Using behavioural tests for the assessment of personality in dogs

Kenth Svartberg (PhD), Ethologist
Behavioural advisor at the Department of Anatomy, Physiology and Biochemistry, Swedish University of Agricultural Sciences; consultant and educator at Svartbergs Hundkunskap (www.svartbergs.se)

1

- Individuality and variability in dogs

- Behavioural testing in general

- The Dog Mentality Assessment (DMA)

- The Behaviour and Personality Assessment in Dogs (BPH)

2

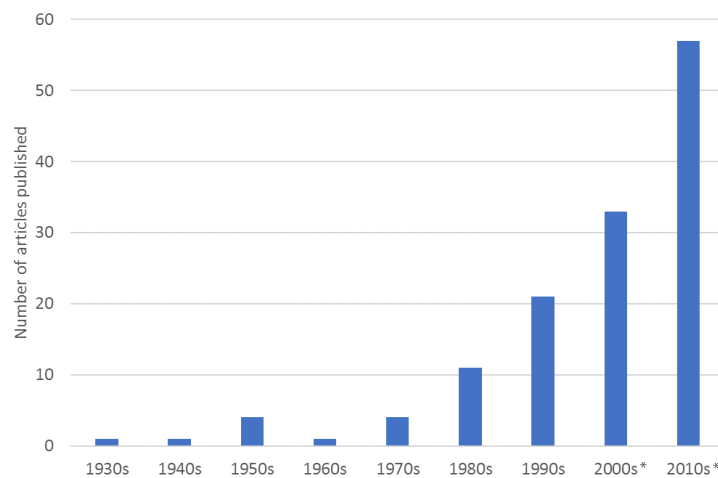Individual differences in behaviour

Mentality

Temperament

Coping style

Behavioural syndromes

Personality

Behaviour that is stable across situations and over time

3

Articles on dog temperament or personality published each decade

References:

Jones, A. C., & Gosling, S. D. (2005). Temperament and personality in dogs (Canis familiaris): A review and evaluation of past research. Applied Animal Behaviour Science, 95(1-2), 1-53.

Gartner, M. C. (2015). Pet personality: A review. Personality and Individual Differences, 75, 102-113.

* partly based on extrapolation

4

How to get insights in characteristic behaviour of large number of dogs in an objective way?

1. Collect information from knowledgeable persons (owners, handlers, trainers)

2. Assess the dogs' behaviour in one or several test situations

5

How well does the test work?

Reliability

How accurate is the measurement?

Observer agreement
- Between (inter-observer reliability)
- Within (intra-observer reliability)

Test-retest-reliability

Validity

Is the measurement measuring what it is supposed to do?

Content validity

Construct validity

Predictive validity (criterion validity)

6

The Dog Mentality Assessment (DMA)

Swedish Working Dog
Association

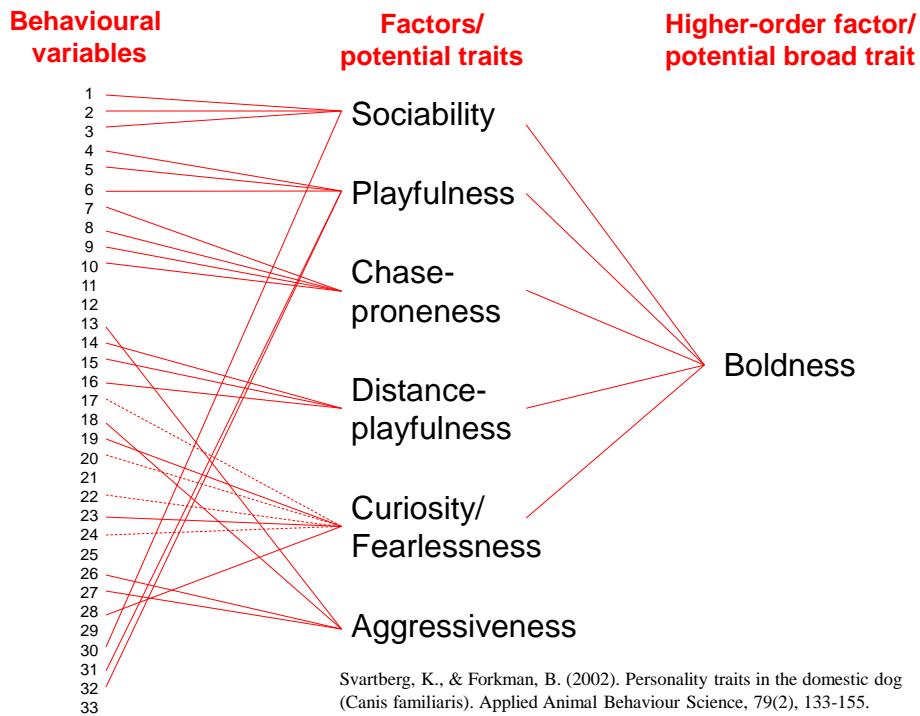Test battery with 10 subtests

33 behavioural reactions
are scored

Behavioural rating scales with
5 steps based on the intensity
of the reaction
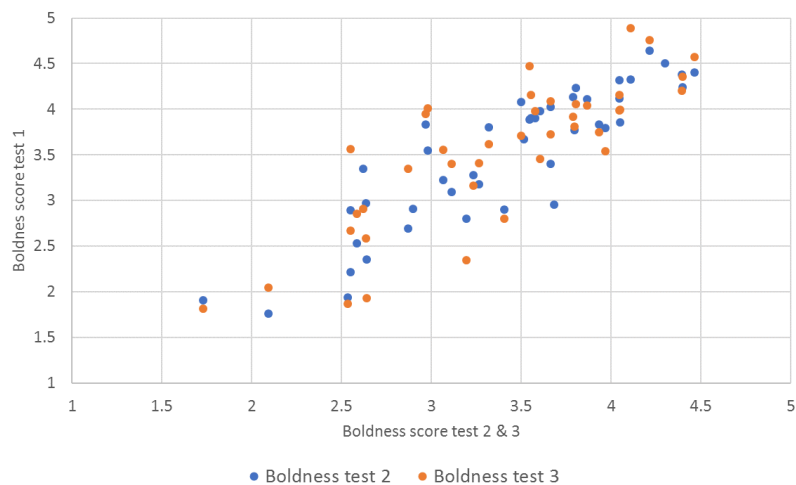
7

Published studies based on DMA-data

- Potential personality traits expressed in the DMA

- Stability over a series of tests (test-retest-reliability)

- DMA as a predictor for working dog success (predictive validity)

- DMA as a predictor for everyday behaviour (predictive validity)

- DMA as a tool for studies of breeding goals and their effect on behaviour (predictive validity)

8

Behavioural variables

Factors/ potential traits

Higher-order factor/ potential broad trait

Sociability

Playfulness

Chase-proneness

Distance-playfulness

Curiosity/ Fearlessness

Aggressiveness

Boldness

Svartberg, K., & Forkman, B. (2002). Personality traits in the domestic dog (Canis familiaris). Applied Animal Behaviour Science, 79(2), 133-155.
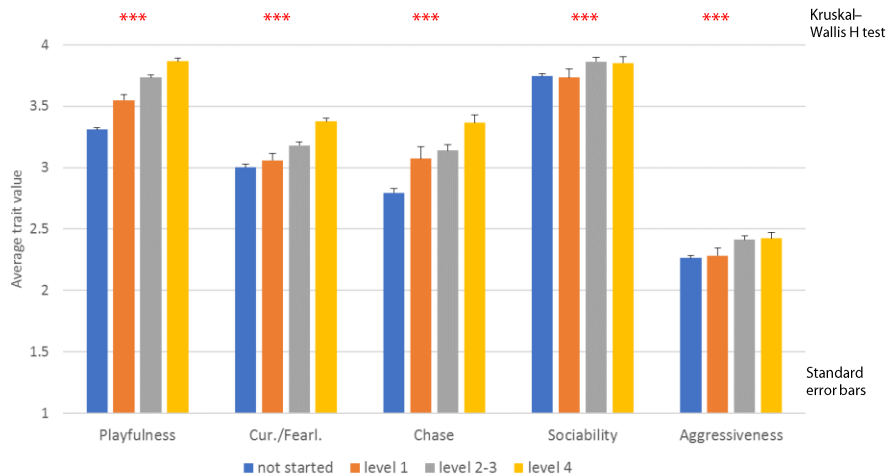
9

Test-retest-reliability

Svartberg, K., Tapper, I., Temrin, H., Radesäter, T., & Thorman, S. (2005). Consistency of personality traits in dogs. Animal Behaviour, 69, 283-291.
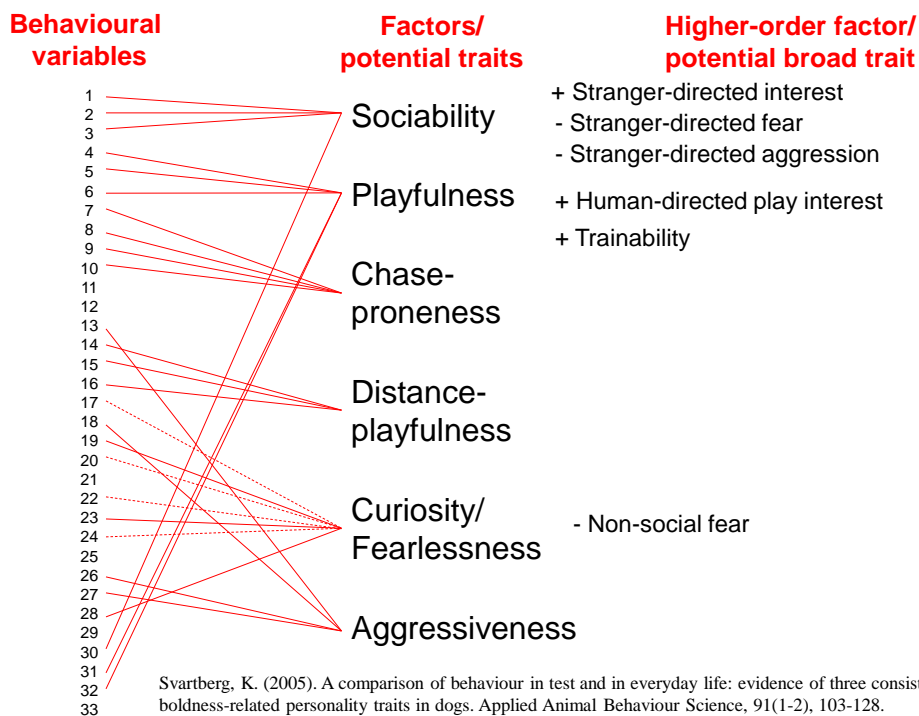
10

Average trait scores in different performance groups

Svartberg, K. (2002). Shyness–boldness predicts performance in working dogs.
Applied Animal Behaviour Science, 79(2), 157-174.

11

Behavioural variables

Factors/ potential traits

Higher-order factor/ potential broad trait

Sociability

+ Stranger-directed interest
- Stranger-directed fear
- Stranger-directed aggression

Playfulness

+ Human-directed play interest
+ Trainability

Chase-proneness

Distance-playfulness

Curiosity/ Fearlessness

- Non-social fear

Aggressiveness

Svartberg, K. (2005). A comparison of behaviour in test and in everyday life: evidence of three consistent
boldness-related personality traits in dogs. Applied Animal Behaviour Science, 91(1-2), 103-128.

12

How important is it that dogs from your breeding perform well in working dog trials?
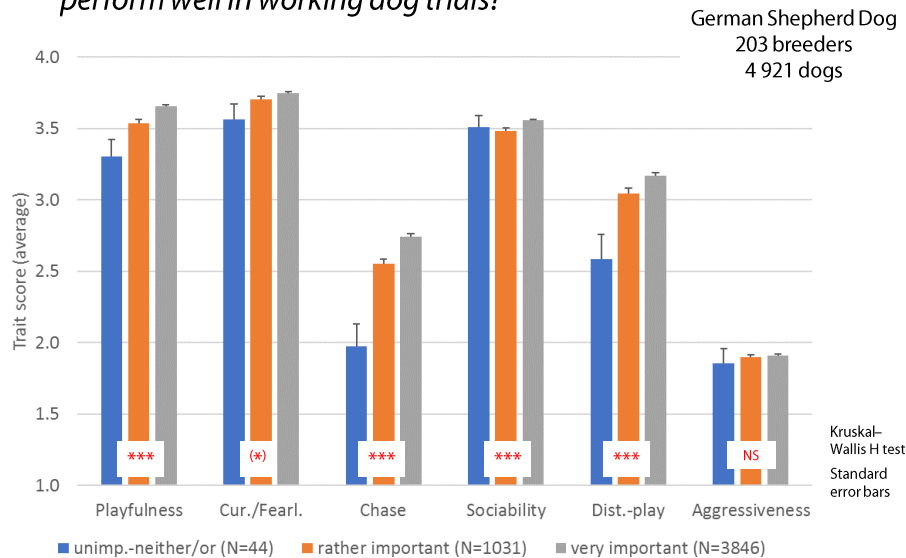
German Shepherd Dog
203 breeders
4 921 dogs

Svartberg, K., Forkman, B. & Temrin, H., unpublished data; Meyer, I. H. C. (2014). Personality and social skills in human-dog interaction. PhD thesis, The Faculty of Health and Medical Sciences, University of Copenhagen

13

How important is it that dogs from your breeding perform well at dog shows?
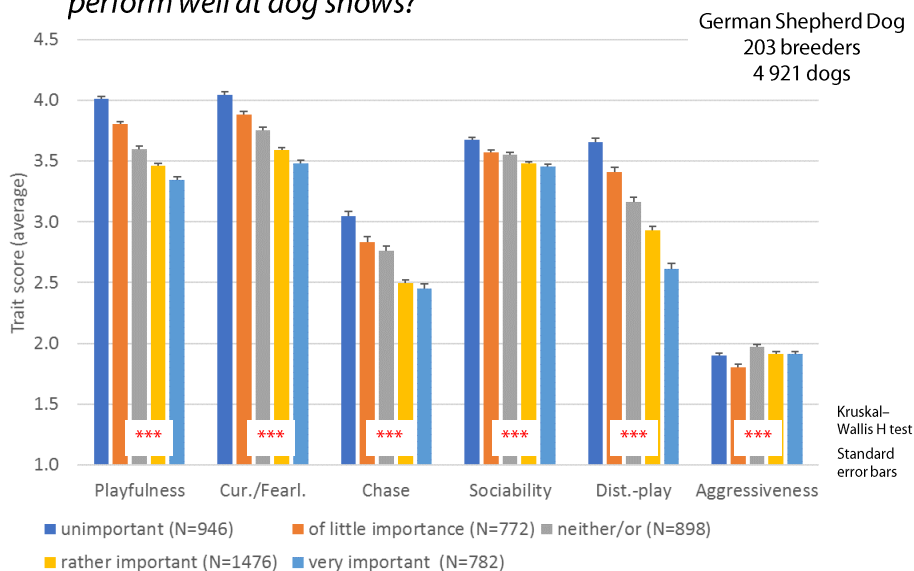
German Shepherd Dog
203 breeders
4 921 dogs

Svartberg, K., Forkman, B. & Temrin, H., unpublished data; Meyer, I. H. C. (2014). Personality and social skills in human-dog interaction. PhD thesis, The Faculty of Health and Medical Sciences, University of Copenhagen

14

Behaviour and Personality Assessment in Dogs (BPH)

(Beteende- och Personlighetsbeskrivning Hund)

Swedish Kennel Club

Main aim breeding tool

Developed 2009-2011, and officially launched 2012

18 612 dogs assessed so far (August 2019)

15

Behaviour and Personality Assessment in Dogs (BPH)

1. Unfamiliar person
2. Object play
3. Food interest
4. Visual surprise
5. Metallic noise
6. Approaching person
7. Unstable surface
8. Gunshot

16

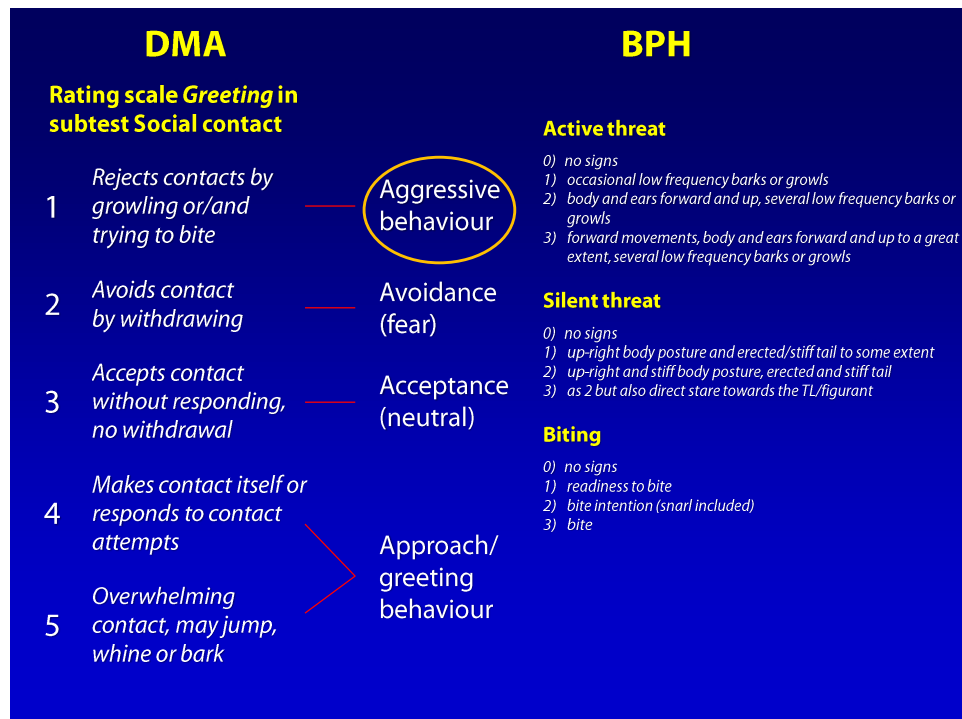## Behaviour and Personality Assessment in Dogs (BPH)

Focus on standardization

Developed assessment method

Up to 241 behavioural records are made using 44 behavioural rating scales

A handheld tablet with a specifically designed app is used by the observer in the recording

17

DMA

Rating scale *Greeting* in subtest Social contact

1 *Rejects contacts by growling or/and trying to bite* — Aggressive behaviour

2 *Avoids contact by withdrawing* — Avoidance (fear)

3 *Accepts contact without responding, no withdrawal* — Acceptance (neutral)

4 *Makes contact itself or responds to contact attempts*

5 *Overwhelming contact, may jump, whine or bark*

Approach/ greeting behaviour

BPH

Active threat

0) no signs
1) occasional low frequency barks or growls
2) body and ears forward and up, several low frequency barks or growls
3) forward movements, body and ears forward and up to a great extent, several low frequency barks or growls

Silent threat

0) no signs
1) up-right body posture and erected/stiff tail to some extent
2) up-right and stiff body posture, erected and stiff tail
3) as 2 but also direct stare towards the TL/figurant

Biting

0) no signs
1) readiness to bite
2) bite intention (snarl included)
3) bite

18

DMA

Rating scale *Greeting* in subtest Social contact

1   *Rejects contacts by growling or/and trying to bite* — Aggressive behaviour

2   *Avoids contact by withdrawing* — Avoidance (Fear)

3   *Accepts contact without responding, no withdrawal* — Acceptance (neutral)

4   *Makes contact itself or responds to contact attempts*

5   *Overwhelming contact, may jump, whine or bark*

Approach/ greeting behaviour

BPH

Active avoidance

0) no signs
1) backs off from the TL (pulls away during handling)
2) evasive maneuver from the TL
3) flight intention or flight away from the TL

Passive avoidance

0) no signs
1) slightly lowered body and tail (no waving)
2) low body and tail (no waving), possibly with other signs such as licking or panting
3) as 2 but also frozen and/or with additional signs of anxiety

19

DMA

Rating scale *Greeting* in subtest Social contact

1   *Rejects contacts by growling or/and trying to bite* — Aggressive behaviour

2   *Avoids contact by withdrawing* — Avoidance (Fear)

3   *Accepts contact without responding, no withdrawal* — Acceptance (neutral)

4   *Makes contact itself or responds to contact attempts*

5   *Overwhelming contact, may jump, whine or bark*

Approach/ greeting behaviour

BPH

Exploration

0) no exploration
1) short exploration (< 3 sec)
2) explores 3-4 sec
3) explores 5 sec or longer

Greeting (intensity)

0) no greeting
1) slight tail waving together with short approach towards the person or glancing towards the face of the person
2) tail waving close to the person, striving towards the person
3) energetic tail waving, jumps towards the person, social vocalization, pacing

Greeting (duration)

0) no greeting
1) brief greeting
2) greeting during approximately half the sequence
3) greeting during more than half the sequence

Submissive greeting

0) no signs
1) low body and low tail with slight wave
2) as 1 but with flattened/tucked ears and licking or licking intentions
3) as 2 but with more exaggerated signs, such as body in half-lying/lying position

20

Summary

Test batteries may be useful in assessing general personality traits in large samples of dogs

Focus on standardization and thorough assessment, preferably using specific rating scales

Important to test for and ensure good reliability and validity

21