March 14th, 2016

Editorial Team
International Journal of Social Robotics

Dear Aurélie,

It is with excitement that we resubmit to you a revised version of our manuscript, **Toward Improving Human-Robot Collaboration with Emotional Awareness** for the *International Journal of Social Robotics*. Thank you for giving us the opportunity to revise and resubmit this manuscript. In keeping with our last communication with you, we are resubmitting this revision before the agreed upon deadline, March 14, 2016. We appreciate the time and detail provided by each reviewer and have incorporated the suggested changes into the manuscript to the best of our ability. The manuscript has certainly benefited from these revision suggestions. We look forward to working with you and the reviewers to move this manuscript closer to publication in the *International Journal of Social Robotics*.

We have made structural changes to our manuscript based on the reviewers' comments. The "Related Work" section has been moved to the beginning of the paper after the "Introduction" section. The next two sections "Example Scenarios" and "Computational Framework" have been kept in the same order as they were appearing in the originally submitted manuscript, except that the "Mental States" subsection has been moved to appear before the description of mechanisms. The "Walkthrough Examples" section, however, has been completely removed and replaced by the "Appraisal in Collaboration" section which includes two major subsections: a) Collaboration, and b) Appraisal Processes. We have also added a new "Evaluation" section at the end of this manuscript, before the "Conclusion".

We have also made major changes to the content of our manuscript. In general, after providing a motivative introduction (see last two new paragraphs) and related work (Sections 1 and 2), we can divide our new manuscript into three parts. The first part contains our hypothetical example scenarios (Sections 3) which are intended to shed light on the impact and importance of using affect-regulated processes in the specific context of collaboration. In these examples we focus on two crucial collaborative behaviors: agreeing on a shared goal and task delegation. Although, these examples appeared in our original manuscript, we have made minor changes to their content by removing some redundant information and adding some required clarification sentences. In the second part of our manuscript, we provide the overall computational structure of our framework (Sections 4) which is still under development. This part of the manuscript is intended to provide an overview of a computational framework showing all mechanisms and their underlying processes which we believe are required to produce more effective collaborative behaviors in terms of less amount of: a) time required, b) error, and c) required communication. We have added descriptions of some mental states' attributes due to their application in our algorithms, appearing in the next new section. As mentioned earlier, the walkthrough examples have been completely removed. The third part of our manuscript focuses on using the information from the collaboration structure to appraise the collaborative environment (Sections 5). Therefore, this part of the manuscript focuses on two major mechanisms in our computational framework: Collaboration and Appraisal. The evaluative and regulatory nature of appraisal, and the absence of such processes in the specific context of collaboration makes our appraisal algorithms one of our major contributions in this work. We also provide the results from a user study for the evaluation of our appraisal algorithms (Sections 6). This work has been continued on the reciprocal influence of the appraisals' outcome on the collaboration structure in the form of goal management. However, we do not provide the algorithms for this part of our studies due to the length of this manuscript.