

Associations of caretaker attitudes with alpaca behaviour

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Background & Aims



- Increasing popularity in European countries since 1990ies
 - Fibre, landscape management, animal-assisted activities (e.g. trekking), hobby
 - Human attitudes → human behaviour, management decisions → animal behaviour
(e.g. Coleman et al., 1998; Hemsworth et al., 2000; Waiblinger et al., 2002; Hemsworth, 2012)
 - Sequential relationships never investigated in alpacas
- ⇒ Investigate associations between attitudes & reported (human &) alpaca behaviour

- Online-survey, SurveyMonkey[®], available ~ 13 weeks
- German, targeted at alpaca (& llama) caretakers
- Attitudes
 - General attitudes towards alpacas
 - e.g. 'alpacas are intelligent'
 - Affective attitudes
 - e.g. degree of comfort during physical contact while caring for the animals
 - Behavioural beliefs
 - e.g. importance of regular walking through group

- Management practices/Human behaviour
 - Quantity & quality of contact provided by caretakers
 - Measures taken to make animals easier to handle
- Animal behaviour
 - Reactions to human approach
 - Ease of handling
 - Behavioural problems
- Demographic data



- Attitude variables summarized by PCA & Varimax rotation
- Preliminary analyses
 - Spearman rank correlations
 - Kruskal-Wallis & Mann-Whitney U tests for group differences
- Sample size varied since no mandatory answers

- 184 evaluable questionnaires of alpaca caretakers
- Respondents
 - 55% female, 45% male (N=175)
 - Mean age 48 ± 11 (21 - 71 years) (N=171)
- Husbandry units/farms
 - 76% Germany, 16.6% Austria, 6.3% Switzerland, 0.6% Italy, 0.6% Netherlands (N=175)
 - 85% alpacas only, 15% alpacas & llamas
 - 23 ± 27 (1 - 221) alpacas/husbandry unit (N=179)
 - 23 ± 31 (1 - 140) llamas/husbandry unit (N=25)

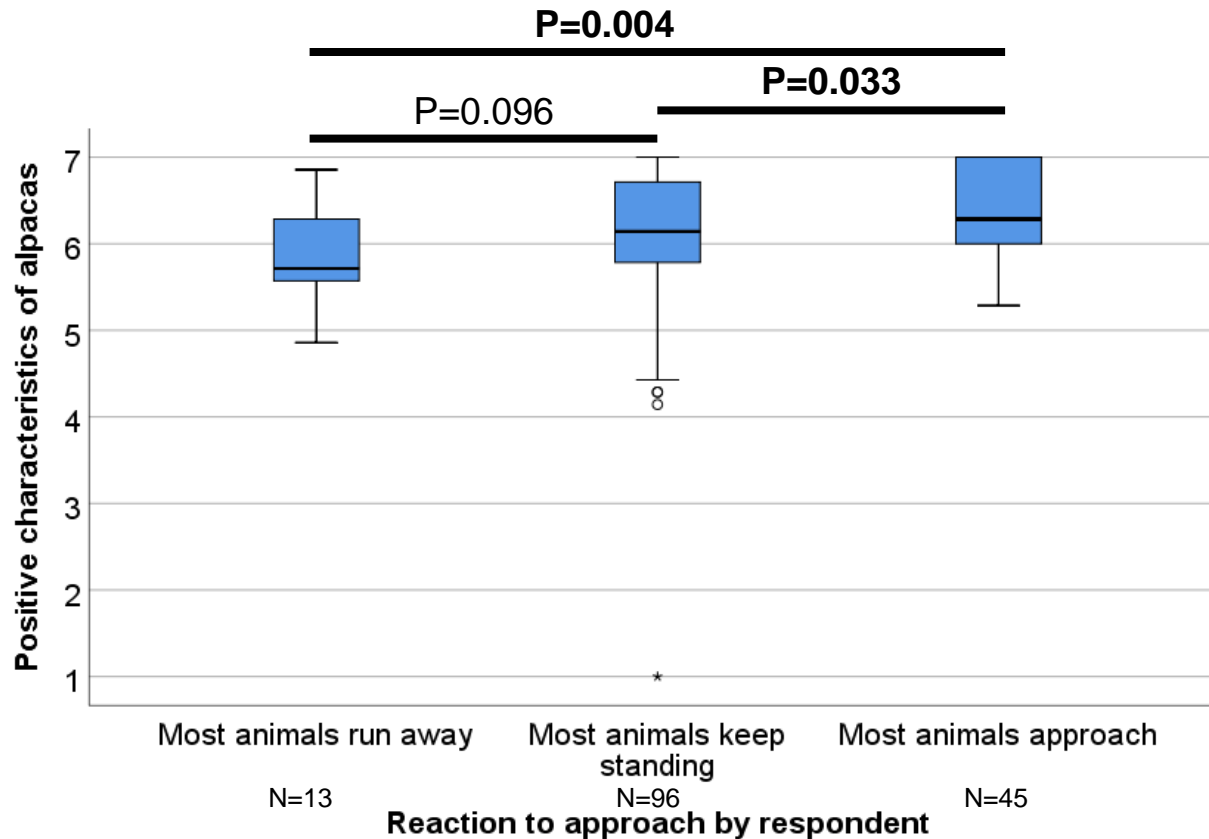
- General – affective attitudes
 - ↑ Positive characteristics ⇔ ↑ comfortable during routine work ($r_s=0.40$)
- Affective attitudes – behavioural beliefs
 - ↑ Comfortable during routine work ⇔ ↑ importance of walking through groups ($r_s=0.34$)
- General attitudes – behavioural beliefs
 - ↑ A. enjoy physical contact ⇔ ↑ importance of gentling animals ($r_s=0.45$)

- Reported reaction of the majority of alpacas to approach of the respondent (N=178)

Reaction	Frequency	Valid %
Most animals run away	14	8%
Most animals keep standing	111	62%
Most animals will approach respondent	53	30%



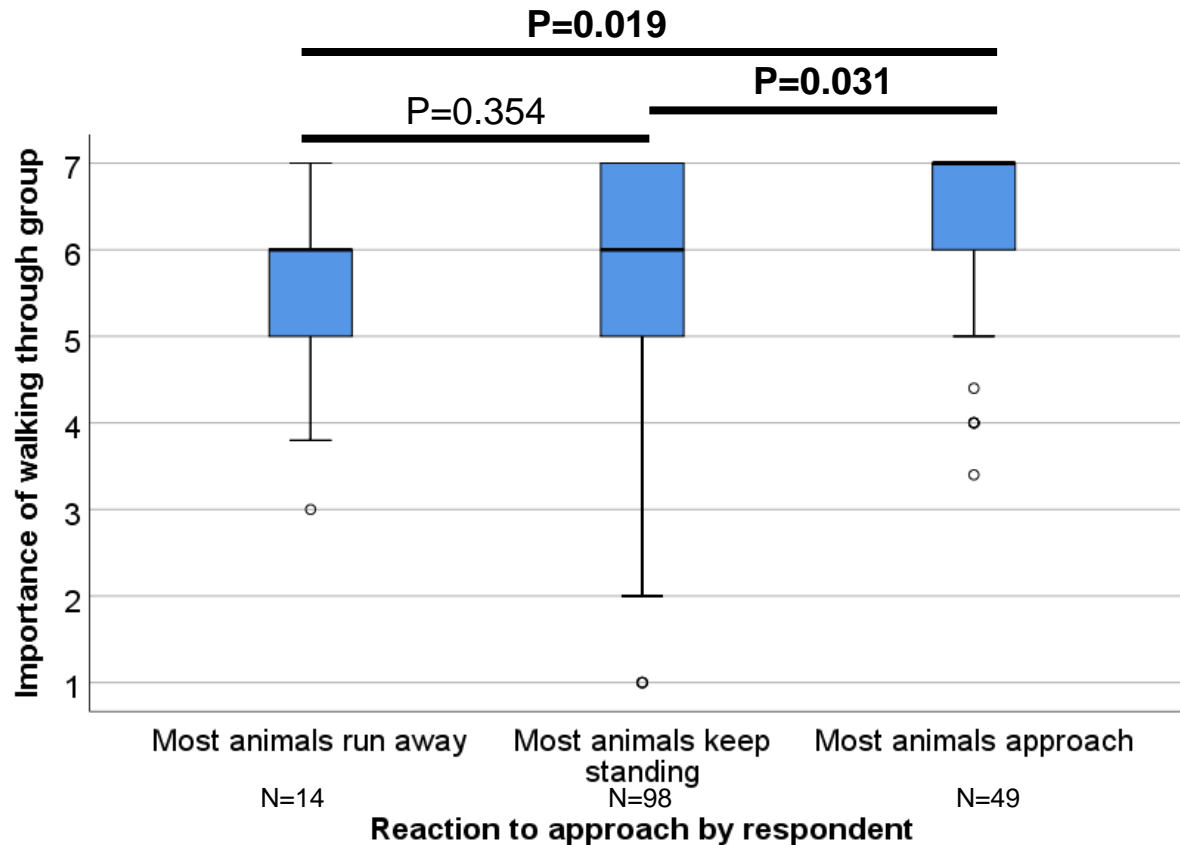
General attitude – alpaca behaviour



Positive characteristics: peaceful, intelligent, calm, friendly to humans, curious,..

Mann-Whitney U tests (MWU)

Behavioural beliefs – alpaca behaviour vetmeduni vienna



Importance of walking through group: importance of regular walking through group of young </> 10 months,..

Mann-Whitney U tests (MWU)

Animal behaviour

- Problems with behaviours in alpacas 'exceeding a normal level', pre-given list (N=148)

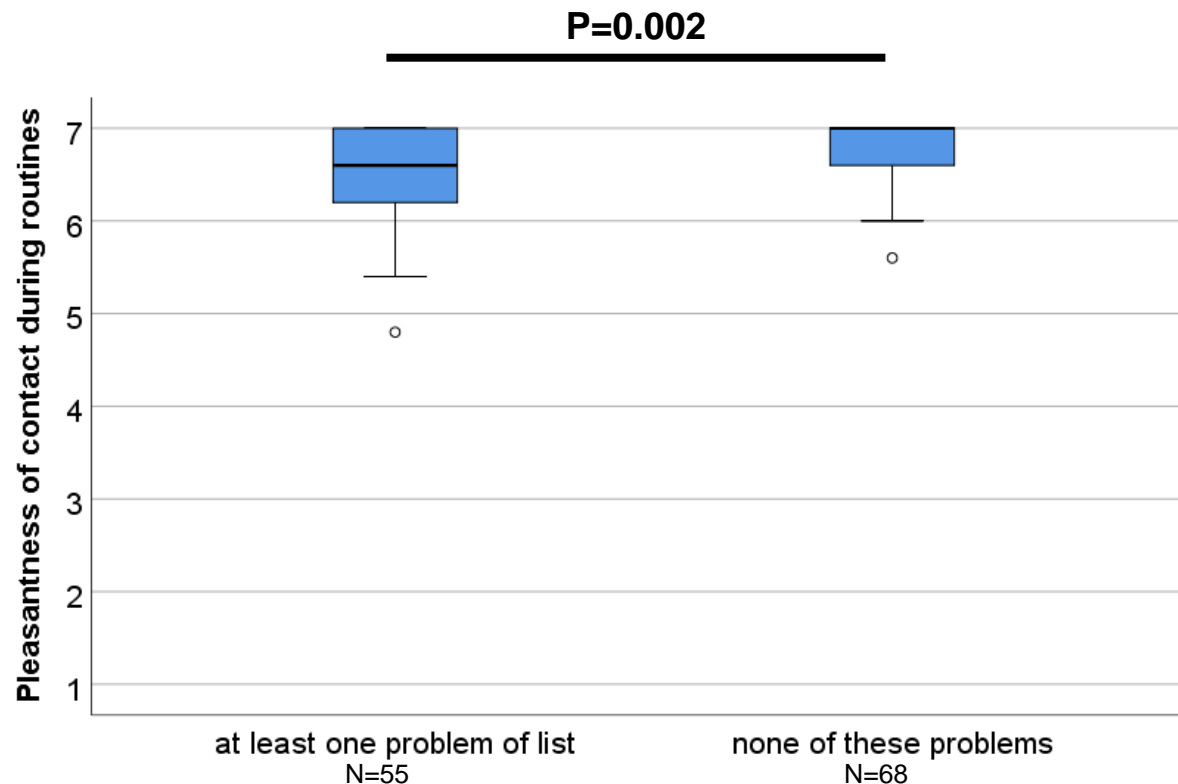
Behaviours	Frequency	Valid %
Spitting	43	29%
Kicking	38	26%
Biting	5	3%
Rising	19	13%
Pushing/shoving	17	12%
None of these problems	83	56%



<https://www.youtube.com/watch?v=vbOKnlmodHM>

Difference in affective attitudes

- in relation to problems with behaviours of alpacas 'exceeding a normal level'



Contact during routines (feeding/caring, observing, working with,..)

Mann-Whitney U test (MWU)

Ease of handling of alpacas

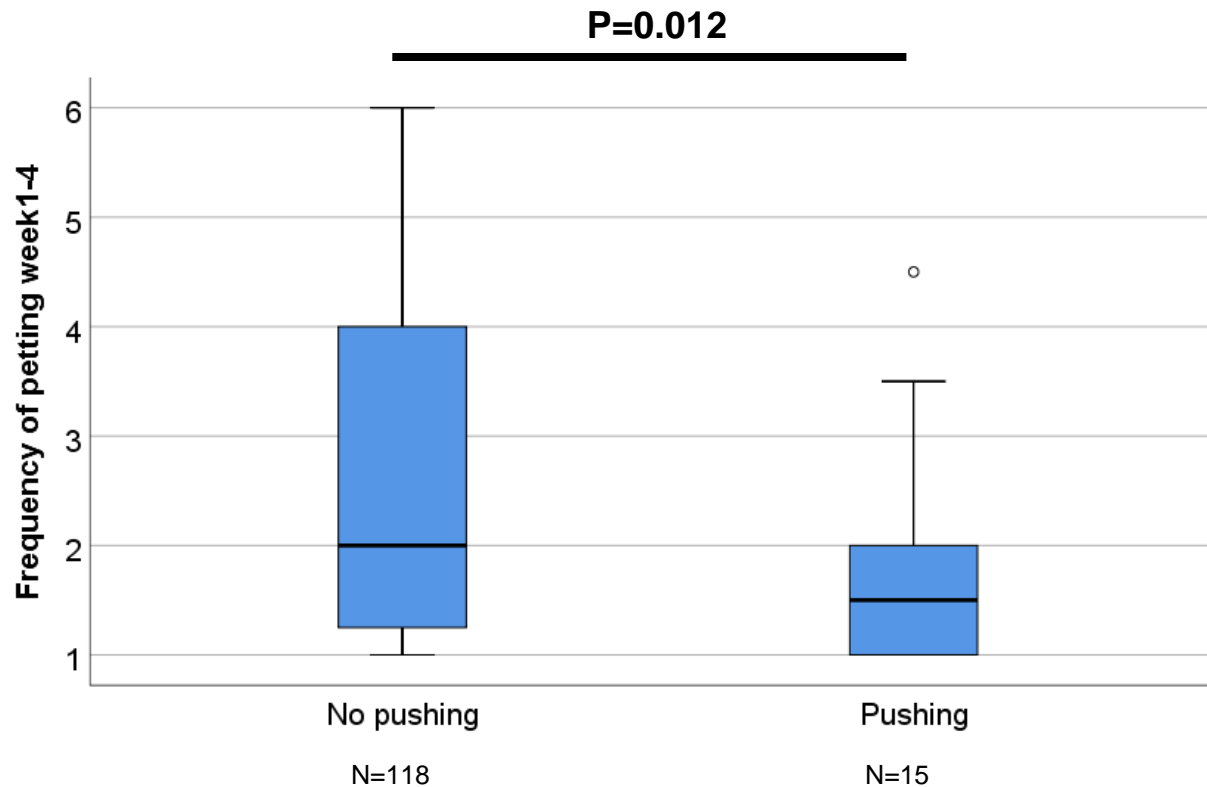


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Attitudes	Ease of handling	
	Driving/leading	Restraint for nail clipping & shearing
Cognitive abilities	$r_s=0.24^*$	$r_s=0.10$
Pleasantness of contact during routines	$r_s=0.24^*$	$r_s=0.23^*$
Pleasantness of training	$r_s=0.29^{**}$	$r_s=0.23^*$

* $P<0.01$, ** $P<0.001$, $N=143-157$

- in relation to frequency of contact to caretaker



Mann-Whitney U test (MWU)

Discussion & conclusions

- Associations found in other species confirmed
- Representative sample?
 - Participating caretakers keener ones?
- Varying N
- Only statements, no observation, subjective interpretation of behaviours?
- To do: Multivariate analyses, validation of questionnaire (direct observation of animal behaviour)
- Targeting unfavourable attitudes could help to improve the human-animal relationship

Thank you for you attention!

