

P252 Acoustical basis of human emotion assessment of conspecific and dog vocalizations

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Human non-verbal vocal bursts are evolutionary conservative emotional expressions. Humans can easily assess inner states of conspecifics based on these calls. Moreover, they can attribute emotions to non-human animal vocalizations too. However, whether the same acoustic cues are used to assess emotional content in conspecific and non-conspecific vocalizations is not clarified yet.

To test this, we compiled a pool of 100-100 various dog and human non-verbal vocalizations from diverse social contexts, and designed an online survey, in which every sample could be rated along emotional valence and intensity. We also measured within each sample the average length of calls, the fundamental frequency and the harmonics-to-noise ratio.

While valence ratings did not differ across species, human vocalizations were less intense. Linear regressions revealed that both shorter dog and human calls were rated as more positive. In contrast, subjects scored higher pitched human and dog sounds to be more intense. We also found dog vocalizations with shorter call length or with higher HNR were rated less intense.

In conclusion, acoustical parameters affected humans' emotional ratings independently from the source species of these vocalizations. These findings suggest that humans utilize the same mental mechanisms for recognizing conspecific and heterospecific vocal emotions.

P253 Polyspecific communication and association: birds and lemurs

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Some species in co-evolved communities may rely on others to access resources or avoid predation, with knock-on effects for their survival if the dynamics of mixed groups are changed. I used a controlled playback experiment to test responses of ring-tailed lemur (*Lemur catta*) and Verreaux's sifaka (*Propithecus verreauxi verreauxi*) to the following bird calls in different habitats: Madagascar magpie robin (control), green pigeon, white headed vanga and a crested drongo alarm call. The research was carried out at Berenty reserve in the south of Madagascar. Calls were presented in a counterbalanced order to 22 different troops of

lemurs, and I used instantaneous group scans to record lemur behaviour prior to and after playback. Preliminary data suggests the strongest pattern for both lemur species was in response to the drongo alarm call. Significant differences from the control were also found in the responses to the green pigeon but these were context and species dependent. I also investigated whether there is any evidence of interspecific association between the two lemur species and specific bird species, and explored the function and habitat context of any associations found.

P254 Presleep chorusing and unusual vocalizations at night in captive bottlenose dolphins

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Diurnal animals produce sounds at night. In roosting species, high vocal activity at roosting sites may be a prerequisite to sleep, suggesting a role of chorusing in coordinating resting. In other species, vocalizations during sleep are commonly reported, which in humans correspond to dream contents. Dolphins' nocturnal vocal activity has been rarely investigated. This animal model is interesting because: dolphin resting behaviour is associated with social synchrony (formation swimming/synchronous breathing), dolphins' daily social activities are primarily mediated by vocalizations, and dolphins are known to mimic sounds of their environment. Therefore, we recorded the nocturnal vocal and breathing activities of a captive group of dolphins. The temporal pattern revealed two peaks of intense whistling, followed by a decrease in vocal activity and low respiration rates, resembling the presleep chorusing in other species. Within the night, we also found non-specific vocalizations, which appeared to be vocal copies of whale sounds broadcast during daily public shows. This suggests a vocal rehearsal of day salient events. These findings are questioning the significance of nocturnal vocal activity in dolphins as, contrarily to most previous reports, these productions are clearly outside a feeding context. They shed new light on the potential cognitive/social significance of auditory communication.

P255 Neighbour-stranger discrimination and the trade off between repertoire size and within-song type variation

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