

# Why you should train and test detection dogs ‘double-blind’

## What is this note about?

This note provides advice about how to ensure that the detection dog is not responding to unintentional cues by training and/or testing using the double-blind technique.

## Who is this note relevant for?

Personnel responsible for training and testing detection dog capability.

## Introduction

- Trained detection dogs are extremely sensitive to subtle and unintentional cues from their handlers and observers. Often the handlers and observers are unaware that they are providing these cues.
- If detection dogs are always trained and tested under conditions where a handler/observer knows the location of a target item. The dog may become reliant upon following those cues rather than its nose. This may impact searches where handlers are unaware of target item locations for example, during operational deployments.

## What are cues?

Cues are signs or ‘stimuli’ that let the dog know that something is about to happen.

E.g. If when you pick up your dog’s lead, the dog anticipates you are about to go for a walk, seeing you with the lead is a cue for a walk.

During training, we purposefully provide some cues to our dogs to get the response that we want. For instance, a dog can be taught to “sit” by learning that after you give the “sit” command, the dog can earn a reward for sitting.

Often during training, people also provide cues unintentionally. Dogs may learn to respond to them without people even realising they are providing them. A famous example of this is “Clever Hans”.

Clever Hans was a famous horse in Germany in the early 20th Century that appeared to be able to count by tapping his hoof on the floor. Double-blind testing, where the audience and handler did not know what the answer to a question should be, proved that Hans could not actually count but was relying on the handler and audience to find the correct answer. Hans was responding to very subtle cues (almost unnoticeable movements) that his handler and the audience provided when he had tapped his hoof the correct number of times. A psychologist called Oskar Pfungst discovered that people involuntarily provided these cues, even if they consciously tried to suppress them.



Clever Hans with his owner, William Von Osten ([www.kryptozoologie.net](http://www.kryptozoologie.net))



Oskar Pfungst teaching Clever Hans ([www.wikipedia.org](http://www.wikipedia.org))

## What sort of unintentional cues might occur when training search dogs?

Similar effects can be seen when training search dogs if people in the area (the handler, instructor or other observers) know where training targets have been hidden.

### Examples of unintentional cues

- Observers orientating their body or gaze direction towards where the target is hidden;
- Observers becoming quieter/more attentive when the dog is near the target;
- Observers getting nearer to the dog when it is near the target;
- Disturbance odours deposited around where the target is hidden;
- Observers reaching towards their dog toys/dog treats when the dog is near the target;
- Small (almost imperceptible) body movements, such as a relaxation of the shoulders.

It is common for observers to know where targets are hidden during the training or testing of search dogs, so that the dog can be rewarded immediately for correct indications.

## How do unintentional cues affect the performance of search dogs?

If a search dog is always trained and tested in an environment where at least one person (the handler or somebody watching the search) knows where the target is hidden, the dog may begin to rely upon unintentional cues (such as those described above) to help him find the target. This will cause a problem when conducting operational searches for hidden targets where the dog and handler are searching alone. The handler does not know where the target is hidden and therefore the unintentional cues are no longer available.

## What is single-blind training and testing?

Currently, most routine training is conducted using single-blind training or testing (SBT). SBT means that the **handler** does not know whether or where a target is hidden during training or testing searches but an observer (usually the person who set up the hide) does. If the dog indicates correctly, the observer will immediately let the handler know the dog is correct and the dog can be rewarded.

### Single-blind training and testing

Advantages	Disadvantages
Prevents dogs becoming reliant upon cues from their handler	Doesn't prevent the dog from receiving cues from observers
	Presence of observer can become a cue E.g. if training is always conducted with the same instructor the dog may not expect to find a target when the instructor is not present

## What is double-blind training and testing?

Double-blind training or testing (DBT) means that the person who placed the target is not present during the search, and none of the observers or the handler knows whether/where a target is hidden. **DBT is the most effective way to train a dog to rely solely on its sense of smell to detect a hidden target.**

It may not be practical to train or test under double-blind conditions on every search, but it should be done whenever possible to ensure that the dog is relying on its sense of smell to find targets and not becoming reliant upon unintentional cues.

## How do I train or test double-blind?

DBT is a standard part of odour ID testing (see the “Canine Odour Discrimination Test” [1] guidance note) where the observer must turn away from the search or can be hidden behind a screen. If dogs are not trained to conduct the odour ID test under double-blind conditions, they may fail when they are tested under double-blind conditions because they have become reliant on cues from their handler or the observer.

### Achieve double-blind conditions by:

- Keeping observers out of sight, e.g. behind screens or in another room;
- Using video cameras;
- Using mobile phones or radios to confirm whether an indication from the dog is correct (provided their presence / use would be normal, i.e. not a clue in its own right);
- The handler confirming that the training target is there when the dog indicates (e.g. open cupboard door to visually check that the training aid is present before rewarding dog).

## Associated Guides and Information

[1] Canine Odour Discrimination Test DSTL/ PUB89074

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