

Use of Deslorelin for aggressivness reduction in a captive male chimpanzee



(Pan troglodytes)

Final Degree Project - June 2023

Nacho Santolaria Ortega

UAB

Universitat Autònoma de Barcelona

Facultat de Veterinària

Introduction

The chimpanzee (*Pan troglodytes*) is a great ape that lives in a multimale-multifemale, patrifocal and patriarchal social groups.

Males through the **social dominance** establish the **hierarchy**.^{1, 2}

Agressiveness is associated to **testosterone** and **social major rank**³ in chimpanzee's groups and may be a **risk** for the sender-receiver.⁴

To ensure the **animal welfare** there are few treatments, one of them by using an **GnRH agonist subcutaneous implant**.⁵

Objectives

Evaluate the implant's effects and how it modulates the chimpanzee social and individual behaviour and his welfare

Materials and Methods

23 years old male of
Fundació Mona (Girona)

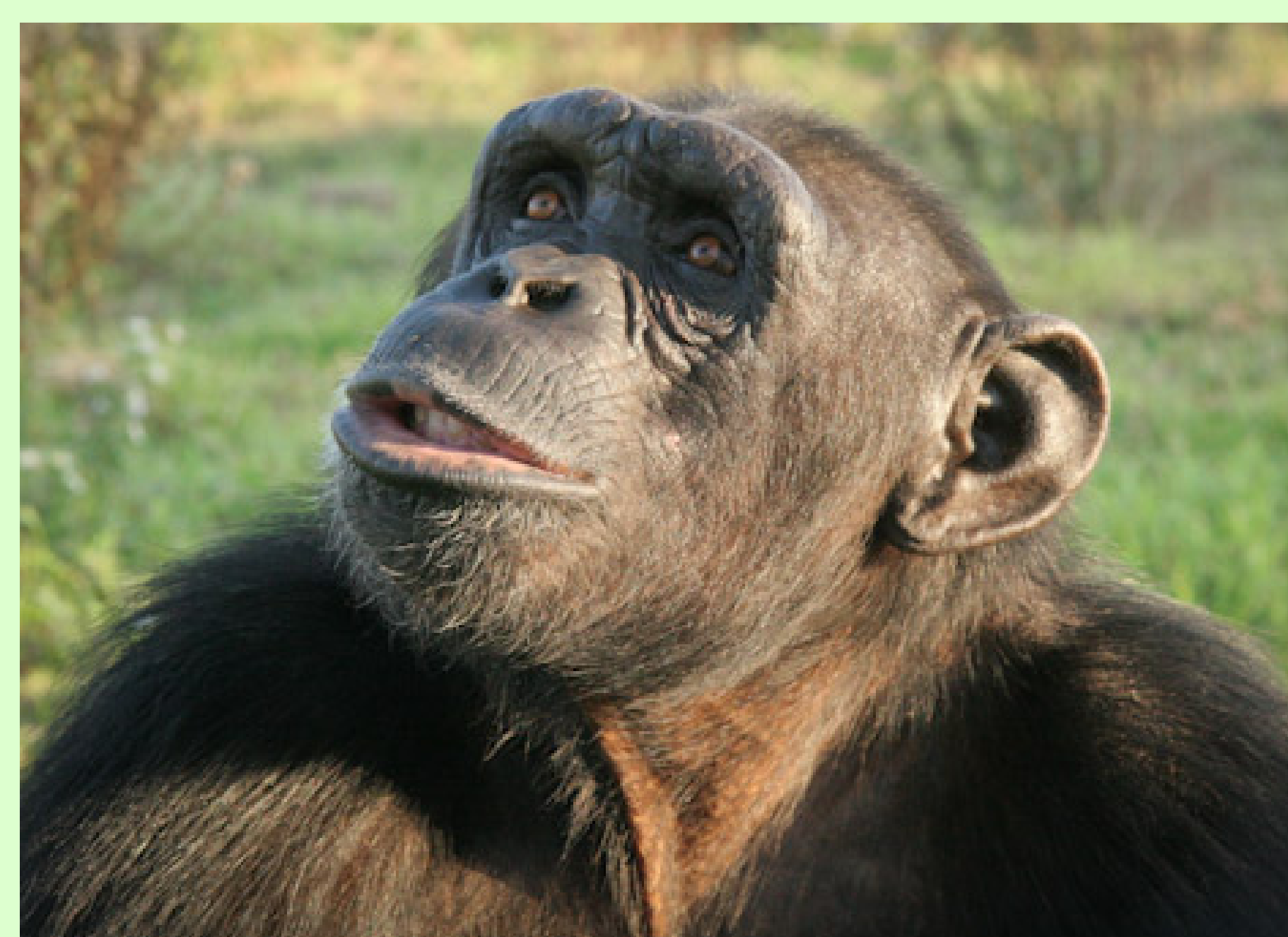


Figure 1: Bongo (Fundació Mona 2023)

Bongo (BON)

Social disruptive
behaviour and
aggressivness

November 11th (2022):
implant of Deslorelin

Sampling and data analysis

Session
duration:
20 min

Fix selection
(9:00-19:00h)

Temporal
criteria
(*RAUT*)

Interval
& All
ocurrence

TOTAL:
550h
82441 scans

Multifocal
sampling

R-commander: Shapiro-Wilk, Levene, Welch
& Wilcoxon-Mann-Whitney Tests

Results

Table 1: Results of Welch's* and Wilcoxon's** tests by comparing diferent periods of time

Conductes	T-1/T	T-1/T+1	T-1/T+2	T-1/T+3	T-1/POST	PRE/POST
Inactivity*	0,02	0,19	0,11	0,30	0,09	0,04
Alimentation*	0,03	0,02	0,06	0,16	0,03	0,91
Manipulation*	0,68	NA	0,91	NA	0,79	0,05
Self directed*	0,51	0,65	0,78	0,68	0,88	0,05
Abnormal**	0,06	0,06	0,505	0,06	0,03	0,07
Agonistic*	0,33	0,28	0,31	0,34	0,31	0,01

Conductes	T-1/T	T-1/T+1	T-1/T+2	T-1/T+3	T-1/POST	PRE/POST
Affiliative*	0,21	0,55	0,63	0,01	0,12	0,66
Socio sexual*	0,52	NA	0,25	0,27	0,27	0,01
Int. other gr.**	1	0,51	1	1	0,78	0,01
BCI*	0,01	0,02	0,01	0,97	0,004	0,01
SCI*	0,48	0,52	0,62	0,80	0,66	0,0009
SRI**	1	0,35	0,35	0,7	0,37	0,0005

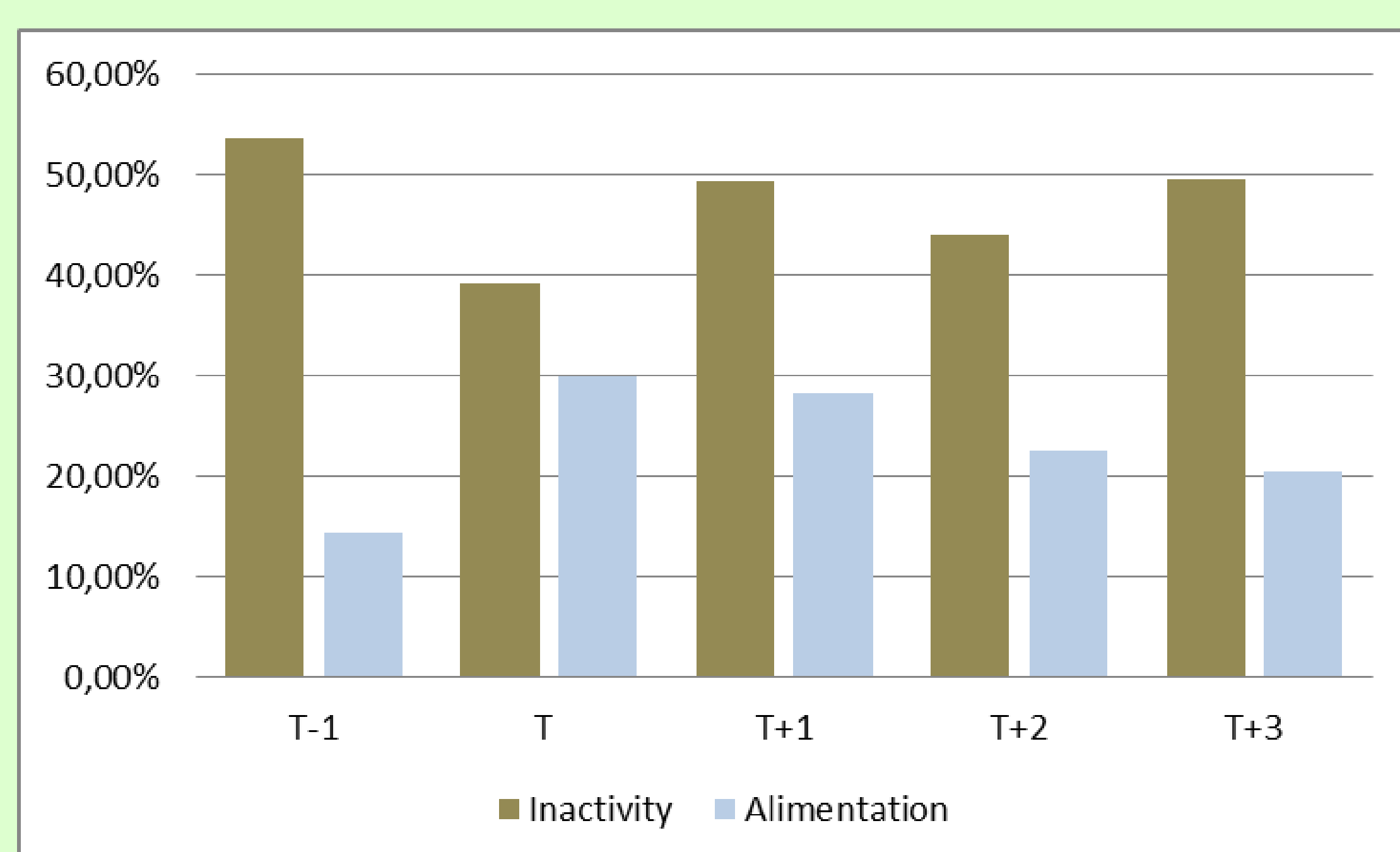


Figure 2: Individual behaviour evolution (I)

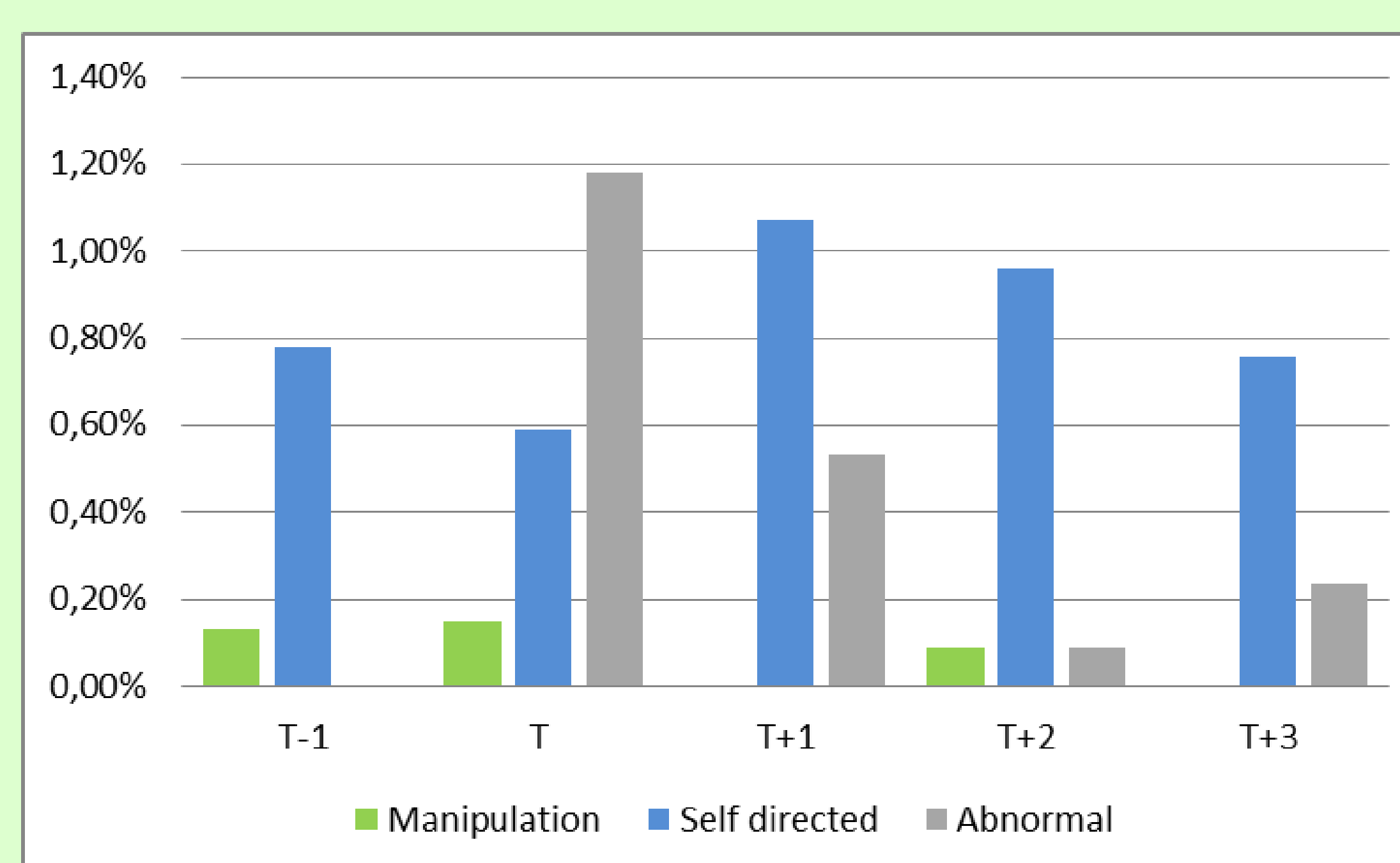


Figure 3: Individual behaviour evolution (II)

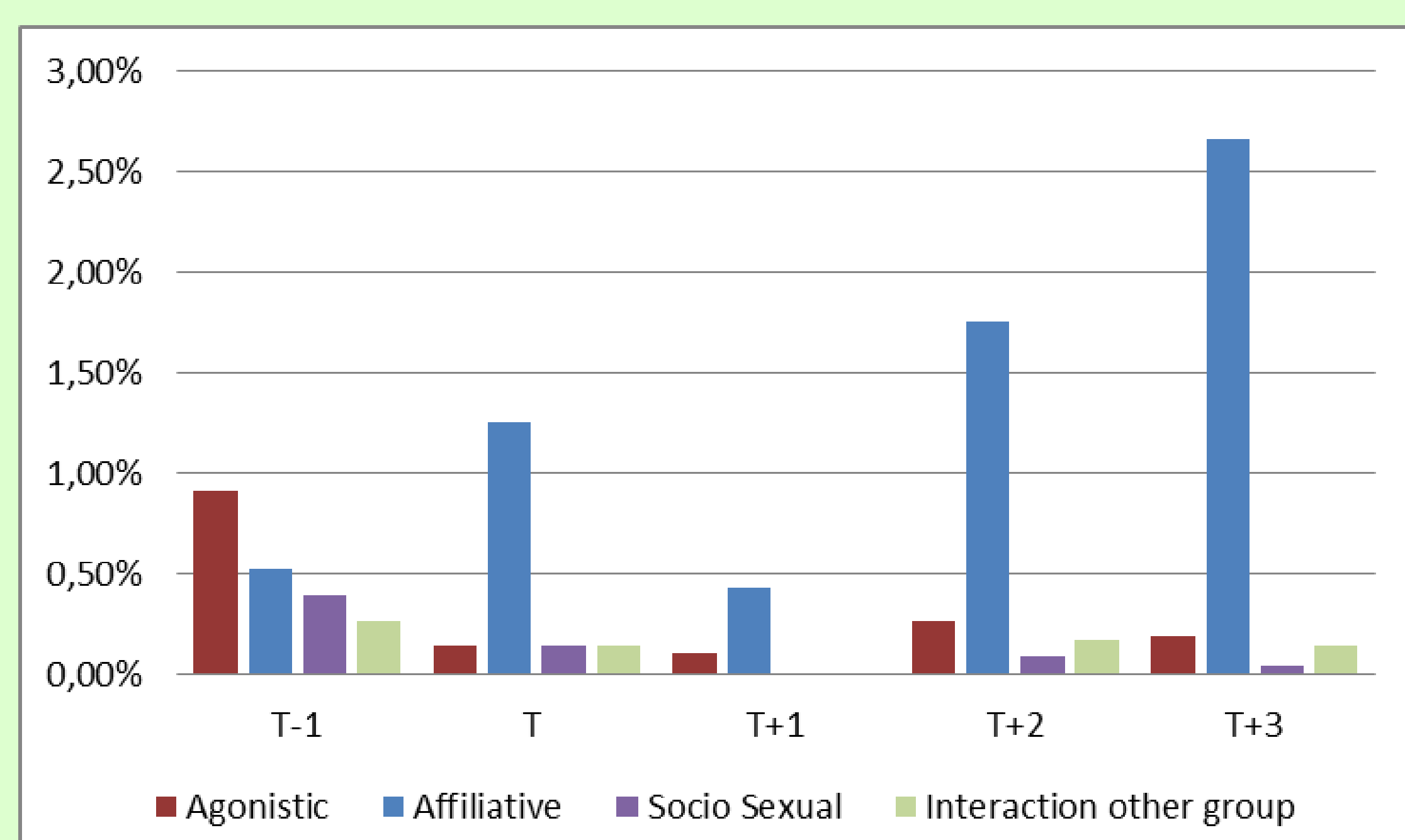


Figure 4: Social behaviour evolution

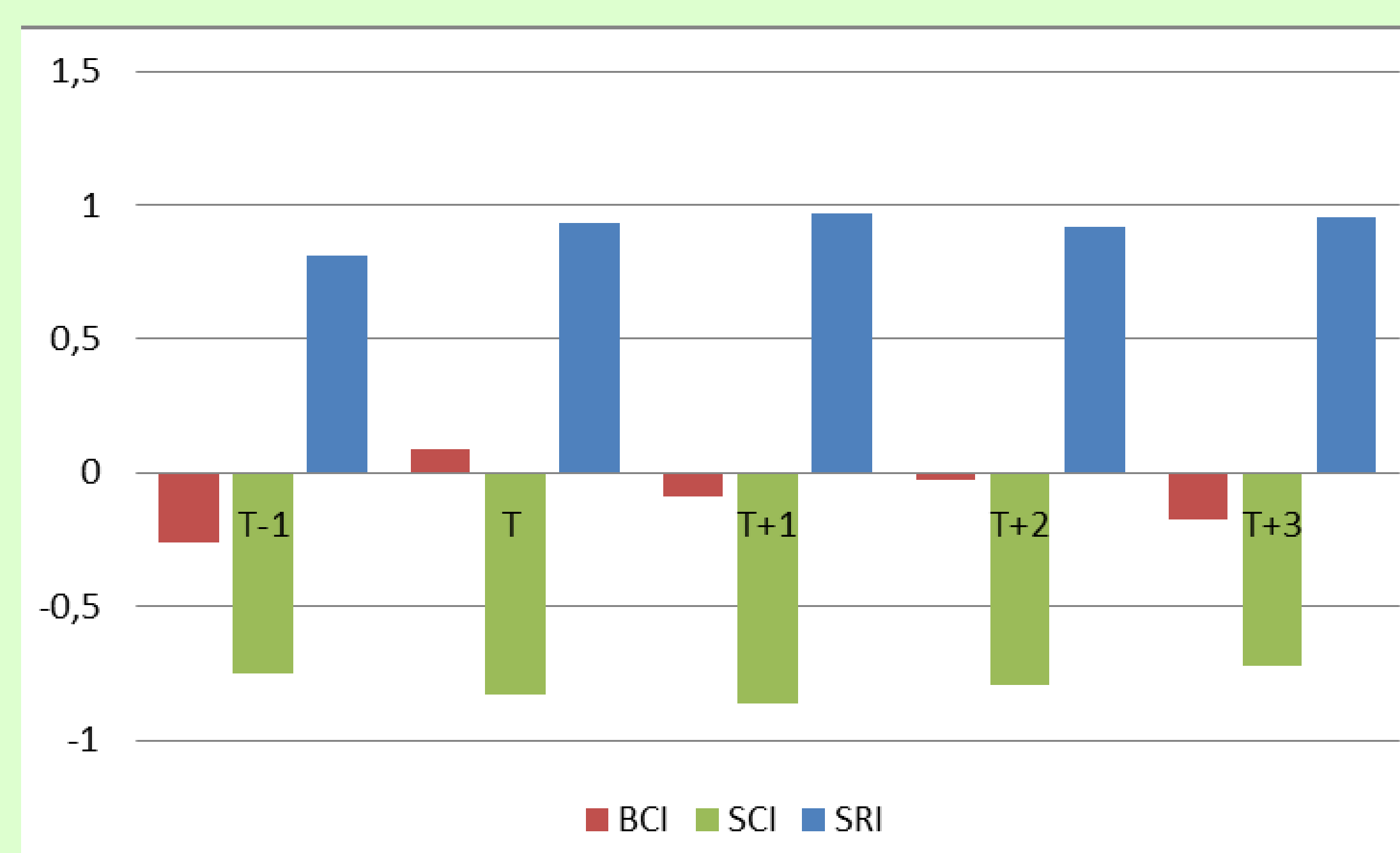


Figure 5: Welfare Index evolution

Conclusions

Increased: affiliative behaviour, social desirable behaviour and individual non desirable behaviour.

Decreased: agonistic, sociosexual behaviour and interaction with the other group.

Changes without aggressivness relation: alimentation, manipulation, self directed and abnormal behaviour.

References

