

先端科学技術研究科 修士論文要旨

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論文題目	Experimental approach and dynamic network analysis for dog's social structure analysis イヌの社会的構造分析のための実験アプローチおよび動的ネットワーク分析		
要旨			
<p>Dogs play important roles in human society as companion animals or working dogs, e.g., guide dogs, rescue dogs. with their high social cognitive abilities.</p> <p>Dogs acquire social cognitive abilities to interact with human beings in their developmental processes. However, it is still unclear whether a mother dog mediates adaptation of her young offspring to human. The purpose of this study is to verify the mediation effect of a mother dog.</p> <p>We compared the distances between the owner and the young dogs between the condition with the mother and that with the other adult dog (control condition).</p> <p>As results, we found that the distance between the owner and young dogs under mother condition was smaller than that of the control condition.</p> <p>This result suggest that the mother dog mediates adaptation of young offsprings to human society. Since the distances at multiple times have been averaged in our study, there is a possibility that our result cannot detect the dynamic change of relationship.</p> <p>I would like to propose a new approach using dynamic network analysis.</p> <p>We compared the existing method and the proposed method using artificial data and actual stray dog data.</p> <p>As a result, the accuracy of cluster division was better in the proposed method than in the existing research for both artificial data and the stray dog data.</p> <p>Our result suggest that this flexibility is actually beneficial in dynamic community detection.</p>			