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How Time with Dogs Affects Our Brains

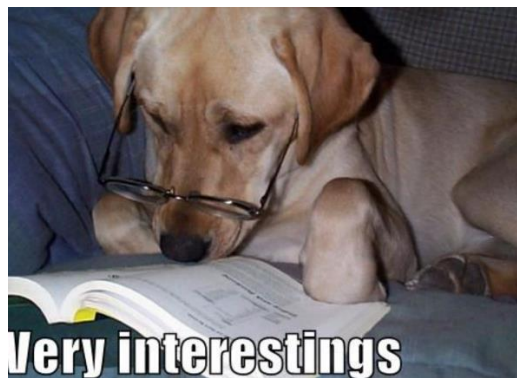
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Psychology 303: Research Methods

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How Time with Dogs Effects Our Brains

“Dogs in particular are often said to be mood-boosters—companions that show unconditional love, are loyal and affectionate, and provide opportunities for exercise and play.” (Bonior, 2024) This would explain the well-known expression that a canine companion is known as a “man’s best friend.” This paper will be outlining some key findings to decide whether a dog in particular is (or is not) able to alter our mood regulations, and how spending time with our furry companions can affect our brains in general. Dogs are often used for their relief in high stress situations and locations such as schools, clinical settings such as hospitals and in particular cases even correctional facilities. The need for a dog’s presence is to relieve present tension and stressors within people. Though there are other pet options, dogs are known to be more active with their owners and in some people’s opinions, (meaning my own) dogs can seem more affectionate and genuinely always want to be around you so they are the superior companion.

Until just recently, there was no clear evidence that dogs had an actual effect on people, it was mainly just speculation based on how people felt before owning and being in contact with a dog versus how they felt after either owning or being in contact with one. Now, there is research and a study we will be exploring to show and further prove that the two may have more correlation than someone may think. A recent study was conducted that categorized eight different interactions participants and dogs would complete together and the effects each of these interactions would produce within our brains. The interactions included meeting the dog, playing with the dog, feeding the dog, massaging the dog, grooming the dog, taking photos of the dog, hugging the dog, and walking the dog (Bonior, 2024). How the experiment works is a group of thirty different participants with an average age of twenty-eight were required to participate in these interactions with the dogs while simultaneously connected to an EEG. An EEG or a (Electroencephalogram.)

is a method of measuring activity in the brain via small metal discs known as electrodes. The electrodes are connected to the scalp and are able to record activity from within the brain. Can't imagine anything better than interacting with a dog whilst having twenty wires attached to your scalp, right?



After the series of interactions, the participants were asked to record how they were feeling afterwards. What was found were different for the types of interactions, the results of the interactions illustrated that during the interactions such as walking or playing with the dogs, the participant was relaxed and at a standard state. The interactions though such as the grooming, massaging the brain was shown to be concentrating but in a stressless way. Alongside the results of the EEG, the participants were also told to record how they were feeling and their current mood after the interaction. “The mood assessment showed that the participants recorded significantly lower levels of fatigue, depression, and stress after all of the different types of interactions with the dog” (Bonior, 2024).

The following information is a continuation of the article summarized before but will be diving further in depth. The information provided will be derived from the original article from the study discussed previously in the text. “Several studies have reported the physiological and emotional benefits of interactions with animals, especially dogs. Interaction with dogs increases oxytocin concentrations, decreases cortisol levels and reduces the risk of cardiovascular disease.

Interaction with animals also reduces stress reactivity, anxiety, and behavioral distress and is considered an effective treatment for mental and behavioral disorders” (Yoo, et al. 2024). There are very few studies like this that keep track of particular interactions with dogs and the specific effects that the interactions had on people. Not only did this analysis observe psychophysiological responses (the EEG’s), but it also observed overall mood via questionnaires after the interactions. To be clear, the test subjects (also known as the participants) were only asked NOT to have caffeine or smoke three hours prior to the experiment so it would not change the stimuli within the brain that they were trying to measure. Other requirements to be in this analysis was to not have any ongoing history of cardiovascular diseases, such as high blood pressure, unstable angina, heart attack, heart surgery, psychopathological diseases, who took related drugs, or who were pregnant or lactating (Yoo, et al. 2024). Like mentioned prior, the outcome of this particular study, human participants interactions with a dog suggests that the interactions done such as walking, grooming, feeding and overall being in contact with a pooch has an overall benefit and positive effect on the brain within healthy participants.

Me: I'm so unhappy
My therapist: Did you try hugging a dog?



Along with this particular study described beforehand, there are numerous different articles and journals stating similar thoughts and conclusions about dogs and their positive effects on us

mentally. “Understanding the impact of dog ownership on autistic adults: implications for mental health and suicide prevention” (Barcelos, et al. 2021). It describes that dogs can be beneficial to those that struggle with suicidal thoughts and those who also happen to have Autism. Within this research, participants were gathered from Facebook groups and other Autism groups, they had to be over the age of eighteen and had to have a pup themselves to be involved with the interviewed sample. In this specific case, the participants (those who struggle with Autism and their mental health) were interviewed about their feelings and if their dog has in anyway impacted their mental health and suicidal tendencies. “Shared interactions with the dog (567 mentions, 45.6%) was the theme of activity most frequently described to impact participants well-being, being followed by looking after the dog” (Barcelos, et al. 2021). Similarly to the first article, this article concludes that shared interactions between these different people and dogs had a positive impact on people’s wellbeing and mental health.

To conclude and further validate the argument that dogs *can* affect our brains and mental stability for the better, let’s take a further look into the “Mutuality and Well-Being: The Human-Animal Bond” (Betz King, et al. 2023). Another study was done to receive information from dog owners that specifically determined if them being a dog park member was beneficial to their personal well-being. Participants were asked within a private dog park if they would like to be involved in the research. The research was done by presenting the participants with a survey like questionnaire to gather information about their outlook on their life. Questions that were asked were associated with rating one’s life satisfaction and had to be answered on a scale from 1-7, 1 being “strongly disagree” and 7 being “highly agree.” “Flyers inviting members to complete SWLS were placed at the park entrances and exits. A QR code on the flyer allowed members to use a mobile phone camera to access the survey, and the survey URL was also listed on the poster.

In addition, “regular members” known to attend almost daily were invited to give open ended qualitative interviews” (Betz King, et al. 2023). Looking at the results of the survey, forty-four people completed the survey and the results showed that 70% of people felt highly satisfied within their lives and overall had higher ratings within their survey’s. For the regular member interviews, there were common responses provided. These responses were “community, canine well-being, human mental health benefits, human physical health benefits and fights, falls, and frustrations.” (Betz King, et al. 2023).

Community	Canine well-being	Human mental health benefits	Human physical health benefits	Fights, falls, and frustrations
1. Friendship	1. Exercise	1. Belonging	1. Exercise	1. Dog fights
2. Belonging	2. Socialization	2. Improved mood	2. Weight loss	2. Human injuries
3. Advice seeking	3. Resource sharing	3. Stress reduction		3. Lack of adequate water and shade

Aside from the negative aspects of fights, falls, and frustrations, those who belonged to the dog park were satisfied with the effects it had on themselves, but their pets as well.

Finally, to wrap up the main ideas analyzed in each of these four articles described, dogs overall tend to have a positive influence on people. Whether it’s from the dog relieving stress directly, or if it’s from dog related environments such as a dog park. Although there are very few studies actually testing psychological effects of being around a canine companion, there is physical evidence from our first and second article that the participants were more at ease and stress-free while participating in dog related activities. Lastly described, dog parks tend to provide a stress-free environment to those who attend and can be a social environment where other stressors can be decreased.

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