- **Title and abstract**
    - Does the title clearly reflect the content of the article? [x] Yes, [ ] No (please explain), [ ] I don't know
    - Does the abstract present the main findings of the study? [x] Yes, [ ] No (please explain), [ ] I don’t know
- **Introduction**
    - Are the research questions/hypotheses/predictions clearly presented? [x] Yes, [ ] No (please explain), [ ] I don’t know
    - Does the introduction build on relevant research in the field? [x] Yes, [ ] No (please explain), [ ] I don’t know
- **Materials and methods**
    - Are the methods and analyses sufficiently detailed to allow replication by other researchers? [x] Yes, [ ] No (please explain), [ ] I don’t know
    - Are the methods and statistical analyses appropriate and well described? [x] Yes, [ ] No (please explain), [ ] I don’t know
- **Results**
    - In the case of negative results, is there a statistical power analysis (or an adequate Bayesian analysis or equivalence testing)? [x] Yes, [ ] No (please explain), [ ] I don’t know
    - Are the results described and interpreted correctly? [x] Yes, [ ] No (please explain), [ ] I don’t know
- **Discussion**
    - Have the authors appropriately emphasized the strengths and limitations of their study/theory/methods/argument? [x] Yes, [ ] No (please explain), [ ] I don’t know
    - Are the conclusions adequately supported by the results (without overstating the implications of the findings)? [x] Yes, [ ] No (please explain), [ ] I don’t know

Comments for authors

The authors presented an interesting paper in which they analysed the relationship at the individual level between the performance of grackles in two tests of behavioural flexibility in captivity and their flexibility in foraging, habitat use, and social behaviour measured in the field. They point out that the lack of direct evidence between flexibility and ecological or social traits, such as dietary breadth, measured at the individual level, is an important limitation in predicting the actual role of behavioural flexibility in animals' adaptation to new or changing environments. This paper is therefore very welcome in this respect.

The manuscript is well written and clear to the reader, even considering the number of analyses performed to test each hypothesis/prediction. The statistical analysis seems correct and appropriate for the questions and type of data the authors are dealing with, although I have only a superficial knowledge of Bayesian analysis, so my assessment on these matters may not be the most appropriate. It seems that this paper has already passed previous rounds of peer review, so I don't have much to add, but a few comments/questions, listed below.

1. Regarding predictions: If I'm not mistaken, I think that what is not taken into account here is that, a) the authors do not know the abundance of prey or natural food in the areas used by the birds, so one cannot say that an individual is selecting human food if you do not know if it really

has the natural alternative available; b) demonstrating more diverse feeding techniques is probably associated with human food, precisely because of the way it is presented in nature (the different packages), and that individuals probably do not use them to consume natural prey. This is not necessarily evidence that they do not have such a repertoire, but that they do not need it to feed on the natural resources of the species; c) individuals could generalize when using different techniques to access food from the different human food packages, so they would not need to innovate (or change) in techniques just because of the change in the package format.

2. Hypothesis 3: Is it possible that after the period of captivity, released individuals may exhibit behavioural alterations until they are properly integrated back into their social-ecological environment?

3. Trapping. Since the authors used several types of traps to capture their birds, knowing that some type of trapping methodology could filter bolder individuals, did they consider the possibility that this could have happened with their set of individuals tested?

4. At any point in the manuscript, did the authors set out to compare the flexibility of the captured birds as a function of their environment? I wonder if grackles in populations that are in expansion (at the edge of their geographic range) are more flexibles (in all the measurements) than those in populations with more years habiting the same location.