

**The trainability performance of the Kababeesh dogs in the
Fields of narcotic detection and agility**

By

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1. Introduction

Dogs have been subjected to a huge range of selection pressures during domestication and that has resulted in a considerable diversity in morphology and behaviour. This situation makes them an interesting model for studies of animal personality.

Svartberg, (2002) in a behavioural data collected from 1-,329 dogs of 164 different breeds revealed the existence of five narrow traits which are ‘Playfulness, Curiosity/Fearlessness, Chase-proneness, Sociability and Aggressiveness’. They also found that except the aggressiveness all these factors are related to each other.

The training process depends on developing, enhancing, eliminating or avoiding a specific response of natural behaviour according to the aim of training

1.1. How to select a police dog

There is a vast difference between the police dog and the dogs raised as pets in homes. Bryson (1984) described the desirable police dog candidate as “physically sound mature adults that exhibit balanced traits in social behaviour, play behaviour search and aggression”.

1.2. Trainability and training steps

1.2. Training program

Police dog candidates should be trained from puppyhood to respond to the handler’s commands, socialization, play and search. Bailey, (2002) mentioned that the puppy needs to be trained or have time set aside with its handler for the first 12 months of its life. During this period the puppy must learn the basic training exercises such as recognizing its name, come when called, walk on a lead without pulling and positions- sit, down, stand and rollover.

1.3. Training phases

According to the training syllabus at the Police Dogs Administration in Sudan the training process is divided into two phases, a preliminary phase and an advanced phase.

1.3.1. The preliminary phase of training

This phase starts from the first day of puppy hood until it reaches six months and this period is equivalent to the new born, transitional and

socialization periods mentioned by Bialy (1995) and Fogle (1992). This phase is divided into three periods as follows:

I.The mother group (0 – 8 weeks)

During the weaning stage, the puppy depends completely on its mother and puppies learn and develop their instinctive behaviour from their mother. It is preferable to keep puppies quiet and avoid stressing them too much by introducing them to many people. Battaglia (2001) mentioned that The U.S. military developed a program called "Bio Sensor". Based on years of research, the military learned that early neurological stimulation exercises could have important and lasting effects. The first period involves a window of time that begins at the third day of life and lasts until the sixteenth day.

The types of stress suggested by Battaglia (2001) are as follows:

- a) Tactile stimulation: Holding the puppy in one hand, the handler gently stimulates (tickles) the pup between the toes on any one foot using Q-tip. It is not necessary to see that the pup is feeling the tickle. Time of stimulation 3 - 5 seconds.
- b) Head held erect: using both hands, the pup is held perpendicular to the ground, (straight up), so that its head is directly above its tail. This is an upwards position. Time of stimulation 3 - 5 seconds.
- c) Head pointed down: holding the pup firmly with both hands the head is reversed and is pointed downward so that it is pointing towards the ground. Time of stimulation 3 – 5 seconds.

- d) Supine position: holding the pup so that its back is resting in the palm of both hands with its muzzle facing the ceiling. The pup while on its back is allowed to sleep struggle. Time of stimulation 3-5 seconds.
- e) Thermal stimulation Use a damp towel that has been cooled in a refrigerator for at least five minutes. Place the pup on the towel, feet down. Do not restrain it from moving. Time of stimulation 3-5 seconds.

II. The puppies' group (9- 16 weeks)

This is the period in which puppies will be separated from their dam. During this period they will gain the social behaviour, the dominance behaviour will become manifested between dogs, and also the hierarchy of the pack will begin to appear. This period is equivalent to the last stage of the transitional period and the juvenile period according to Baily (1995) and fogle (1992) classification.

During this period it is important to expose the puppies to a limited number of people especially if we are aiming to train these puppies as police or military dogs. In this period the hierarchy will obviously appear within the litter which makes it the best time to choose individuals for different purposes. The dominant ones are chosen for police work and the less dominant can be raised as pets.

III. The trainer group (17- 40 weeks)

Each puppy will be separated in its own kennel. This period is the time of learning the social behaviour towards humans depending on the help of the trainer of the puppies. During this period the difference between the

training strategies is clearly manifested according to the target of training whether targeting a pet or police or military dog. In the case of police or military dogs, it is important to enhance the protectional behaviour, aggression and dominance of the dog toward others except its trainer whereas in the case of the pet or family dog it is better to decrease the aggression and dominance instinct of the pet by using intimate treatments and contact .

1.3.2. The advanced phase of training (41- 72 weeks)

During this phase every dog will be accompanied by a specific trainer for the rest of its life or at least until the whole training period is completely finished. It is important to choose and provide the suitable dog for the suitable trainer according to the general temperament and activity of each handler and his dog. this phase consists of the followings:

I. Adaptation period

It is the first step of disciplined training. During this period the trainer must forge a strong tie with his dogs built on the dominance of the handler on his dog . The correct relationship which the trainer must create and develop with his dog summarized in a few words, is to convince your dog that you are the master and at the same time you are his friend and he always needs you. Fogle (1992) described the mentality of dogs as follows “Dogs do not accept to live in equality with other dogs or with us so democracy is a misplaced ideology in the canine world”.

The second objective of this period is to grope for the natural abilities and instinctive capabilities of the dog. Most of the exercises which we aim for during the training process of this period are natural actions that the dog does frequently, then the challenge is to enable him to associate these actions with disciplined orders. Usually this period takes from three to four months to obtain the perfect level of relationship between the dog and handler.

II. Obedience period

During this period the dog must be trained to do a specific exercise when a specific order or sign is given to him. Enforcement and punishment must be introduced to enable the dog to differentiate between playing and the serious exercise. Rewarding must not be used unless the dog did the exercise perfectly. Although Peak (http://www.dogbreedinfo.com/findingobedience_program.htm) does not approve the tough trainer and excess punishment she reported that “The type of trainer you pick will be very important in helping you develop a good, solid working bond with your dog or puppy. The trainer who uses all force and harsh corrections should be avoided. The goal of training is not to force a dog to learn but rather to make him want to learn and bond with you. There is no one perfect way to train all dogs. What works for most of the class may not work for your dog. A good instructor will know this and find the best way to help you and your dog”.

The ease and progress of this period depends on the relationship made between the dog and it's handler during the past period. However the period takes approximately 60- 75 days.

III. Learning games

Dogs learn remarkably fast if they are motivated. It's a good idea to choose a trick or a game that you at least think your dog might enjoy doing. Teaching games to a dog needs to be done by breaking it up into steps and the most important point is that the dog needs to know when he is doing the right things. For example If you toss a tennis ball from your hand and say 'retrieve!', many dogs run after the ball as desired, but it's unfair to expect the dog to know that you want the ball brought back to you, unless you can clearly 'tell' him that.

IV. Retrieving games

It is the first step of learning to fetch narcotics or explosives in the police work, a dog that does not fetch and retrieve toys will not be able to be a good narcotic or explosives detector. It would be easiest to teach the dog if it already enjoys carrying things in his mouth, but if he does not enjoy retrieving things there are a number of tricks to make a dog do this game. These include making the toy from a material and shape already preferred by the dog and not allow him to catch the toy for a long time. The playing techniques and encouragement during the sessions will contribute to teaching the dog this game.

V. Fetching games

Once the dog learns the basic retrieving of its toy, it will be ready to go and fetch for any toy we point out to him and this is the time to teach him fetching the items that we are targeting (explosives, narcotics ... etc). At the beginning of this phase some precautions should be taken into consideration such as avoiding heavy or hard toys. Effort should be made to make this game enjoyable for short period of time and avoid accelerating the progress of training.

Bailey (2000) lists the steps that should be followed to enable the dog to master this game perfectly as the follows:

- a) Ask your dog to fetch the article and as he brings it to you, begin to walk away from him.
- b) Keep encouraging him to come with you and run around so that he is walking beside you.
- c) After a few paces make a big fuss over him and reward him well. If he drops the article at any time, quickly encourage him to fetch it again.
- d) Progress slowly until he walks beside you carrying anything you have asked him to fetch.

1.4. Important factors contributing to the training process

1.4.1. Aggression

Dogs do not expect to live in equality with other dogs or with us and dominance hierarchy is an important element determining their behaviour.

Aggression in dogs does not mean vindictiveness or maliciousness as we commonly think, but it takes more different forms and it may appear as a result of many influences such as the dominance aggression which is genetically influenced or the sex aggression which is hormonally influenced while other forms can be influenced by the environment (replacing house or moving its objects).

1.4.1.1. Types of aggression

There are eight types of aggression which might be related to one or more of the reasons mentioned earlier (either genetically, hormonally or environmentally influenced).

A. Dominance aggression

Dogs are pack animals; they naturally take their order in the pack by fighting with each other. This problem is usually shown by male dogs between two and two and a half years of age (Voith and Borchelt, 1982). Approximately one out of every five aggression problems brought to the veterinarian for attention is one of dominance aggression although dominance aggression is both inherited and learnt, 58% of clinical cases occur in males. The hormonal influence on this behaviour probably occurs near birth when the male pup's brain was masculinised by surges of testosterone (Fogle, 1992).

Baily (2002) classified the dominance aggression into dominance aggression towards humans and dominance aggression towards other dogs.

B. Possessive aggression

This type of aggression appears as a result of food, toys and sleeping place competition especially when the members of the pack are similar in size, sex and age. Also sometimes the possessing aggression may be one of the dominance expressions.

C. Fear aggression

Opposite to dominance aggression the effect of the genetic component in fear aggression is less than the environmental effect. It is a defensive behaviour and primarily learnt. Dogs which do not have contact with people and different surroundings in the puppyhood period most likely will develop this behaviour when they become mature. Fogle (1992) reported that the dog's response to fear or pain is a mixture of physical, physiological and emotional responses. Although many types of fear induced aggression have their origins during the socialization period from seven to twelve weeks of age, a dog can develop fear behaviour at any age.

D. Protective aggression

This type of behaviour most probably appears as a result of dominance in males and fear in females. The difference in protective aggression between dogs and other animals is that the dog in addition to protecting its house,

puppies and toys it protects its owner and his family, friends and animals owned by him. The protective behaviour is of course, one of the strongest values of canine companionship, but it can often become troublesome and must be controlled.

Fogle, (1992) reported that the intensity of territorial or protective drives is inherited. It is genetic but this base is augmented though learning.

E. Inter- male aggression

The attitude of inter-male aggression appears clearly after puberty and this type of aggression is found in males and is very rare in females and when it is found it is usually related to conflict in dominance.

Inter-male aggression can be induced by the sight of another male dog or by the scent. Fogle (1992) reported that the inter-male aggression is responsible for approximately one of every ten cases of aggression treated by veterinarians.

G. Predatory aggression

Dogs are predators. Fogle (1992) described the basis of predatory aggression as being genetic but it must also be learnt from the mother. Also the naturalist Mech (1987) described how a wolf pack behaves during predatory aggression and it seems similar to the playful dog behaviour that sometimes tends to change into true predatory aggression. When dogs engage in predatory aggression for real it is usually against different species

like sheep, cats and squirrels but it can also be directed at children or older people. Although it is uncommon it is still the most serious type of aggression because the aim is to kill.

H. Idiopathic aggression

It is a sort of aggression without any apparent reason. It is not related to dominance, fear, protective or any other type of explained aggression. The serious aspect is that the dog usually attacks his owner or visitors in an aggression directed towards known people to the dog. It is also a sudden behaviour without any signs of warning and after a while the dog will return pleasant, affectionate and obedient.

Fogle (1992) referred this behaviour to a problem hidden deep in the dog's brain and is almost undoubtedly genetic in origin especially that there are certain breeds that suffer from this sort of behaviour more than other breeds such as the German shepherd dogs, Rottweilers, Dobermans and solid coloured cooker spaniel. The best way to avoid this problem is by checking the records of the puppy for three or four generations to confirm the genetic clearance from this problem when selecting a puppy from the above mentioned breeds.

I. Learnt aggression

The police and army dogs are commonly trained to be aggressive during their training courses. All the natural types of aggression such as dominance, predatory and protectiveness could be enhanced by training

and pain is a very good enhancer of aggression. However, the aggression enhancement used by the police dogs' handlers is a retrieving behaviour as much as it is aggression because it could be turned on and off and this appears clearly in the crowd control and patrolling dogs which are very calm when out of work and become so aggressive when they are commanded to catch a criminal for example.

1.4.2. Fear

Fear in potentially harmful situations is a normal and healthy reaction. Fear in the dog's mind has many origins, genetic effect is the most apparent reason but also some studies in rats found that a protein deficiency around birth time can produce increased emotionality later on in life. Also fear could be acquired from the external environment, Scott and Fuller (1965) described how nervous mothers can imprint nervousness into their offspring. Dogs that are deprived of normal exposure to common stimuli during their critical period of development quite simply become fearful dogs when they mature. There is considerable individual and breed variation but virtually all dogs will show fear responses to new and unusual stimuli that have not been experienced before they were sixteen weeks old.

Fogle (1992) described the expressions of fear (fight and flight) of dogs. They might bark anxiously and assume the body posture of fear, in which the tail is tucked between the legs, the back is arched, the lips are drawn back, the hackles raised and the ears are flattened against the head. At the same time there is an autonomic reactivity. The heart rate increases, pupils

dilate and trembling might occur. The dog might even urinate and of course he might try to bite.

1.4.3. Phobias

Fear might be learnt or unlearned. When fears are not learned in this way they become phobias. Dogs can develop phobias to loud noises and traffic. Phobias to veterinarian and veterinary clinics are also common in dogs. Phobias might happen because the first association was exceedingly unpleasant.

1.4.5 Excitement

When the dog is excited it becomes restless and extra alert. It might bark, show increased attachment to its owner or handler by nudging and making physical contact. It might even urinate or defecate or it might chew on its lead. All these behaviours are signs of the high arousal of the adrinopituitary axis.

1.4.6 Anxiety

Dogs are genetically designed to live in a natural environment and are motivated by various genetically predetermined drives such as hunger, thirst, sex, aggression and territorial marking. When they are forced to live in a place designed to be more confined according to our elusions towards dogs which are usually not true, the result is that the dog will suffer from

anxiety due to the conflict between their natural type of life needs and the way which they find themselves forced to live.

If the owner of the dog or its home has been changed then the signs of anxiety will appear and it may develop to a dangerous behaviour if the dog is exposed to poor treatment and care by the new owner.

Fogle (1992) arrays the signs of anxiety starting from showing the greeting signs like the tail wagging and approaching while at the same time showing fear with the head held low, also rolling over and urinating as signs of submission. Destructive behaviour and neurotic reactions like chasing their tail are clear signs of anxiety.

When the dog is owned by more than one person and one of them allows him to do a certain act while the other prevents the dog or punishes him for the same act, this will be an important cause of the anxiety.

1.4.7. General activity

It is an essential trait for dogs that work in the police field. Dogs vary in their activity according to their body size, age and breed. Medium size and young dogs are more active than old heavy dogs. Also the dogs which are classified as working dogs are more active than the other breeds.

Baily (1995) mentioned that it is very important to provide the right amount of physical exercise. The consequences of not doing this are obvious. Any excess energy is likely to be channelled into unwanted

behaviour, such as over- zealous greeting of owner or visitors, attention-seeking, or very boisterous play with toys or other objects.

1.4.8. Playfulness

Dogs use a variety of body language signals to display playfulness. An individual dog may show any combination of these play signals:

- Prancing and slapping of the front legs on the ground (play bow)
- Focusing on its handler and watching his movement excitedly.
- Prancing actively asking for playing
- Chasing behaviour

Excessive playing may cause an undesirable behaviour such as some type of aggression or discipline problems. Thus rules of fair play are essential and they should take into consideration the following concepts:-

- 1- No teeth grap skin or cloths to avoid any aggressive revelation during the session
- 2- The trainer is the one who decides the beginning or ending of the session to avoid any undesirable dominance behaviour.
- 3- The trainer must always win the game to show leadership and control his dog
- 4- If the dog wants to play more than the human, redirect his energy into chasing games or a chew toy

1.4.9. Social behaviour

Dogs are highly social cognitive animals, a skill that is due to three reasons: First dogs originated from wolves which need to live in a social group to survive in the wild. This enables them to hunt, stay safe and reproduce. Dogs have retained this need for social contact; all dogs need to feel that they are a part of a pack. The second reason is the process of domestication which depends on achieving mental adaptations to fulfil their roles in the human society such as herding animals or companionship. Living in the human society facilitates the development of relevant mental skills in dogs (Jonathan 2003).

Fogle (1992) stated that the pack behaviour in dogs is less complex than wolves. Because rules cannot always be followed among dogs, the behaviour is less predictable. Only dogs that have reverted to the wild have predictable behaviour and so do dingoes and pariah dogs.

Bailey (2000) indicated that one of the major differences between humans and dogs is the speed of growth and development. Humans take approximately 18 – 21 years to mature, whereas dogs mature in about one to one and a half years. To a puppy one week represents a large proportion of its puppy hood. Hence it is important to use the short period of puppy hood to pack as many good experiences in as possible.

1.4.9.1. Social behaviour towards other dogs and animals

This type of behaviour is varied between aggression, shyness and fear. In case of free ranging dogs the most obvious common finding is that, as

concentrated as the populations are, the dogs never form social packs with dominance hierarchies. Most dogs are lonesome travellers although two neighbouring dogs will often range together. The only time that dogs congregate is when there is a female in oestrus and even then it is rare for there to be more than seven dogs following the oestrus female.

Although the house dogs and dogs kept in kennels behave differently, Bailey (2000) indicated that some dogs are aggressive when on the leash, but are all right if they are loose because they know that they are able to run away if necessary. The dog may behave more confident towards other dogs or animals when accompanied by his owner.

1.4.9.2. Social behaviour towards humans

The beginnings of social behaviour towards humans obviously started with the process of domestication which is estimated to have happened more than 12 thousand years ago (Coren, 1995). The dog's ancestor was to a great extent, pre-adapted to be adopted by man (Messent and Serpell, 1981).

Dogs are social animals so they must reveal different types of social behaviour and skills such as the ability to recognize siblings, the capability to restrict their own aggression and specific social signals and metacommunication.

Socialization towards people is an acquired behaviour that the dog must learn from the puppyhood through exposure to different people in different situations.

Lack of contact with people will cause fear, shyness or aggressive behaviour towards them so it is essential for the house dogs to be with humans from an early stage of life. For the police or army dogs the social behaviour towards other people is not desirable especially for patrolling. The dog must develop a strong relationship only with his handler and the people who are in direct contact with him.

Sheldahl (2000) described the police dog as being alert and curious, willing to explore its new environment but also checks up on his handler. When the handler initiates play the dog should participate. If other people walk through the area he should be aware of their presence and even wish to investigate. If a stranger walks up to the handler the dog should be curious and interested. Warning signs about problem temperament are excessive sharpness in the new environment, unwillingness to play with the handler, unwillingness to explore, or being completely unaware of humans within the environment.

One of the most important experiences that a dog must learn during the puppy hood and is difficult to be described as social behaviour is the habituation and confidence in strange or new places. It is essential for the dog working in the police field to do its job perfectly in any place at any

time without fear or shyness and this can be achieved by taking the puppy different places frequently from an early time of his life.

5.1.4.10. Trainability

Trainability means studying and evaluating two traits, the short and long term memory and solving problems. Bailey (2000) described the trainable dogs as being likely to be inventive about displaying behaviour that increase their chances of getting a reward. If a dog just sits there waiting for a long time, he may be a very patient, steady dog who does not do the unexpected, but he will probably not be as smart as a dog that is constantly inventing novel behaviour.

1.4.11. Memory and solving problems

For solving problem tasks, at least two conditions must be fulfilled. First, the animal has to be motivated to obtain the reward, and second the animal must have the mental ability to detour that involves a temporary distancing from the target.

The relationship with owner or handler is essential for the different training processes. Pongaracz (2001) found that dogs are able to rely on information provided by human action when confronted with a new task.. Although they did not copy the exact path of the human demonstrator, they easily adopted the detour behaviour shown by humans to reach their goal. However, Topál (1997) found that the performance in problem solving decreased with the high levels of dog dependence on his handler.

Frank (1987) found that tamed wolves tend to solve problems by trial and error or social learning (observational learning/ goal emulation) and they often do this more effectively than dogs. He explained this result in terms of the absence or very low levels of human dependence in wolves compared with dogs.

Hart and Hart (1985) looked at 13 traits thought to be of importance to differentiate between dog breeds (given table 5.1). They found that cluster analysis revealed that three factors (reactivity, aggression and trainability) could explain most of the 13 traits.

Table 1: Behavioural traits ranking in decreasing order in differentiation between dog breeds

Trait	F ratio
Excitability	9.6
General activity	9.5
Snapping at children	7.2
Excessive barking	6.9
Playfulness	6.7
Obedience training	6.6
Watchdog barking	5.1
Aggression to dogs	5
Dominance over owner	4.3
Territorial defense	4.1
Affection demand	3.6
Destructiveness	2.6
House training ease	1.8

Table 2: Ranking of dogs on obedience and working intelligence

Rank	Breed
1	Border Collie
2	Poodle
3	German Shepherd
4	Golden Retriever
5	Doberman Pinscher
6	Shetland Sheep dog
7	Labrador Retriever
8	Papillion
9	Rottweilers
10	Australian Cattle Dog

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