



Does personality traits and skills affect the selection process of dogs working in a variety of working roles?



Abstract

Dogs have been integral to society as companions & workers. It aimed to examine key elements & skills for working dogs(WD). All WD need trainability & A desire to work. No significant associations were found between the roles/breeds of working dogs & the tests.

Introduction

Focused on herding, hunting, & retrieving dogs. Breed, environment, socialisation, & training affect dogs' personalities, skills, & working abilities. **H0:** No statistical association exists between skills, personality traits, & success in specific WD roles & breeds. **H1:** A statistical association exists between skills, personality traits, & success in specific WD roles & breeds. **Goal:** Create a reliable questionnaire with 3 validated behavioural assessments, distribute it, & analyse the results.

Literature Review

Domestication was a pivotal moment in history, initiating the bond between humans & animals. This & selective breeding led to the formation of dog breeds & roles, categorised into seven major groups, each showcasing remarkable phenotypic diversity & behaviour (Morey, 1994; Larson et al., 2012; Serpell & Duffy, 2014).

Herding dogs

Relies on natural instincts to manage livestock efficiently. Their dew claws play a crucial role in providing stability when turning or running fast. This helps them to quickly change direction & keep up with the animals they are herding.

Retrieval dogs

WD used for retrieving prey needs high drive, reliability, obedience, good swimming ability, & a waterproof coat. Noise sensitivity is not suitable for this role (Zink & Schlehr, 2020; Irving & Krog, 1955).

Hunting dogs

Hunting dogs possess traits like swiftness, agility, & independence (Kim et al, 2018). The cluster of traits were hunting eagerness, speed, style, ability to work in the field, and cooperation, which are general traits needed for a successful hunting dog. Pointing behaviour in hunting dogs is highly valued as it can indicate their direction & type of prey (Bednarek et al, 2019).

Senses:

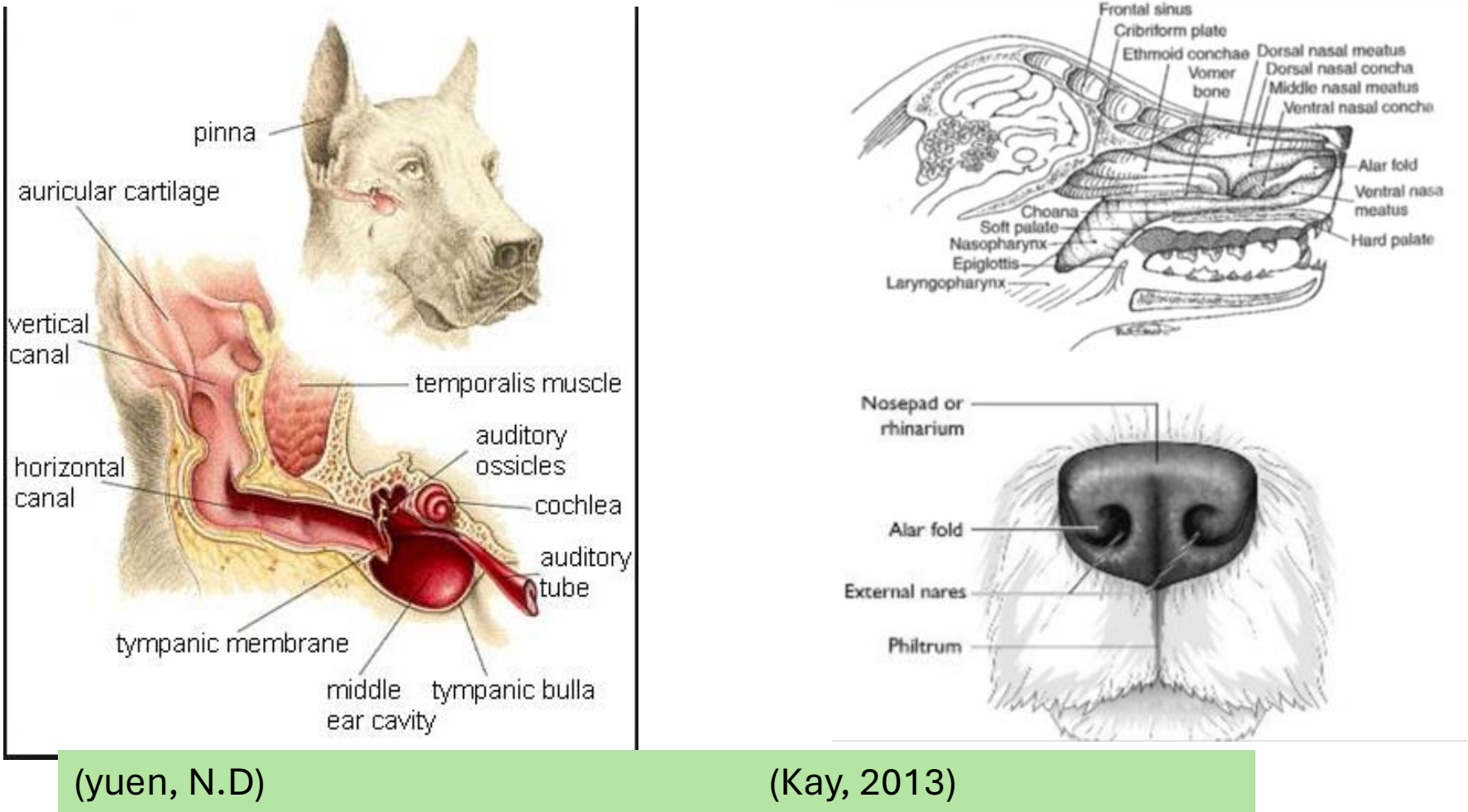
The combination of senses with their natural abilities can effectively locate, pursue, & retrieve games in various working environments.

Methodology

An online questionnaire was developed for individuals who work with herding, hunting, & retrieving dogs. Consisted of non-personal demographic questions & behavioural assessments using a Likert scale.

The Resilience Scale (LCARS), the Dog Impulsivity Assessment Scale (DIAS) (Riemer et al.,2014), & the Positive & Negative activation Scale (PANAS) were selected for their established validity & reliability in previous studies.

The researcher used Excel to turn raw data into quantitative data for statistical analysis. To check for association, Levees and ANOVA tests were conducted in Mini Tab (Cuevas et al., 2004).



Results

Role groups VS Negative PANAS scores:

The data set has equal variance (Levene's test, test statistic = 0.17, P=0.853).

There was no statistically significant difference between role groups (Hunting, retrieving, and Herding) and Negative PANAS scores (One-way ANOVA, P-value=0.179).

Role groups VS Positive PANAS:

The data set has equal variance (Levene's test, test statistic=0.88, P=0.416).

There was no statistically significant difference between role groups (Hunting, retrieving, and Herding) and positive PANAS scores (One-way ANOVA, P-value=0.47).

Role groups VS resilience scores:

The data set has equal variance Levene's test. Test statistic= 0.42, P-value= 0.681).

There was no statistically significant difference between role groups (Hunting, retrieving, and Herding) and the resilience scores (one-way ANOVA, P-value= 0.556).

Role groups VS impulsivity scores:

The data set has equal variance (Levene's test, test statistic=0.37, P-value= 0.709).

There was no statistically significant difference between role groups (Hunting, retrieving, and Herding) and DIAS scores (one-way ANOVA, P-value=0.584).

Discussion

While the questionnaire didn't yield significant results, it's worth noting that other research might contradict these findings. In Table 1, dogs D (Cocker Spaniel-hunting) and F (Labrador-retrieving) showed the highest negative PANAS scores, suggesting environmental factors rather than breed specificity (Craigon et al., 2017). Despite their high scores, they still fell in the mid-range, indicating a moderate negative impact. Dog B, a Cocker Spaniel-Hunting, had the highest positive score, possibly indicating a heightened risk of frustration (Hammond et al., 2022).

Resilience scores ranged narrowly between 0.62 and 0.67, indicating room for improvement despite the demanding tasks working dogs undertake (Rooney et al., 2016). Herding dogs were expected to exhibit slightly higher resilience (Early et al., 2020). The dog with the highest resilience also displayed the highest impulsivity, contrary to expected correlations (He et al., 2022). Working Collies showed higher impulsivity compared to Labs, with Dog B again displaying the highest impulsivity despite its hunting role.

Due to the limited sample size, caution is needed in generalising to the broader population of working dogs (Khan et al., 2019). While the survey covered 4 distinct breeds, including 2 of each working role, incorporating additional behavioural tests like the C-Barq assessment could have provided a more comprehensive evaluation (Canejo-Teixeira et al., 2018; Clay et al., 2020).

Conclusion

Depending on the WD, the skills and behaviours change to match and suit the specific role to ensure efficiency and effectiveness. WD are a true testament to their remarkable intelligence, adaptability, and loyalty. Whether herding, hunting, or retrieving, these skills showcase the invaluable contributions these dogs make to human society.

Through careful breeding, training, and continued appreciation for their unique abilities, we deepen our understanding of what the extraordinary bond between humans and canines can do.

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			N PANAS	P PANAS	RES	DIAS
A	Cocker spaniel	Hunting & retrieving	0.42	0.74	0.67	0.33
B	Cocker spaniel	Hunting	0.44	1	0.67	0.58
C	Border collie	Herding	0.42	0.68	0.64	0.41
D	Cocker spaniel	Hunting	0.49	0.66	0.63	0.51
E	Labrador	Retrieving	0.45	0.68	0.66	0.34
F	Labrador	Retrieving	0.49	0.68	0.62	0.41
G	Other	Herding	0.36	0.64	0.63	0.51