

INFLUENCE OF INTER-INDIVIDUAL DISTANCE ON GROOMING INTERACTION IN CAPTIVE CHIMPANZEES AND BONOBOS

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The spatial organization of a set of individuals may reflect the underlying relationships between them. This study investigated whether inter-individual distance, or the proximity between a pair of individuals, predicts the patterns of grooming interactions. The subjects were twelve chimpanzees (*Pan troglodytes*; M = 2, F = 10; age: mean = 34.8, range = 25-45) and six bonobos (*Pan paniscus*; M = 2, F = 4; age: mean = 27.3, range = 13-44) studied since September 2015 and living at Kumamoto Sanctuary (Japan). Proximity, time in contact, and time at less than one meter of all group members were recorded using focal animal sampling. The full temporal organization of grooming patterns was analyzed after *ad libitum* video records of the interactions. A pair of individuals that spends more time in close proximity was predicted to (i) show a shorter latency to approach before the onset of grooming, (ii) groom sensitive body parts (e.g. face and genitals) more often, and (iii) take turns in grooming more frequently than two individuals that stay far from each other. The results may suggest species-specific or relationship-dependent social tolerance, reflected in both inter-individual distance and patterns of grooming.