

Behavioral differences among Belgian Shepherd Dogs varieties

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Abstracts: The aim of the current research was to assess whether Groenendael (G), Tervueren (T) and Malinois (M) varieties of Belgian Shepherd behave differently one from another. The survey was carried out by using a questionnaire filled in by 88 Belgian Shepherd dog owners recruited by personal contacts.

Groenendael dogs seem to show a lower arousal, as they were reported to exhibit the following behaviors less than other varieties: exaggerated greeting to owners returning home (G 57.6%, M 88.0%, T 73.3%; $\chi^2=6.542$; $p=0.038$), digging (G 15.2%, M 48.0%, T 30.0%; $\chi^2=7.378$; $p=0.025$) and raising hair when meeting other dogs (G 24.2%, M 60.0%, T 46.7%; $\chi^2=7.863$; $p=0.020$). Malinois dogs instead displayed the following behavior more: scavenging (G 12.1%, M 36.0%, T 13.3%; $\chi^2=6.250$; $p=0.044$), coprophagia (G 6.1%, M 24.0%, T 3.3%; $\chi^2=7.342$; $p=0.025$), raising hair when meeting other dogs and defending the territory (G 36.4%, M 64.0%, T 30.0%; $\chi^2=7.169$; $p=0.028$). Moreover Malinois dogs showed less fear of thunderstorms ($\chi^2=5.317$; $p=0.070$) and loud noises ($\chi^2=6.403$; $p=0.041$) than other two varieties. Potentially new owners should be advised by breeders, veterinarians and animal behaviorists about behavioral characteristics of different canine breeds and even varieties within breeds, as a correct match between dog and owner features reduces the risk of unsuccessful adoptions.

Key Words: behavior; Belgian Shepherd; breed; dog.

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Introduction

Dogs are animals living a long time in contact with the human being and they are able to develop a strong attachment bond (Mariti et al., 2013). Despite some canine morphologies are present for many centuries, only recently dog breeds have been clearly identified. In Belgium, at the end of the 1800s, there were many herding dogs, whose type was varied and whose coats were extremely dissimilar. In order to rationalize this state of affairs, some enthusiastic dog fanciers formed a group and sought guidance from Prof. A. Reul of the Cureghem Veterinary Medical School, whom one must consider to have been the real pioneer and founder of the Belgian Shepherd Dog. On September 29th, 1891, the Belgian Shepherd Dog Club (Club du Chien de Berger Belge) was founded in Brussels. By April 3rd, 1892, a first detailed breed standard had already been drawn up, but the type and temperament had been established by 1910 (F.C.I.-Standard No 15/ 19.04.2002 /GB). Although it had been selected as a shepherd dog, nowadays this breed is employed in many activities such as guarding, police dogs for patrol, drug and explosive detection and sport (e.g. agility, obedience and monioring). However the number of Belgian Shepherd Dogs as pets is growing (Aubry, 1977; Bossi, 1977; De Wailly & Varlet, 1994; Surget, 2002). Within the breed 4 varieties are recognized: Groenendael, Lakenois, Tervueren and Malinois.

Aim

The aim of the current research was to assess whether Groenendael, Tervueren and Malinois varieties of Belgian Shepherd behave differently one from another.

Subjects, materials and methods

The survey was carried out by using a questionnaire filled in by 88 Belgian Shepherd dog owners recruited by personal contacts. They owned the following varieties: 33 Groenendael (G: 66.7% females and 33.3% males), 30 Tervueren (T: 72.0% females and 28.0% males), and 25 Malinois (M: 66.7% females and 33.3% males).

Forty-three multiple-choice items about dog behavior and their frequency of display (often, sometimes or never; see table 1) were asked, plus 3 questions concerning dogs' fear (see Fig. 1). Data obtained for the three groups were compared through the χ^2 test ($p < 0.05$).

Results

Results are showed in Table 1 and Figure 1.

Tab. 1. Percentages of BS dogs showing the investigated undesirable behaviors.

Questions	Groenendael		Malinois		Tervueren	
	%		%		%	
	Often	Sometimes	Often	Sometimes	Often	Sometimes
Urinating in the house in big amount	3.0	12.1	0.0	4.0	0.0	10.0
Urinating in the house in small sprays	0.0	3.0	0.0	8.0	0.0	10.0
Defecating in the house	3.0	18.2	0.0	12.0	0.0	0.0
Jumping over owners when they come back home	24.2	33.3	16.0	72.0	43.3	30.0
Jumping over owners (not when just home)	12.1	42.4	12.0	32.0	23.3	33.3
Jumping over other people	12.1	39.4	8.0	28.0	6.7	43.3
Digging	6.1	9.1	4.0	44.0	3.3	26.7
Escaping from home	3.0	18.2	4.0	4.0	0.0	3.3
Not obeying basic commands (sit, down etc.)	3.0	42.	0.0	32.0	3.3	26.7
Not answering to the recall	6.1	36.4	0.0	32.0	3.3	26.7
Chewing objects	9.1	36.4	12.0	52.0	6.7	20.0
Chewing on owners' body parts	0.0	27.3	0.0	28.0	0.0	20.0
Insistently licking owner's mouth	6.1	12.1	8.0	28.0	16.7	16.7
Insistently licking owner's other body parts	12.1	15.2	4.0	20.0	3.3	30.0
Chasing vehicles/bikes/people	6.1	21.2	4.0	28.0	10.0	20.0
Scavenging	6.1	6.1	8.0	28.0	3.3	10.0
Eating his/her own faeces	0.0	6.1	0.0	8.0	0.0	6.7
Eating faeces of other dogs	0.0	6.1	4.0	20.0	0.0	3.3
Barking when left alone	3.0	45.5	4.0	40.0	0.0	43.3
Destroying when left alone	9.1	18.2	4.0	16.0	0.0	20.0
Insistently barking (not when left alone)	6.1	12.1	8.0	24.0	0.0	26.7
Destroying (not when left alone)	0.0	9.1	0.0	12.0	0.0	3.3

Questions	Groenendael %		Malinois %		Tervueren %	
	Often	Sometimes	Often	Sometimes	Often	Sometimes
Pulling on the leash	18.2	27.3	16.0	40.0	10.0	40.0
Insistently licking him/herself	3.0	18.2	8.0	20.0	0.0	23.3
Having a fixed idea on something	0.0	9.1	0.0	16.0	0.0	16.7
Shadow chasing	0.0	0.0	0.0	4.0	0.0	3.3
Circling	0.0	15.2	4.0	8.0	0.0	6.7
Chasing his/her tail	0.0	6.1	0.0	4.0	0.0	0.0
Insistently repeating an action	0.0	9.1	0.0	20.0	0.0	6.7
Mounting	0.0	39.4	4.0	20.0	3.3	26.7
Being very excitable and restless	6.1	60.6	28.0	44.0	23.3	46.7
Chasing cats	12.1	48.5	40.0	20.0	16.7	50.0
Barking at other dogs	15.2	51.5	16.0	52.0	20.0	50.0
Attempting to bite other dogs	6.1	15.2	4.0	28.0	3.3	40.0
Raising hair when meeting other dogs	3.0	21.2	16.0	44.0	10.0	36.7
Growling at other dogs	3.0	33.3	8.0	44.0	6.7	46.7
Reacting aggressively when touched on the head	6.1	3.0	0.0	4.0	0.0	3.3
Reacting aggressively when forced to do something he/she does not want	3.0	6.1	0.0	12.0	0.0	3.3
Reacting aggressively when scolded	0.0	3.0	0.0	0.0	0.0	0.0
Disliking to be stroked	3.0	12.1	4.0	0.0	3.3	3.3
Showing fear of veterinarian/clinic	6.1	18.2	4.0	20.0	6.7	40.0
Disliking people, especially strangers, entering his/her territory	3.0	33.3	16.0	48.0	0.0	30.0
Defending an object	3.0	21.2	4.0	40.0	6.7	26.7

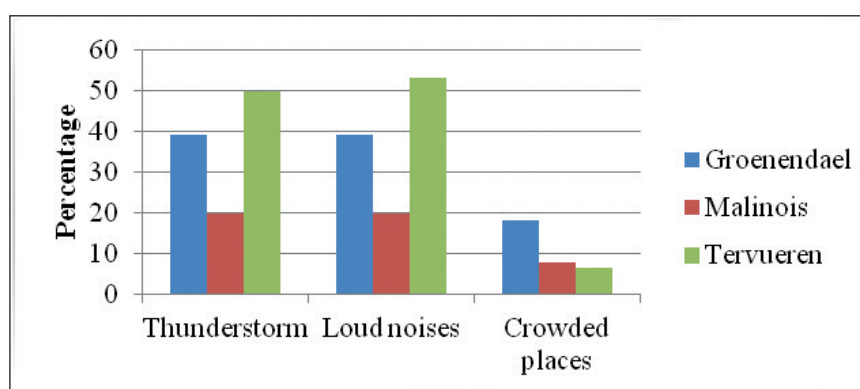


Fig. 1. Percentages of BS dog varieties showing fear of thunderstorms, loud noises and crowded places.

In detail, Groenendael dogs seem to show a lower arousal, as they were reported to exhibit the following behaviors less than other varieties: exaggerated greeting to owners returning home (G 57.6%, M 88.0%, T 73.3%; $\chi^2=6.542$; $p=0.038$), digging (G 15.2%, M 48.0%, T 30.0%; $\chi^2=7.378$; $p=0.025$) and raising hair when meeting other dogs (G 24.2%, M 60.0%, T 46.7%; $\chi^2=7.863$; $p=0.020$). Malinois dogs instead displayed the following behavior more: scavenging (G 12.1%, M 36.0%, T 13.3%; $\chi^2=6.250$; $p=0.044$), coprophagia (G 6.1%, M 24.0%, T 3.3%; $\chi^2=7.342$; $p=0.025$), raising hair when meeting other dogs and defending the territory (G 36.4%, M 64.0%, T 30.0%; $\chi^2=7.169$; $p=0.028$). Moreover Malinois dogs showed less fear of thunderstorms ($\chi^2=5.317$; $p=0.070$) and loud noises ($\chi^2=6.403$; $p=0.041$) than other two varieties.

Discussion

These preliminary results suggest that the varieties of Belgian Shepherd Dogs differ both morphologically and behaviorally, especially for Malinois versus other varieties (as already suggested by Svartberg, 2006). The Belgian Shepherd dog has been selected since the beginning to be both a guardian and a herding dog. According to Ortega (1993), for the varieties with long hair (Tervueren and Groenendael) more attention has been paid to morphology and to maintain original attitude for shepherding; while for Malinois the goal of selection has been to obtain dogs prone to detection and defense. This difference could explain why Malinois dogs are very energetic, quick and vigilant; these characteristics are appreciated qualities for working dogs, but they may be excessive and difficult to be managed in an urban environment, where such dogs can become very sensitive and reactive (Ortega, 1993). Genetics appears to play a role in noise sensitivities (Levine, 2009), that could explain why varieties have a great difference in showing fear of loud noises and thunderstorms.

However, differences observed may be also related to dog management (Gazzano et al., 2008) Further research should be carried out to clarify this point and investigate other possible affecting factors such as dog sex and bloodlines.

Conclusions

Potentially new owners should be advised by breeders, veterinarians and animal behaviorists about behavioral characteristics of different canine breeds and even varieties within breeds, as a correct match between dog and owner features reduces the risk of unsuccessful adoptions.

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Differenze comportamentali tra le varietà della razza Pastore Belga

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Sintesi

Lo scopo della presente ricerca è stato quello di valutare se esistano differenze nel comportamento tra le tre varietà della razza Pastore Belga: Groenendael (G), Tervueren (T) e Malinois (M). L'indagine è stata svolta attraverso un questionario, appositamente preparato e compilato da 88 proprietari di Pastore Belga, reclutati attraverso un contatto diretto.

I cani della varietà Groenendael sembrano mostrare un livello di arousal inferiore poiché risultano esibire meno frequentemente i seguenti comportamenti: feste esagerate al ritorno a casa dei proprietari (G 57,6%, M 88,0%, T 73,3%; $\chi^2=6,542$; $p=0,038$), scavare buche (G 15,2%, M 48,0%, T 30,0%; $\chi^2=7,378$; $p=0,025$) e sollevare il pelo quando incontrano altri cani (G 24,2%, M 60,0%, T 46,7%; $\chi^2=7,863$; $p=0,020$).

I Pastori Belga Malinois mostravano più frequentemente i seguenti comportamenti: mangiare rifiuti (G 12,1%, M 36,0%, T 13,3%; $\chi^2=6,25$; $p=0,044$), coprofagia (G 6,1%, M 24,0%, T 3,3%; $\chi^2=7,342$; $p=0,025$), sollevare il pelo quando incontrano un altro cane e difesa del territorio (G 36,4%, M 64,0%, T 30,0%; $\chi^2=7,169$; $p=0,028$).

Inoltre i Pastori Belga Malinois mostravano in misura minore, rispetto alle altre due varietà, paura dei temporali ($\chi^2=5,317$; $p=0,070$) e dei rumori forti ($\chi^2=6,40$; $p=0,041$).

Le persone che hanno intenzione di diventare proprietari di un cane di questa razza dovrebbero ricevere adeguate informazioni relative al comportamento delle diverse varietà dagli allevatori, veterinari e comportamentalisti; ciò potrebbe contribuire alla realizzazione di una miglior relazione tra cane e proprietario e ridurre il rischio di abbandono.