

Touching the social robot PARO reduces pain perception and salivary oxytocin levels

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Supplementary Materials

Questionnaire 1 – Getting to know PARO

Please indicate PARO's reaction to the following:

- When I pet its back several times _____
- When I pet its face several times _____
- When I pet its front flippers several times _____
- When I pet its back flippers several times _____
- When I call it by its name several times _____
- When I call it by its name when it cannot see me _____
- When I touch its whiskers (gently – no pulling) _____

Please mark with a circle whether you observed PARO perform any of the following:

- Lift its gaze upwards ... Yes / No
- Place its head in your lap ... Yes / No
- Move its front flippers ... Yes / No
- Move its back flippers ... Yes / No
- Open and close its eyes ... Yes / No
- Make sounds ... Yes / No

Questionnaire S1. Getting to know PARO. This questionnaire was given to half of the participants in the PARO group – those who had a 10-min interaction with it. They were asked to fill it out during the 10-min interaction.

Questionnaire 2

| <i>How does PARO feel?</i> | Not at all | The highest degree |
|---|------------|--------------------|
| Happy | ----- | ----- |
| Satisfied | ----- | ----- |
| Sad | ----- | ----- |
| Angry | ----- | ----- |
| Tired | ----- | ----- |
| Wants to be petted | ----- | ----- |
| Wants to communicate | ----- | ----- |
| <i>How did you feel during the interaction?</i> | | |
| Did you feel good with PARO? | ----- | ----- |
| Is it pleasant to touch PARO? | ----- | ----- |
| Did you feel you could communicate with PARO? | ----- | ----- |
| Did PARO help to reduce pain? | ----- | ----- |
| Would you like to meet PARO again? | ----- | ----- |

Questionnaire S2. Perceptions of the interaction with PARO. Participants were asked to mark on a 10-cm VAS line (with no numbers on it) how they perceived PARO's and their own feelings. The ends of the VAS line were marked as "not at all" (evaluated offline as = 0) and "the most" (evaluated offline as = 10).