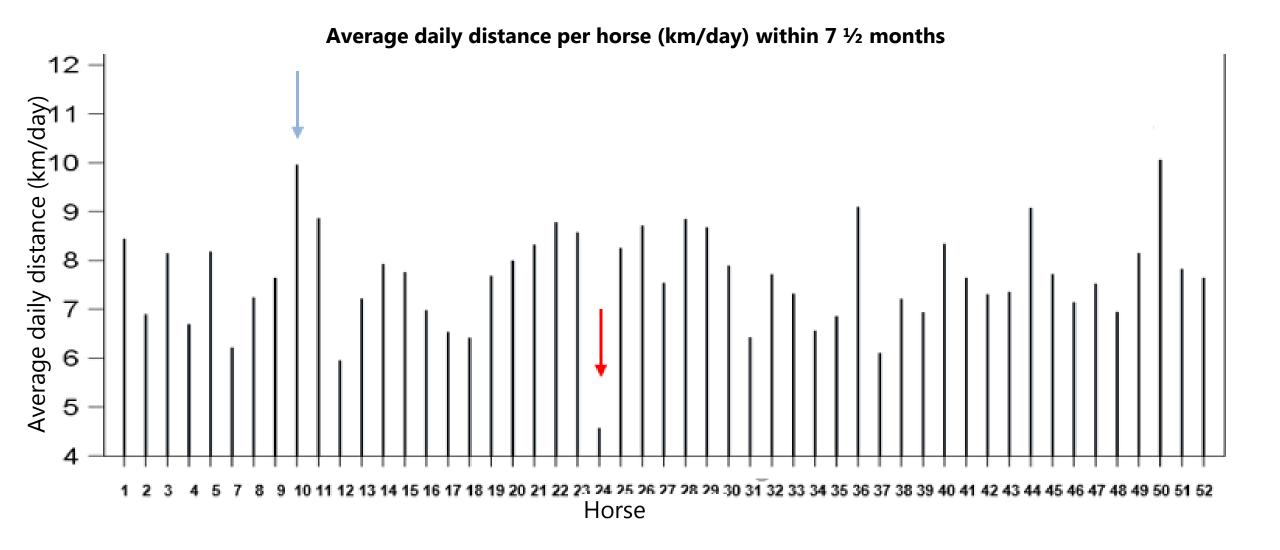
Activity of the horses: seasonal influences



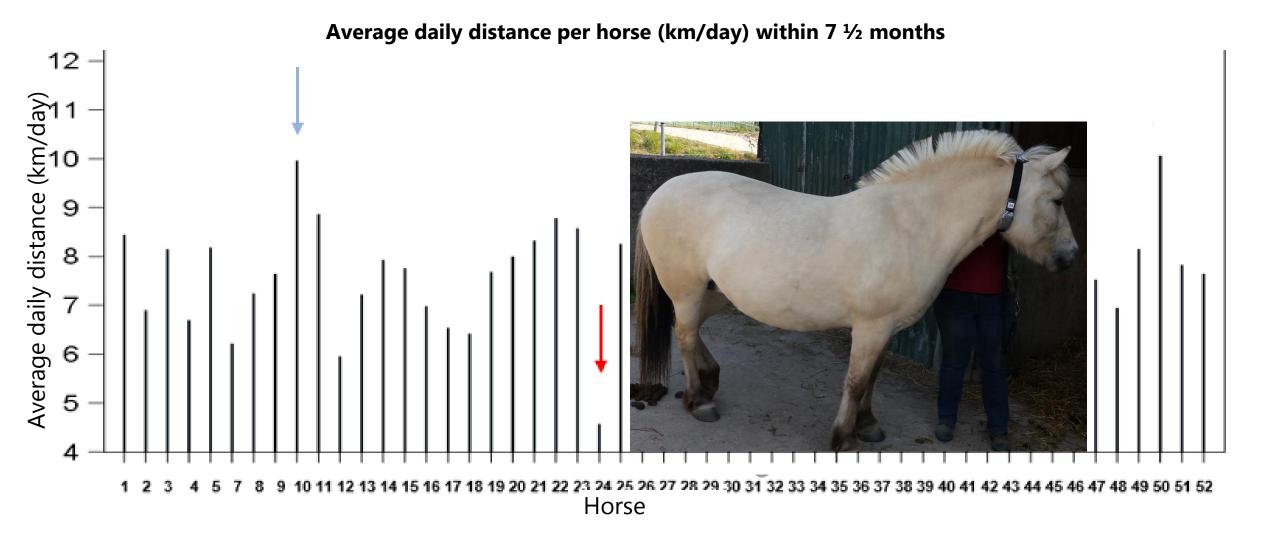
Activity of the horses



Activity of the horses



Activity of the horses



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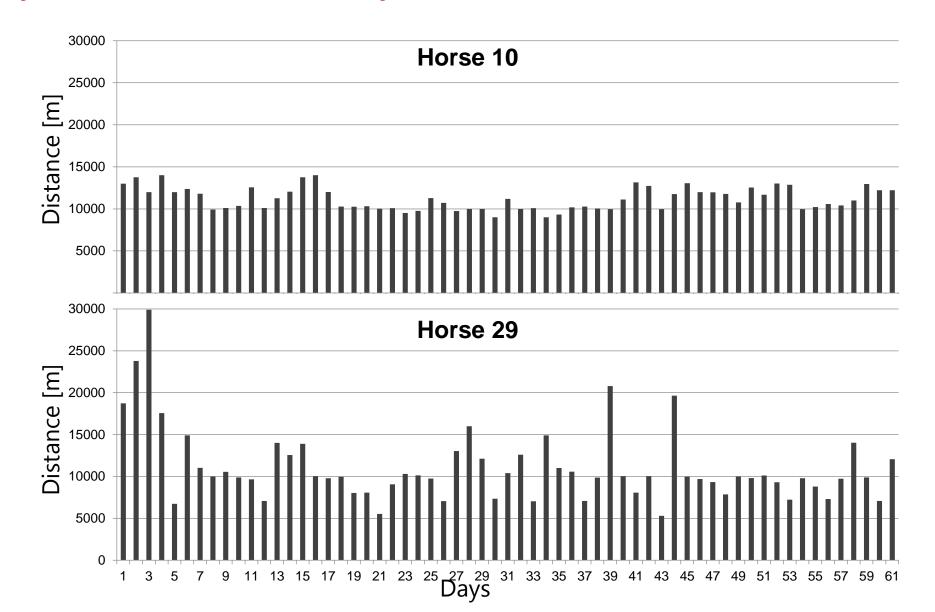
Activity of the horses

Average daily distance per horse (km/day) within 7 ¹/₂ months

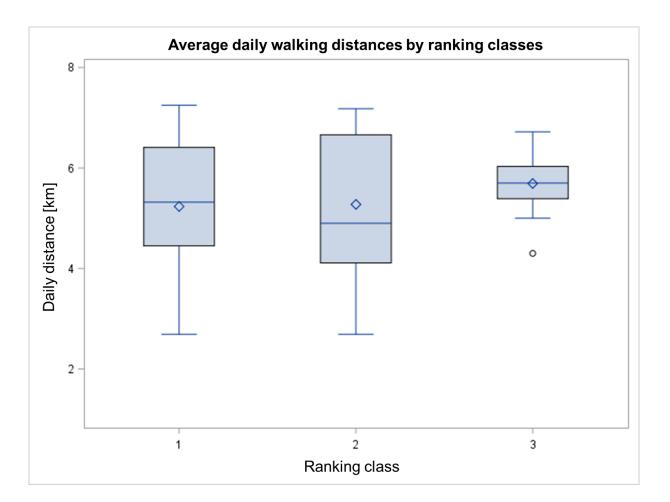


Horse

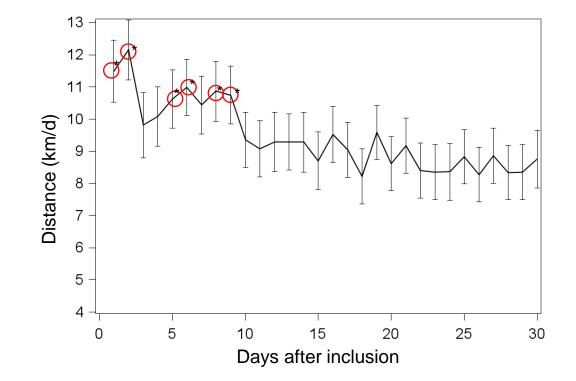
Activity of the horses: daily variations



Influence of rank order



Activity of the horses: newcomers (n=10)



• Restlessness in first days, no influence on walked distances on established horses

Summary: HIT active stables

- Movement concept is successful (likewise for paddock trail 9.6km)
- Integration newcomers relatively low in stress
 - \rightarrow especially with regard to total herd
- Improvement potential: lying halls, drinkers, straw feeders



Journal of Equine Veterinary Science Volume 118, November 2022, 104106

Original Research

The Behavior of Horses Stabled in a Large Group at Essential Resources (Watering Point and Lying Halls)

Frederik Hildebrandt ° 📯 🖾 , Kathrin Büttner ^{a b}, Joachim Krieter ^a, Irena Czycholl °





Applied Animal Behaviour Science Volume 280, November 2024, 106423

How should one design and position straw feeders in group-housed horses? A case study on occupancy and agonistic interactions at straw feeders in a large group of horses

N. Puttkammer ^a 📯 🖾 , F. Hildebrandt ^b, J. Krieter ^b, I. Czycholl ^a



Summary: HIT active stables

- Movement concept is successful (likewise for paddock trail 9.6km)
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Behavioural needs and animal welfare

- Account for behavioural needs in husbandry
- Is that enough? Do we then have a good welfare?





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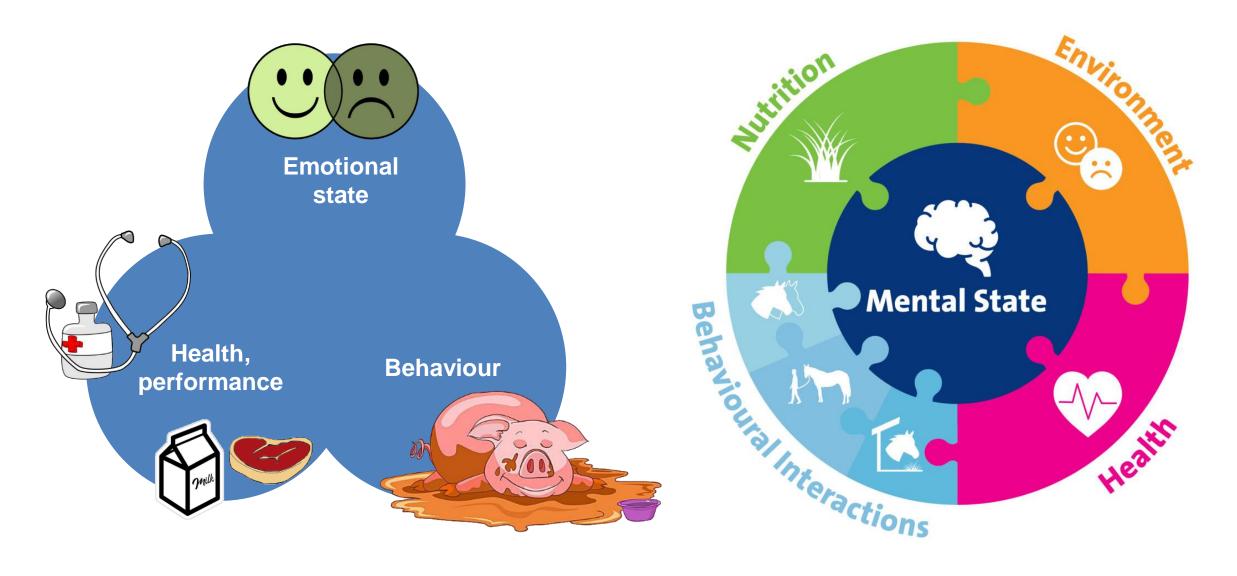
What is animal welfare?

- www.menti.com
- Code: 2367 0534

What is animal welfare?



What is animal welfare



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References

ELSEVIER

Journal of Equine Veterinary Science Volume 95, December 2020, 103282

Original Research

Distances Walked by Long Established and Newcomer Horses in an Open Stable System in Northern Germany

Area and Resource Utilization of Group-Housed Horses in an Active Stable

by Frederik Hildebrandt ^{1,*} ⊠, Kathrin Büttner ^{1,2} ⊠, Jennifer Salau ¹ ⊠ [®], Joachim Krieter ¹ ⊠ and Irena Czycholl ¹ ⊠

- ¹ Institute of Animal Breeding and Husbandry, Kiel University, 24118 Kiel, Germany
- ² Unit for Biomathematics and Data Processing, Faculty of Veterinary Medicine, Justus Liebig University, 35392 Giessen, Germany
- * Author to whom correspondence should be addressed.

Animals **2021**, *11*(10), 2777; https://doi.org/10.3390/ani11102777



Applied Animal Behaviour Science Volume 271, February 2024, 106178

Dominance hierarchy does not influence distances travelled and area utilization in a large group of ponies

Gesa Weidling ^b, Joachim Krieter ^b, Ralf Lübben ^a, Irena Czycholl ^c Ӓ 🖾







Thank you for your attention! Questions? ic@sund.ku.dk