

Breeding for temperament – possibilities and challenges in dogs and horses

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Breeding for behaviour

Animal-owner relationship

Safety for the owner/handler/others

Well-being of the animal

Performance



What is good behaviour?

Performance: Service, work, hunting...



What is good behaviour?

Performance: Training and competition...



What is good behaviour?

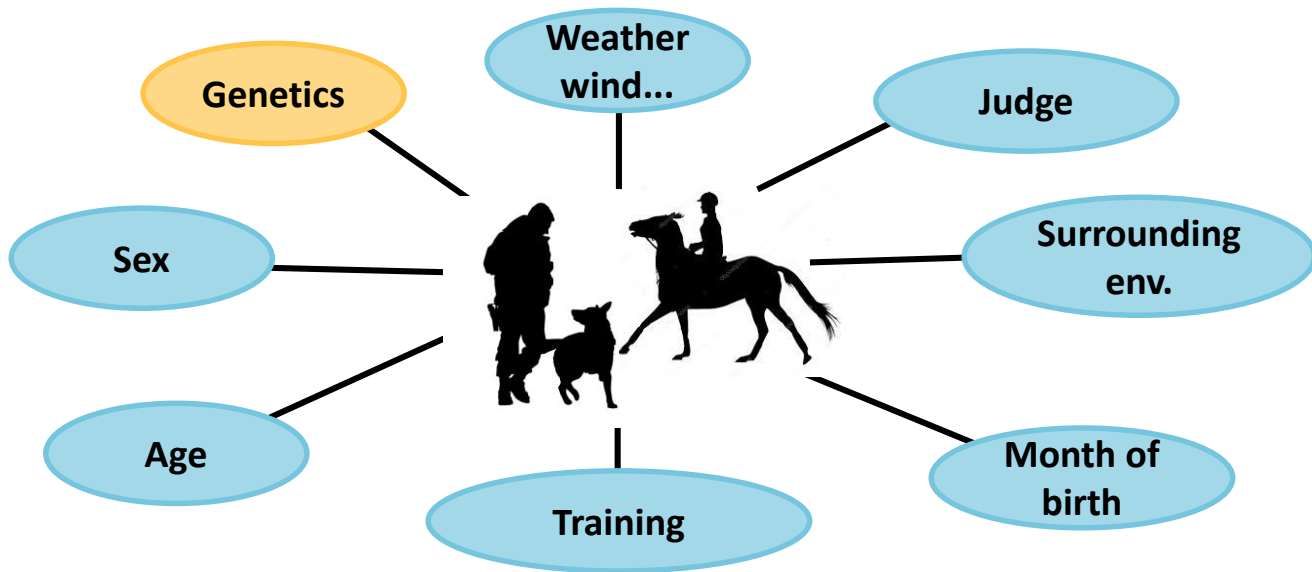
... or just for every day life to work...



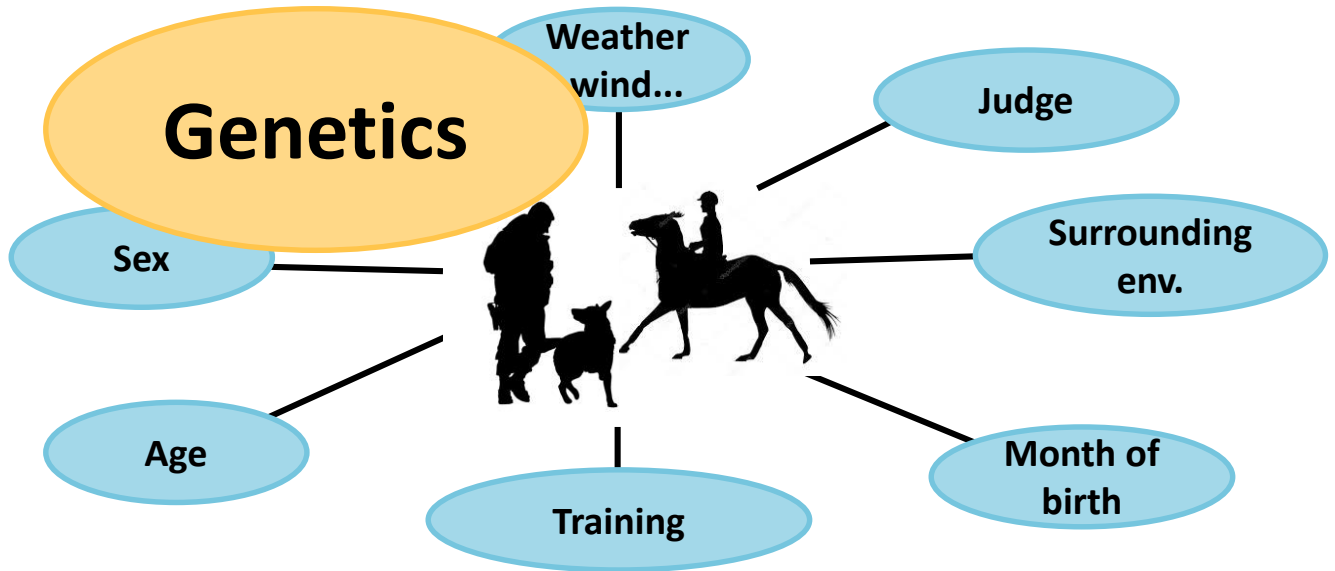
**What we do
not want...**



Challenges in breeding



Challenges in breeding



Challenges in breeding

Few breeds are used for their original purpose



Challenges in breeding

Few breeds are used for their original purpose

Focus on exterior conformity





Exaggerated features in dogs

German Shepherd



Challenges in breeding

Few breeds are used for their original purpose

Focus on exterior conformity

Conflict between breeding goal and desired mentality?







Play

Curiosity/
fearlessness




Chase

Sociability

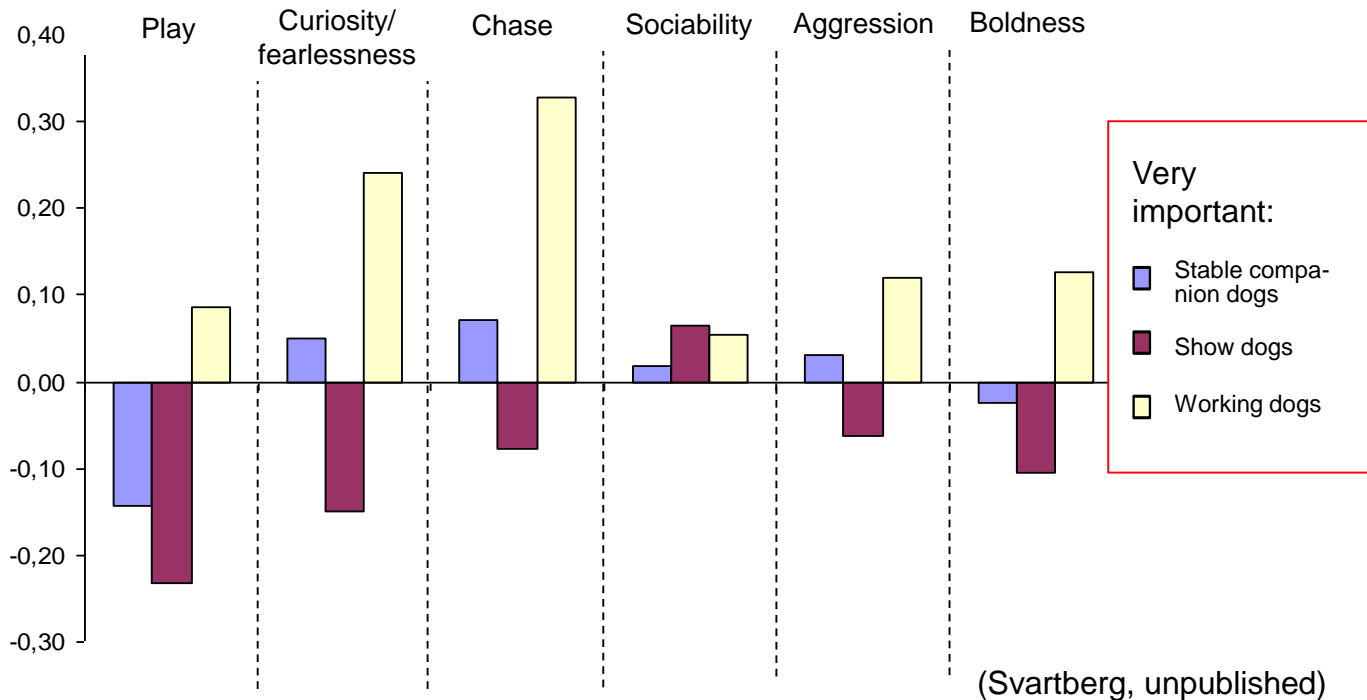
Aggression

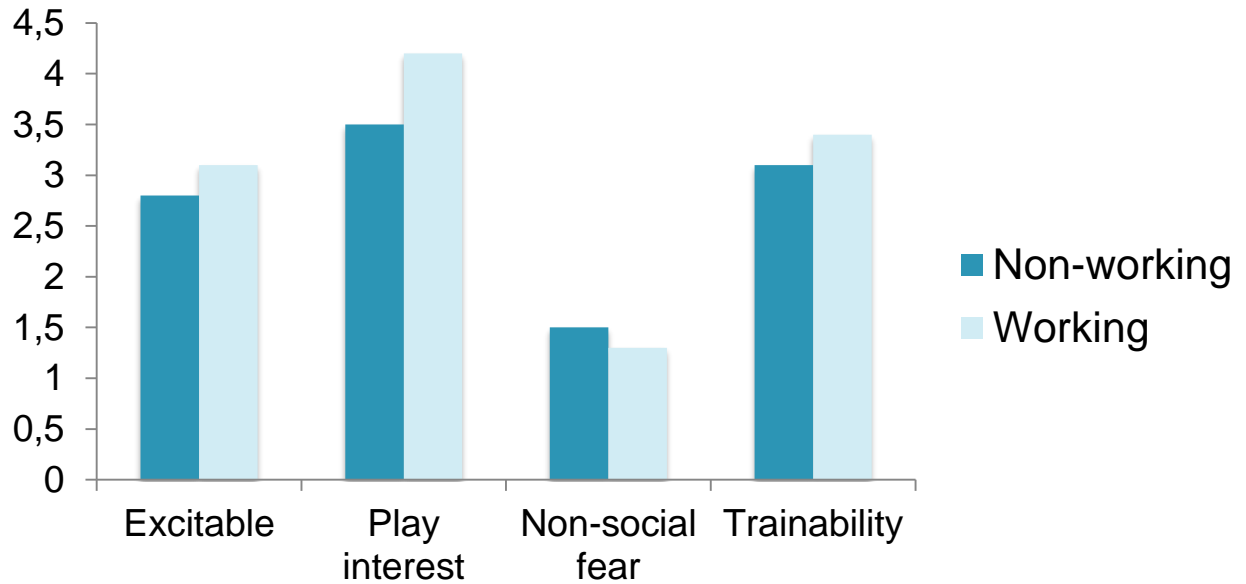
Boldness

Very
important:

-  Stable companion dogs
-  Show dogs
-  Working dogs

(Svartberg, unpublished)





Eken et al., 2015

Challenges in breeding

Few breeds are used for their original purpose

Focus on exterior conformity

Conflict between breeding goal and desired mentality?

Mistake fear for other, more desired, traits?

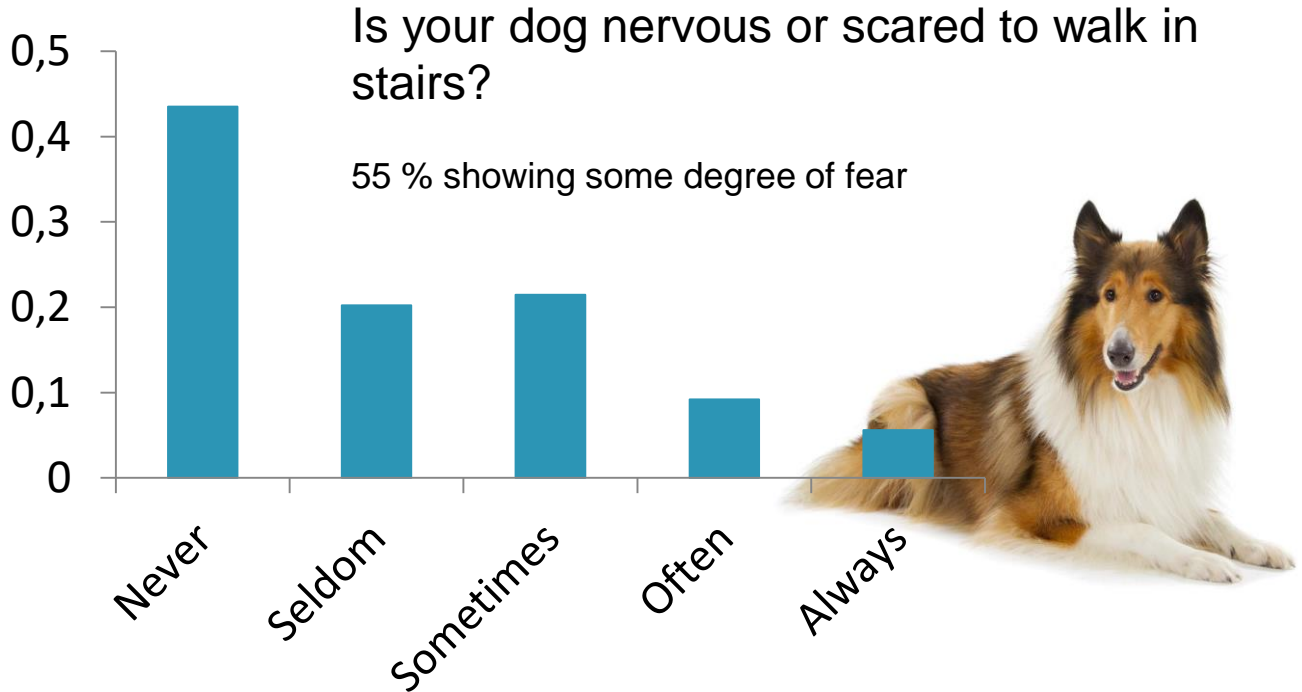




Fear behaviour in Collies



Fear behaviour in Collies



Challenges in breeding

Need reliable methods to measure differences between individuals

What behaviour traits are important?

Are they heritable?

Validation

Easily accessible and cheap!



Ways to evaluate temperament

Record indirectly





Ways to evaluate temperament

Record indirectly

Temperament tests



Recording behaviour

Traditional tests:

- Test of function – mimic an actual working situation
- Hunting test, herding test, competition results



Personality tests:

- Behaviour assessment protocols
- Not real-life-situations
- Describe behaviour that may influence function



Heritabilities traditional tests

Trait	h^2
Sound underground	0.06
Passion	0.08
Nose aptitude	0.04
Sound on trail	0.09
Height at withers	0.65
Chest circumference	0.45



Heritabilities personality traits

Trait	NSDTR	R. Ridgeback
Greeting behaviour	0.49	0.45
Curiosity	0.38	0.66
Playfulness	0.03	0.30
Threat	0.34	0.39
Social insecurity	0.34	0.27
"Happy and positive"	0.37	0.47
"Confident and curious"	0.37	0.52



Ways to evaluate temperament

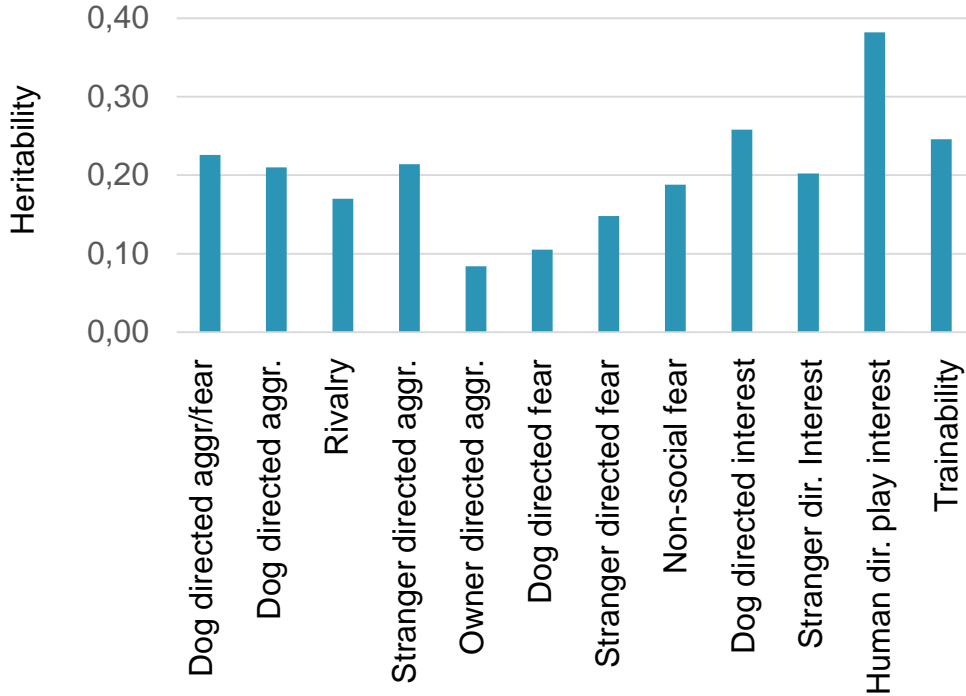
Record indirectly

Temperament tests

Ask someone who knows the animal



Owner questionnaire



Fear vs aggression

Aggression generally more difficult to record



Challenges in breeding

Environmental influence

Getting animals to test

Big flighty animals!

Getting breeders to agree...



Thank you!

