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**Supplemental information**

**Population-specific call**

**order in chimpanzee**

**greeting vocal sequences**

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1 **Supplementary Material for “Population-specific call order in chimpanzee greeting vocal**  
2 **sequences”.**

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22 **Table S1:** List of greeting hoot sequences included in the study, related to STAR methods.

Sequences included in the study*
PG_PH
PG_PH_BK
PG_PH_BK_PH
PG_PH_GR
PG_PH_GR_HO
PG_PH_HO
PG_PH_PB
PG_PH_PB_BK
PG_PH_PB_BK_PH
PG_PH_PB_HO_BK_GR
PG_PH_PB_PG
PG_PH_PB_PH
PG_PH_PB_PH_HO
PG_PH_PB_PN
PG_PH_PB_PS
PG_PH_PG
PG_PH_PG_PH_PG_PH
PG_PH_UN_PB
PH_PG
PH_PG_BK
PH_PG_BK_GR
PH_PG_GR
PH_PG_HO
PH_PG_HO_PG
PH_PG_PB
PH_PG_PB_BK
PH_PG_PB_GR
PH_PG_PB_GR_PG_PB
PH_PG_PB_HO_GR
PH_PG_PB_PG
PH_PG_PB_PS_SC
PH_PG_PB_SC_BK
PH_PG_PH
PH_PG_PH_GR
PH_PG_PH_PB
PH_PG_PH_PB_PG
PH_PG_PN
PH_PG_PS
PH_PG_PS_PG_PB_PG
PH_PG_PS_UN
PH_PG_SC
PH_PG_SC_UN

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24 \*Call names abbreviations are: BK: bark, GR: grunt, HO: hoo, PB: pant-ed-barks, PG: pant-ed-grunts, PH:  
 25 pant-ed hoots, PN: pant, PS: pant-ed screams, SC: scream, UN: unknown call type

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27 **Table S2:** Yearly percentage of PH\_PG greeting hoot sequences uttered in each community,  
 28 related to STAR methods.

Population	Community	N. PH_PG	N. PG_PH	% of PH_PG
Taï	East	8	0	100.0%
		10	5	66.7%
	North	8	0	100.0%
		5	0	100.0%
		21	5	80.8%
	South	1	0	100.0%
20		4	83.3%	
Budongo	Sonso	1	11	7.1%
		0	7	0.0%
		0	2	0.0%
		1	9	10.0%

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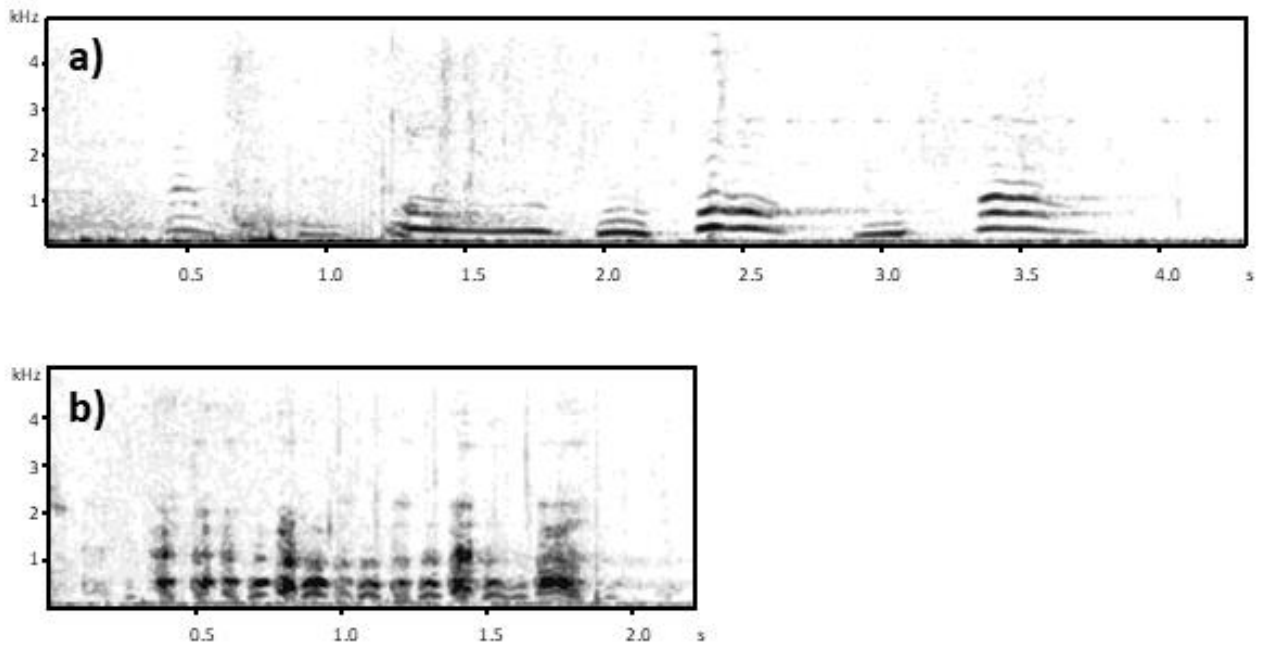
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37 **Figure S1:** Spectrogram of **a)** pant-hoot (PH) and **b)** pant-grunt (PG) produced alone ( i.e., not in a  
38 sequence), related to STAR methods.

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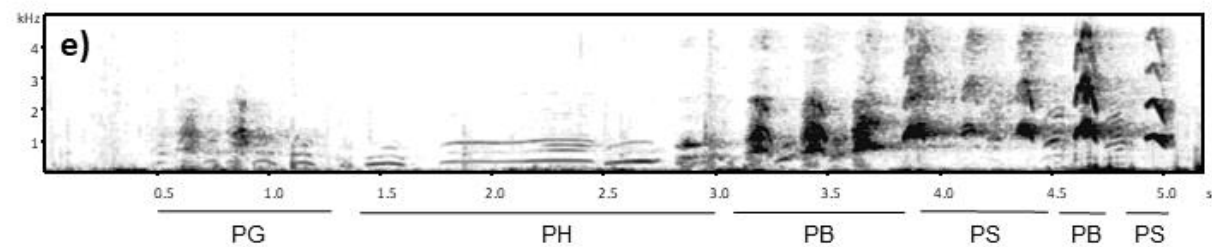
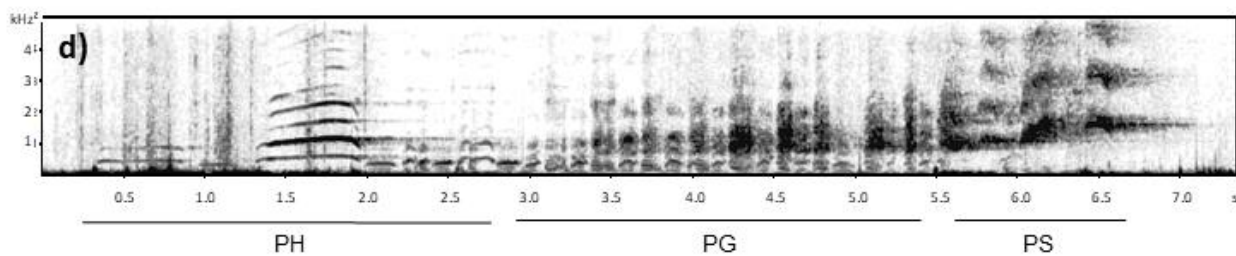
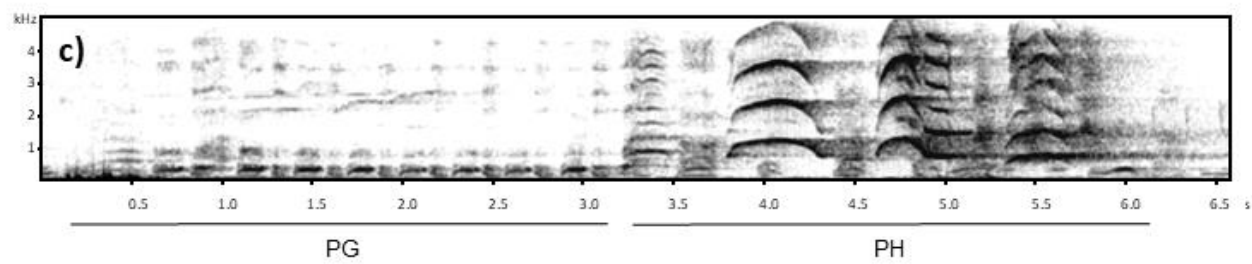
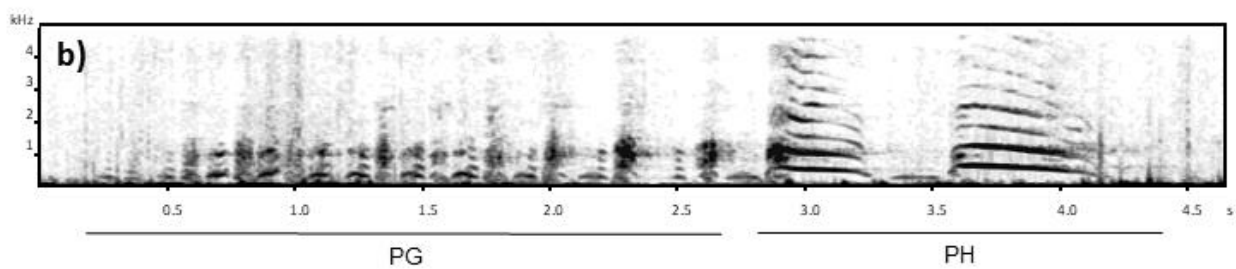
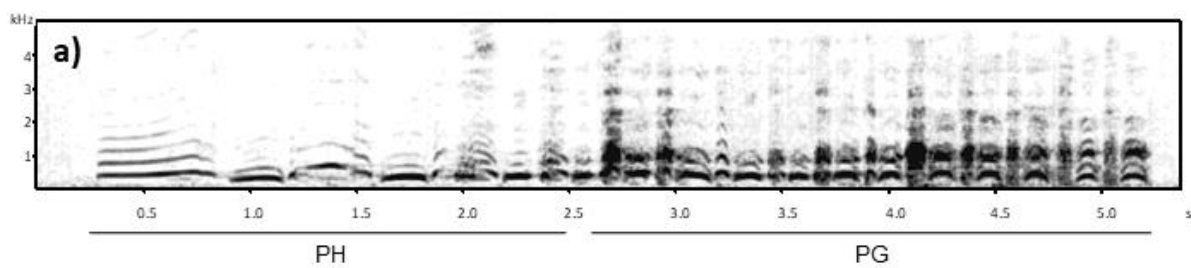
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50 **Figure S2: Examples of spectrograms from greeting hoots considered in this study, related to STAR**  
51 **methods.**

52 **a)** PH\_PG sequence from a female in Tai East, **b)** PG\_PH sequence from a female in Tai North, **c)** PG\_PH  
53 sequence from a Male in Budongo, **d)** PH\_PG with the addition of a panted screams (PS) at the end of  
54 the sequence from a Male in Tai North, and **e)** PG\_PH and the addition of panted barks (PB) and panted  
55 screams (PS) from a female in Tai North.

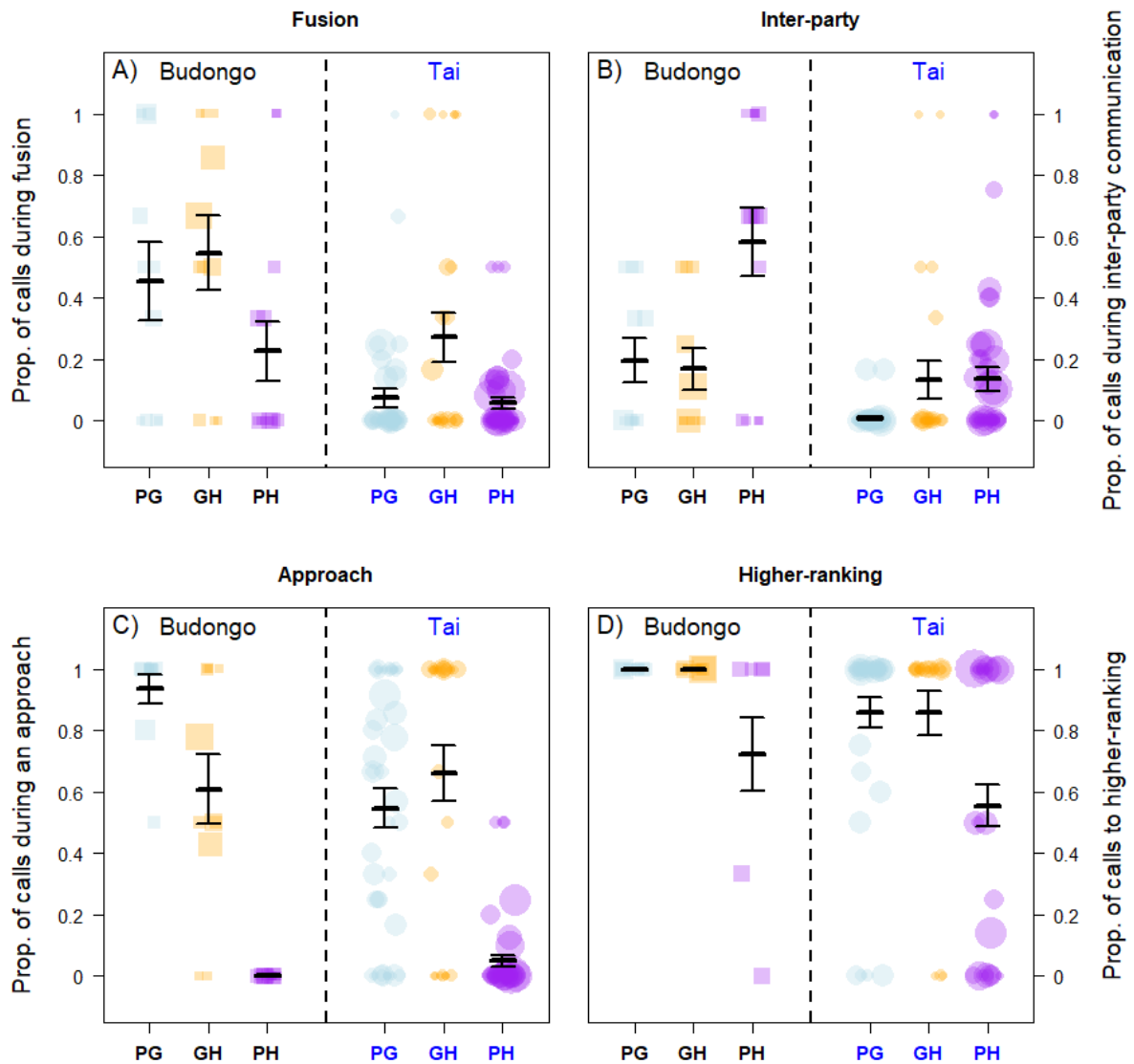
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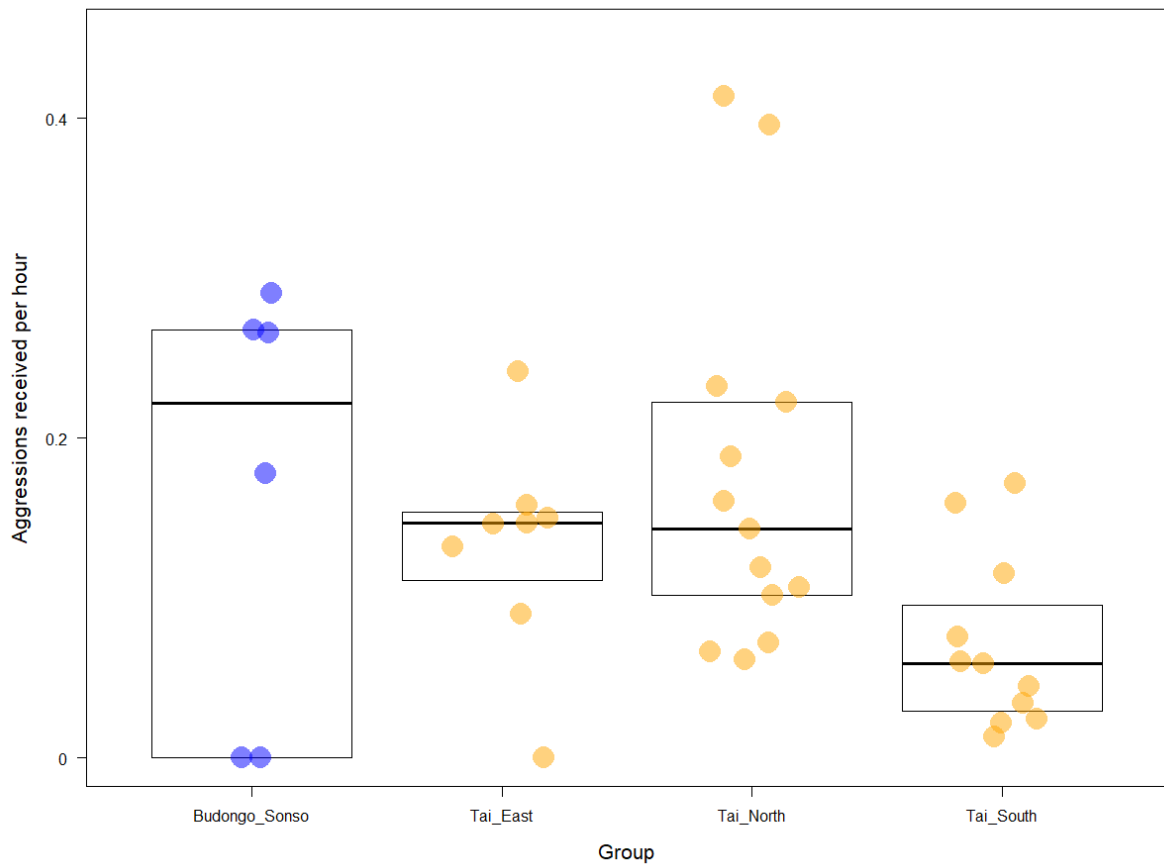
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62 **Figure S3: The contexts of production of the bigram, greeting hoot, compared with its component**  
 63 **parts produced singularly, pant grunt and pant hoot, in Tai and Budongo chimpanzee populations,**  
 64 **related to Figure 2.**

65 The four contexts of interest are depicted across the four panels from top left to bottom right: A)  
 66 fusion, B) Inter-party communication, C) Approach, D) Caller directed to a higher ranking recipient.  
 67 Pant-grunts (PG) are depicted in blue, greeting hoots (GH) in yellow and panted-hoots (PH) in purple.  
 68 The Budongo chimpanzees (one community) are depicted on the left of each graph, the Tai  
 69 chimpanzees (three communities) are depicted on the right of each graph. Each dot represents one  
 70 individual chimpanzee and the size of the dot is proportional to the number of calls recorded for this  
 71 individual. The thick line depicts the mean proportion of each context for each call and the upper and  
 72 lower bars the SE.

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77 **Figure S4: Variation in the rate of aggressions received across four chimpanzee communities, related**  
78 **to STAR methods.**

79 Eastern Budongo chimpanzees are depicted in blue and Western Tai chimpanzees are depicted in  
80 orange. Each dot represents one individual chimpanzee. The boxplot depicts the median (thick line)  
81 and the 25% and 75% quartiles.

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