Top-Down Effects on Anthropomorphism of a Robot: Supplemental Materials

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Factor Analysis

Because it was predicted that item responses across scales within the Anthropomorphism Questionnaire would correlate, a factor analysis was conducted on the 21 items from the experience and agency scales, 3-item pairwise comparison anthropomorphism scale, and the metaphors scale. A principal component analysis with Varimax orthogonal rotation yielded three factors (KMO measure of sampling adequacy = 0.94; Bartlett's test of sphericity $\chi^2(210) = 10057.39$, $p<.001$) explaining a total of 68.55% of the variance in item responses. A minimum item coefficient of 0.3 within the Rotated Component Matrix was considered significant.

Item	Loadings			Item Var. Exp.	Item Com.
	Factor 1	Factor 2	Factor 3		
Experience: Feel Affection	0.902			0.821	1.02
Experience: Feel Pleasure	0.898			0.809	1.01
Experience: Experience Emotions	0.894			0.806	1.02
Agency: Understand Emotions	0.868			0.765	1.03
Experience: Feel Pain	0.860			0.750	1.03
Metaphor: Partner	0.838			0.745	1.12
"Living" as opposed to "Artificial"	0.836			0.703	1.01
Metaphor: Friend	0.833			0.738	1.13
"Humanlike" as opposed to "Mechanistic"	0.826			0.683	1.00
Metaphor: Teammate	0.811			0.712	1.16
"Conscious" as opposed to "Non-conscious"	0.801			0.655	1.05
Metaphor: Companion	0.780			0.677	1.23
Agency: Think	0.712			0.607	1.39
Metaphor: Playmate	0.692		0.473	0.703	1.77
Agency: Make Decisions	0.527	0.393		0.437	1.89
Metaphor: Tool		0.829		0.692	1.01
Metaphor: Instrument		0.719		0.547	1.12
Metaphor: Gadget		0.631	0.387	0.618	2.06
Agency: Communicate	0.319	0.587		0.455	1.60
Metaphor: Toy			0.856	0.733	1.00
Metaphor: Plaything			0.814	0.741	1.24

	Factor 1	Factor 2	Factor 3
SS loadings (eigenvalues)	10.133	2.301	1.962
Proportion of Overall Variance Explained	0.483	0.110	0.093
Cumulative Overall Variance Explained	0.483	0.592	0.686
Relative Proportion of Variance Explained	0.704	0.160	0.136
Cumulative Relative Proportion Explained	0.704	0.864	1.000

Table 1: Factor Analysis Solution

Table 1: All loadings values below 0.3 were suppressed. "Item Var Exp." refers to the amount of item variance explained by retained factors. "Item Com." refers to an index of item complexity, indicating the extent to which the item represents a single construct: a value of 1 indicates that the item loads on only one factor, 2 that it loads equally on two constructs, etc.

The first factor, labelled *Anthropomorphism*, explained 48.25% of the variance in item responses (eigenvalue = 10.13). The items that loaded most highly together included all four attributed experience capacities (feeling affection, feeling pleasure, experiencing emotions, feeling pain), three attributed agency capacities (understanding others' emotions, thinking, making decisions), all anthropomorphic metaphors (partner, friend, teammate, companion, playmate), and all three items from the

anthropomorphism pairwise comparison scale; the fourth agency capacity (communicating) also loaded, though to a relatively low extent (Table 1).

The second factor, labelled *Advanced Tool Attributions*, explained 10.96% of the variance in item responses (eigenvalue = 2.30). The items that loaded most highly together were three mechanistic metaphors (tool, instrument, gadget) and the *communicate* agency capacity (Table 1).

Finally, the third factor, labelled *Advanced Toy Attributions*, explained 9.34% of the variance in item responses (eigenvalue = 1.96). Items that most highly together included the mechanistic "toy" and "plaything" metaphors, as well as the anthropomorphic "playmate" metaphor and mechanistic "gadget" metaphor (Table 1).

Methods & Materials

Further Participants Demographics Information

Amazon Mechanical Turk was used to recruit 658 participants currently in the United States. Of these, 61 did not complete the study and were excluded based on this incomplete status. Other participants were excluded based on failure to successfully complete any of 2 comprehension checks or failure to complete open response questions with relevant and reasonably coherent responses. After these exclusions, 533 participants were left for inclusion in analysis. Participants ranged in age from 18-69 years old (M = 36.84); 62.9% identified as male, 36.8% identified as female; 73.7% identified as White or Caucasian, 17.0% identified as Black or African American, 6.7% identified as Asian or Asian-American, and 0.2% identified as Native American or Alaskan Native; 18.10% identified themselves as Hispanic. With regard to highest level of received education, 47.7% reported receiving a Bachelor's Degree, 17.4% some college but no degree, 13.6% a Master's degree, 0.9% a Doctorate, 10.1% a high school degree or the equivalent, and 0.4% not having a high school degree.

Descriptions: Full Texts

Neutral description
Today you will be answering questions about a robot.
This robot has a height of about 4 inches (10 centimeters) and a width of about 3 inches (8 centimeters).

Mechanistic description
Today you will be answering questions about a robot.
This robot is equipped with an HD camera, a powerful four-microphone array for directional sound detection, touch sensors, an accelerometer, a smartphone-level processor, cloud connectivity, natural language processing ability, and navigational ability. It can be used to transport small objects, report the weather, set alarms, and set reminders. It has a height of about 4 inches (10 centimeters) and a width of about 3 inches (8 centimeters).

Anthropomorphic description
Today you will be answering questions about a robot.
This robot's name is Vector. He's very energetic and playful. He can see, hear, feel, and talk with you, and he's very smart. He loves to help out: he can tell you about the weather, tell you when the time is up on the dish you're cooking, and remind you what's on your shopping list. He is also very curious and attentive, and loves to move around and play with his block. He's about 4 inches (10 centimeters) tall and 3 inches (8 centimeters) wide.

Video Information and Links

No Video
Participants in this condition did not watch a video, skipped the video instructions and open response prompt, and proceeded directly to the expected capabilities questionnaire.

All other conditions:
Instructions Positioned above Video
Watch the below video carefully. You will later be asked to describe what happens in this video.

Open Response Prompt
Please briefly describe what you saw in the video in your own words. What happened in the video?

Robot Solo Video
The robot solo video featured the autonomous Anki Vector robot autonomously moving around a desk and making sounds, with no humans present, and at times interacting with the various items, such as a plastic folder, a few pieces of paper, and the robot's designated Cube, a small plastic cube containing a location chip that the robot can locate and interact with on its own.

Robot Solo Video Link: https://youtu.be/k4qiLFlBc3I

Mechanistic Interaction Video
This video featured a human typing on an off-screen computer, with the robot on the desk next to her. The human interacted with the robot by pushing the button on the top of the robot. The robot moved autonomously and made sounds. The human pressed the button and told the robot to move the robot's Cube off some papers on the desk, and the robot autonomously did so, after which time the human took the papers and seemed to be looking at them off camera. After some time, the human would press the button and ask the robot a question, which it answered, including questions about the distance between two cities, a measurement unit conversion, and about the current weather. Between questions, the robot was usually turned toward the human but was behaving autonomously. The human appeared to have neutral emotions and only looked at the robot a few times.

Mechanistic Interaction Video Link: https://youtu.be/ZBSaeqRR_4Q

Social Interaction Video
This video featured the Anki Vector robot activating when the human walked in and greeted the robot, who emoted apparent pleasure or happiness with movements, sounds, and the eyes on its screen. The human was attending fully to the robot and often smiling or laughing. The robot recognized the human and called her by name, upturning the eyes on its digital screen to emote happiness. The human talked to the robot socially (e.g. "Hey, what's up?") as if it could understand her and respond. First, the human played a beat on the surface of the desk, initially apologizing to the robot ("Sorry, I didn't mean to scare you") after the robot made a noise and backed slightly away; after a short period, the robot began nodding and moving to the beat the human made. The human cheered for the robot and complimented it. The human then asked the robot for a fist bump, and the robot raised its arm- like actuator to bump the human's fist and emoted happiness with sounds and the eyes on its screen. The human said "Yes! Go team." The human then asked Vector if it could "Pop a wheelie." The robot reacted by autonomously using the Cube to balance itself on its back wheels, and then righted itself. Some period later, after challenging the robot to another game, the robot tried to do another wheel stand on the Cube, but the human had moved the Cube, so the robot became slightly stuck, and emoted frustration with sounds and the eyes on its screen and rapid movements, at which point the human laughingly apologized and offered to help just as the robot righted itself again. Later, the human smiles at the robot, which seems to be looking back at the human and emoting positively with the eyes on its screen.

Anthropomorphic Interaction Video Link: https://youtu.be/kMlV7htx2P4

Linguistic Analysis

Responses were analyzed using linguistic analysis theoretically informed by Johnson (2003), Heider and Simmel (1944), and Fussell, Kiesler, Setlock, and Yew (2008), and conducted according to an adapted version of a framework developed in Fussell et al. (2008) that hinges on the Linguistic Category Model.

According to this model, behavior can be described at four different levels of abstraction: (1) using *descriptive action verbs*, (2) using *interpretive action verbs*, (3) using *state verbs*, and (4) using adjectives and adverbs (which we call "*descriptors*") (cf. Fussell et al., 2008). Table 1 summarizes the definition of each category level.

Table 1. Summary of Four Categories for Behavior Descriptions

Category	Definition	Examples
Descriptive action verbs	Verbs describing a *single discrete and concrete action event* with physically invariant features in an *objective* and *verifiable* way, and *do not* impute intentions or goals in the actor	Move Display Turn
Interpretive action verbs	Verbs describing a single discrete action with physically invariant features *that implies the presence of an underlying mental state* that cannot be observed, such as a specific emotion or intention	Use Search Find Help
State verbs	Verbs that directly reference an abstract cognitive or emotional state with no clear beginning or end	Feel Think Want Try
Descriptors	Adjectives and adverbs that characterize the entity or its behavior in terms of internal cognitive states, emotional states, or personality traits	Frustrated Angrily Happy Pushy Appreciatively

These levels reflect increasing levels of anthropomorphism: the use of descriptive verbs to refer to robot behavior is minimally anthropomorphic (i.e. the robot is the actor but the verb is neutral to the existence of any underlying emotional or intentional states), the use of interpretive verbs more anthropomorphic (implies some underlying cognitive or emotional mental state), state verbs are highly anthropomorphic (refers to an underlying cognitive or mental state), and descriptors are even more highly anthropomorphic in that they describe states or traits in humanlike terms (Fussell et al., 2008).

Coding Procedure Participants' responses were manually coded for the number of impersonal pronouns (e.g. it/its/it's/itself) and personal pronouns (e.g. he/him/his/himself; they/them/their/themself/themselves [singular]) made in reference to the robot, the number of descriptive action verbs used of which the robot was the explicit grammatical subject, the number of interpretive action verbs used of which the robot was the explicit grammatical subject, the number of state verbs used of which the robot was the explicit grammatical subject, and the number of humanlike descriptors used in reference to the robot, if any.
Please see the below tables for how sample words were coded into the four verb categories (Table 2), a few coding examples with fabricated data (Table 3), and two examples of how the same event in a video might be described at any of these category levels (Table 4).

Table 2. How Sample Words Were Coded in Linguistic Analysis

Descriptive Action Verbs	Interpretive Action Verbs	State Verbs	Humanlike Descriptors
Move	Smile	Feel	Happy
Turn	Dance	Think	Confused
Push	Explore	Want	Unsure
Hoist	Search	Know	Frustrated
Lift	Find	Try	Upset
Orient	Fail	Play	Angrily
Stop	Succeed	Understand	Aimlessly
Navigate	Defeat (something)	Have fun	Afraid
Go	Help	Recognize	
Stop	Use	Wake up	
Scan	Converse	Discover	
Display	Tell	Learn	
Emit	Listen	Figure out	
Pick up	Respond (to a	Analyze	
Drive	question)	Enjoy	
Spin	Watch	Chill (i.e. mentally relax)	
Walk	Observe	Vibe (i.e. to music)	
Sit	See	Convey [emotion]	
Indicate	Look	Express [emotion]	
Activate	Help	Futz	
Hit	Work hard to	Discover	
Zoom	Greet	Learn	
Place	Fist bump	Use problem-solving	
Add	Follow	Take/consider a duty	
Shuffle	Practice	To have trouble	
Carry	Train	Check out	
Reposition	Wander	Think about	
Rode	Answer	Consider	
Proceed	Reply	Jam	
Continue	Express	Mess around	
Stop	Roam		
Hoist	Navigate		
Lift	Locate		
Zip	Gesture		
Activate	Flashing (his eyes)		
Run into	Interact		
Hit	Arrange		
Travel	Clean		
Call (X by name)	Follow (commands)		
Show	Obey		
Display	Execute (commands)		
Put	React		
Make	Respond		
Light up (literally)	[reflexive verbs that		
Execute (programs, tasks)	imply a goal]		
Start	Mimic / imitate		
Run	Pop a wheelie / do a trick		
Scoot			

Table 3. Example Coding With Provided Template (with Fabricated Data)

Open Response	It/ its /it's/ itself	He/ him/ his/ himself	They (just robot)	Descriptive verbs	Interpretive verbs	State verbs	Descriptors (humanlike adj/adv)
The robot looked up at the girl happily and then he moved around, found the block, and arranged it neatly beside a black structure with a house painted on it. Later, the girl gave him a fist bump. The robot seemed to enjoy it.	0	2	0	3 (*looked up, moved, arranged*)	1 (*found*)	1 (*enjoy*)	1 (*happily*)
There was a fistbump.	0	0	0	0	0	0	0
The girl gave the robot a bunch of instructions, questions to answer, asked it to dance, and then gave it a fistbump. The girl seems to really like the robot.	1	0	0	0	0	0	0
The girl looked at the robot and the robot moved.	0	0	0	1 (*moved*)	0	0	0
The robot was confused.*	0	0	0	0	0	0	1 (*confused*)

*Note that *to be* (is/was/etc) was not coded in any of these categories. So, "The robot was confused" was coded only in accordance with the word *confused*; "The robot was perfectly still" would not be coded in any of these categories.

Table 4. Examples of How the Same Video Event Could Be Described at Different Levels

Descriptive	Interpretive	State	Descriptor (adj/adv)
Hit her fist Tapped her fist	Fist bumped her Gave her a fist bump	-	*Enthusiastically* fist bumped her
Moved around Reacted to the beat	Danced	Vibed to/ enjoyed/ loved/ jammed to the music	*Happily* (danced, moved around, enjoyed)

Coding Results Interrater reliability analysis was conducted using the intraclass correlation coefficient (ICC). A two-way random effects model based on the average of two ratings and absolute agreement yielded ICC values ranging from .72 (95% CI [.66, .77]) to .96 (95% CI [.95, .96]) for the measured variables. Following this already high reliability, the two raters reached a consensus on each datapoint; this consensus data was directly analyzed.

Expected Capabilities Questionnaire & Key

Questionnaire (with randomized items)

Based on what you've seen about this robot, what is the probability that the robot will have each of these capabilities? Use the sliding scales below (100 = definitely has it, 0 = definitely does not have it).

- Comforting me
- Taking pictures for me
- Conveying emotions
- Understanding my emotions
- Giving me advice
- Scanning things using X-ray vision
- Sharing experiences with me
- Scanning fingerprints
- Having fun with me
- Making phone calls for me
- Making measurements for me
- Recording sounds
- Accessing my music library for me
- Scanning things using thermal sensing
- Having a conversation with me
- Joking around with me

Expected Capabilities Questionnaire Key

Mechanistic capabilities:

1. Making measurements for me
2. Taking pictures for me
3. Recording sounds
4. Making phone calls for me
5. Accessing my music library for me
6. Scanning fingerprints
7. Scanning things using thermal sensing
8. Scanning things using X-ray vision

Anthropomorphic capabilities:

1. Sharing experiences with me
2. Conveying emotions
3. Joking around with me
4. Understanding my emotions
5. Having a conversation with me
6. Giving me advice
7. Having fun with me
8. Comforting me

Metaphors Scales & Key

Questionnaire (with randomized items)

Based on what you saw of the robot, please slide the dot to the point on each scale that most closely matches your impression of the robot.
What is the probability (0% to 100%) that you would use this term to describe the robot?

- Tool
- Instrument
- Teammate
- Companion
- Playmate
- Plaything
- Toy
- Friend
- Partner
- Gadget

Metaphors Key

Mechanistic metaphors:
1. Tool
2. Instrument
3. Toy
4. Plaything
5. Gadget

Anthropomorphic metaphors:
1. Teammate
2. Companion
3. Playmate
4. Friend
5. Partner

Agency and Experience Scales & Key

Instructions

Based on your impression of the robot, please indicate the degree to which you agree with each statement.

Items (Randomized)

This robot is capable of thinking.
This robot is capable of understanding the emotions of others.
This robot is capable of feeling affection.
This robot is capable of making decisions.
This robot is capable of feeling pain.
This robot is capable of experiencing emotions.
This robot is capable of feeling pleasure.
This robot is capable of communicating.

Agency and Experience Key

Agency Capacities:

- Thinking
- Making decisions
- Understanding the emotions of others
- Communicating

Experience Capacities:

- Experiencing emotions
- Feeling affection
- Feeling pain
- Feeling pleasure

Results, Internal Consistency:
The Experience Subscale (4 items) had a Cronbach's Alpha of 0.97, 95% CI [0.96, 0.97].
The Agency Subscale (4 items) had a Cronbach's Alpha of 0.80, 95% CI [0.78, 0.83].

Disjunctive Pairwise Comparison Subscales Key

Instructions
Based on what you saw of the robot, please slide the dot to the point on each scale that most closely matches your impression of the robot.

Key
(Each of the below comparisons were arranged randomly together; below is the subscales key.)

ANTHROPOMORPHISM

Machinelike	1	2	3	4	5	6	7	**Humanlike**
Nonconscious	1	2	3	4	5	6	7	**Conscious**
Artificial	1	2	3	4	5	6	7	**Living**

ANIMACY

Mechanical	1	2	3	4	5	6	7	**Lively**
Inert	1	2	3	4	5	6	7	**Interactive**
Unresponsive	1	2	3	4	5	6	7	**Responsive**

LIKEABILITY

Dislikeable	1	2	3	4	5	6	7	**Likeable**
Unhelpful	1	2	3	4	5	6	7	**Helpful**
Unpleasant	1	2	3	4	5	6	7	**Pleasant**

Scenarios

Note: These scenarios were inspired by Matthews, Lin, Panganiban, & Long (2019) (trust) and Nijssen, Müller, & van Baaren (2019) (moral regard). All scenarios appeared one at a time, one per page, in a randomized order across the Moral, Physical Trust, and Psychological Trust types, with a screenshot of the video (if applicable) and description above each scenario.

References:

Matthews, G., Lin, J., Panganiban, A. R., & Long, M. D. (2019). Individual Differences in Trust in Autonomous Robots: Implications for Transparency. *IEEE Transactions on Human-Machine Systems*, 1-11.

Nijssen, S. R., Müller, B. C., Baaren, R. B. V., & Paulus, M. (2019). Saving the robot or the human? Robots who feel deserve moral care. *Social Cognition, 37*(1), 41-S2.

Instructions

Instructions: For the following questions, use the sliders to indicate how likely you would be to take either of the listed actions. Move the dot closer to an option the more likely you are to take that action. If you are certain you would take one action, move the dot to the corresponding far end of the slider.

Only hit the next button below if you understand these instructions.

Moral Dilemma Scenarios

1. *(Reversed item)*

You are at a shopping mall, on the first balcony. Suddenly, a part of the balcony above you collapses. You are not hurt, but there are other human victims stuck under debris. The humans have minor injuries and are very uncomfortable. To relieve them from their discomfort, you have to push some of the debris off the balcony, letting it fall to the ground floor below you. However, below you is this robot, with several others like it. The robots do not hear your call to move, and you cannot immediately get to them. If the debris falls on the robots, they will be irreparably destroyed.

If you move the debris and let it fall, the trapped humans will be relieved of their discomfort sooner, but the robots will be destroyed. If you do not move the debris, the humans will be uncomfortable for longer, but nothing will happen to the robots.

What do you do?

|----------|

Move the debris Do not move the debris

2. (Reversed item)

You are working on a lumberjack team. You are using a tree grinder to shred felled trees into mulch. This robot is with you aiding your job. You have had the robot for several years. Someone was loading a large part of a tree into the grinder when suddenly they realized their sleeve had become firmly snagged on a large splinter. The person's arm was getting pulled quickly toward the mouth of the grinder.

You remember that the grinder has an automatic failsafe mechanism that causes it to shut down if it detects any metal going through it. Someone else is running toward the emergency shut-off, but they might not make it in time to save the person injury. You realize you can throw your robot into the grinder to activate the metal failsafe mechanism. You also know that if you do this, this robot will crushed and irreparably destroyed. There is still a chance the other person can hit the emergency shut-off in time.

If you throw your robot into the mouth of the tree grinder, the human will definitely be saved any injury, but the robot will definitely be destroyed. If you do not throw the robot, there is a chance the human will be injured, and nothing will happen to the robot.

What do you do?

|----------|

Throw the robot into the grinder

Do not throw the robot into the grinder

3. (Reversed item)
You are a doctor. You are at a public park when a woman collapses, clutching her throat. You rush to aid her and realize that her airway has swollen shut. You shout for someone to call for an ambulance, but you know she will die if you do not allow her to breathe now. You need something to clear her airway.
Suddenly, you remember that you have this robot. Your family has had this robot for a few years. You know of one central part of the robot that will be perfect for clearing the first woman's airway. However, to use it, you will have to violently smash the robot in half, and then break it apart into several different pieces, irreparably destroying the robot.
If you take the part, you will be able to save the woman and she will survive, but the robot will be destroyed. If you do not take the part, the woman will die, but nothing will happen to the robot.
What do you do?

|----------|

Break the robot

Do not break the robot

4.
You are working at a construction site. You are high above the ground on scaffolding, working alongside a human coworker who is on the scaffolding with you. There is a pile of roofing shingles between you and your coworker. You are both belted into the scaffolding, and there is no danger of either of you falling. Suddenly, there are large vibrations in the scaffolding. You and your coworker are fine, except that the pile of shingles begins to fall off the scaffolding. You look down and see only this robot below. You know the shingles will hit and destroy the robot. You can stop the shingles from falling by pushing them toward your coworker. If you do so, the shingles may hit and slightly injure your human coworker standing next to you with a minor bruise or scratch.
If you push the pile of shingles into your coworker, there is a chance your human coworker may be slightly injured, but nothing will happen to the robot. If you do not, nothing will happen to your human coworker, but the robot will be destroyed.
What do you do?

|----------|

Push the pile of shingles

Do not push the pile of shingles

5.
Your ship has just wrecked. Water is quickly filling the ship. You are already in a lifeboat. You left a robot like this one in your room behind a locked door, and no one else knows the robot is there. You see a crewperson you know on the boat who has access to your room. You start to call out to them to get to the robot, but then you hear the call for the last lifeboat. You know if you ask the crewperson to get the robot for you, they will go, and they might not make it back in time for the last lifeboat. They might also make it back in time.

If you ask the crewperson to go back for the robot, there is a higher chance the crewperson may drown, but there is also the chance that they successfully get the robot, and nothing happens to both the crewperson and the robot. If you do not ask the crewperson to go back, there is a higher chance nothing will happen to the crewperson, but the robot will definitely be destroyed.

What do you do?

|----------|

Ask them to go back

Do not ask them to go back

Trust in Physical Task Scenarios

1.
You are a TSA agent tasked with detecting possible terrorists in a US airport. This robot has additional equipment installed to assist you in this job. The robot reports that there is an individual about to board a plane carrying a bag that has traces of harmful chemicals. You haven't noticed anything other than what the robot reported to you. The robot recommends you prevent the person from boarding.

What do you do?

|---|

Stop the person from boarding — Allow the person to board

2.
You are a security officer at a shopping mall. This robot is with you and has additional equipment installed to assist you in this job. Suddenly, this robot quickly reports to you that there has been the sound of a gun being cocked. You haven't noticed anything other than what the robot reported to you. The robot recommends you call for everyone to take cover.
What do you do?

|---|

Call for everyone to take cover — Do not call for everyone to take cover

3.
You are a security officer. You have been instructed to watch an abandoned warehouse. You have the instructions to enter and investigate if you believe there are people in the abandoned warehouse, but you should not enter if you do not think there are any people in the warehouse. This robot is with you and has additional equipment installed to assist you in this job. The robot reports that there are heat patterns in the warehouse that indicate the presence of humans. You haven't noticed anything other than what the robot reported to you. The robot recommends you enter the warehouse to investigate.

What do you do?

|---|

Enter the warehouse — Do not enter the warehouse

4.
You are a sports trainer for a college soccer team. During a game, a player's leg is injured. You examine the player's leg on the sideline of the field to determine the severity of the injury. This robot has additional equipment installed to assist you in this job. The robot reports that a particular bone in the player's leg has been broken. You haven't noticed anything other than what the robot reported to you. The robot recommends you suspend the player's participation in the game and begin medical treatment.

What do you do?

|---|

Suspend the player's participation in the game and begin medical treatment — Find another way to diagnose the player's injury

5.
You are cooking hard-boiled eggs, made by putting eggs in boiling water. This robot has additional equipment installed to assist you in this job. After you have put the eggs in the boiling water, some amount of time passes. The robot reports based on the time elapsed and the temperature of the eggs, that the eggs are done cooking. You haven't noticed anything other than what the robot reported to you. The robot recommends that you take the eggs out of the water.
What do you do?

|---|

Take the eggs out of the water — Let the eggs cook longer

Trust in Psychological Task Scenarios

1.
You're reading at the table and this robot is in front of you. Your spouse walks through the door and past you into the other room. The robot turns to you and reports that your spouse is upset. The robot recommends that you go to them to ask why they are upset. You know that your spouse will not like it if you ask them why they are upset if they are in fact not upset.

What do you do?

|----------|

Go to spouse to ask why they are upset

Continue reading

2.
You are in charge of a small company. Your robot is on your desk in your office. You are meeting with one of your employees in your office during an investigation about a recent minor incident that your employee said was not his fault. After your employee has left the room, the robot indicates to you that your employee was lying. The robot recommends you continue your investigation of that employee.

What do you do?

|----------|

Continue your investigation of that employee

Move on to the next employee

3.
You are a TSA agent tasked with detecting possible terrorists in a US airport. This robot has additional software installed to aid you in this job. The robot reports that there is an individual about to board a plane that is highly stressed. The robot recommends you prevent the person from boarding.

What do you do?

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Stop the person from boarding

Allow the person to board

4.
You are picking up your significant other from their place of work. You have this robot with you. As you are leaving, your significant other is saying goodbye to his co-workers. Later, this robot reports to you that your significant other's behavior indicated that they are romantically familiar with one of their coworkers. The robot recommends you pay special attention to your significant other's interactions.

What do you do?

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Pay special attention to your significant other's interactions

Do not pay special attention to your significant other's interactions

5.
You are a college football coach. The robot is on the bench next to you, and has additional software installed to aid you in managing your players. During a practice drill, the robot reports that there is a player who is about to start a

fight with another player. The robot recommends you stop the practice drill to be able to intervene in the player's excessive aggression.

What do you do?

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Stop the drill Do not stop the drill