

Contextual Use of the Sign ‘BLACK’ in a Signing Chimpanzee

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Tatu’s BLACK Topics

Abstract

Gardner and Gardner (1989) cross-fostered several chimpanzees to observe how they would develop and learn signs from American Sign Language (ASL). Tatu, one of these chimpanzees, has been observed signing BLACK in varied conversations throughout her life. It was often thought that she used BLACK to describe items she prefers. This study explored that hypothesis. Sign logs, an archival database, contain records of the chimpanzees’ use of signs. We selected all instances of the use of BLACK between February 2001 to May 2005. Ten caregivers rated items on a list of topics as positive, negative, or neutral. Tatu signed BLACK in topics rated positively and rarely signed BLACK in topics rated neutral or negative.

Meet Tatu *(Pan troglodytes)*

Full Name: Oklahoma Tatu.

Oklahoma is her place of birth and Tatu means "three" in Swahili.

Pronunciation: ta' too

Name Sign: “T” tapped on opposite shoulder.

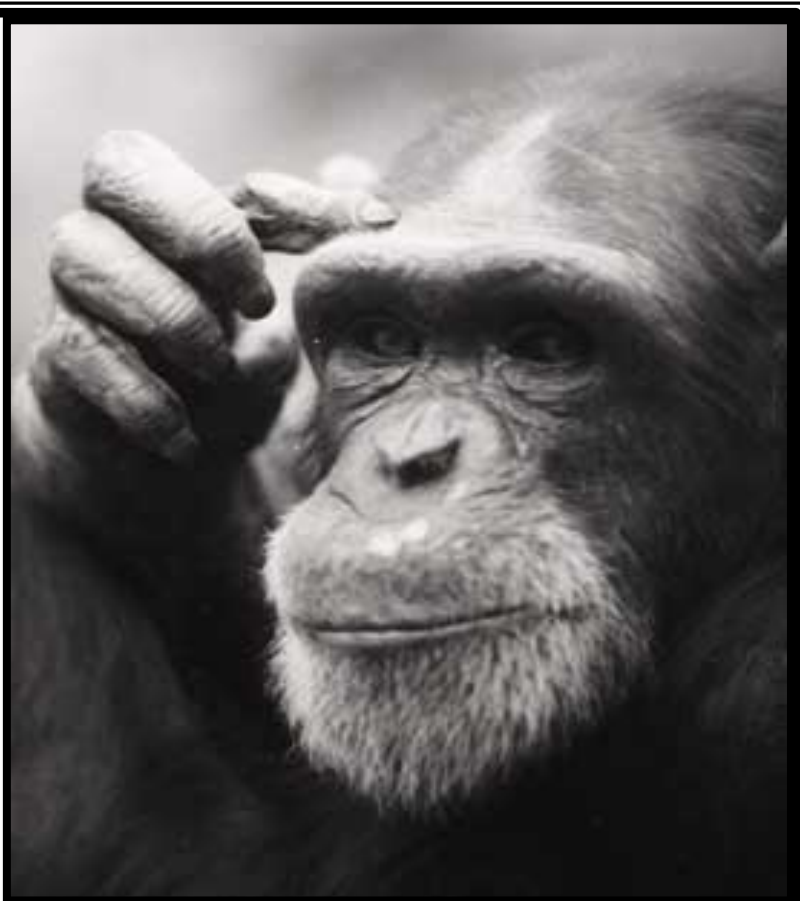
Her name sign has no known significance.

Date Of Birth: December 30, 1975.

Place Of Birth: Institute for Primate Studies, University of Oklahoma, Norman, Oklahoma.

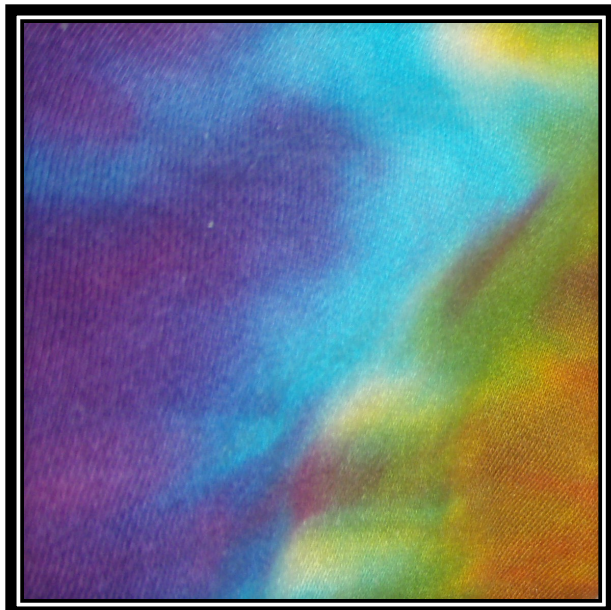
Upbringing: Cross fostered as a Deaf child along with three other chimpanzees.

Hobbies: Chatting and spending time with friends, paging through magazines, food grunting over appetizing meals, problem solving, and creating nests throughout the day with whatever fabric, clothes, or blankets she finds.



Methods

- Surveys included topics from Chalcraft (2005).
- Ten recent caregivers rated topics as either positive, negative, or neutral based on their experience and idea of Tatu’s preference.
 - Time spent interacting with Tatu ranged from 5 months to 324 months (27 years).
- Sign Logs provided incidences where Tatu used the sign BLACK as well a description of the situation.

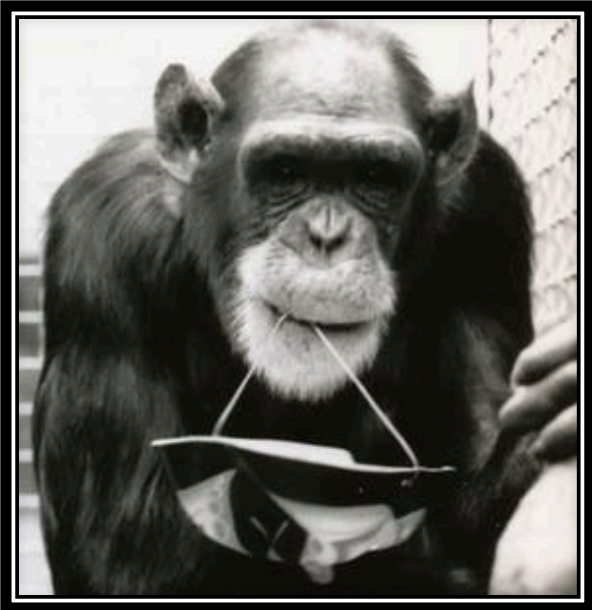




Hurt







Positive Topic

Something Tatu spends time being involved in or communicating about.

Neutral Topic

Something Tatu shows little to no interest in.

Negative Topic

Something Tatu avoids being around or a part of.

Neutral & Negative Topics:
According to Caregivers

- Baby
- Doll
- Eyeglasses
- Wristwatch

Results

- At the time of collection, 47 Sign Logs where Tatu signed BLACK were selected.
- Topics that 90% of caregivers identified as positive were used in analysis.
- Topics that Tatu used the sign BLACK were also rated as positive items by caregivers.
- Topics caregivers rated low (either neutral or negative) were never topics Tatu used the sign BLACK in conversations.

Table 1

Fischer Exact Test for the agreement between caregivers’ opinions and Tatu’s use of the sign BLACK in topics with 15 or more conversations.

	Caregivers rate as positive	Caregivers rate as not positive	
Tatu uses BLACK	7	2	9
Tatu does not use BLACK	0	5	5
	7	7	14

Note: $p=0.02098$, two-tailed.

Table 2

Fischer Exact Test for the agreement between caregivers’ opinions and Tatu’s use of the sign BLACK in topics with 10 or more conversations.

	Caregivers rate as positive	Caregivers rate as not positive	
Tatu uses BLACK	8	5	13
Tatu does not use BLACK	0	9	9
	8	14	22

Note: $p=0.005516$, two-tailed.

Conclusions & Implications

- Caregivers showed strong agreement amongst themselves.
- Caregivers appear to have a good understanding about howTatu spends her time.
- Further research, can included a wider range of sign logs as well as a larger group of caregivers.

Acknowledgements

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