

Answers to Comment on nness-2021-159

Anonymous Referee #1

The paper “The importance of raising risk awareness: lessons learned about risk awareness sessions from the Mediterranean region (North Morocco and West Sardinia, Italy)” presents several problems:

Basically, it does not respect the normal way in which a scientific paper for NHESS is prepared.

The Introduction does not report the usual review of similar papers published in literature about the topic of the paper or related topics. The papers quoted are about Mediterranean Sea. It is possible that no papers exist on similar topic? >>

Thank you for this comment. The Introduction is now rewritten. The first paragraph now refers to risk awareness: “Different societies living in one area sometimes face the same natural hazards, but do not necessarily have the same level of local risk awareness based on knowledge uptake. They do not share a common conceptual understanding of that risk, which is reflected by individual risk perception (Slovic et al., 1976). The importance of local risk knowledge and perception for sustainable disaster risk reduction and management is largely recognised by international policy, such as the Sendai Framework for Disaster Risk Reduction (UN, 2015). The question of values (Zinn, 2009), cultural and socio-economic background (Joffe, 1999; Joffe et al., 2013) are key societal problems when dealing with risks. Risk awareness and perception result in a certain precautionary behaviour which shows their relevance for risk management. However, the extent to which the local knowledge is translated into concrete, effective and practical measures is still open to debate.”

Generally, at the end of the introduction, the aim of the paper is presented in a plain and simple way. In this paper, the end of the introduction reports considerations of the authors and does not explain the structure of the paper. >>

We believe that this issue comes from using sub-sections in our introduction. It gives the feeling that the ‘introduction’ is only the first page, not including sections 1.1 – 1.3. Because of this and for more clarity, the sub-sections will be removed and parts 1.1 and 1.3 will be integrated as part of the main introduction in the new version of the paper. The section 1.2 (study area) has been moved further in the article, under the Methodology.

In addition, the aim of the paper is presented in a plain and simple way since the study is interdisciplinary so not all the authors can enter more profoundly in theoretical psychological processes, and the targeted audience is involved in risk management, where risk research is again an interdisciplinary and a broad concept. The introduction is now enriched with the research activities: “The fieldwork procedure was both quantitative and qualitative, organized around questionnaires and interviews. In the quantitative part of the study, the used regression model was binary logistic which allows dividing variables into more blocks, tracking the model’s progress, with the dependent variable of investing money. Secondly, the use of interviews in the North Moroccan study served as an additional source of information to be crossed with the responses from the questionnaires.”

Concerning **1.1 Risk awareness**, this section seems not effective to explain the concept directly. Moreover, the literature is quoted in a verbose way that can be rearranged to be more direct, allowing the reader to understand without reading more than once. The literature quoted is very old. The reader could think that since the past century no other papers have been published on these topics. The section is very discursive and it seems that each risk is quoted in term of example. I suggest a table for each study area, listing clearly the kind of risk and references associated to prove that it’s not simply an opinion. >>

We agree that the framing of this section was not the best in term of the beginning and the end of this section, and it is now rewritten: “A leading role in efficient risk management is played by risk perception, a concept that is already widely recognized in risk literature, but still with some actual open questions. In one of the first contributions of cognitive psychology to decision making under risk, the concept of risk perception depicted that non-expert people might perceive risks by resorting to different logics than experts do (Slovic et al., 1976), making the process of risk appropriation more complex.” [...] “This shows that risk awareness is essential for adequate risk management policies and needs to be further explored. Moreover, since risk

questions are always societal problems and relate to values (Zinn, 2009), the cultural context needs to be tested. Inspired by a cultural approach that considers risk as a social and cultural construct (Bertoldo, 2021), this study will compare two different societies, with different socio-economic contexts. Cross-cultural differences between North Morocco and Sardinia will be detected, and the actual risk behaviour of North Moroccans and Sardinians will be described, in line with Rohrmann (1998). The focus will be more on the indicator of risk awareness and its impact on precautionary behaviour, in order to understand the practical drives for measure-taking. In addition, since it was shown long ago that the communication and the transfer of information contribute to different risk perceptions between the experts and non-experts (Slovic et al., 1976, Covello, 1983, Renn, 1998), the efficiency of risk communication between the general population, scientists and managers will be examined."

The problem with the concept of risk awareness is that it is closely related to the concept of risk perception. For years the concepts were considered as one, taking perception and awareness almost as synonyms. Even in recent risk research some authors do not seem to strictly distinguish between risk perception and risk awareness in their research (AlQahtany and Abubakar, 2020), others consider awareness to be just one of the components to measure risk perception (Khan, Rana, Nawaz, 2020). This is the reason we adopted the way of writing this section in rather chronological way.

Regardless of being a highly publishing research field in social sciences, we chose to refer to only the initial works which proposed the basic concepts we work with, and finish with the recent and the most relevant ones (by Papagiannaki et al. (2019a, 2019b)) to frame our research. We did not consider all the literature regarding examples of risks in Sardinia and in North Morocco, and we did not quote examples of risks in the area. In the rewritten version of the paper we moved the section 1.2 The study sites under the methodology (new 2.1), since it takes over the visibility from the introductory reasoning on risk awareness.

In the section 1.2 The study sites. "Being the region prone to many natural hazards and a climate change 'hotspot', the concern grows with the increase of population in already densely populated Mediterranean basin." The sentence is unclear. >>

Thank you, hopefully now is clear. The beginning of this section (new 2.1) is now rewritten: "The chosen field cases of this study are North Morocco and Sardinia in the Mediterranean basin (Fig. 1). The Mediterranean basin is densely populated region and also the most visited region in the world, with more than 330 million visitors in 2016 (Tovar-Sánchez et al., 2019). This region is prone to many natural hazards..."

1.3 Summary and goals

129-133 these sentences are inappropriate under the title summary and goals >>

Well noted, removed from the new version.

135-141 the meaning of the sentences is unclear. >>

This part is now rewritten: "This comparative quantitative and qualitative study contributes to explaining the role of risk awareness sessions on the preparedness to face risks. It describes relations between risk awareness and precautionary behaviour in two areas from the Mediterranean basin, North Morocco and West Sardinia. It also explores the role of risk awareness sessions in explaining the precautionary behaviour of investing money to protect. Finally, it discusses the additional benefits that risk awareness sessions can have when constructing dynamic indicators of risk management."

2. Methodology

The title is Methodology but actually the section contains spare sentences on the two study areas. Honestly, if I would like to apply the same "methodology" in another study area, I would have no instructions...! I suggest to use a flow chart to explain the steps of the methodology that is currently unclear. >>

The Methodology is reorganised in the new version, and the flow chart is provided. The study sites are now the initial subsection, but before it, a short paragraph is added, in order to answer to this remark: "The study was designed based on a selection of two regions from the Mediterranean basin that face some natural hazards. Then, a risk perception survey was organised among a sample of the general population using the same

main topics, but adapting to the regions' particularities. In addition, an interview guide was elaborated, and a series of interviews were conducted individually with the main stakeholders included in risk management in Morocco, to learn some lessons about the importance of raising risk awareness. A review of official legislation and secondary literature was analysed for Sardinia."

Similarly, a table of variables and their meaning could help the reader to understand something more. >>

Well noted. Table 1 of variables is now enlarged, clearly stating the questions used that lead to variables used in the study.

Moreover, the Authors should follow a clear path, describing the results of the two study areas and then comparing them, in a neat way, without all the reported examples and using tables instead of verbose description because it's difficult for the reader to understand. >>

Thank you for this suggestion. The Results and Discussion are now rewritten, with tables, in order to avoid all the quotes directly in the main text, and to facilitate the reading.

I also suggest the revision of the text in terms of language and structure. I've found several sentences that needed to be read more than once to be understood. I'm conscious that to follow these suggestions requires supplementary work but I think this could improve the paper substantially. >>

Thank you for your review and your fruitful remarks. Hopefully you would agree with our changes and answers, and approve the rewritten version of our paper.