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Abstracts

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when an individual perceives that a valued relationship is threatened by an interloper: it is expressed by negative affective responses and behaviors directed at regaining attention and care from a significant social partner. Adapting a paradigm from human infant studies, we assessed the presence of jealousy-related behaviors in a realistic triadic social context testing 13 dog dyads living together. Owners were instructed to, at first, ignore both dogs and then direct their attention exclusively towards one dog, while ignoring the other. Eleven mutually exclusive behaviors and 3 non mutually exclusive behaviors were recorded. When the owners cuddled the companion dog, the ignored ones engaged in jealousy-related behaviors including monitoring the interaction (100% of dogs), attempting to disrupt the interaction acting on the owner (i.e. pushing, gently biting and nudging the owner or placing themselves between the owner and the other dog; 73.1%) and attempting to disrupt the interaction acting on the other dog (38.5%). There was a significant difference in the duration of these behaviors ($p < 0.001$), with dogs spending more time monitoring the third-party interaction than trying to disrupt the interaction acting on the owner or on the other dog. There were individual differences in the exhibition of jealous behaviors suggesting that dogs, like children, may have different coping strategies when exposed to a jealousy evoking situation. Current findings show that dogs exhibit jealousy behaviors in a realistic social context, supporting the emerging view that secondary emotions are not necessarily restricted to humans and other primates.

Keywords: dog-human interaction, emotions, jealousy

12.40 MIMICKING THE FEMALE TO CHEAT ANOTHER MALE: THE RIVARLY STRATEGY OF A LEAFHOPPER

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When sexually receptive females are scarce, males compete to increase the possibilities to mate. Male-male interactions exploit species-specific communication and involve aggressive or ritualized behavior. In leafhoppers, a well-studied model for vibrational communication, all stages of pair formation (i.e. identification, location and courtship) and male rivalry interactions are mediated mainly by vibrational signals. We described the intraspecific communication of the glassy-winged sharpshooter (GWSS), *Homalodisca vitripennis*, which is an important leafhopper pest of grapevines in Southern USA. The description of the pair formation and associated signals of the GWSS revealed a complex system involving the emission of three male and two female vibrational signals that convey specific information to identify, locate and court the partner. Behavioral analysis of trials with two males and one female revealed a peculiar male rivalry behavior that involved the emission of three different rivalry signals. We found that two rivalry signals specifically mimic female signals and are used by the rival male to replace the female in the duet with the first male. The effect of this is that the first male starts a duet and establishes communication with the rival male. Only when the two males are in close proximity the third rivalry signal is emitted and a vibratory duel takes place until one of the males stops signaling. Data suggested that rival males used mimicry to interrupt the ongoing male-female mating duet and hostile signals are employed in a ritualized behavior to exclude a rival and gain access to a female. This is the first report, in both vibrational and acoustic communication, of such a use of a female mimic strategy.

Keywords: vibrational communication, mating behavior, rivalry