THE EVOLUTION OF THE BRACCO ITALIANO

by Cesare Bonasegale

This is the speech I gave in English at the Bracco Italiano Convention in Arezzo on September 9. The Italian version was published on the October issue of the Giornale del Bracco italiano. I publish it here in English for SABI International Members.

Dog breeds are made up of individuals sharing morphological and behavioural characteristics that have become fixed through selective breeding. Yet, despite the fact that the characteristics are fixed, there are, inevitably, evolutionary processes which can lead to gradual modifications in a breed. So it is up to Specialized Breed Associations to control those processes in order to avoid deterioration and to encourage improvements. In order to do so, it is crucial that breeders be sufficiently familiar with the science of genetics and act in accordance with the objectives set forth by those in charge of overseeing the continued development of the breed.

And this will be the topic of my speech here today.

Generally speaking, the overall situation for the Bracco Italiano is excellent and for this I think we must congratulate its Italian breeders who have been able to preserve—and in many cases to improve—both the breed’s morphological qualities and the behavioural characteristics.

Today we have Bracchi Italiani that are able to successfully compete against all other pointing breeds in the field. 50 years ago, it was a different story. In those days, our breed was in such a bad shape that field trials open only to Bracchi Italiani and Spinoni had to be set up, because our dogs were not good enough to compete against the other Continental breeds.

And it is not our place, here and now, to judge those who established those rules (which by the way were never established in any other Country. There are no field trials in France open only to the French breeds, or anything similar in Germany). Today however, there is no longer any reason to avoid running a Bracco Italiano in trials open to all the other Continental breeds. So maybe the time has come to ask the Italian Kennel Club to revise its field trials rules. I am convinced that, by systematically participating in direct competition against the other Continental Pointing breeds, the Bracco Italiano will improve even more.

Regarding the functional aspects of our breed, the most obvious improvement is the increase in the number of Bracchi possessing the breed-specific gait, that I call the “thrusting trot”. Not only it is highly functional and aesthetically wonderful; but no other breed—besides the Spinone—has it. Genetically speaking, the “thrusting trot” is transmitted by a pair of recessive genes. Therefore, it is a characteristic that will always be transmitted to the offspring when both parents have the “thrusting trot”.

So don’t be misled if a Bracco Italiano is trained with a “braga”. If a dog is not genetically predisposed to have a thrusting trot, training with a braga will just be a waste of time. And this leads to one of the most frequently asked questions: why should we train a dog to obtain something that is genetically transmitted? The answer is that if a Bracco Italiano runs in field trials (where each dog’s turn only lasts about ten or 15 minutes) he has to learn how to pace himself so that he can express his marvellous thrusting trot as soon as you let him lose, instead of giving in to the temptation of galloping.

Now let us examine the most crucial breed-specific aspects of today’s Bracco Italiano.

They are the characteristics that we must pay attention to in order to avoid any unwanted modifications.

**Tail carriage**

A dog speaks through its tail. He wags it to show happiness, he tucks it if he is afraid, and raises it to show aggression. For pointing dogs the tail is also a
means by which it signals what the nose is scenting. That’s where comes from the expression “what gets in the nose, comes out the tail”. And this is especially true for the Bracco Italiano.

The horizontal wagging of the tail, in rhythm with the trot, is especially evident in this breed. It is an expression of style as well as a functional characteristic.

The wagging of the tail changes to a trembling movement as the dogs detect a promising scent, and then becomes absolutely still when he is sure of the presence of game and points.

However, in order to clearly communicate this vital information, the tail must be carried horizontally, that is parallel to the top-line of the dog, except for a slight curvature of the tip of the tail upward or – even better – downward.

If the tail is carried vertically, its ability to communicate important information will be lacking. And this represents not only an aesthetic fault, but also a functional fault, since it doesn’t allow the dog to properly express itself during the field search.

Vertical tail carriage must therefore be penalized in both the show ring and field trials.

In this meeting, I would like to illustrate how this fault is genetically transmitted. My goal is to provide information to breeders so that they can make the appropriate breeding decisions in order to fix the correct tail carriage in their dogs.

I hope you will forgive me if I use a few illustrations outlining the basic elements of genetics, at the risk of boring you with concepts you already know very well… but perhaps there are people here that are not as familiar with them or people who have forgotten them.

The genetic transmission of every morphological and/or functional characteristic is due to pairs of genes, one inherited from the father and the other from the mother.

The genes can be dominant or recessive.

If the two genes in the pair are identical, we say that the pair is homozygotic; if they are different, the pair is heterozygotic.

It is customary to indicate dominant genes with capital letters, using instead lower-case letters for recessive genes.

The visible manifestation of a couple is called phenotype which, in the case of an heterozygotic couple, is that of the dominant gene (and that’s why it is called dominant).

Regarding tail carriage, the phenotype will be as follows:

**Horizontal tail carriage**: expression of a dominant pair of genes usually identified by the capital letters ‘CO’ (i.e. the initials of Coda Orizzontale). In the following illustratios it will be represented by a dark grey circle.

**Vertical tail carriage**, expression of recessive genes, usually identified by the lower-case letters ‘cv’ (i.e. the initials of coda verticale). In many breeds, such as Fox Terriers, Nordic Breeds and others, this trait has been fixed by selective breeding. In the following illustrations a light grey circle will be used to represent vertical tail carriage.

When breeding, there are six possible combinations of the genes responsible for tail carriage. Let’s take a look at each of them.
**1st case study:** ‘CO’ ‘CO’ – ‘CO’ ‘CO’ (A dog that is homozygotic for a horizontal tail carriage, bred to another dog that is homozygotic for a horizontal tail carriage)

Parents

‘CO’‘CO’

‘CO’‘CO’

All offspring

‘CO’‘CO’

The offspring will all be homozygotic for horizontal tail carriage.

**2nd case study:** ‘cv’ ‘cv’ – ‘cv’ ‘cv’ (A dog that is homozygotic for a vertical tail carriage, bred to another dog that is homozygotic for a vertical tail carriage)

Parents

‘cv’‘cv’

‘cv’‘cv’

All offspring

‘cv’‘cv’

The offspring will all be homozygotic for vertical tail carriage.

A dark grey circle, containing another light grey circle, will be the symble of the heterozygotic pair.

**3rd case study:** ‘CO’ ‘CO’– ‘cv’ ‘cv’ (A dog that is homozygotic for a horizontal tail carriage, bred to another dog that is homozygotic for a vertical tail carriage)

Parents

‘CO’‘CO’

‘cv’‘cv’

All offspring

‘CO’‘cv’

All offspring will have horizontal tail carriage (because the dominant genes prevail), but with heterozygotic genes. These dogs will eventually produce also dogs with vertical tail carriage.
4th case study: ‘CO’ ‘CO’ – ‘CO’ ‘cv’ (A dog that is homozygotic for a horizontal tail carriage bred to a dog which has a horizontal tail carriage but heterozygotic genes.

Parents

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<table>
<thead>
<tr>
<th>Parents</th>
<th>Offspring</th>
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<tbody>
<tr>
<td>‘CO’ ‘CO’</td>
<td>‘CO’ ‘cv’</td>
</tr>
<tr>
<td>‘CO’ ‘cv’</td>
<td>‘CO’ ‘CO’</td>
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All offspring will have horizontal tail carriage, but 50% of them will have heterozygotic genes.

5th case study: ‘CO’ ‘cv’ – ‘cv’ ‘cv’ (A dog that has a horizontal tail carriage (but with heterozygotic genes) bred to a dog with vertical tail carriage).

Parents

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<table>
<thead>
<tr>
<th>Parents</th>
<th>Offspring</th>
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<tbody>
<tr>
<td>‘CO’ ‘cv’</td>
<td>‘cv’ ‘cv’</td>
</tr>
<tr>
<td>‘cv’ ‘cv’</td>
<td>‘CO’ ‘cv’</td>
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The offspring will have 50% probability of horizontal tail carriage (but genetically heterozygotic), and 50% probability of vertical tail carriage.

6th case study: ‘CO’ ‘cv’ – ‘CO’ ‘cv’ (A dog that has a horizontal tail carriage (but with heterozygotic genes) bred to another dog with the same characteristics).

Parents

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<table>
<thead>
<tr>
<th>Parents</th>
<th>Offspring</th>
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<tbody>
<tr>
<td>‘CO’ ‘cv’</td>
<td>‘CO’ ‘cv’</td>
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<tr>
<td>‘CO’ ‘cv’</td>
<td>‘cv’ ‘cv’</td>
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The offspring will have the following probabilities of tail carriage:
- 25% ‘CO’ ‘CO’ i.e. horizontal tail carriage with homozygotic genes
- 50% ‘CO’ ‘cv’ i.e. horizontal tail carriage with heterozygotic genes
- 25% ‘cv’ ‘cv’ i.e. vertical tail carriage.

In this case, therefore, crossing two dogs with horizontal tail carriage (but with heterozygotic genes) has a 25% chance of producing offspring with vertical tail carriage.
Case study N° 6 shows why dogs with horizontal tail carriage can potentially produce dogs with the undesirable vertical tail carriage. This proves that it is more difficult to fix dominant characters than a recessive ones via selective breeding, because the phenotype doesn’t allow us to know visually if the genotype is homozygotic or heterozygotic. In other words, every time a Bracco Italiano has vertical tail carriage, it means that undoubtedly both their parents (although with horizontal tail carriage) have heterozygotic genes and consequently will potentially produce 25% of their offspring with vertical tail. Breeders should be aware of this. And should possibly cut out from breeding all dog with vertical tail carriage.

Finally all this proves that the morphological structure of the dog has nothing to do with tail carriage, because it is a genetically transmitted characteristic, indipendent from the dog’s structure.

**Bracco italiano height**

The breed standard indicates that a Bracco’s height must be between a minimum of 55 centimeters and a maximum of 67 centimeters. Specifically:

- For males: 58 to 67 centimeters
- For females: 55 to 62 centimeters

More accurately, it should be said that the average height is:

- For males cm. 62.5 centimetres +/- 4.5 centimetres
- For females cm. 58.5 centimetres +/- 3.5 centimetres

In this regard I believe that the general practice to indicate in the morphological standards the minimum and maximum limits of the height is not appropriate because it doesn’t express explicitly that the ideal is the average height, which for the Bracco italiano is 62.5 centimetres for males and 58.5 centimetres for females.

I would like to remind you that the Bracco Italiano is (and must remain) a working dog, which has been created to hunt at a fast trot for many hours. In other words, the Bracco Italiano is a “long-distance runner” whose size must be maintained around the middle values. Breeders and judges should therefore prefer Bracchi Italiani that are as close as possible to the above-mentioned average height.

Genetically speaking, height is an expression of genes with incomplete dominance. Namely, a dog’s height is generally somewhere between the height of his parents but can occasionally be somewhat greater or lesser. How occasionally?

Approximately 1 case out of 6 or 7. Consequently, if breeders insist upon using tall parents, they inevitably increase the average breed size. And this is exactly what is happening now to the Bracco Italiano, where an increasing number of dogs is approaching the maximum height allowed for in the standard. And this is not good. Remember: our aim is to breed dogs whose height is as near as possible to the average height.

Another comment on the Bracco Italiano evolution concerns mainly breeders outside of Italy, where more often the breed is considered just a pet dog. To those Bracco Italiano’s lovers I would like to pose a simple question: which are the most important characteristics of a pet dog?

I am sure they will all agree that they are the dog’s intelligence and trainability.

Well then, which type of dog offers more guaranties about these characteristics: a dog selected for beauty shows or a dog bred for field trials, which requires training and deep cooperation between the dog and its master?

Please don’t spoil a wonderful breed which has been created for hunting. If a Bracco Italiano is not a pointing dog ...he is no longer a Bracco Italiano either.

So let’s make sure that the evolution of the breed follows the main purposes for which it has been created.