# THE IMPACT OF TIME, AGE AND FREQUENCY OF USE ON RECOGNIZING PERSONAL ITEMS OF OUR CLOSEST ONES: FORENSIC IMPLICATIONS. PRELIMINARY RESULTS

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## INTRODUCTION

Sometimes people have to recognize belongings of close ones that were found in places where, for example, genocides took place. This is done in order to pinpoint a missing person's last whereabouts and in some cases because the family asks to keep with their belongings. To do this, one part of the process is asking the relatives of the missing person to identify the items. However, in some cases (e.g. the missing people during the last Argentine military dictatorship) these procedures have been put in doubt by the legal system in order to prevent errors such as two or more families recognizing the same item as their own and thus to prevent nonsense re-exposure to traumatic memories. To the best of our knowledge, there is a lack of studies evaluating our performance on recognition of clothes from close ones. It is known that our capacity to correctly recognize items depends on various factors, such as age, frequency of item exposure, level of stress, sleep, among others [1-4]. Here, we will discuss preliminary data of how different factors such as time, age and frequency of use modulate the capacity to correctly and falsely recognize personal items of close ones. These results can enlighten and help the everyday practice of organizations such as the "Argentine Team of Forensic Anthropology"(EAAF) to make decisions about the reliability of the clothing recognition by the victim's relatives.

## METHODS

15 People Provided →

**3 "outfits":**
1-Low Frequency
2-High Frequency
3-Characteristic

&

**2 Relatives:**
-Same age (siblings, couples)
-Older (parents)

**Day 1 & 5**

**28 relatives went trough a cloth recognition task**

**Data base of 182 items**

**3 possible choices**

- ✓ "I recognize it"
- ✓ "I'm not sure of recognizing it"
- ✓ "I don't recognize it"

## RESULTS

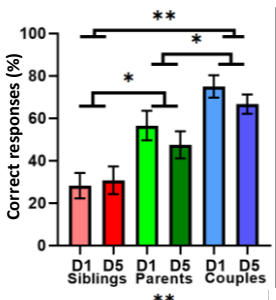
### Closeness

(Siblings n=13, Parents n= 11, Couples=4)

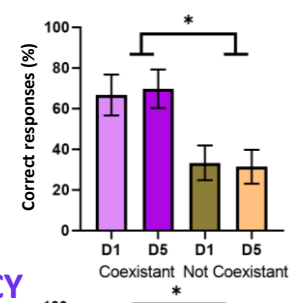
### Coexistence

(Coexistence n=11, Not coexistence n=17)

#### TOTAL OUTFIT

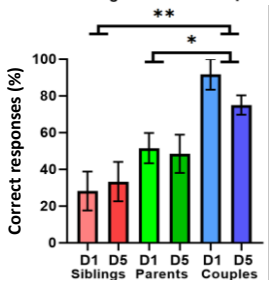



Couples recognized better than parents and siblings. Parents recognized better than siblings.

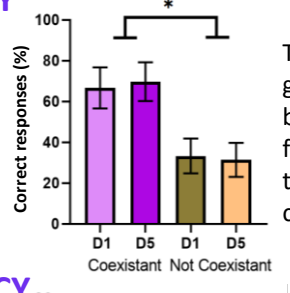



The coexistent group recognized better than the not coexistent group.

#### HIGH FREQUENCY

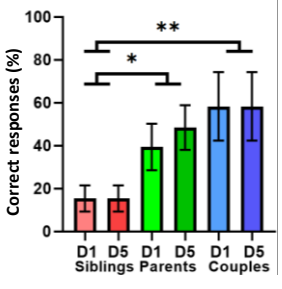



Couples recognized better than parents and siblings the high frequency outfit.

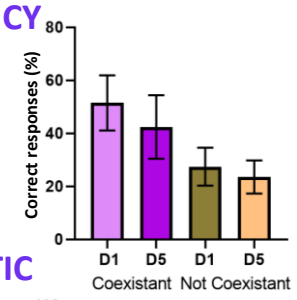



The coexistent group recognized better the high frequency outfit than the not coexistent group.

#### LOW FREQUENCY

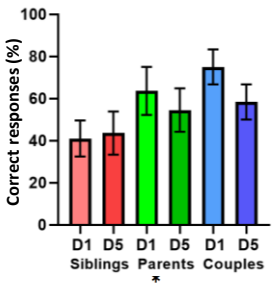



Siblings recognized the low frequency outfit significantly less than the other groups.

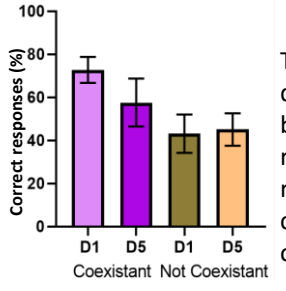



There were no differences between groups regarding the recognition of the low frequency outfit.

#### CHARACTERISTIC OUTFIT

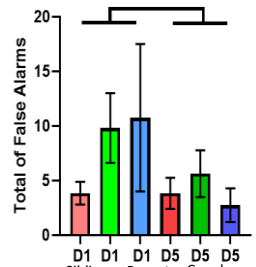



There were no differences between groups regarding the recognition of characteristic clothes.

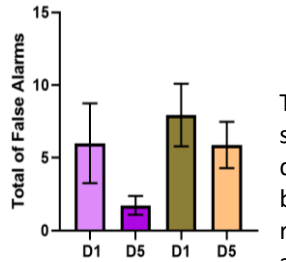



There were no differences between groups regarding the recognition of the characteristic outfit.

#### TOTAL OF FALSE ALARMS




There was a significantly drop of false alarms in all groups in day 5.




There was no significant difference between groups regarding false alarms.

- ✓ There were no significant differences in recognition regarding age ($p>0,05$).
- ✓ Given the low n, it is not possible to run a factorial anova with coexistence and closeness as inter-subject factors (couple / non-coexistence condition n = 0). However, we carried out an exploratory factorial anova of coexistence * closeness without the couple data. We observed the same results as if we analyze closeness and coexistence separately. The only significant interaction was for the high frequency clothes: the siblings that coexist had a better performance than the siblings that not coexist, and parents had the same performance independently of coexistence.
- ✓ These results should be taken with caution because of the low n.

## DISCUSSION

- ✓ Coexistence seems to be a very positive factor in order to recognize clothes better. Couples are the best at recognitions. And in case that siblings have to go trough a recognition those who coexist seem to recognize better.
- ✓ The drop of false alarms in day 5 could be a result of the volunteers being aware the days in between of the clothes to be, afterwards, selected. We have to bear in mind that the different groups had up to 28 false alarms (choose an item of a non-relative).
- ✓ A single piece of clothing could be selected as "seen" as much as 8 times. 25% of the cloth items were chosen more than once. This is important to have in mind in order to prevent the re-exposure to traumatic experiences such as having to recognize clothes of a missing relative.

## REFERENCES

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[3] Deffenbacher KA, Bornstein BH, Penrod SD & McGorty EK (2004). Law & Hum. Behav. 28:6.

[4] Rasch, B. & Born, J. (2013). Physiol Rev. 93(2):681-766.

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