# SHINE Dog Individuality

Nature refers to genetic influences on development of behavioural traits. This is complex and there is huge variation between breeds (including mixed breeds) and between individuals. We commonly associate certain characteristics with a particular dog breed. For example, Golden Retrievers are often portrayed as ideal family pets. But just as every family is different, each dog is also unique. In fact, there is more significant variation in behaviour and personality traits between individuals of a specific breed than there is between the breeds themselves. This makes it impossible to generalise based on breed alone (including mixed breeds) – every dog is different so you can never predict their personality solely based on their breed or breed type.





#### Understanding your dog's unique genetics

To find out more about your dog's unique genetic make-up, you can have their DNA analysed using a test such as the Wisdom Panel<sup>™</sup>. Such tests can help provide a deeper understanding of a dog's unique ancestry, physical traits and predisposition to certain genetic disorders. This can help owners tailor their dog's healthcare, nutrition and environment to their individual needs. Find out more at <u>The power of data: preventing and predicting pets' diseases</u>.

> Inherited individual differences also play an important role in the performance of working dogs, who are selected for specific personality, temperament, behavioural traits and aptitude, as well as good physical attributes. For example, individuals that are easy to train, docile, confident and calm in stressful situations are more likely to be selected to become Guide Dogs or Assistance Dogs. Conversely, those that are easily distracted, hyper-excitable, or prone to fear and aggression are less likely to be selected for this role.<sup>1</sup> Over time, selective breeding for these desired personality traits may lead to a prevalence of these traits in a specific working breed (nature). Labrador Retrievers are a popular choice for Guide Dogs. However, there is no guarantee that an individual will possess these desirable traits and many do not meet the strict requirements needed for the job.



#### **Positive Experiences**

Nurture refers to the effect of a dog's environment on development of behavioural traits, including how it learns from experiences in the external world. Exposing dogs to as many positive experiences as possible plays a critical role in shaping their future behaviour. For example, dogs that don't have positive exposure to a wide variety of people from a young age, are more likely to become anxious when approached by strangers as an adult. Exposure to a rich and varied environment may even promote individuality in behavior and brain activity.<sup>2</sup>



<sup>2</sup>Kempermann, G, 2019, Environmental enrichment, new neurons and the neurobiology of individuality. Nature Reviews, 20, 235-245.







### Male vs. female behaviour

Sex and neuter status are also commonly said to affect a pet's individuality, though how much is often overestimated. In reality, behaviour among members of the same sex differs sufficiently between individuals making the impact of male versus female behaviour less significant. Many puppies are also neutered before they reach sexual maturity, which means sex hormones have a lesser effect on their behaviour. This may vary depending on the breed and size of the dog, as many veterinarians are currently recommending that larger breed dogs are neutered only after they reach physical maturity.

But overall, exposing a dog to a wide variety of positive social situations and providing positive experiences should be considered more important in shaping their behaviour than their sex or neuter status.

#### Interacting

Dogs that are not neutered may be more likely to display sexual behaviours, e.g. marking, aggression and roaming. Preventing some of these behaviours by reducing time spent in public and limiting interactions with other dogs may cause frustration, while allowing others such as roaming can be problematic in themselves and can negatively impact emotional wellbeing. On the other hand, early neutering may also negatively affect your dog's behaviour, resulting in increased fearfulness or anxiety. So, it's important to discuss the optimal timing of the procedure with your veterinarian (See Health).<sup>3,4</sup>

<sup>3</sup>McGreevy, PD, Wilson, B, Starling, MJ, & Serpell, JA, 2018, Behavioural risks in male dogs with minimal lifetime exposure to gonadal hormones may complicate population-control benefits of desexing, PLOS One, DOI: 10.1371/journal.pone.01962844

<sup>4</sup>Starling, M, Fawcett, A, Wilson, B, et al., 2019, Behavioural risks in female dogs with minimal lifetime exposure to gonadal hormones, PLOS One, DOI: 10.1371/journal.pone.0223709





### **Positive Reinforcement**

A dog's personality can also be influenced by their past experiences, including their interactions with you as an owner. Your dog is always learning, whether it's a formal training session or not, so the way you interact with and teach them matters. As there is so much conflicting information available, it can be incredibly confusing to pet owners when looking for advice on how to modify particular behaviours or teach new ones. A celebrity dog trainer may recommend one method, while an online blog may suggest something completely different.

Current research suggests that dogs who are taught behaviours using positive reinforcement-based training techniques are happier and have a stronger bond with their humans. This is considered an ethical and humane approach to dog training and ensures a strong and mutually beneficial human-dog relationship. You can find out more about positive reinforcement by reading this article.



## Your dog is one of a kind!

Every dog should be considered a unique individual, but certain requirements are common to all domestic dogs. These include the desire for regular companionship, appropriate mental stimulation, physical exercise and opportunities to express natural behaviours and use their full range of senses. Providing opportunities to nurture these innate behaviours should be considered the basic foundation for emotional wellbeing. We can then build on these foundations, by understanding our dog's individual needs, personality and preferences.

Learn more about individuality and emotional wellbeing for your pets at **shine.waltham.com** 

