

Supplementary Materials

Puppets and Test Apparatus

Puppets



Millie the Monkey



Ellie the Elephant



George the Giraffe

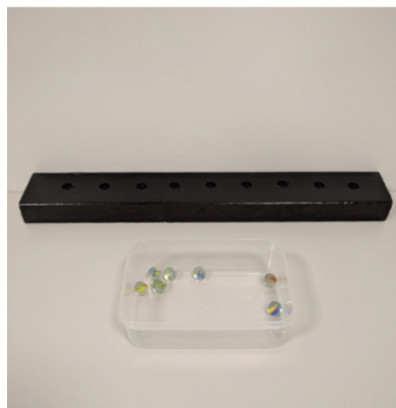


Carrie the Koala

Tasks



a) Sorting Task



b) Marble Task



c) Puzzle Task

a) Sorting Task

This task had four different coloured rods extending from a wooden base. Each rod had nine matching coloured blocks with a hole in the centre, totalling to 36 blocks. To complete the task, every block had to be stacked onto the matching coloured rod. The child's task set always had 34 blocks and the puppets/adults set always had 32 blocks.

b) Marble Task

This task had a narrow wooden base consisting of nine small holes to fit nine marbles. To complete the task, the nine holes had to be filled with a marble. The child's task set always had nine marbles and puppets/adults set always had seven marbles.

c) Puzzle Task

This task had a wooden puzzle board along with nine matching animal puzzle pieces. To complete the task, the nine puzzle pieces had to match the correct space on the board. The child's task set always had nine puzzle pieces and puppets/adults set always had seven puzzle pieces.

Coding Scheme

Dependent variable coding was identical for Studies 1-5.

Helping behaviour

Across all three studies helping behaviour was coded from the video recording of each testing session. Children were given a score from 0-4 per task, depending on which prompt they started helping one. A score of 4 was given if the child helped immediately before any prompts. A score of 3 was given if the child helped after the first prompt. A score of 2 was given if the child helped after the second prompt. A score of 1 was given if the child helped after the third prompt. A score of 0 was given if the child did not help after any prompt. A child could obtain a total score of 12.

Consoling and disengaging

Green et al. (2018) observed either consoling or disengaging behaviours in children when they did not help. These were coded in binary – did not console/disengage (0) or did console/disengage (1). Consoling behaviors are aimed to relieve the agent's distress and disengaging behaviours attempts to disconnect from the agent's distress. In this study, consoling behaviours include verbal (e.g. "It's okay") and non-verbal (e.g. hugging or stroking) comforting. Disengaging behaviours include non-verbal actions (e.g. eye gazing, fidgeting, and playing with task pieces) and verbal disengaging (e.g. changing the topic of conversation) when the agent is distressed.

Reliability Analyses

Study 1

Ten participants, 15% of the sample, were randomly selected for a second coder (a research assistant from ECDC) to score helping, consoling, and disengaging behaviours. Inter-rater agreement between the original coding and randomly sampled coding was found to be 100%.

Study 2

Eight participants, 20% of the sample, were randomly selected for a second coder (a student not involved in the project from ECDC) to score helping, consoling, and disengaging behaviours. The sample of videos was determined using a random number generator. Inter-rater agreement between the original and randomly sampled coding was 100%.

Study 3

Eight participants, 20% of the sample, were randomly selected for a second coder (a student not involved in the project from ECDC) to score helping, consoling, and disengaging behaviours. The sample of videos was determined using a random number generator. Inter-rater agreement between the original and randomly sampled coding was 100%.

Study 4

Eight participants, 20% of the sample, were randomly selected for a second coder (a student not involved in the project from ECDC) to score helping, consoling, and disengaging behaviours. The sample of videos was determined using a random number generator. Inter-rater agreement between the original and randomly sampled coding was 100%.

Study 5

Eight participants, 10% of the sample, were randomly selected for a second coder (a research assistant from ECDC) to score helping, consoling, and disengaging behaviours. Inter-

rater agreement between the original coding and the randomly sampled coding was found to be 100%.

Perception of Emotions

In each study, children completed an assessment of the perception of emotion of the puppet for all studies. At the end of the testing session, children were asked to use the below scale to describe how the puppet felt when they realised that they did not have enough pieces to complete the task.



Study 1

Ten children did not correctly identify the emotion of the puppet using this assessment scale. We did not exclude any children for failing this assessment of perceiving the emotion of the puppet here or in future studies.

Study 2

In Study 1, children completed the perception of emotion assessment at the end of all three tasks. We were mindful that this may have caused confusion in regard to which

task/emotion the question refers to. As such, we opted to conduct an assessment for perceived emotion of the puppet after each task, resulting in three assessments per child to assess for emotion recognition (here and in all following studies). Data were available for 116/120 trials, four were missing due to experimenter error. Across 116 assessments, 104 passed and 12 failed.

Study 3

Data were available for 120 of 123 assessment checks, three were missing due to experimenter error. Across 120 assessments, 111 passed and nine failed.

Study 4

Out of a total of 120 assessments, 113 passed and seven failed.

Study 5

In addition to the assessment of perceived emotion check, children also completed a second check examining whether they could accurately identify which group both they and the puppet belonged to. All children passed all checks.

Methods and Scripts

Study 1: I'll help you, but What's the Cost?

In Study 1 children were allocated to one of three conditions: (a) Cost, (b) Reward Immediate, and (c) No Reward. Before starting any tasks, children in the Cost and Reward Immediate condition were presented with a selection of stickers that they were required to choose three stickers from. The chosen stickers were put aside nearby three other stickers which were for the puppets. Children in the No Reward condition were told that they would play three tasks (see Appendix for the experiment script).

In the No Reward condition children do not receive any stickers after completing the tasks. In the Reward Immediate condition children receive their stickers immediately after completing the tasks as opposed to at the end of the experiment. These conditions test whether children have a natural propensity to helping (e.g. No Reward condition) or if children are capable of helping when the cost is removed (e.g. Reward Immediate condition). In the Cost condition (replication condition from Green et al. 2018), stickers are given to the winner (either child or puppet) at the end of the experiment.

Pre-Task

Replication (cost/upset) and Reward Immediate

Show children a range of stickers.

EXPERIMENTER: "Hi there! So today I have some stickers here for you, can you point to me which ones are your favourite three?"

EXPERIMENTER: "Okay, I'm just going to put these stickers to the side. Now we are going to play three games, and you might be able to get some of those stickers."

Place child's sticker on top of their envelope.

No Reward (control)

EXPERIMENTER: "Hi there! Would you like to play some games? We are going to play three games today."

Test Task

Place one apparatus in front of child and another in front of experimenter. Bring out puppet.

EXPERIMENTER: “This game is called <appropriate game>, and you’re going to play it with <Puppet’s Name>, can you say hello?”

EXPERIMENTER: “<Puppet’s Name> has never played this game either so I’ll explain the rules to both of you, so you know how to play.”

Sorting Task

Replication (cost/upset)

EXPERIMENTER: “In this game, you see there are four colour rods. The way you play this game is you and <Puppet’s name> have to fill the rod with the same colour blocks all the way up to the top before I say stop.”

EXPERIMENTER: “If you finish the game before I say stop you will have a chance to get one of your favourite stickers.”

EXPERIMENTER: “If <Puppet’s name> finishes the game before I say stop he will have a chance to get one of his stickers too.”

EXPERIMENTER: “Do you understand how to play the game? Great, you can start now!”

Reward Immediate

EXPERIMENTER: “In this game, you see there are four colour rods. The way you play this game is you and <Puppet’s name> have to fill the rod with the same colour blocks all the way up to the top before I say stop.”

EXPERIMENTER: “If you finish the game before I say stop you will get one of your favourite stickers straight away!”

EXPERIMENTER: “If <Puppet’s name> finishes the game before I say stop he will get one of his stickers straight away too.”

EXPERIMENTER: “Do you understand how to play the game? Great, you can start now!”

No Reward

EXPERIMENTER: "In this game, you see there are four colour rods. The way you play this game is you and <Puppet's name> have to fill the rod with the same colour blocks all the way up to the top before I say stop."

EXPERIMENTER: "If you fill up all the rods to the top before I say stop then you will finish the game."

EXPERIMENTER: "If <Puppet's name> fills up the rod before I say stop he will finish the game too."

EXPERIMENTER: "Do you understand how to play the game? Great, you can start now!"

Puzzle Task

Replication (cost/upset)

EXPERIMENTER: "The way you play this game is you and <Puppet's name> have to match the same jigsaw pieces to the right spaces on the board before I say stop."

EXPERIMENTER: "If you can finish the puzzle correctly before I say stop you have a chance to get one of your favourite stickers."

EXPERIMENTER: "If <Puppet's Name> can finish their puzzle correctly before I say stop then he will have a chance to get one of his stickers too."

EXPERIMENTER: "Do you understand how to play the game? Great, you can start now!"

Reward Immediate

EXPERIMENTER: "The way you play this game is you and <Puppet's name> have to match the same jigsaw pieces to the right spaces on the board before I say

stop.”

EXPERIMENTER: “If you can finish the puzzle correctly before I say stop you will get one of your favourite stickers straight away!”

EXPERIMENTER: “If <Puppet’s Name> can finish their puzzle correctly before I say stop then he will get one of his stickers straight away too!”

EXPERIMENTER: “Do you understand how to play the game? Great, you can start now!”

No Reward

EXPERIMENTER: “The way you play this game is you and <Puppet’s name> have to match the same jigsaw pieces to the right spaces on the board before I say stop.”

EXPERIMENTER: “If you can put all puzzle pieces in correctly before I say stop you will finish the game.”

EXPERIMENTER: “If <Puppet’s Name> can put all his puzzle pieces in correctly before I say stop then he will finish the game too.”

EXPERIMENTER: “Do you understand how to play the game? Great, you can start now!”

Marble Task

Replication (cost/upset)

EXPERIMENTER: “See these holes? The way you play this game is you and <Puppet’s name> have to fill up all of these holes with a marble before I say stop.”

EXPERIMENTER: “If you put all the marbles into the holes before I say stop you will have a chance to get one of your favourite stickers.”

EXPERIMENTER: “If <Puppet’s name> puts all the marbles into the holes before I say stop he will have a chance to get his stickers too.”

EXPERIMENTER: “Do you understand how to play the game? Great, you can start now!”

Reward Immediate

EXPERIMENTER: “See these holes? The way you play this game is you and <Puppet’s name> have to fill up all of these holes with a marble before I say stop.”

EXPERIMENTER: “If you put all the marbles into the holes before I say stop you will get one of your favourite stickers straight away!”

EXPERIMENTER: “If <Puppet’s name> puts all the marbles into the holes before I say stop he will get one of his stickers straight away too!”

EXPERIMENTER: “Do you understand how to play the game? Great, you can start now!”

No Reward

EXPERIMENTER: “See these holes? The way you play this game is you and <Puppet’s name> have to fill up all of these holes with a marble before I say stop.”

EXPERIMENTER: “If you put all the marbles into the holes before I say stop you will finish the game.”

EXPERIMENTER: “If <Puppet’s name> puts all the marbles into the holes before I say stop he will finish the game too.”

EXPERIMENTER: “Do you understand how to play the game? Great, you can start now!”

Distress Prompts

Replication (cost/upset) and Reward Immediate

First Prompt

PUPPET: "Oh no...I don't have enough <appropriate to the task pieces> to finish the game. Now I'm not going to get a sticker...what am I going to do?"

Second Prompt

PUPPET: "Oh no the time is almost up, and I can't finish the game. I really wanted a sticker but I'm not going to get one now. I'm missing pieces and I can't finish the game!"

Third Prompt

PUPPET: "Oh no, I'm not going to get a sticker now... I really wanted one. I'm so upset, I think I'm going to cry. Time is about to finish, what can I do? I don't have enough pieces to finish the game!"

No Reward

First Prompt

PUPPET: "Oh no...I don't have enough <appropriate to the task pieces> to finish the game. Now I'm not going to finish the game...what am I going to do?"

Second Prompt

PUPPET: "Oh no the time is almost up, and I can't finish the game. I really wanted to finish the game but I'm not going to finish now. I'm missing pieces and I can't finish the game!"

Third Prompt

PUPPET: "Oh no, I'm not going to finish the game now... I really wanted to finish. I'm so upset, I think I'm going to cry. Time is about to finish, what can I

do? I don't have enough pieces to finish the game!"

Post-Task

Response When Children Did Not Help

Replication (cost/upset)

EXPERIMENTER: "Okay stop. Time's up. Look, you have all your game all finished so you get your sticker. Unfortunately, <Puppet's name> doesn't have their game finished, so they don't get a sticker."

EXPERIMENTER: "But that's okay, because now we can move onto the next game."

Reward Immediate

EXPERIMENTER: "Okay stop. Time's up. Look, you have all your game all finished, and you already got your sticker. Unfortunately, <Puppet's name> doesn't have their game finished, so they don't get a sticker."

EXPERIMENTER: "But that's okay, because now we can move onto the next game."

No Reward

EXPERIMENTER: "Okay stop. Time's up. Look, you have all your game all done so you finished the game. Unfortunately, <Puppet's name> doesn't have their game finished, so they didn't finish the game."

EXPERIMENTER: "But that's okay, because now we can move onto the next game."

Response When Children Help

Replication (cost/upset)

EXPERIMENTER: "Okay stop. Time's up. You didn't finish your game. That

means you don't get your sticker. Look though, <Puppet's name> has their game all finished so they can get a sticker."

EXPERIMENTER: "That's great. Now let's move on to the next game."

Reward Immediate

EXPERIMENTER: "Okay stop. Time's up. Look, you already got your sticker.

And look, <Puppet's name> has their game all finished so they get a sticker too."

EXPERIMENTER: "That's great. Now let's move on to the next game."

No reward

EXPERIMENTER: "Okay stop. Time's up. You don't have all your pieces. That means you didn't finish the game. Look though, <Puppet's name> has their game all done so they finished the game."

EXPERIMENTER: "But that's okay, because now we can move onto the next game."

Manipulation Check (after each testing session)

EXPERIMENTER: "What did you think the puppet was feeling when they didn't have enough pieces to complete the game? Can you point to which face the puppet felt like? This face means he was really happy and this face means he was really upset.

Study 2: Explicit vs. Non-Explicit Instructions

Procedure, test tasks and puppets remain constant except for random assignment to either the explicit instructions or non-explicit instructions (control) condition. The explicit instructions condition involved an explicit explanation to the children prior to commencing the games that they are allowed to share their pieces with the puppet and vice versa. The experimenter also visually demonstrated to the child and puppet how one could share for each task. In both conditions to reduce competition salience the experimenter explained, "*There*

are no stickers or prizes for finishing the game, so it doesn't matter whether we finish or not, we are just going to play."

1. Pre-Task

EXPERIMENTER: "Hi there! Would you like to play some games? We are going to play three games today."

Place one apparatus in front of child and another in front of experimenter. Bring out puppet.

EXPERIMENTER: "We're going to play some games today with <PUPPET'S NAME>, can you say hello to <PUPPET'S NAME>?"

PUPPET: "Hi <CHILD'S NAME>!"

EXPERIMENTER: "Okay, so this game is called <GAME NAME>, <PUPPET'S NAME> has never played this game before, so let me explain the rules to both of you, so you know how to play."

Task 1: Sorting Task

a. Explicit instructions

EXPERIMENTER: "In this game, you see there are four colour rods (Point to Rods). The rule is that you and <PUPPET'S NAME> have to fill the rods with the same colour blocks all the way up to the top before I say stop."

EXPERIMENTER: "If you fill up all the rods to the top before I say stop then you will finish the game. If <PUPPET'S NAME> fills up the rod before I say stop he will finish the game too."

EXPERIMENTER: In this game you can share your pieces with each other, so <PUPPET'S NAME>, you can give some of your pieces to <CHILD'S NAME> and <CHILD'S NAME> you can give pieces to <PUPPET'S NAME>. So, you can give pieces to each other during the game.

EXPERIMENTER: Physically show the 'sharing' action

EXPERIMENTER: There are no prizes or stickers for finishing the game. So, it doesn't matter if you

complete the task or not. We are just going to do them.

EXPERIMENTER: <CHILDS NAME>, do you understand how to play the game?
Do you understand

you can share your pieces with each other?

EXPERIMETNER: <PUPPET'S NAME>, do you think you know how to play the
game? Do you

understand you can share with <CHILDS NAME>? Great, you can both start now!”

b. Non-explicit instructions

EXPERIMENTER: “In this game, you see there are four colour rods. The rule is that
you and <PUPPET'S NAME> have to fill the rod with the same colour blocks all the
way up to the top before I say stop.”

EXPERIMENTER: “If you fill up all the rods to the top before I say stop then you
will finish the game.”

EXPERIMENTER: “If <PUPPET'S NAME> fills up the rod before I say stop he will
finish the game too.”

EXPERIMENTER: There are no prizes or stickers for finishing the game. So, it
doesn’t matter if you complete the task or not. We are just going to do them.

EXPERIMENTER: “Do you understand how to play the game? Great, you can start
now!”

EXPERIMENTER: <CHILDS NAME>, do you understand how to play the game?
Do you understand you can share your pieces with each other?

EXPERIMENTER: <PUPPET'S NAME>, do you think you know how to play the
game? Do you understand you can share with <CHILDS NAME>? Great, you can
both start now!”

Task 2: Marble task

a. Explicit instructions

EXPERIMENTER: “See these holes? The way you play this game is you and <PUPPET'S NAME> have to fill up all of these holes with a marble before I say stop.”

EXPERIMENTER: “If you put all the marbles into the holes before I say stop you will finish the game.”

EXPERIMENTER: “If <PUPPET'S NAME> puts all the marbles into the holes before I say stop he will finish the game too.”

EXPERIMENTER: In this game you can share your pieces with each other, so <PUPPETS NAME>, you can give some of your pieces to <CHILD'S NAME> and <CHILD'S NAME> you can give pieces to <PUPPET'S NAME>. So, you can give pieces to each other during the game.

EXPERIMENTER: Physically show the ‘sharing’ action

EXPERIMENTER: There are no prizes or stickers for finishing the game. So, it doesn’t matter if you complete the task or not. We are just going to do them.

EXPERIMENTER: <CHILDS NAME>, do you understand how to play the game? Do you understand you can share your pieces with each other?

EXPERIMENTER: <PUPPET'S NAME>, do you think you know how to play the game? Do you understand you can share with <CHILD’S NAME>? Great, you can both start now!”

b. Non-explicit instructions

EXPERIMENTER: “See these holes? The way you play this game is you and <PUPPET'S NAME> have to fill up all of these holes with a marble before I say stop.”

EXPERIMENTER: “If you put all the marbles into the holes before I say stop you will finish the game.”

EXPERIMENTER: “If <PUPPET'S NAME> puts all the marbles into the holes before I say stop he will finish the game too.”

EXPERIMENTER: <CHILDS NAME>, do you understand how to play the game? Do you understand you can share your pieces with each other?

EXPERIMENTER: <PUPPET'S NAME>, do you think you know how to play the game? Do you understand you can share with <CHILD'S NAME>? Great, you can both start now!”

Task 3: Puzzle task

a. Explicit instructions

EXPERIMENTER: “The way you play this game is you and <PUPPET'S NAME> have to match

the same jigsaw pieces to the right spaces on the board before I say stop.”

EXPERIMENTER: “If you can put all puzzle pieces in correctly before I say stop you will finish the game.”

EXPERIMENTER: “If <PUPPET'S NAME> can put all his puzzle pieces in correctly before I say stop then he will finish the game too.”

EXPERIMENTER: You are allowed to share your pieces with <PUPPET’S NAME> and <PUPPET’S NAME> is allowed to share their pieces with you.

EXPERIMENTER: Physically show the ‘sharing’ action

EXPERIMENTER: There are no prizes or stickers for finishing the game. So, it doesn’t matter if you complete the task or not. We are just going to do them.

EXPERIMENTER: <CHILD’S NAME>, do you understand how to play the game? Do you understand you can share your pieces with each other?

EXPERIMENTER: <PUPPET'S NAME>, do you think you know how to play the game? Do you understand you can share with <CHILD'S NAME>? Great, you can both start now!”

b. Non-explicit instructions

EXPERIMENTER: “The way you play this game is you and <PUPPET'S NAME> have to match the same jigsaw pieces to the right spaces on the board before I say stop.”

EXPERIMENTER: “If you can put all puzzle pieces in correctly before I say stop you will finish the game.”

EXPERIMENTER: “If <PUPPET'S NAME> can put all his puzzle pieces in correctly before I say stop then he will finish the game too.”

EXPERIMENTER: There are no prizes or stickers for finishing the game. So, it doesn't matter if you complete the task or not. We are just going to do them.

EXPERIMENTER: <CHILDS NAME>, do you understand how to play the game? Do you understand you can share your pieces with each other?

EXPERIMENTER: <PUPPET'S NAME>, do you think you know how to play the game? Do you understand you can share with <CHILD'S NAME>? Great, you can both start now!”

2. Distress Prompts

First Prompt

PUPPET: "On no...I don't have enough <appropriate task pieces> to finish the game. Now I'm not going to finish the game...what am I going to do?"

Second Prompt

PUPPET: “Oh no the time is almost up, and I can't finish the game. I really wanted to finish the game, but I'm not going to finish now. I'm missing pieces and I can't finish the game!”

Third Prompt

PUPPET: “Oh no, I'm not going to finish the game now... I really wanted to finish. I'm so upset, I think I'm going to cry. Time is about to finish, what can I do? I don't have enough pieces to finish the game!”

3. Post task

Response when children help

EXPERIMENTER: “Okay stop. Time's up. You don't have all your pieces. That means you didn't finish the game. Look though, <PUPPET'S NAME> has their game all done so they finished the game.”

EXPERIMENTER: “But that’s okay, because now we can move onto the next game.”

Response when children did not help - children finish

EXPERIMENTER: “Okay stop. Time’s up. Look, you have all your game all done so you finished the game. Unfortunately, <PUPPET'S NAME> doesn’t have their game finished, so they didn’t finish the game.”

EXPERIMENTER: “But that’s okay, because now we can move onto the next game.”

Manipulation Check

Check completed after each testing session.

EXPERIMENTER: “What did you think the puppet was feeling when they didn’t have enough pieces to complete the game? Can you point to which face the puppet felt like? This face means he was really happy and this face means he was really upset.”

Study 3: Shared vs. Individual Resources

Procedure, test tasks and puppets remain constant except for random assignment to either the shared resources or individual resources (control) condition. In the shared resource condition, the experimenter placed a big transparent box with all the pieces to complete the tasks in-between the child and puppet, and indicated that nobody owned the pieces, and that they could be shared to complete the task.

1. Pre-Task

EXPERIMENTER: “Hi there! Would you like to play some games? We are going to play three games today.”

Place one apparatus in front of child and another in front of experimenter. Bring out puppet.

EXPERIMENTER: “We’re going to play some games today with <PUPPET'S NAME>, can you say hello to <PUPPET’S NAME>?”

PUPPET: “Hi <CHILD’S NAME>!”

EXPERIMENTER: “Okay, so this game is called <GAME NAME>, <PUPPET'S NAME> has never played this game before, so let me explain the rules to both of you, so you know how to play.”

Sorting Task

Shared resources

EXPERIMENTER: “In this game, you see there are four colour rods. The way you play

this game is you and <Puppet's name> have to fill the rod with the same colour blocks all

the way up to the top before I say stop.”

EXPERIMENTER: “If you fill up all the rods to the top before I say stop then you will

finish the game.”

EXPERIMENTER: “If <Puppet's name> fills up the rod before I say stop he will finish

the game too.”

Experimenter: Here are our shared pieces for the game, we will both play the game with these shared pieces together *pointing to the pieces*. Nobody owns these pieces. But these pieces are for us to share so we can play the game. So <Puppet's name> will take pieces from our shared box and you also take from this shared box as well.

Demonstrate to the child the Puppet taking a piece from the shared box and also as the experimenter take a piece and put it on their task.

EXPERIMENTER: “Do you understand how to play the game? Great, you can start now!”

Individual Resources

EXPERIMENTER: “In this game, you see there are four colour rods. The way you play

this game is you and <Puppet's name> have to fill the rod with the same colour blocks all

the way up to the top before I say stop.”

EXPERIMENTER: “If you fill up all the rods to the top before I say stop then you will

finish the game.”

EXPERIMENTER: “If <Puppet's name> fills up the rod before I say stop he will finish

the game too.”

EXPERIMENTER: “Do you understand how to play the game? Great, you can start now!”

Puzzle Task

Shared Resources

EXPERIMENTER: “The way you play this game is you and <Puppet's name> have to

match the same jigsaw pieces to the right spaces on the board before I say stop.”

EXPERIMENTER: “If you can put all puzzle pieces in correctly before I say stop you will finish the game.”

EXPERIMENTER: “If <Puppet's Name> can put all his puzzle pieces in correctly before

I say stop then he will finish the game too.”

Experimenter: Here are our shared pieces for the game, we will both play the game with these shared pieces together *pointing to the pieces*. Nobody owns these pieces. But these pieces are for us to share so we can play the game. So <Puppet's name> will take pieces from our shared box and you also take from this shared box as well.

Demonstrate to the child the Puppet taking a piece from the shared box and also as the experimenter take a piece and put it on their task..

EXPERIMENTER: “Do you understand how to play the game? Great, you can start now!”

Individual resources

EXPERIMENTER: “The way you play this game is you and <Puppet’s name> have to

match the same jigsaw pieces to the right spaces on the board before I say stop.”

EXPERIMENTER: “If you can put all puzzle pieces in correctly before I say stop you will finish the game.”

EXPERIMENTER: “If <Puppet’s Name> can put all his puzzle pieces in correctly before

I say stop then he will finish the game too.”

EXPERIMENTER: “Do you understand how to play the game? Great, you can start now!”

Marble Task

Shared Resources

EXPERIMENTER: “See these holes? The way you play this game is you and <Puppet’s

name> have to fill up all of these holes with a marble before I say stop.”

EXPERIMENTER: “If you put all the marbles into the holes before I say stop you will

finish the game.”

EXPERIMENTER: “If <Puppet’s name> puts all the marbles into the holes before I say

stop he will finish the game too.”

Experimenter: Here are our shared pieces for the game, we will both play the game with these shared pieces together *pointing to the pieces*. Nobody owns these pieces.

But these pieces are for us to share so we can play the game. So <Puppet's name> will take pieces from our shared box and you also take from this shared box as well.

Demonstrate to the child the Puppet taking a piece from the shared box and also as the experimenter take a piece and put it on their task..

EXPERIMENTER: "Do you understand how to play the game? Great, you can start now!"

Individual Resources

EXPERIMENTER: "See these holes? The way you play this game is you and <Puppet's

name> have to fill up all of these holes with a marble before I say stop."

EXPERIMENTER: "If you put all the marbles into the holes before I say stop you will

finish the game."

EXPERIMENTER: "If <Puppet's name> puts all the marbles into the holes before I say

stop he will finish the game too."

EXPERIMENTER: "Do you understand how to play the game? Great, you can start now!"

Distress Prompts

First Prompt

PUPPET: "Oh no...I don't have enough <appropriate to the task pieces> to finish the game. Now I'm not going to finish the game...what am I going to do?"

Second Prompt

PUPPET: "Oh no the time is almost up, and I can't finish the game. I really wanted to finish the game but I'm not going to finish now. I'm missing pieces and I can't finish the

game!”

Third Prompt

PUPPET: “Oh no, I’m not going to finish the game now... I really wanted to finish.
I’m

so upset, I think I’m going to cry. Time is about to finish, what can I do? I don’t have
enough pieces to finish the game!”

Post-Task

Response When Children Did Not Help

EXPERIMENTER: “Okay stop. Time’s up. Look, you have all your game all done so
you

finished the game. Unfortunately, <Puppet’s name> doesn’t have their game finished,
so

they didn’t finish the game.”

EXPERIMENTER: “But that’s okay, because now we can move onto the next game.”

Response When Children Help

EXPERIMENTER: “Okay stop. Time’s up. You don’t have all your pieces. That
means

you didn’t finish the game. Look though, <Puppet’s name> has their game all done so
they finished the game.”

EXPERIMENTER: “But that’s okay, because now we can move onto the next game.”

Study 4: Adult vs. Puppet Agent

Procedure, test tasks and puppets remain constant except for random assignment to either the adult or puppet (control) condition. The experimenter brought the child into the room where the adult participant was seated at one of the games. The same adult played all three games with the child. While the adult and child played the games, the experimenter moved away, sat at a table in the corner of the room and told the child and adult that they were ‘doing work’. After each game the experimenter would return and explain the rules of

the next game. In the puppet condition the same puppet (Carrie the Koala) completed each task to control for familiarity.

1. Pre-Task

EXPERIMENTER: “Hi there! Would you like to play some games? We are going to play three games today.”

Test Task

Place one apparatus in front of child and another in front of experimenter. Bring out puppet.

EXPERIMENTER: “This game is called <appropriate game>, and you’re going to play it with <Puppet’s Name or ADULT>, can you say hello?”

EXPERIMENTER: “<Puppet’s Name or ADULT> has never played this game either so I’ll

explain the rules to both of you, so you know how to play.”

Sorting Task

Adult agent

Place one apparatus in front of child and another in front of experimenter.

EXPERIMENTER (3rd person): “This game is called <appropriate game>, and you’re going to play it with <adult name>, can you say hello?”

EXPERIMENTER: “<Adult name> has never played this game either so I’ll explain the rules to both of you, so you know how to play.”

EXPERIMENTER: “In this game, you see there are four colour rods. The way you play

this game is you and <adult> have to fill the rod with the same colour blocks all the way

up to the top before I say stop.

EXPERIMENTER: “If you fill up all the rods to the top before I say stop then you will

finish the game.”

EXPERIMENTER: “If <adult> fill up the rod before I say stop, <adult> will finish the game too.”

EXPERIMENTER: “Do you understand how to play the game? Great, you can both start now!”

Puppet agent

Place one apparatus in front of child and another in front of experimenter. Bring out puppet.

EXPERIMENTER: “This game is called <appropriate game>, and you’re going to play it with <Puppet’s Name>, can you say hello?”

EXPERIMENTER: “<Puppet’s Name> has never played this game either so I’ll explain the rules to both of you, so you know how to play.”

EXPERIMENTER: “In this game, you see there are four colour rods. The way you play this game is you and <Puppet’s name> have to fill the rod with the same colour blocks all the way up to the top before I say stop.”

EXPERIMENTER: “If you fill up all the rods to the top before I say stop then you will finish the game.”

EXPERIMENTER: “If <Puppet’s name> fills up the rod before I say stop he will finish the game too.”

EXPERIMENTER: “Do you understand how to play the game? Great, you can start now!”

Puzzle Task

Adult Agent

Place one apparatus in front of child and another in front of experimenter.

EXPERIMENTER (CONFEDERATE): “This game is called <appropriate game>, and you’re going to play it with <adult name>, can you say hello?”

EXPERIMENTER: “<Adult name> has never played this game either so I’ll explain the rules to both of you, so you know how to play.”

EXPERIMENTER: “The way you play this game is you and <adult name> have to match

the same jigsaw pieces to the right spaces on the board before I say stop.”

EXPERIMENTER: “If you can put all puzzle pieces in correctly before I say stop you will finish the game.”

EXPERIMENTER: “If <adult> can put all the puzzle pieces in correctly before I say stop

then <adult> will finish the game too.”

EXPERIMENTER: “Do you understand how to play the game? Great, you can both start

now!”

Puppet agent

Place one apparatus in front of child and another in front of experimenter. Bring out puppet.

EXPERIMENTER: “This game is called <appropriate game>, and you’re going to play it with <Puppet’s Name>, can you say hello?”

EXPERIMENTER: “<Puppet’s Name> has never played this game either so I’ll explain the rules to both of you, so you know how to play.”

EXPERIMENTER: “The way you play this game is you and <Puppet’s name> have to match the same jigsaw pieces to the right spaces on the board before I say stop.”

EXPERIMENTER: “If you can put all puzzle pieces in correctly before I say stop you will finish the game.”

EXPERIMENTER: “If <Puppet’s Name> can put all his puzzle pieces in correctly before

I say stop then he will finish the game too.”

EXPERIMENTER: “Do you understand how to play the game? Great, you can start now!”

Marble Task

Adult Agent

Place one apparatus in front of child and another in front of experimenter.

EXPERIMENTER: (CONFEDERATE) “This game is called <appropriate game>, and you’re going to play it with <adult name>, can you say hello?”

EXPERIMENTER: “<Adult name> has never played this game either so I’ll explain the rules to both of you, so you know how to play.”

EXPERIMENTER: “See these holes? The way you play this game is you and <adult name> have to fill up all of these holes with a marble before I say stop.”

EXPERIMENTER: “If you put all the marbles into the holes before I say stop you will

finish the game.”

EXPERIMENTER: “If <adult > puts all the marbles into the holes before we have to stop

he/she will finish the game too.”

EXPERIMENTER: “Do you understand how to play the game? Great, you can both start

now!”

Puppet Agent

Place one apparatus in front of child and another in front of experimenter. Bring out puppet.

EXPERIMENTER: "This game is called <appropriate game>, and you're going to play it with <Puppet's Name>, can you say hello?"

EXPERIMENTER: "<Puppet's Name> has never played this game either so I'll explain the rules to both of you, so you know how to play."

EXPERIMENTER: "See these holes? The way you play this game is you and <Puppet's

name> have to fill up all of these holes with a marble before I say stop."

EXPERIMENTER: "If you put all the marbles into the holes before I say stop you will

finish the game."

EXPERIMENTER: "If <Puppet's name> puts all the marbles into the holes before I say

stop he will finish the game too."

EXPERIMENTER: "Do you understand how to play the game? Great, you can start now!"

Distress Prompts

First Prompt

PUPPET or ADULT: "On no...I don't have enough <appropriate to the task pieces> to

finish the game. Now I'm not going to finish the game...what am I going to do?"

Second Prompt

PUPPET or ADULT: "Oh no the time is almost up, and I can't finish the game. I really

wanted to finish the game but I'm not going to finish now. I'm missing pieces and I can't

finish the game!"

Third Prompt

PUPPET or ADULT: “Oh no, I’m not going to finish the game now... I really wanted to finish. I’m so upset, I think I’m going to cry. Time is about to finish, what can I do? I don’t have enough pieces to finish the game!”

Post-Task

Response When Children Did Not Help

EXPERIMENTER: “Okay stop. Time’s up. Look, you have all your game all done so you finished the game. Unfortunately, <Puppet’s name OR adult name> doesn’t have their game finished, so they didn’t finish the game.”

EXPERIMENTER: “But that’s okay, because now we can move onto the next game.”

Response When Children Help

EXPERIMENTER: “Okay stop. Time’s up. You don’t have all your pieces. That means you didn’t finish the game. Look though, <Puppet’s name OR adult name> has their game all done so they finished the game.”

EXPERIMENTER: “But that’s okay, because now we can move onto the next game.”

Manipulation Check (after each testing session)

EXPERIMENTER: “What did you think the puppet (OR <adult name>) was feeling when they didn’t have enough pieces to complete the game? Can you point to which face the puppet felt like? This face means he was really happy and this face means he was really upset.”

Study 5: Help me, we are in the same group!

Procedure, test tasks and puppets remain constant except for random assignment to either No Group Control condition, Group Assignment condition, or Group Enhancement condition.

Condition 1: No group. This condition followed the same procedure where the children and puppets were not assigned to any group. **Condition 2: Group assignment.** This condition followed the same procedure with the addition of assigning the children and puppet into a group. The children were assigned into a group after choosing their desired stickers and prior to being introduced to the puppets. The children remained in their assigned group throughout all their tasks with all the puppets. Each puppet was assigned into a group at the start of every task. Group assignment was done by the children and puppets to draw out a coloured token from the same drawstring bag. There were only yellow tokens and thus, children and puppets were always in the same group. Afterwards, children were given two manipulation checks assessing their (1) understanding of their group assignment and (2) understanding of puppet's group assignment. Once children passed the manipulation check, a yellow bandana and wristband was placed on the child and the puppet. **Condition 3: Group enhancement.** This condition followed the same procedure as the Group Assignment condition where the puppet and children were allocated into the same group. However, in addition, the puppets also verbally highlighted their shared group membership with the children. This is done by including an additional sentence to the original distress prompts (See <https://goo.gl/jxxN7J> at 04:55 minutes for example of condition [Kirby, 2017] and Appendix experiment script), "*We're in the same group, you are getting a sticker but I won't!*".

Pre-Task

Present children with a range of stickers.

EXPERIMENTER: "Hello! So today I have some stickers here for you, can you point to me which ones are your favourite three?"

EXPERIMENTER: "Okay, I'm just going to put these stickers to the side. We are going to play three games, and you might be able to win some of those stickers."

Group Assignment and Group Enhancement

EXPERIMENTER: "But before we start playing, first let's find out what group you will be in"

Assign the children into a group by letting them pick out a coloured token from a drawstring bag.

EXPERIMENTER: "You are in the yellow group!"

Manipulation check

EXPERIMENTER: "Can you tell me what group you are in?"

Test Task

EXPERIMENTER: "We're going to play some games and you're going to play it with <Puppet's name>. Can you say hello?"

EXPERIMENTER: "<Puppet's name> has never played the game before too so let me explain the rule to both of you."

Sorting Task

EXPERIMENTER: "In this game, you see there are four colour rods. The rule is that you and <Puppet's name> have to fill the rod with the same colour blocks all the way up to the top before I say stop."

EXPERIMENTER: "Remember, if you complete the game before I say stop you will have a chance to win some stickers"

EXPERIMENTER: "If <Puppet's name> finish the game before I say stop he will have a chance to win his stickers too" "You can start!"

Group Assignment and Group Enhancement

EXPERIMENTER: "Before we start, let's find out what group <Puppet's name> is in"

Assigned the puppet into a group by letting them pick out the token from the same drawstring bag.

EXPERIMENTER: "<Puppet's name> is in in the yellow group! You are both

in the same group!”

Manipulation Check

EXPERIMENTER: “Can you tell me what group the puppet is in?”

EXPERIMENTER: “Can you tell me what group you are in?”

EXPERIMENTER: “Remember, if you complete the game before I say stop you will have a chance to win some stickers”

EXPERIMENTER: “If <Puppet’s name> finish the game before I say stop he will have a chance to win his stickers too”

EXPERIMENTER: “Now you can start!”

Marble Task.

EXPERIMENTER: “In this game the rule is that you and <Puppet’s name> have to fill up all of these holes with a marble before I say stop.”

EXPERIMENTER: “Remember, if you complete the game before I say stop you will have a chance to win some stickers”

EXPERIMENTER: “If <Puppet’s name> finish the game before I say stop he will have a chance to win his stickers too” “You can start!”

Group Assignment and Group Enhancement

EXPERIMENTER: “Before we start, let’s find out what group <Puppet’s name> is in”

Assigned the puppet into a group by letting them pick out the token from the same drawstring bag.

EXPERIMENTER: “<Puppet’s name> is in in the yellow group! You are both in the same group!”

Manipulation Check

EXPERIMENTER: "Can you tell me what group the puppet is in?"

EXPERIMENTER: "Can you tell me what group you are in?"

EXPERIMENTER: "Remember, if you complete the game before I say stop you will have a chance to win some stickers"

EXPERIMENTER: "If <Puppet's name> finish the game before I say stop he will have a chance to win his stickers too"

EXPERIMENTER: "Now you can start!"

Puzzle Task

EXPERIMENTER: "In this game the rule is that you and <Puppet's name> have to match the same jigsaw pieces to the matching spaces on the board before I say stop."

EXPERIMENTER: "Remember, if you complete the game before I say stop you will have a chance to win some stickers"

EXPERIMENTER: "If <Puppet's name> finish the game before I say stop he will have a chance to win his stickers too" "You can start!"

Group Assignment and Enhancement.

EXPERIMENTER: "Before we start, let's find out what group <Puppet's name> is in"

Assigned the puppet into a group by letting them pick out the token from the same drawstring bag.

EXPERIMENTER: "<Puppet's name> is in in the yellow group! You are both in the same group!"

Manipulation Check

EXPERIMENTER: "Can you tell me what group the puppet is in?"

EXPERIMENTER: "Can you tell me what group you are in?"

EXPERIMENTER: "Remember, If you complete the game before I say stop you will have a chance to win some stickers"

EXPERIMENTER: "If <Puppet's name> finish the game before I say stop he will have a chance to win his stickers too"

EXPERIMENTER: "Now you can start!"

Distress Prompts

No Group and Group Assignment

First Prompt

PUPPET: "On no...I don't have enough <appropriate to the task pieces> to finish the game. Now I'm not going to get a sticker...what am I going to do?" □

Second Prompt

PUPPET: "Oh no the time is almost up and I can't finish the game. I really wanted a sticker but I'm not going to get one now. I'm missing pieces and I can't finish the game!"

Third Prompt

PUPPET: "Oh no, I'm not going to get a sticker now... I really wanted one. I'm so upset, I think I'm going to cry"

Group Enhancement

First Prompt

PUPPET: "On no...I don't have enough <appropriate to the task pieces> to finish the game. I'm so sad I'm not going to get a sticker...What am I going to do? We are in the same group, you are getting a sticker but I won't" □

Second Prompt

PUPPET: “Oh no the time is almost up and I can’t finish the game. I really wanted a sticker but I’m not going to get one now. I’m missing pieces and I can’t finish the game! We’re in the same group but you are getting a sticker and I’m not”

Third Prompt

PUPPET: “Oh no, I’m not going to get a sticker now... I really wanted one. I’m so upset, I think I’m going to cry. I’m in the same group as you. You are getting a sticker but I’m not getting any”

Post-Task

Response When Children Help

EXPERIMENTER: “Okay stop. Time’s up. Look, you have all your game all finished so you get to win a sticker. Unfortunately, <Puppet’s name> doesn’t have their game finished, so they don’t win a sticker.”

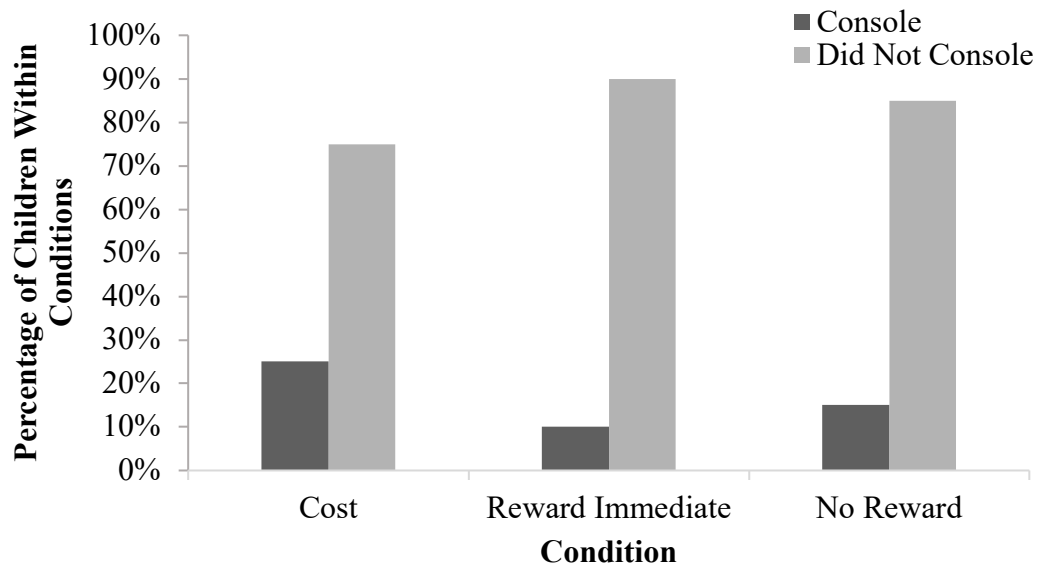
EXPERIMENTER: “Okay let’s move on to the next game.”

Response When Children Did Not Help

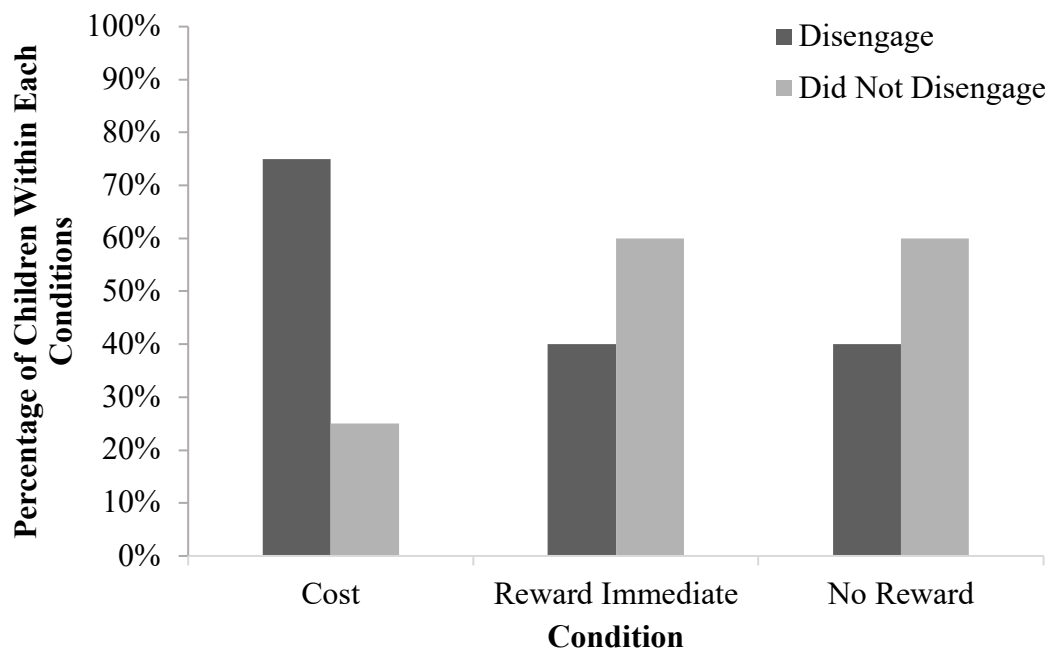
EXPERIMENTER: “Okay stop. Time’s up. You didn’t finish your game. You didn’t win any of these stickers. Look though, <Puppet’s name> has their game all finished so they can win a sticker”.

Supplementary Figures on Consoling and Disengaging Across Studies

Study 1: I'll Help You, But What's the Cost

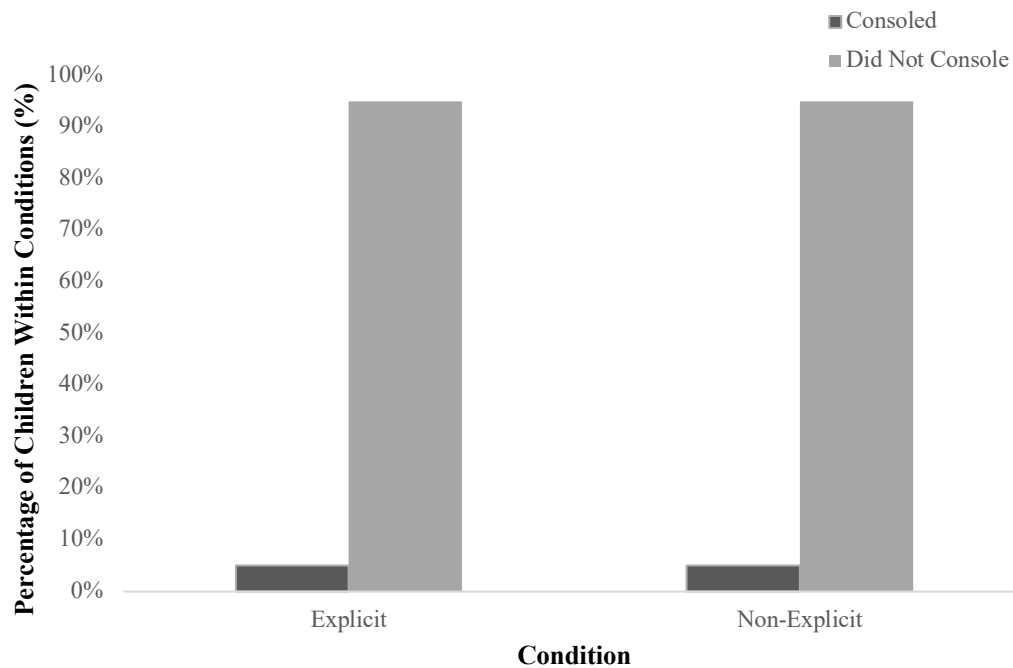


S Figure 1. Percentage of children who consoled or did not console within each condition

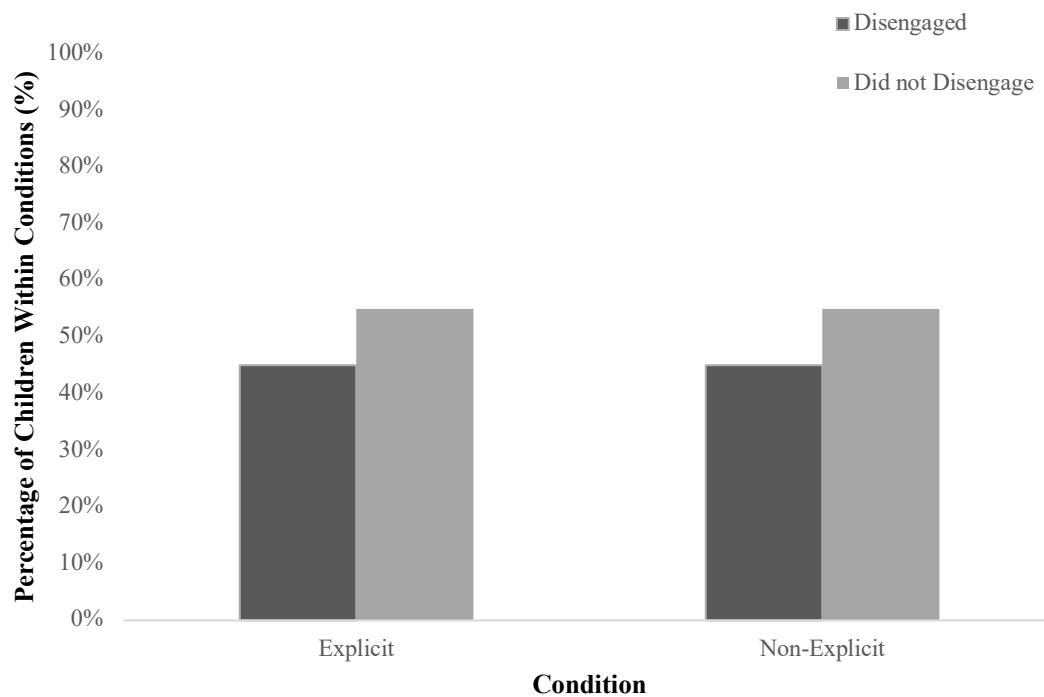


S Figure 2. Percentage of children who disengaged and did not disengage within each condition.

Study 2: Explicit Instructions

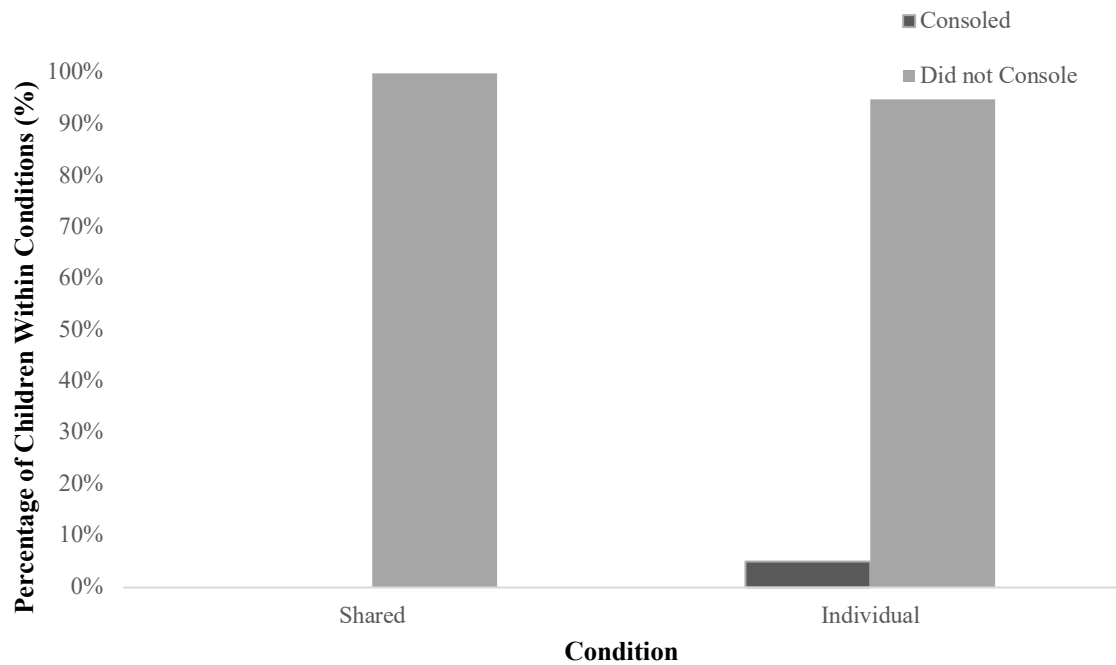


S Figure 3. Percentage of children who consoled or did not console within each condition.

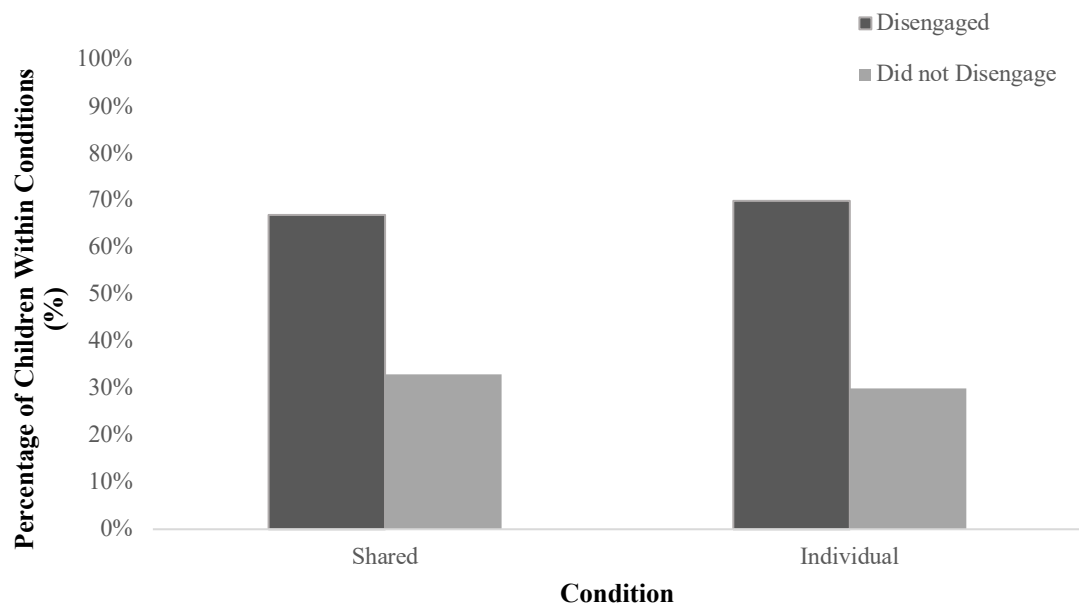


S Figure 4. Percentage of children who disengaged or did not disengage within each condition.

Study 3: Not mine, But Ours

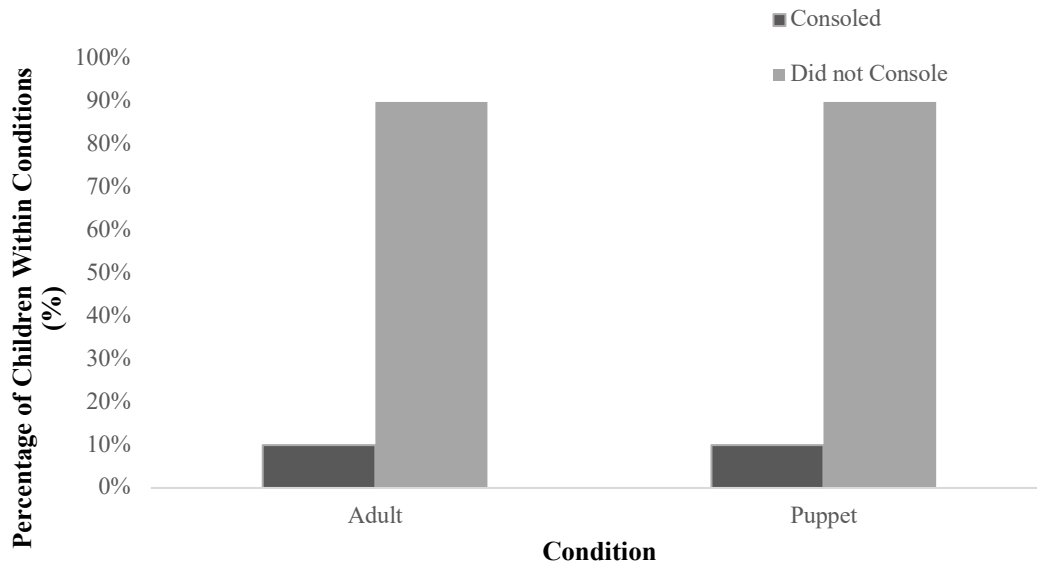


S Figure 5. Percentage of children who consoled or did not console within each condition.

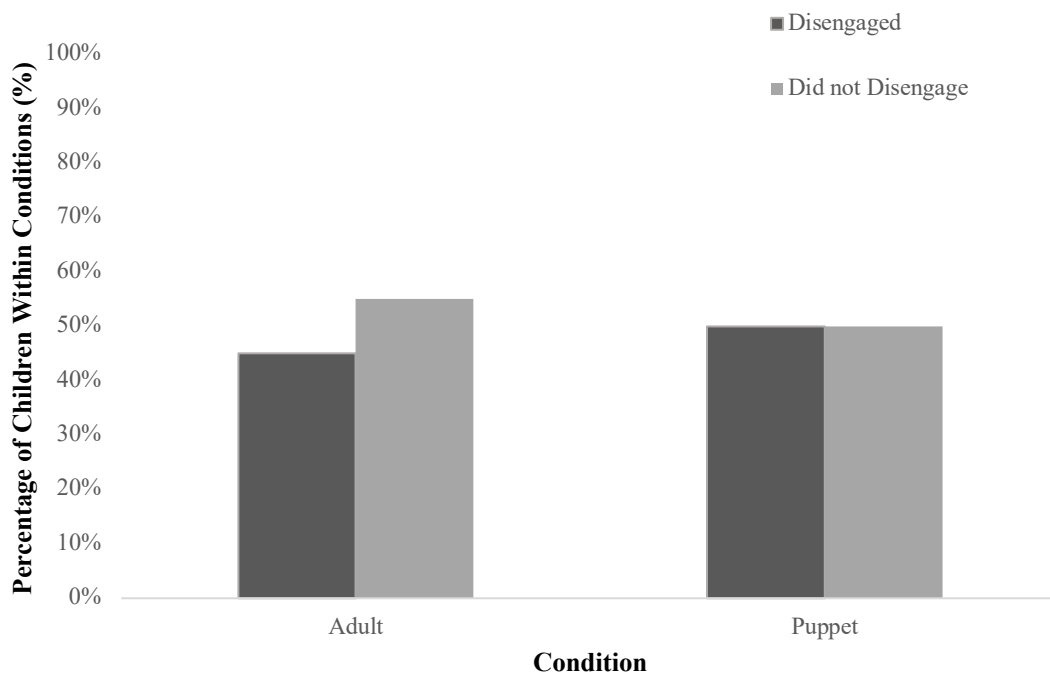


S Figure 6. Percentage of children who disengaged or did not disengage within each condition.

Study 4: Who am I Helping? (Adult vs. Puppet Target)



S Figure 7. Percentage of children who consoled or did not console within each condition.



S Figure 8. Percentage of children who disengaged or did not disengage within each condition.

