

# Cues to cooperation: accent and synchrony in Brazil

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## Is accent an early guide to social preferences?

with Daniel Haun, MPI for Evolutionary Anthropology

## Do synchronous behaviours create social bonds?

with Roger Mundry & Sebastian Kirschner, MPI for Evolutionary Anthropology

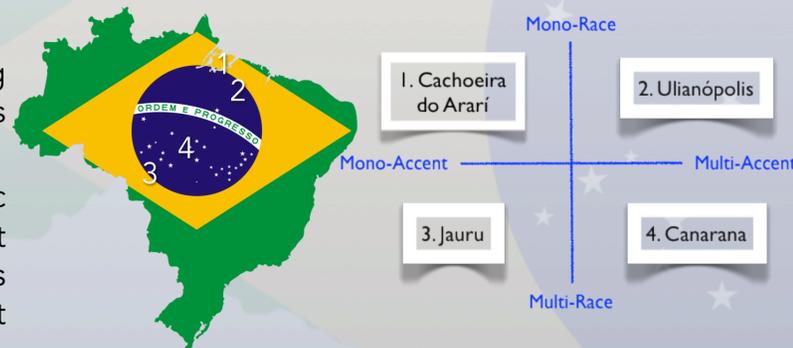
### 1. Intro

US children raised in white, monolingual families prefer native-accented speakers as friends. Accent trumps other salient cues to identity, such as race, in guiding children's social preferences. These findings have prompted the proposal that evolution favoured accent as a reliable trait, or "tag", guiding social assortment, cultural learning and cooperation.

### 2. Studies

We investigated friendship and sharing preferences in 5-10 year old children across four sites in Brazil.

Our "natural lab" allowed for systematic comparison of children's development across mixed and single race environments and mixed and single accent environments.



### 3. Method

Study 1: Participants ( $N=286$ ) chose between a local-accented puppet and puppet with a Madeiran Island (European) accent.

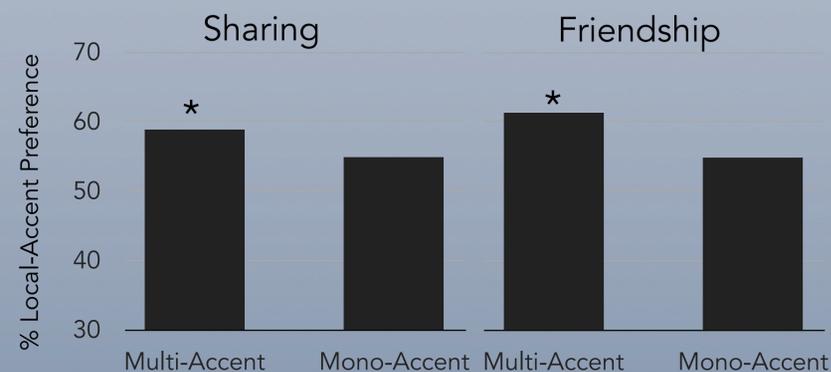
Sharing: Participants had the option of gaining a sweet and giving a sweet to either the local-accented or the Madeiran-accented individual. Friendship: participants chose the puppet they would prefer as a friend.

Study 2: Participants chose between black, brown (*parda*) and white puppets. In a separate preference test, stimuli combined skin colour and accents (counterbalanced across trials).



### 4. Results (\*Study 2 data not yet analysed)

There was a significant preference for the local-accented speaker in multi-accent sites only.



### 5. Discussion

The priority of accent may not be a necessary component of early developing social cognition.

Future work will explore the mechanisms underpinning variation between sites and their relevance for evolutionary accounts of tag-based cooperation in humans.

### 1. Intro

Shared beliefs about supernatural agents and joint engagement in ritual activities are often proposed to engender cohesion and cooperation within religious communities.

Religiously primed individuals contribute significantly more in anonymous dictator games and accept additional costs in order to punish unfair behaviour of others.

Forms of synchronized group behaviour often encountered in religious practices cross-culturally, such as collective dancing, singing, and drumming are also thought to increase cohesion, liking, affiliation, perceived similarity, and generosity among participants.

### 2. Studies

We investigated relative effects of religious narrative and behavioural synchrony on within-group cooperation and cohesion among drummers in Belém, northern Brazil.



### 3. Method

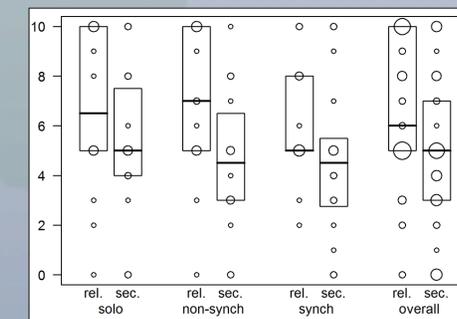
32 adult male participants were subdivided into two between-subjects narrative priming conditions – religious and secular. Each participant took part in solo, group synchronous, and group non-synchronous drumming. Effects of priming and drumming conditions on cooperation were measured via a weak-link economic game.

### 4. Results

A GLMM analysis revealed higher communal-good investments in the religiously primed group compared to the secularly primed group. There was no effect of drumming condition or any drumming-priming interaction effect.

### 5. Discussion

Higher contributions in the religiously primed group might be driven by reputational concerns and beliefs about "watching gods". Synchrony alone did not increase cooperation among participants; higher arousal and shared intention to synchronise may be required also. Future work will explore these factors across a range of synchronous activities, focusing in particular on peak emotional experiences in group sports.



Median economic game contribution per participant (BRL) across Drumming and Priming Conditions.

Horizontal lines show medians and boxes show quartiles. The area of the circles corresponds to the number of participants who made the respective game contributions.