



FCI International Dog Dancing Judges' Conference

Physiology of Dogs

How does a dog's body influence its performance in dog dancing?
How can we reflect on that?



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Short introduction

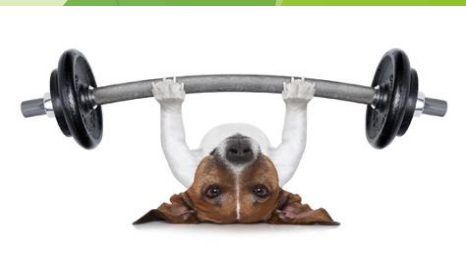
- ▶ Carmen Heritier
 - ▶ Studied German, English and Psychology at the Universities of Tübingen and Durham, UK. Here also "Animal Behaviour" and "Canine Anatomy".
 - ▶ Clicker Trainer Training with Kay Laurence, UK
 - ▶ Canine Fitness Trainer (Uni Tennessee)
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 - ▶ Author of the book "Gymnastricks, & "Dog Fitness Practice Book"
 - ▶ Mantrailing trainer
 - ▶ Currently researching Veterinary Fear in Dogs (University of Hagen, Germany)
 - ▶ www.gymnastricks.de



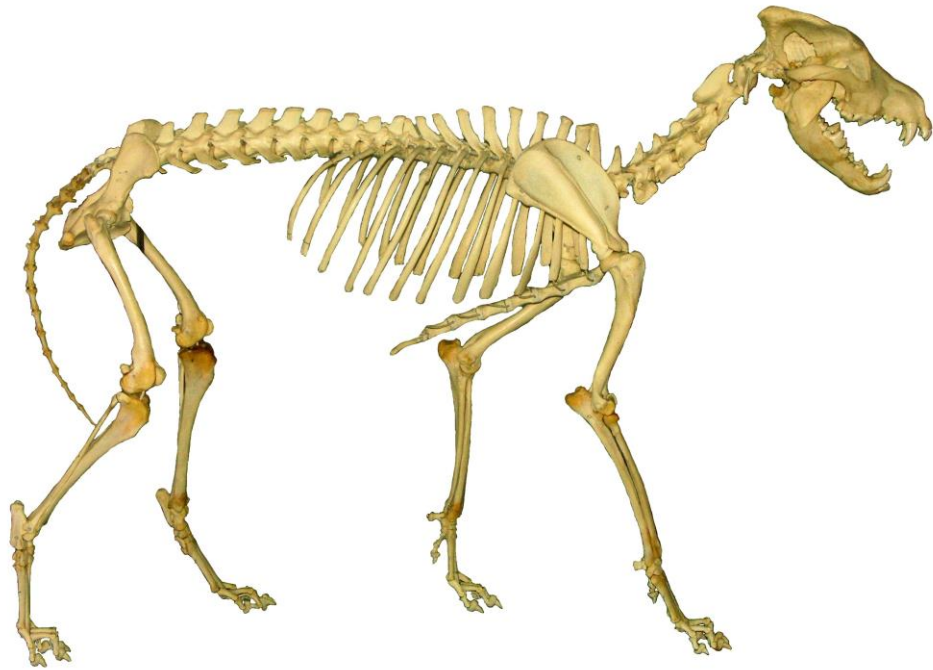
About this webinar

“Physiology (from Greek φύσις (physis) 'nature, origin', and -λογία (-logia) 'study of') is the scientific study of functions and mechanisms in a living system. As a sub-discipline of biology, physiology focuses on how organisms, organ systems, individual organs, cells, and biomolecules carry out the chemical and physical functions in a living system.” (Wikipedia)

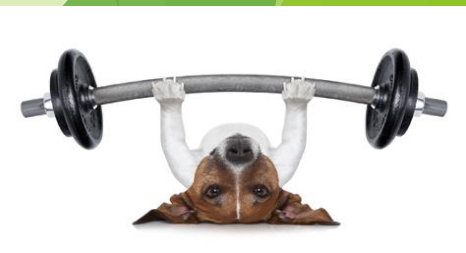
- Wait! This could fill days 😊
- We'll focus on what is most relevant for a dogs' performance and how we should reflect on that.
- Focus on single body parts and how they affect tasks we like dogs to do in Canine Freestyle



Preliminary considerations



- ▶ Nobody's perfect!
- ▶ Ancestors
- ▶ Original intended use
- ▶ Today's intended use
- ▶ Form follows function
- ▶ Analyse dogs closely
- ▶ Knowledge can prevent wear and tear



Breed standards and modern tasks



- ▶ Upper arm of a dachshund "[of] equal length to the shoulder blade, standing almost at right angles to it, strong-boned and well-muscled, lying close to the ribs, but **free to move**." (FCI Standard No. 148)
- ▶ Long back (height at withers approx. 1 to length of back approx. 1.7)
- ▶ "The body [of a Border Collie] should be slightly longer compared to the height at the shoulder." (FCI Standard No. 297)
- ▶ "Forelegs parallel when viewed from the front, pasterns slightly sloping when viewed from the side. Bones strong but not coarse. Shoulders well laid back, elbows close to body." Herding posture



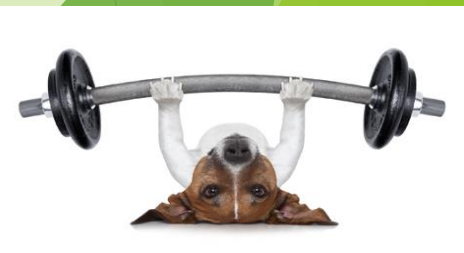
Head

- ▶ Head shape
- ▶ Placement of the eyes
- ▶ Field of view
 - ▶ Greyhounds: approx. 270
 - ▶ Pekinese: approx. 190
- ▶ **Effects on:**
 - Estimation of distances and speeds
 - Distance elements
 - Elements facing away from the handler
 - execution of elements
 - (needing to turn head to see handler)



Neck

- ▶ Length
 - ▶ Molossian
 - ▶ Mobility
 - ▶ Poodle
 - ▶ Tensions
-
- ▶ **Effects on:**
 - Estimation of distances and speeds (analogous to head shape)
 - Execution of heelwork and tricks
 - Susceptibility to tension



Neck

► Case study Eve



► Video: Jump

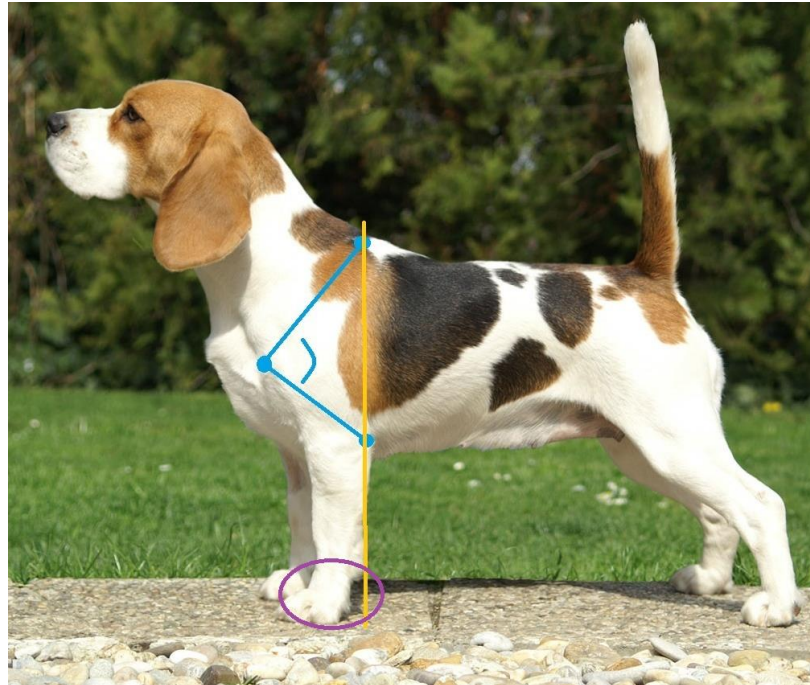


Forehand angle

- ▶ Ideal angle: 90
- ▶ Line I from top of shoulder blade to front of shoulder blade
- ▶ Line II from shoulder blade in front to elbow

- ▶ **Impact on:**

Stride length
Endurance
Jump height
Body cushioning



Shoulder height

- ▶ Tip of shoulder blade not highest point on dog's back
- ▶ **Effects on:**
 - Head posture
 - Neck tension
 - Extension of the forequarters
 - Stride length of the forelegs
 - Tricks such as crawling, crisscrossing paws etc.



Upper arm length

- ▶ Shoulder blade and upper arm should be the same length.
- ▶ Upper arm shorter:
Does not place front paws under centre of gravity,
strains elbow and surrounding muscles.

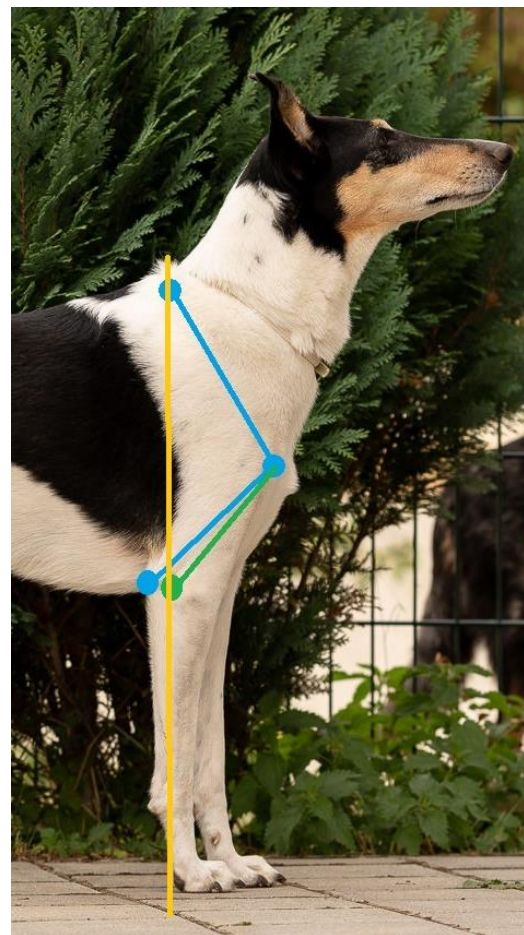
Effect on:

- endurance

- ▶ Upper arm longer: sternum usually sits too high
Carrying the head low is more difficult

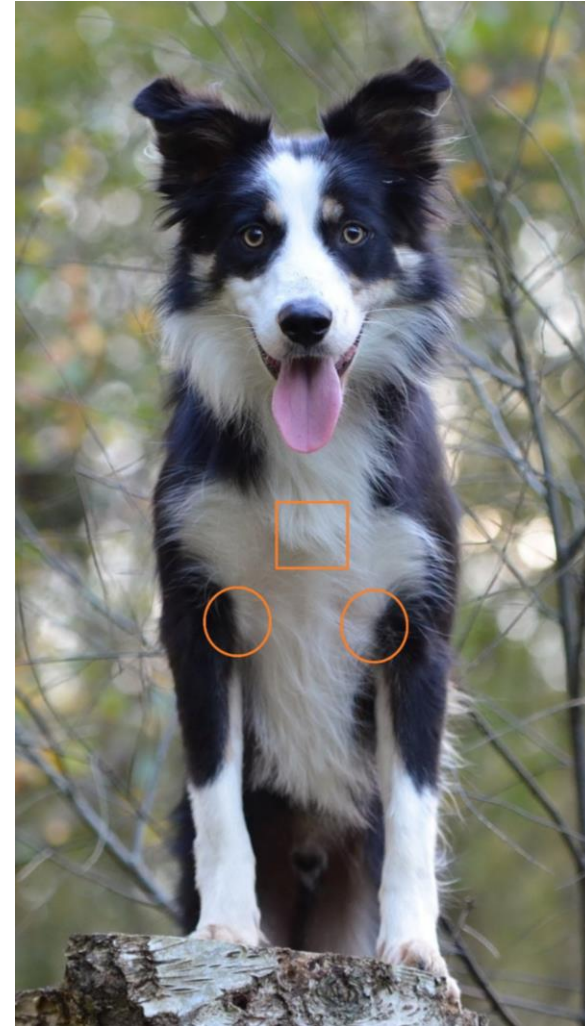
Effect on:

- Execution of tricks where head is held low



Elbow

- ▶ The elbows should be located at the end of the chest
- ▶ Often little pronounced sternum.
- ▶ Loosely crawl to see how much "play" there is.
- ▶ **Effects on:**
 - Stability of the whole forehand
 - Jumps
 - Crawling movements
 - crouching



Front: Metacarpus

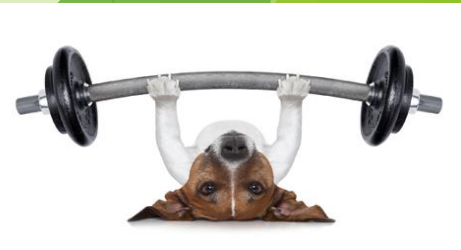
- ▶ Shackles as the last shock absorber

- ▶ **Impact on:**

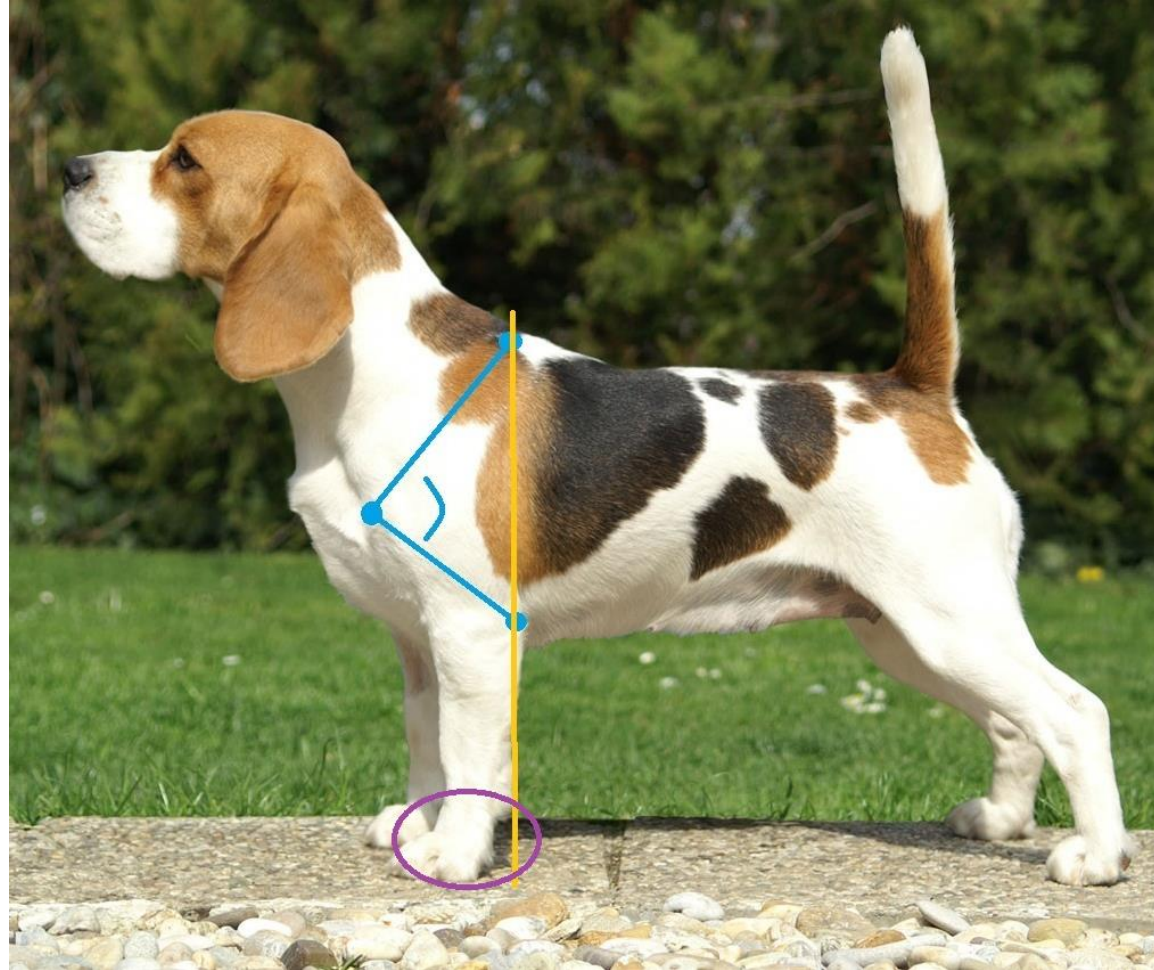
Pasterns too long/flexible: loss of strength, instability

Pasterns too short/straight: insufficient cushioning leads to higher load on other structures

Pasterns too oblique: too flexible, Susceptibility to injury (ligaments etc.)



Plumb line through the forehead



Forehand



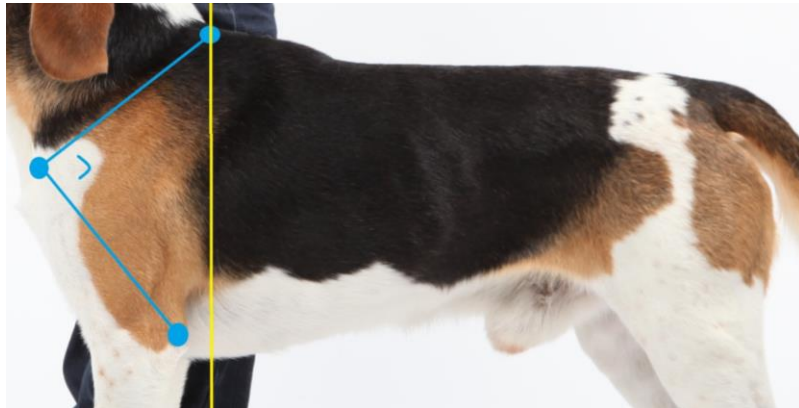
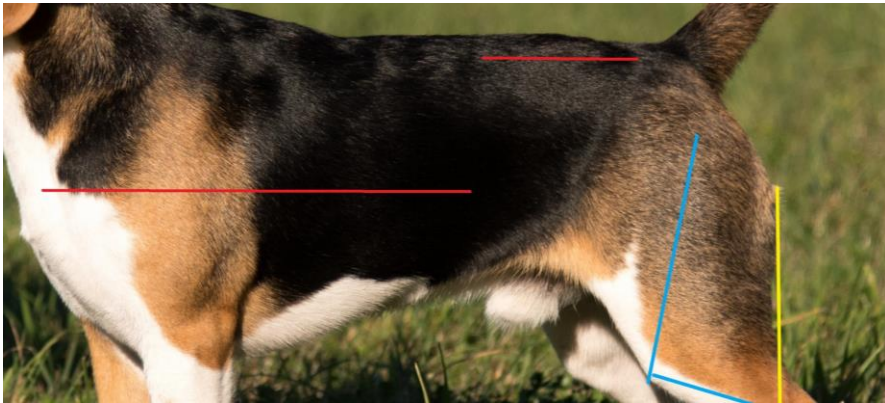
Back length

- ▶ Square:
 - ▶ little susceptible to back problems
 - ▶ Powerhouse
 - ▶ However, often too short lumbar spine: lack of flexibility not very agile (Slalom, turns etc. don't look that neat)
- ▶ Rectangular:
 - ▶ slightly longer back than stock measure.
 - ▶ Most dogs are rectangular in shape.
 - ▶ Good for speed.
- ▶ "Long and deep":
 - ▶ less fast and less space grip
 - ▶ Perfect companion for hunting on foot



Back length

- **Digression:** The most vulnerable area of the back is the one with the most flexibility: the lower back. Here there are no more rib arches to give support to the construct. If the lower back, i.e. the lumbar spine has $\frac{1}{3}$ of the length of the rib cage, this is ideal. A longer lumbar spine leads to more "play" and hinders the ideal transmission of power from the hindquarters to the front.



- **Video: HTM**



Topline

- ▶ Rough subdivision into 3 categories:
 - ▶ straight
 - ▶ concave (curved inwards)
 - ▶ convex (curved outwards)
- ▶ Concave (curved inwards)
 - ▶ Spine "sagging"
 - ▶ smaller "holes" or complete curvature downwards.
 - ▶ More bulky breeds such as Staffies, Bullmastiffs and Co. are affected.
 - ▶ Susceptibility to back problems
 - ▶ Efficient power transmission to the forehand is prevented → little endurance



Topline

- ▶ Convex
 - ▶ Structure of the hindquarters usually not ideal: Compensation
 - ▶ Reduced possibility of flexion and extension (jumps painful)
 - ▶ Breed standards in greyhounds: Bulging muscular!



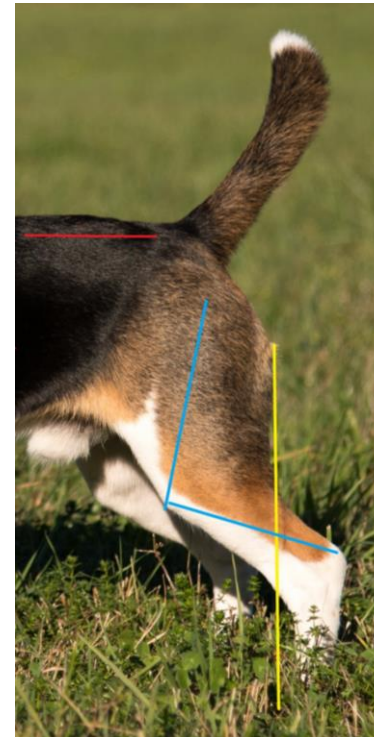
Topline

- ▶ Straight
 - ▶ Ideal for power transmission
- ▶ Special cases
 - ▶ Sloping back line



Hindquarters' angle

- ▶ well angulated hindquarters: strength, endurance and speed
- ▶ Balance line
- ▶ Length from hip to knee and ankle to knee approximately identical
- ▶ Angle between femur and tibia or fibula approx. 90° .
- ▶ Too steep hindquarters:
 - ▶ Premature joint wear, Arthrosis
 - ▶ Redistribution of weight, Back problems
- ▶ Too much angulation:
 - ▶ Little stability, Problems of the lower back and knee
 - ▶ Fast and tight turns difficult
- ▶ Video Power Hindquarters



Knee

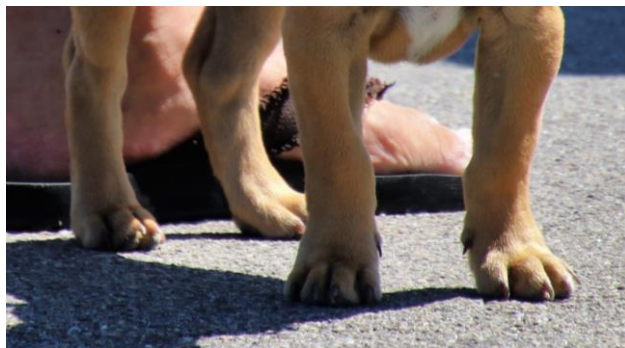
- ▶ Knee joint and patella should point slightly inwards.
- ▶ Twisted knee: reduced ability of this joint to bear weight increased risk of knee injuries and torn ligaments
- ▶ Jumps!

- ▶ Video knee



Ankle joint

- ▶ Stability to the front and side (testable)
- ▶ straight
- ▶ Unstable ankle joint: less strength and endurance
- ▶ Hocks should not be higher than $\frac{1}{3}$ of the dog's hindquarters height.
- ▶ Special cases:
 - ▶ Cowishness
 - ▶ Border collie



And now? As a owner yourself?

- ▶ Knowledge is power!
- ▶ Preventive exercises
- ▶ Warm-Up & Cool-Down
- ▶ Depending on the severity of the structural weakness: draw consequences
- ▶ Do not forget the dog's psyche!



And now? As a judge?

- ▶ Relax! Owner's responsibility
 - ▶ Present the dog in such a way that the presentation highlights its strengths
 - ▶ Yet in higher classes there will be limitations!
- ▶ question:
 - ▶ 2 dogs of different breeds (e.g. pug and labrador) show exactly the same routine?
Which dog should win?



How to judge?

► 4.1 Presentation

- Partnership and cooperation. Ideal co-operation requires the dog to be **attentive** toward the handler at all time and the handler to be attentive towards the dog equally. This should always be achieved without the help of any props, toys or parts of costume.
- The team works together in a positive manner, both parties enjoy working and support each other throughout the routine.
- Flow. The team's work appears **easy and effortless**. There are no unintended breaks between the moves.
- Responsiveness. The dog responds to handling without hesitation. This means, that in addition to paying attention to what the handler is doing, the dog is motivated and **constantly reacts to signalling**.
- Commands and signalling. All the commands and signals that the handler is giving should be **incorporated** in the routine. **Hand signals** should not stand out from the choreography and overall movement of the handler. **Vocal commands** should never be angry or harsh in tone and a louder voice should only be used **when necessary for the dog**.
- Presentation on the day. The dog and handler should perform the routine **fluently** without struggling or obvious mistakes from beginning to end.
- Correct execution of moves. In HTM the heelwork is performed **flawlessly** according to the rules. In freestyle the dog executes the moves consistently, is able to perform the moves and the moves are **well defined** from a clear beginning to a controlled ending.



How to judge?

► 4.2 Content

- Focus on the dog. The handler should never **overshadow** the dog. The main emphasis in the routine is always on the dog or the teamwork. The handler's movement should never attract more attention than the move the dog is doing simultaneously.
- Structure of the routine. The routine must be well planned and have a clear structure. The dog should move throughout the routine, prolonged execution of static poses is not encouraged. Brief stays well incorporated in the routine are evaluated evenly with all other moves.
- Evenly balanced use of the ring. The team uses most of the ring space and moves in different shapes and patterns. Different areas of the ring are used evenly throughout the routine.
- Comprehensive use of the ring. The team should always cover as much of the ring as possible **considering the size and speed of the dog.** Even if a dog is covering a slightly

smaller area of the ring, the ring use should be well and evenly balanced.

- Balanced amount of moves so the routine is interesting but not too packed. The different moves should be performed with balanced emphasis on all of them, **so that none of the moves are used excessively compared to others.** A routine is too packed if the dog **struggles to keep up with the constant transitions.** A heelwork routine should include enough of continuous movement in a position to the chosen direction, so that the quality of heelwork can be enjoyed. The balance between tricks and heelwork performed should be in accordance to the rules of the discipline entered (25-75% or 75-25%). In HTM freestyle tricks only give you additional technical merit if they are used to show the dog's knowledge of the heelwork positions, since heelwork to music is all about presenting excellent heelwork.



How to judge?

► 4.2 Content

- Variety of moves. The routine consists of a good variety of different types of moves. Variety can be achieved through different aspects: height of movement, stationary vs. moving tricks, distance to handler, positioning in relation to handler, speed, different directions in dog movement (backing, side-stepping...) etc. If a prop is included in the routine it should be well used: preferably having the dog perform various moves with it and/or use the prop as an essential part of conveying the theme. The prop should never be used to play with the dog or otherwise reward it. This kind of behaviour will result in substantial deductions. Any physical object brought in the ring by the handler will be considered a

prop. -

- Difficulty of individual moves. The difficulty of moves is considered from the point of view of elements included in the trick. If it consists of several elements that have to be combined into the final move, it is considered more difficult than if it consists of a single element.
- Transitions and links between moves/not a series of disjointed moves. The dog should be able to move from one exercise to another fluently. The routine should be planned so, that there should not be any abrupt stops after the moves. All the transitions should be fluid and all the links should be beautifully included in the routine



How to judge?

► 4.3 Artistic Interpretation

- Visualization of concept. The overall theme or idea and how the team presents it in their choreography. This means the routine can equally consist of a story or a dance theme. These options themselves should be valued equally.
- The idea of the routine should be clearly understandable for the Dog Dancing Judges. This means that the emotional journey of the routine should reflect the music and carry the Dog Dancing Judges through the story even without previous background information.
- The Dog Dancing Judge does not judge whether he knows or likes a certain theme - they judge whether the concept was interpreted.
- The music suits the dog's pace and movement pattern. The music is well chosen to reflect the dog's natural movement, temperament and character.

- Punctuation (notation in the music). The team performs the moves timed well together with the music. If the music has specific accents, these will be punctuated with movement.
- Appropriate handler movement. The handler's movement should enhance the dogs' performance. The handler's movement provides a good background for the dog's movement. The handler's movement is also combined with the music; his movement goes together with the theme, atmosphere and tempo of the music.
- The routine reflects the emotions of the music. The atmosphere of the music is portrayed through the dog's and handler's movement and the overall theme of the routine.
- Proper usage of music. The music chosen should be suitable for family audiences.



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How to judge?

- ▶ 4.4 Animal Welfare
- ▶ The routine emphasizes the qualities of the dog (breed, personality, physical abilities, mental abilities etc.). The handler has considered the dog's body structure and temperament while choosing the moves. The dog's physical and mental characteristics are portrayed in a good light in the routine.
- ▶ Health and safety of the dog. When putting together a routine, the handler has considered the capabilities of the dog and does not demand of it anything that would cause it harm or discomfort. The dog is physically and mentally able to easily perform all the moves asked. None of the moves are repeated excessively or performed for substantial periods at a time. The handler has also considered the surface of the ring and the speed of the dog: if the floor surface doesn't allow performing some move safely, the handler has removed it to adjust the routine to the conditions available. Moves don't look wobbly or unstable. The dog looks in control of its body and movements at all times.
- ▶ Props are stable and without any danger so that the exercises can be performed safely.
- ▶ The handler's costume and the handler's movement are also safe for the dog. The dog doesn't show signs of excessive stress or significant signs of physical exertion. It is important that the Dog Dancing Judges be able to differentiate when a dog is over-excited and happy from when the dog is over-excited and stressed and begins to struggle in their confident performance.
- ▶ Partnership. If the dog struggles in any way during the routine, the handler must offer him support without delay. Companionship is reflected in the atmosphere of the team working together; there is nothing harsh or forceful about the handling, and the team portrays mutual respect towards one another. In the case of injury: if the dog is injured during the routine, the head judge can stop the routine. The panel of Dog Dancing Judges may discuss on how to proceed in each individual case.



Sources

- ▶ Thanks for the training videos and photos to all involved!
 - ▶ Hastings, Pat: "Structure in Action: The Making of a Durable Dog". Dogfolk Enterprises.
 - ▶ Canine Fitness Evaluation - Debbie Gross
 - ▶ Seminar by Eva Holderegger-Walser and Doris Walder (www.welpenanalyse.com)
 - ▶ CCFT (Uni Tennessee)
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