

**Young, L., Dodell-Feder, D., & Saxe, R. (2010). What gets the attention of the temporoparietal junction? An fMRI investigation of attention and theory of mind. *Neuropsychologia*, 48(9), 2658-2664.**

- (1) Stories describing mental states that were either expected or unexpected
- (2) Stories describing physical events, objects, or states that were either expected or unexpected

\*Participant responses follow a Likert scale from 1 (“Very Unlikely”) to 4 (“Very Likely”)

### **Mental Expected**

- 1- John thinks every key on the old piano is out of tune.
- 2 - Samantha believes the water in the sink comes out in a very weak stream.
- 3 - Sam thinks he can grow trees with fruit that taste like cherries.
- 4 - Marina thinks the AC units best cool down the house when all the windows are closed.
- 5 - Joe thinks the front porch is made from wood that is water repellent.
- 6 - Maya believes the house plants will flower if watered regularly.
- 7 - On hot and humid days, Gerry thinks the bathroom wallpaper will peel.
- 8 - Sarah thinks the dirty window makes everything outside look darker.
- 9 - Emile believes the radio will play Chopin and Mozart when tuned into classical.
- 10 - Rebecca believes it takes 10 minutes for the bathroom mirrors to de-fog.
- 11 - Hank believes the car won't leave gas stains on the asphalt if it's parked for too long.
- 12 - When Barbara doesn't do laundry, she thinks her clothes will start to stink.
- 13 - Alex thinks the living room will be brighter with the lamp on.
- 14 - During a power outage, Gretchen believes stuff in the freezer will melt and drip.
- 15 - Miles believes the coffee table is made of oak.
- 16 - Sam believes the walls inside his house to be painted baby blue.
- 17 - Candice believes the red jam is colored with red berries.

- 18 - If the eggs are dropped on the table, Will thinks they'll break.
- 19 - Without water or sunshine, Kim thinks the lawn will turn from green to light brown.
- 20 - Jeff's book has been in the attic for years. He thinks its pages have turned yellow.
- 21 - Katie believes her new bathtub will only be 4 feet long.
- 22 - On the shelf above the TV, Ethan believes he can fit two DVDs.
- 23 - Heather thinks a yellow ring will appear on the inside of the toilet bowl.
- 24 - When the bike is left out for the winter, Allen believes the chain will get rusty.
- 25 - Liz believes she can make green pesto out of basil, garlic, cheese, pine nuts and olive oil.
- 26 - When the soda bottle isn't closed, Mike thinks the soda will get flat.
- 27 - Lee believes the water at the beach is a comfortable 70 degrees Fahrenheit.
- 28 - Gerry believes he can buy socks made of a new breathable cotton-like material.
- 29 - Tanya believes her tomatoes will turn a deep red if they get a lot of sun.
- 30 - Dan thinks the speakers will emit white noise if they're not properly connected.
- 31 - Christine thinks the milk has gone bad and curdled.
- 32 - Wayne thinks the toilet paper is triple-ply.
- 33 - Ken believes he can power his new house with solar energy.
- 34 - Eric believes that rotten peaches shouldn't be used for pie.
- 35 - Ellen believes she can roast her coffee beans until they turn dark brown.
- 36 - Rick believes the map of the US depicts the land's geography and all state borders.
- 37 - Karen thinks the classroom calendar has pictures of idyllic country scenes.
- 38 - Matt believes that during the rainy season, it can rain up to 4 inches in one day.
- 39 - Nina thinks that when the temperature drops below freezing, ice forms on the lake.
- 40 - Antoine believes the glove compartment contains an insurance card and map.

41 - Ling believes the freezer was made with two compartments, one for making ice and another for food.

42 - Kelly thinks her new laptop won't heat up after hours of use.

43 - Mary thinks her carving knife gets dull after use.

44 - Maureen believes her new ball will bounce on pavement.

45 - Larry believes the laundry will dry out in the sun.

46 - Karen thinks the kitchen clock is running 5 minutes slow.

47- Bob thinks his tomatoes will be the size of tennis balls.

48- Josie thinks that winter will come in different months for North and South America.

### **Mental Unexpected**

1- John thinks every key on the old piano is C sharp.

2- Samantha believes the water in the sink comes out tasting like milk.

3- Sam thinks he can grow trees with fruit that taste like pizza.

4- Marina thinks the AC units best cool down the house when all the windows are open.

5- Joe thinks the front porch is made from wood that feels like jello.

6- Maya believes the house plants will burst into flames if watered.

7- On hot and humid days, Gerry thinks the bathroom wallpaper will melt.

8- Sarah thinks the dirty window makes everything outside look slow motion.

9- Emile believes the radio will play messages from the CIA when tuned into classical.

10- Rebecca believes it takes 48 hours for the bathroom mirrors to de-fog.

11- Hank thinks the car will sink into the asphalt if it's parked for a long time.

12- When Barbara doesn't do laundry, she thinks her clothes will smell like flowers.

- 13- Alex thinks the room will be brighter with the lamp off.
- 14- During a power outage, Maya believes stuff in the freezer will get even colder.
- 15- Miles believes the coffee table is made of cotton.
- 16- Sam believes the walls inside his house to be covered with leaves.
- 17- Candice believes the red jam is colored with red meat.
- 18- If the eggs are dropped on the table, Will thinks they'll bounce.
- 19- Without water or sunshine, Kim thinks the lawn will turn from green to bright purple.
- 20- Jeff's book has been in the attic for years. He thinks its pages have started glowing.
- 21- Katie believes her new bathtub will only be 4 inches long.
- 22- On the shelf above the TV, Ethan believes he can fit two sofas.
- 23- Heather thinks sunflowers will grow on the inside of the toilet bowl.
- 24- When the bike is left out for the winter, Allen believes the chain will self-lubricate.
- 25- Liz believes she can make green pesto out of basil, chocolate, marijuana, beer and Nyquil.
- 26- When the soda bottle isn't closed, Mike thinks the soda will get more carbonated.
- 27- Lee believes the water at the beach is literally boiling.
- 28- Gerry believes he can buy socks made of spider-web threads.
- 29- Tanya believes her tomatoes will combust if they get a lot of sun.
- 30- Dan believes the speakers will play cat meows if they're not properly connected.
- 31- Christine thinks the milk has gone bad and turned black.
- 32- Wayne thinks the toilet paper has pictures of historical figures on it.
- 33- Ken thinks he can power his new house with his own flatulence.
- 34- Eric believes when peaches rot, they should be used for pie.

- 35- Ellen thinks she can roast her coffee beans until they turn rainbow-colored.
- 36- Rick believes the map of the US depicts China's geography and Canada's provinces.
- 37- Karen thinks the classroom calendar has nude pictures of US presidents.
- 38- Matt believes that during the rainy season, it can rain up to 30 feet in one day.
- 39- Nina thinks that when the temperature drops below freezing, the lake starts bubbling.
- 40- Antoine believes the glove compartment contains a dead fish and grandma panties.
- 41- Ling believes her freezer was made with two compartments, one for storing nail clippings.
- 42- Kelly thinks her new laptop will cool down after hours of use.
- 43- Mary thinks her carving knife gets sharp after use.
- 44- Mary believes her new ball will bounce better on cushions.
- 45- Larry believes the laundry will dampen in the sun.
- 46- Karen thinks the kitchen clock is running 5 hours slow.
- 47- Bob thinks his tomatoes will be the size of soccer balls.
- 48- Josie thinks that winter will come in the same months for North and South America.

### **Mental Questions**

#### **How likely is it that...**

- 1- John thinks he can play "Happy Birthday" on the piano?
- 2- Samantha thinks this sink is good for washing food?
- 3- Sam wants these trees for building a treehouse too?
- 4- Marina believes that the AC units can keep the house cool?
- 5- Joe thinks the porch is stormproof?

- 6- Maya believes the plants need sunlight?
- 7- Gerry think the wallpaper is very old?
- 8- Sarah think the window has a protective coating on it?
- 9- Emile believes this station also plays contemporary music?
- 10- Rebecca thinks wiping the mirrors will help them de-fog quicker?
- 11- Hank believes the driveway needs to be repaved?
- 12- Barbara thinks she'll have to wash the laundry with powerful detergent?
- 13- Alex thinks the bulb needs to be replaced?
- 14- When the fridge is unplugged, does Gretchen believe the freezer stays cold?
- 15- Miles thinks the table is sturdy enough to hold several plates of food?
- 16- Sam thinks stains will easily show on the walls?
- 17- Candice believes the jam goes with peanut butter?
- 18- Will thinks he should keep these eggs in the protective container?
- 19- Kim thinks the lawn needs to be fertilized?
- 20- Jeff thinks the pages are also falling from the binding?
- 21- Katie also wants a shower head?
- 22- Ethan thinks there's space for a picture frame?
- 23- Heather thinks regular cleaning products can be used on the toilet?
- 24- Allen believes the bike needs a tune-up?
- 25- Liz thinks the pesto will make for a good sauce?
- 26- Mike thinks the bottle is made from eco-friendly materials?
- 27- Lee wants to go for a swim?
- 28- Gerry believes these are good athletic socks?

- 29- Tanya wants these tomatoes for her salad?
- 30- Dan thinks these speakers are MP3 compatible?
- 31- Christine thinks the milk was pasteurized?
- 32- Wayne thinks the toilet paper is from a reputable company?
- 33- Ken believes his house is energy efficient?
- 34- Eric thinks rotten apples should be used for pie?
- 35- Ellen thinks the coffee will be strong?
- 36- Rick believe the map has capitals on it?
- 37- Karen thinks she can use the calendar at work?
- 38- Matt thinks there are also flash floods during the rainy season?
- 39- Nina thinks the lake can sustain life in the winter?
- 40- Antoine believes the glove compartment will be a good place for his cookies?
- 41- Ling thinks the freezer is a good place to chill white wine?
- 42- Kelly thinks the new laptop uses a rechargeable battery?
- 43- Mary thinks the carving knife is stainless steal?
- 44- Mary thinks the ball is rubber?
- 45- Larry thinks the laundry is made of natural fibers?
- 46- Karen thinks the clock is battery-powered?
- 47- Bob thinks these tomatoes are genetically altered?
- 48- Josie thinks winter will be colder?

## **Physical Expected**

- 1- There is an old piano in the basement. It is really out of tune.
- 2- One of the sinks does not work very well. The water comes out in a very weak stream.
- 3- In the backyard are trees with fruit that taste like cherries when ripe.
- 4- The AC units best cool down the house when all the windows are closed.
- 5- The front porch is made from a kind of wood that is water repellent.
- 6- The house plants will flower two to three times a year if watered regularly.
- 7- On hot and humid days, the wallpaper in the bathroom will literally start to peel.
- 8- A dirty window in the kitchen makes everything outside look a shade darker.
- 9- When tuned into the classical station, the radio plays songs by Chopin and Mozart.
- 10- After the mirrors in the bathroom fog up, it takes 10 minutes for them to de-fog.
- 11- If the car is parked in the driveway for too long, it leaves gas stains on the asphalt.
- 12- When the laundry is not done for weeks, some of it starts to smell very bad.
- 13- If the lamp is turned on in the living room, the room gets much brighter.
- 14- During a power outage, some of the stuff in the freezer melts and drips.
- 15- The brown coffee table is made entirely of oak.
- 16- On the third floor of the house, every single wall is painted baby blue.
- 17- The red jam sold at the farmers market is colored with red berries.
- 18- If the eggs are dropped on the table, they crack and spill onto the floor.
- 19- Without water or sunshine, the lawn turns from a healthy green into a light brown.
- 20- An old book has been in the attic for years. Its pages have turned yellowish.
- 21- The bathtub in the upstairs bathroom is only four feet long.
- 22- On the shelf above the television are two DVD movies.

- 23- If the toilet bowl isn't cleaned regularly, a yellow ring appears on the inside of the bowl.
- 24- When the bike is left out for the winter, the chain always gets rusty.
- 25- The green pesto in the fridge is made of basil, garlic, cheese, pine nuts and olive oil.
- 26- When the cap on the soda bottle isn't closed, the soda gets flat.
- 27- The water at the beach is a comfortable 70 degrees Fahrenheit.
- 28- The socks are made of a new breathable cotton-like material.
- 29- When the tomato plant gets a lot of sunshine, the tomatoes turn a deep red.
- 30- When the speakers aren't properly connected, they emit white noise.
- 31- There's milk in the fridge that has gone bad. It has curdled.
- 32- The toilet paper in the bathroom is triple-ply.
- 33- The house is partially powered by solar energy.
- 34- Once peaches are rotten, they cannot be used for pie.
- 35- When the coffee beans are roasted, they change from light brown to dark brown.
- 36- The map of the United States depicts the land's geography and all state borders.
- 37- At the pharmacy, there is a calendar with pictures of idyllic scenes of the country.
- 38- During the rainy season, it can rain up to 4 inches in a single day.
- 39- When the temperature drops below freezing, ice forms around the edge of the lake.
- 40- The glove compartment contains an insurance card, map and tire pressure gauge.
- 41- The freezer has two compartments. One for making ice and another for storing food.
- 42- The new model of the laptop won't heat up at all after hours of use.
- 43- The carving knife gets dull after about a year of use.
- 44- The new basketball bounces best on hard pavement.
- 45- When the sun comes out, the laundry starts to dry.

- 46- After a while, the kitchen clock starts running 5 minutes slow.
- 47- The tomatoes will be the size of tennis balls when ripe.
- 48- This year, winter will come in different months for North and South America.

### **Physical Unexpected**

- 1- There is an old piano in the basement. Every key on it is C sharp.
- 2- One of the sinks does not work very well. The water comes out tasting like milk.
- 3- In the backyard are trees with fruit that taste like pizza when ripe.
- 4- The AC units best cool down the house when all the windows are open.
- 5- The front porch is made from a kind of wood that feels like jello.
- 6- The house plants will spontaneously burst into flames if watered regularly.
- 7- On hot and humid days, the wallpaper in the bathroom will start to melt.
- 8- A dirty window in the kitchen makes everything outside look slow motion.
- 9- When tuned into the classical station, the radio plays messages from the CIA.
- 10- After the mirrors in the bathroom fog up, it takes 48 hours for them to de-fog.
- 11- If the car is parked in the driveway for too long, it sinks several inches into the asphalt.
- 12- When the laundry is not done for weeks, some of it starts to smell like flowers.
- 13- If the lamp is turned on in the living room, the room gets even darker.
- 14- During a power outage, some of the stuff in the freezer gets even colder.
- 15- The brown coffee table is made entirely of cotton.
- 16- On the third floor of the house, every single wall is covered with leaves.
- 17- The red jam sold at the farmers market is colored with red meat.
- 18- If the eggs are dropped on the table, they bounce back up several feet.

- 19- Without water or sunshine, the lawn turns from a healthy green to a bright purple.
- 20- An old book has been in the attic for years. Its pages have started glowing.
- 21- The bathtub in the upstairs bathroom is only 4 inches long.
- 22- On the shelf above the television are two large sofas.
- 23- If the toilet bowl isn't cleaned regularly, sunflowers grow on the inside of the bowl.
- 24- When the bike is left out for the winter, the chain self-lubricates.
- 25- The green pesto in the fridge is made of basil, chocolate, marijuana, beer and Nyquil.
- 26- When the cap on the soda bottle isn't closed, the soda gets more carbonated.
- 27- The water at the beach is literally boiling.
- 28- The socks are made of millions of spider-web threads.
- 29- When the tomato plant gets a lot of sunshine, the tomatoes combust.
- 30- When the speakers aren't properly connected, they play cat meows.
- 31- There's milk in the fridge that has gone bad. It has turned black.
- 32- The toilet paper in the bathroom has pictures of historical figures.
- 33- The house is partially powered by flatulence.
- 34- Once peaches are rotten, they should be used for pie.
- 35- When the coffee beans are roasted, they change from light brown to rainbow colors.
- 36- The map of the United States depicts China's geography and Canada's provinces.
- 37- At the pharmacy, there is a calendar for sale with nude pictures of US presidents.
- 38- During the rainy season, it can rain up to 30 feet in a single day.
- 39- When the temperature drops below freezing, the water in the lake starts bubbling.
- 40- The glove compartment contains a dead fish and old yellow grandma panties.
- 41- The freezer has two compartments. One is for storing finger and toe nail clippings.

- 42- The new model of the laptop will cool down after hours of use.
- 43- The carving knife gets sharper after about a year of use.
- 44- The new basketball bounces best on soft cushions.
- 45- When the sun comes out, the laundry gets damp.
- 46- After a while, the kitchen clock starts running 5 hours slow.
- 47- The tomatoes will be the size of soccer balls when ripe.
- 48- This year, winter will come in the same months for North and South America.

### **Physical Questions**

#### **How likely is it that...**

- 1- The song "Happy Birthday" can be played on the piano?
- 2- This a good sink to use for washing fruits and vegetables?
- 3- These trees can be used for building a treehouse too?
- 4- The AC units effective at keeping the house at a cool temperature?
- 5- The front porch stormproof?
- 6- The plants also need exposure to sunlight?
- 7- The wallpaper was manufactured a long time ago?
- 8- The window has a protective coating on its surface?
- 9- This radio station also plays music by contemporary artists?
- 10- Wiping down the mirrors with a dry towel will help the windows de-fog quicker?
- 11- Necessary for the driveway to be repaved concrete?
- 12- The laundry can be put into the wash with a powerful detergent?
- 13- The bulb in the lamp needs to be replaced?

- 14- When the fridge is unplugged, the freezer maintains its cold temperature?
- 15- The coffee table sturdy enough to hold the weight of several plates of food?
- 16- Stains will easily show up on the walls of the house?
- 17- The jam will go well with a peanut butter sandwich?
- 18- Necessary for these eggs to be kept in the protective container?
- 19- The lawn also needs to be fertilized regularly?
- 20- Any of the pages also started falling from the binding?
- 21- There will also be a shower head?
- 22- There is also space on the shelf for a picture frame?
- 23- Regular cleaning products can be used to clean the toilet bowl?
- 24- The bike is in need of a tune-up?
- 25- The pesto will make for a good sauce on pasta?
- 26- The bottle is manufactured from new eco-friendly materials?
- 27- The water at the beach is good for swimming?
- 28- These are good socks to wear when playing sports?
- 29- These tomatoes will be good in a caprese salad?
- 30- These speakers are compatible with MP3 players?
- 31- The milk was pasteurized?
- 32- The toilet paper was manufactured by a reputable company?
- 33- The house does operate in an energy efficient way?
- 34- Rotten apples should be used for making apple pie?
- 35- The coffee will be very strong?
- 36- The map does also include the names of the capitals?

- 37- The calendar can be used in a work office?
- 38- Flash floods do occur during the worst part of the rainy season?
- 39- The lake can sustain plants and fish during the winter months?
- 40- The glove compartment is a good place to store some cookies for the road?
- 41- The freezer can also be used to chill bottles of white wine?
- 42- The new laptop is powered by a rechargeable battery?
- 43- The carving knife is made out of stainless steel?
- 44- The new ball is made of rubber?
- 45- The laundry is made from natural fibers?
- 46- The clock run on regular batteries?
- 47- These tomatoes are genetically altered in any way?
- 48- It will be colder in the winter months?