

POPULARIZATION COMPONENT – EXPLOITATION

EXPLOITATION 2 – SOLVING TOOLKIT FOR COHABITATION ISSUES

CONTEXT

GENERAL CONTEXT

Cohabitation issues are a major obstacle to biodiversity preservation and species protection. Most humans are unwilling to be involved in protecting a species they have issues cohabitating with. Many failures in reintroduction programs are due to human malevolent or negligent interactions with a species that inhabitants consider a pest (see for example work of Mäekivi, Kiisel and Magnus, in References and links section).

Some of these issues are factual and would need material responses – like acts of aggression or material destruction – but some of them are not. They are either emotional, symbolic or both, and can be addressed through a semiotic perspective, in order to reduce the global cohabitation issues between humans and other species.

INSIDE THE PROJECT

The methodology proposed in Workpackage 2 has shown that solutions proposed for cohabitation issues have to address all three kinds of semiotic relationships, and that forgetting about emotional or symbolic relationships while focusing only on the material aspect of the problem is not a sustainable and reliable way to proceed.

BACKGROUND AND ISSUES

BACKGROUND

When compared to the previous study in Paris (Delahaye, 2021), the results gathered by Workpackage 2 show common points but also add new information:

- Common points:
 - o People have different kinds of relationships (material, emotional, symbolic) with the liminal species, and are even able to point out contradictions in their own behaviour when two kinds of relationships conflict.
 - o A lot of material issues actually have evidence-based solutions, but they are poorly applied.
- New information:
 - o Good metacognition seems to be positively correlated with a tolerant attitude.
 - o Hostile part of the population is very vocal but also a very small minority.

These common points and differences will allow this material to propose solutions that can be adapted in both situations (with a complicated cohabitation and with a relatively smooth cohabitation).

ISSUES AND QUESTIONS

The toolkit can be difficult to apply in areas where multiple data sets are missing. But referring to Document EX1 can indicate how to create such data sets if they are needed.

The toolkit is applicable for cohabitation issues implying the agency of both parties, and is not suitable for humans-parasites issues and humans-“non-animal beings” issues. The toolkit is not applicable to humans-animals issues where human lives are in danger, as none of the nuisances studied involved a real and factual threat to human life.

The toolkit is not the relevant tool to choose when wanting to solve a cohabitation issue involving a critically endangered species, as it focuses on non-coercive measures, that can be needed to protect endangered species. It can also be not relevant in situations where humans and animals are in direct competition for food, especially if humans involved are from traditional and/or endangered cultures.

PRACTICAL ASPECT

RESULTS GATHERED BY THE PROJECT AND RECOMMENDATIONS FOR EXPLOITATION AND IMPLEMENTATION

The comparative analysis (see document D11) showed that solutions to cohabitation issues need, in order to be relevant, to take into account three different aspects of interspecies cohabitation.

The first aspect is the materiality of the relationship between the studied species and inhabitants. Two different situations can be present in this aspect:

- **Ecologically normal behaviour that can be interpreted as nuisance or aggression:** In this situation, it is important to act before the semiotic value of the species becomes too negatively loaded. First, it is important to work on evidence-based solutions (such as Lequitte-Charransol & Jiguet, 2021) to reduce the nuisances. Second, it is important to sensitize the inhabitants to the normal behaviour of the species in order to avoid the spontaneous creation of negative narratives.
- **Pathological behaviour:** In this situation, it is important to understand what is at the root of the pathological behaviour (often, a dysfunctional environment due to human influence). This origin must be addressed as soon as clearly identified when it is possible. In any case, it is important to also propose narratives to inhabitants that trigger their empathy and help them to be tolerant towards a species that is “human-sick”.

The second aspect is the emotions involved in the cohabitation situation. Two different situations can coexist:

- **Emotions are mainly positive:** They can be used as an entry point to sensitize people to the different issues the studied species are facing, to help them face a difficult cohabitation situation (nuisances, aggressions etc.), or to propose a switch in the relationship (if empathy is strong but the species is badly symbolically perceived).
- **Emotions are mainly negative:** Fear and disgust are the two main negative emotions inhabitants can have towards a species. In these situations, as explained by the concept of “resistance of the semiotic link” (see document P1), it is not useful or relevant to introduce facts and pieces of evidence to the people, the problem must be addressed by another entry point. In this case, the symbolical one, by proposing another narrative loaded with positive symbolical values (altruism, intelligence etc.) can be relevant.

The third aspect is the symbolic values people are attributing to the studied species. Two different situations can be present, and they are in general mutually exclusive:

- **Cultures where the species gathers strong symbolical values:** If the values are positive, they can be strong tools to help improve cohabitation and to obtain tolerance and patience from inhabitants when trying to solve potential material issues. If the values are negative, they should be addressed before or in the meantime trying to solve a cohabitation issue, otherwise pieces of evidence will be rejected.

- **Cultures where the species is not specially loaded with symbolical values:** Positive narratives can be proposed to help cohabitation, especially if they are giving explanations for some factual and problematic behaviours (ex: intelligence being the cause of making a mess with trash bins by being able to open them) or if they are balancing negative emotions (ex: rats can indeed appear disgusting, but they are main test subject in labs, and we owe them a lot regarding our health and medicine).

DISCUSSION

The purpose of these different aspects is to understand clearly how material, emotional and symbolical relationships interact in a situation of cohabitation, how inhabitants are creating different kinds of meaning regarding the species they have to live with, and how these different meanings can be used, modified or reinforced in order to improve the cohabitation and solve issues.

These aspects are especially interesting when contradictions between different meaning-making processes seem to appear inside the same community or individual.

GENERAL PROJECT – CURRENT STATE OF PLAY

CURRENT STATE OF PLAY

These results are an important part of Workpackage 2, as they can be seen as the practical material produced by the WP2 that can be used outside of the project. These results, combined with Deliverable D11, are the final production of case-study 2.

In order to produce more precise, detailed and useful content, the guidelines detailed here will be nuanced by results gathered in Workpackage 3.

PROPOSITIONS FOR OTHER ASPECTS OF THE PROJECT

ACADEMIC ASPECTS

This material, as well as DM2, are interesting for international partners willing to develop scientific interdisciplinary reports on the biodiversity and behaviour subject (see document I3).

RESEARCH ASPECTS

These results are useful for further research, as they are pointing out clearly which aspects, especially regarding the target species, are still uncertain due to the lack of data or to their poor quality.

NEXT STEPS

These results are closing the Workpackage 2, leading to the next step, the finalization of Workpackage 3, being a work-in-progress for the full length of the project.

ANNEXES

REFERENCES AND LINKS

REFERENCES

Delahaye, P. (2021). Rats, Mice and Humans. *Linguistic Frontiers*, 4(1), 44–52. <https://doi.org/10.2478/lf-2021-0004>

Lequitte-Charransol, P., & Jiguet, F. (2021). Restricted mowing reduces grass uprooting by urban crows. *European Journal of Wildlife Research*, 67(3), 59. <https://doi.org/10.1007/s10344-021-01504-3>

LINKS TO WEBSITES AND DOCUMENTS

Report about European Mink Reintroduction: https://skytte.ut.ee/sites/default/files/2022-05/naaritsa_taaasustamise_uuring.pdf