

SOCIAL CONTAGION AS A POTENTIAL MECHANISM FOR TRANSMISSION OF SOCIAL CULTURE IN COMMON MARMOSETS

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We aimed to investigate whether social contagion, through neighbor vocalizations, could be demonstrated in marmosets, and whether this could facilitate changes in social culture (here conceived as the performance of species typical behaviors to an unusual extent within particular social groups, Sapolsky, 2006). Possible mechanisms for change in social culture of this type have not been directly investigated. For captive New World monkeys, *Callithrix jacchus*, we investigated whether there was an influence of affiliative and aggressive neighbor vocalizations on the behavior of nearby individuals. We found that marmosets performed intergroup aggressive behavior (bristle, anogenital present) for significantly longer, and emitted significantly more intergroup agonistic vocalizations (twitter; loud shrill), at a high frequency of intergroup agonistic neighbor vocalizations (twitter; loud shrill) than at low. High neighbor intragroup agonistic calls (chatter) were associated with significantly longer time spent by marmosets in related behavior (attack, chase, steal food). Affiliative behaviors (share food, grooming invite) were engaged in by marmosets for significantly longer at higher frequencies of affiliative neighbor chirp calls than at low. Our findings suggest that marmoset social behavior is indeed influenced through social contagion by neighbor vocalizations. We then investigated whether long-term playback of marmoset affiliative calls would lead, via social contagion, to a significant increase in rates of affiliative behavior within social groups. Results of this study have implications for captive welfare as well as for social cognition.

Keywords: *Callithrix jacchus*; social culture; social influence; vocalization.