

PROGRESS REPORT



Does Lifetime Activity Influence Cognitive Aging?

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SUMMARY: Researchers are studying if a dog's activity level or "job" during their lifetime influences cognitive declines later in life.

THE PROBLEM: Dogs are living longer and subject to many of the same diseases affecting elderly humans and as in humans, aging takes a heavy toll on dogs. They lose interest in their surroundings, become forgetful, and sometimes they cannot recognize their owner. There is ongoing research about the exact nature of how dogs get old and what could we do to make it less tragic for our elderly dogs.

THE PROJECT: In this project, the research team will investigate whether the various working dog breeds show similar signs of aging. There is a chance that independent workers (such as terriers, or sled pulling dogs) age differently compared to the cooperative breeds (such as herding dogs or retrievers). Another important detail is whether the dogs have performed sports activities throughout their lifetime or not. The team will also compare the behavior between older dogs who were active in sports with those who lived without organized activities. They predict that not only the activity a dog is provided with, but the type of sport, will affect the dogs' old age condition. There is a chance that particular dog breeds benefit differently from sport activities, depending on how appropriate the given activity is to the original purpose of that particular breed.

PROJECT UPDATE: The team has published its first scientific article from the questionnaire sub-project in the journal *Frontiers in Veterinary Science*. The paper is open access and can be reached through this link:

<https://www.frontiersin.org/journals/veterinary-science/articles/10.3389/fvets.2026.1833531/full>

The team reports that they have invited 200 senior dogs to do the cognitive test battery, with 112 dogs, representing 51 breeds, now tested. Their target sample size is 132 dogs, which they feel will be reached soon.

In another study aim, the social learning (V-detour) experiment, they have tested 85 dogs. The target sample size is 88 dogs, which the team has great confidence they will achieve.

In their final study aim, the unsolvable task experiment, the team has tested 88 dogs and have reached their target number.

In the next 6–12 months, the team will finish the data collection and data analysis for each of the three experimental sub-projects. In June, the team is aiming to submit to a peer reviewed journal the manuscript of the grant project about the association between cognitive aging of elderly working dogs with their performance in the 'social learning task'.

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They also plan to submit a publication in the fall of this year, which will be based on the results from the 'unsolvable task' with aging dogs.

And finally, they hope to publish the results of the 'Cognitive Aging Test Battery'.

The team is also actively working to attend conferences and present their findings.

POTENTIAL IMPACT: The team hopes their results could help many dog owners, dog breed clubs, and professionals to make the right decisions well ahead of time, for a more effective prevention of old age decline in our canine companions' mental wellbeing.

Thanks to the generous sponsor of this study!