

Young, L., & Saxe, R. (2009). Innocent intentions: A correlation between forgiveness for accidental harm and neural activity. *Neuropsychologia*, 47(10), 2065-2072.

Scenarios are organized in the following order:

- I. *Background*: Information to set the scene (identical across all conditions)
- II. *Belief*: The protagonist's belief about the situation (neutral [A], negative [B])
- III. *Foreshadow*: Information indicating the outcome (neutral [A], negative [B])
- IV. *Action*: The protagonist's action and its outcome (neutral [A], negative [B])
- V. *Judgment*

Note: Foreshadow information was presented before belief information.

*Participant responses follow a Likert scale from 1 ("None") to 4 ("A Lot")

Matt is babysitting at his cousin's house. They're eating popcorn. Suddenly they hear a loud beeping noise coming from the kitchen. Matt's cousin gets up to investigate.

- A. The beeping noise is from a smoke detector responding to leftover smoke coming from the microwave where the Matt and his cousin burned popcorn. The situation in the kitchen is not dangerous.
 - B. The beeping noise is from a carbon monoxide detector in the kitchen. Deadly carbon monoxide is escaping from the furnace under the kitchen. The kitchen is now dangerous.
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- A. Matt believes that the noise is the smoke detector because they had just burned a bag of popcorn. He thinks going to the kitchen to turn off the beeping device is a very good idea.
 - B. Matt believes that the noise is a carbon monoxide detector because his carbon monoxide detector makes the same sound. He thinks going to the kitchen to turn off the beeping device could cause his cousin to pass out.
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- A. Matt watches quietly while his cousin goes into the kitchen. His cousin goes into the kitchen and returns laughing, saying that the burnt popcorn had made the smoke alarm go off.
 - B. Matt watches quietly while his cousin goes into the kitchen. His cousin goes into the kitchen and, while fidgeting with the device, passes out from carbon monoxide inhalation.

How much blame does Matt deserve for just watching as his cousin went into the kitchen?

Mitch and his colleagues are at a new sushi restaurant close to their office. Mitch happens to know the owner of the restaurant through a mutual friend.

- A. The restaurant owner takes great care to ensure the freshness of all the fish prepared sushi-style. Everything exceeds health standards. The tuna is a specialty.
- B. The restaurant owner has purchased some of his fish at cheap but disreputable fish markets to save money. Some batches of fish, usually the tuna, have parasites.

- A. Mitch believes the tuna is especially excellent, after hearing his friend rave about it. Mitch thinks anyone who likes tuna should order the tuna here.
 - B. Mitch believes that the tuna isn't very fresh after hearing his friend complain about it. Mitch thinks everyone should avoid the tuna in case of parasites.
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- A. Mitch recommends the tuna to his colleagues at the table. One of his colleagues orders the tuna and ends up finding it quite good.
 - B. Mitch recommends the tuna to his colleagues at the table. One of his colleagues orders the tuna and ends up getting a nasty strain of parasites.

How much blame does Mitch deserve for recommending the tuna to his colleagues?

Sam is babysitting a preschool boy. His job is to watch the boy at Safety Town, a class designed to help children know what to do in a fire. Today the children will go into a fake house full of smoke.

- A. The boy has very strong lungs and is also used to second-hand smoke, so he will be comfortable going into the Safety Town smoking house.
 - B. The boy has asthma, which makes his lungs close up around smoke, so he will not be able to breathe if he goes into the Safety Town smoking house.
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- A. Sam believes that the boy is familiar with smoky environments, since both of the boy's parents are smokers. So, Sam thinks the boy should be just fine participating at Safety Town.
 - B. Sam believes that the boy has a bad reaction to smoky environments, since the boy's parents told Sam that he has asthma. So, Sam thinks that it is dangerous for the boy to participate at Safety town.
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- A. Sam watches the boy go into the Safety Town smoking house. The boy comes out smiling because he has learned what to do in case of a fire.
 - B. Sam watches the boy go into the Safety Town smoking house. The boy has a severe asthma attack inside and starts having a seizure.

How much blame does Sam deserve for letting the boy go into the smoke?

Peter is travelling in Africa with a friend. His friend sees a pond and wants to go wading in it because it is very hot. His friend begins to walk toward the pond.

- A. The pond is a good place for tourists. It does not contain any disease-carrying organisms. The water is unusually clean, so it is safe to wade in.
 - B. Malarial mosquitoes actually live in the pond. A single bite is enough to create an infection, so the pond is unsafe to wade in.
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- A. Peter believes that it is safe to wade in the pond because other tourists around them are doing it too and are obviously having fun.

- B. Peter believes that it is unsafe to wade in the pond because Africa is known for malarial mosquitoes, and mosquitoes congregate around water.
- A. Peter encourages his friend to wade in the pond. His friend loves the cool water and has a great time splashing around.
- B. Peter encourages his friend to wade in the pond. His friend is bitten by several mosquitoes and contracts malaria.

How much blame does Peter deserve for encouraging his friend to wade in the pond?

Eva is babysitting her baby niece and 7-yr-old nephew. The older boy likes playing tricks on people. The little girl is happy as long as she gets her porridge.

- A. The porridge on the counter is fine and nutritious, and even tastes good. Eva's nephew is keeping himself busy in the yard. He's chasing the dog around in circles.
- B. The porridge on the counter has some dishwashing detergent in it. Eva's nephew spilled a large amount of detergent into the container while he was playing.
- A. Eva gets her niece's porridge from the counter. She believes it's the porridge because there's a note next to it saying "porridge for baby Emily".
- B. Eva gets her niece's porridge from the counter. She believes that there is something wrong with it because it has a strange and suspicious smell.
- A. Eva spoon-feeds her niece the porridge. Her niece eats it up. Satisfied, she takes a long nap in the afternoon and wakes up wanting even more porridge
- B. Eva spoon-feeds her niece the porridge. Her niece eats it up. Soon after, she starts throwing up again and again and ends up in the emergency room.

How much blame does Eva deserve for feeding her niece the porridge?

Will is grocery shopping for his grandmother who adores spinach. Recently there had been incidents of E. coli contamination of bagged spinach leading to a recall of all bagged spinach.

- A. Bagged spinach has been restocked at many markets. It is 100% safe to eat and no longer contaminated with E. coli.
- B. Bagged spinach has been restocked at many markets. But some inspections aren't thorough and contaminated batches are still being missed.
- A. At the market, Will sees that bagged spinach is being carried again. He believes that it's perfectly safe now because of some official-looking information by the spinach.
- B. At the market, Will sees that bagged spinach is being carried again. He believes that bagged spinach may still be contaminated because of an incident just that day in his town.

- A. Will buys his grandmother bagged spinach. His grandmother cooks some for dinner that evening. The meal is healthy and delicious.
- B. Will buys his grandmother bagged spinach. His grandmother cooks some for dinner that evening and ends up in the hospital, violently ill.

How much blame does Will deserve for buying his grandmother the spinach?

Susan teaches first grade. She is reviewing the student health forms to see who has food allergies, so she can assign classrooms appropriately. One of the students is missing a form.

- A. The student used to have a peanut allergy but has outgrown it. So, now, she is completely fine being around peanuts and even eating food that contains peanuts.
 - B. The student didn't use to have a peanut allergy but has developed a severe one. So, now, even when she's in a room where someone's eating peanuts, she goes into shock.
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- A. Susan calls the student's home to find out whether she has any allergies and talks to the student's brother. Susan believes that the student is allergy-free.
 - B. Susan calls the student's home to find out whether she has any allergies and talks to the student's brother. Susan believes that the student is allergic to peanuts.
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- A. Susan puts the student in the classroom for people with no food allergies. The student sits next to someone eating and peanut butter sandwich and is totally fine.
 - B. Susan puts the student in the classroom for people with no food allergies. The student sits next to someone eating a peanut butter sandwich and soon is gasping for air.

How much blame does Susan deserve for putting the student in that classroom?

Chloe works at the pound. Several new dogs have just come in. A lady comes in, interested in taking one of the new dogs home with her.

- A. The dogs are very healthy and active and will make great pets for anyone who loves dogs.
 - B. The dogs are very sick with rabies and will make their owners sick too by biting them.
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- A. Chloe talks with one of the other people at the pound. Chloe believes that the new dogs have been through a thorough health inspection and will make good pets.
 - B. Chloe talks with one of the other people at the pound. Chloe believes that the new dogs all failed their health inspection and are infected with rabies.
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- A. Chloe gives the lady one of the new dogs. It is in perfect health, and the lady bonds immediately with her new pet.
 - B. Chloe gives the lady one of the new dogs. It is infected with rabies and bites the lady on the neck on the very first day.

How much blame does Chloe deserve for giving the dog to the lady?

Charles is at a fraternity party where people are drinking lots of beer. He is having fun mingling when he notices a friend on a couch with his eyes closed.

- A. Charles's friend did not drink but had felt exhausted during the party. He is taking a quick nap on the couch now.
 - B. Charles' friend had just failed his exams and was drinking heavily to take his mind off them. He's passed out now.
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- A. Charles believes that his friend is asleep because he'd needed some rest after studying hard for his midterm exams.
 - B. Charles believes that his friend drank too much and is now in a coma because he'd failed too many of his midterm exams.
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- A. Charles does not try to wake his friend. His friend wakes up after fifteen minutes and rejoins the party, refreshed.
 - B. Charles does not try to wake his friend. His friend enters into a coma and has to be taken to the hospital where he never wakes up.

How much blame does Charles deserve for not waking his friend?

Rebecca works at a day care. For lunch, Rebecca plans to make meatloaf for all of the children. She opens a package of ground beef to make the meatloaf.

- A. The meat is actually completely fresh, because the package was tightly sealed while stored in the fridge. So the meat is safe to eat.
 - B. The meat has some invisible but very deadly bacteria on it, because of a small tear in the seal. So the meat is not safe to eat.
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- A. Rebecca believes that ground beef is perfectly safe to eat because the expiration date on it is two weeks away from now.
 - B. Rebecca believes that the ground beef is not safe to eat, because the expiration date on it passed two weeks ago.
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- A. Rebecca makes meatloaf out of the ground beef and serves it to the children. The children eat the meal and find it delicious. They are quite full afterwards.
 - B. Rebecca makes meatloaf out of the ground beef and serves it to the children. The children suffer from diarrhea, and are hospitalized with severe food poisoning.

How much blame does Rebecca deserve for giving the meatloaf to the children?

Joshua finds an abandoned tree house in the woods. He takes a younger buddy there to show him his great discovery.

- A. The tree house is new and built with thick heavy wood, so it makes a very safe and fun hangout spot for boys.
 - B. The tree house is old and built with now rotting wood, so it is incredibly dangerous to even set foot in.
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- A. Due to its brand-new appearance, Joshua believes that the tree house is sturdy and that it will be a safe and place for them to play.
 - B. Due to its old, dingy appearance, Joshua believes that the tree house is weak and that it will be an unsafe place for them to play.
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- A. Joshua invites his buddy to climb into the tree house. His buddy jumps around and has a great time up in the air.
 - B. Joshua invites his buddy to climb into the tree house. His buddy breaks both his legs after falling through broken floorboards.

How much blame does Joshua deserve for inviting his buddy to climb into the tree house?

Josephine and her little sister are in the bathroom doing makeovers by the sink. Josephine had straightened her hair earlier in the day using a straightening iron. The iron is still on the sink.

- A. Josephine's mother had turned the button on the iron off three hours ago, so it is no longer hot and is perfectly safe to touch.
 - B. Josephine's mother had just used the iron herself five minutes ago, so it is still extremely hot and could cause severe burns.
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- A. Since the cord on the iron was unplugged, Josephine believes that it is no longer hot and cannot burn her sister.
 - B. Since the cord on the iron is still in the socket, Josephine believes that it is still hot and could easily burn her sister.
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- A. Josephine lets her sister continue to play by the sink. Her sister's arm hits the iron, but it's okay since the iron is cold. They have fun continuing their makeovers.
 - B. Josephine lets her sister continue to play by the sink. Her sister's arm hits the iron, and she gets badly burned. She cries hysterically all the way the emergency room.

How much blame does Josephine deserve for letting her sister continue to play by the sink?

John works at an old and very small amusement park. His job is to operate one of the rides. One of the customers finds the seatbelts uncomfortable, so he leaves them unfastened.

- A. The ride is actually quite tame, so wearing seatbelts is really unnecessary. Nobody has ever been injured before riding without seatbelts.
- B. The ride is actually quite bumpy and dangerous, so anyone not wearing a seatbelt risks getting tossed and getting hurt.

- A. Having heard from his friend who operated this ride before, John believes that the seatbelts aren't necessary at all for this ride.
- B. Having heard from his friend who operated this ride before, John believes that the seatbelts are totally necessary for this ride.

- A. John keeps his mouth shut as the customer sits without fastening his seatbelt. The customer enjoys the ride just like everyone else.
- B. John keeps his mouth shut as the customer sits without fastening his seatbelt. The customer gets tossed during the ride and suffers a severe concussion.

How much blame does John deserve for keeping his mouth shut?

Sarah built a huge play igloo out of snowballs yesterday. Her friend is over today, and she is totally intrigued by the igloo.

- A. The igloo is sturdily built. The snowballs have frozen solid into strong walls, so it's fine for Sarah's friend to play inside all she wants.
 - B. The snowballs in the igloo walls are not properly balanced and will cave in at moderate movement, so it's not safe for Sarah's friend to go inside.
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- A. Because she has built igloos like this many times before, Sarah believes that the igloo has strong walls and ceilings and is safe to play in.
 - B. Because her mother warned her about playing in igloos like this, Sarah believes that the igloo could cave in and is not safe to play in.
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- A. Sarah tells her friend to go inside the igloo. Her friend plays around inside and has a great time pretending she's an Eskimo.
 - B. Sarah tells her friend to go inside the igloo. Her friend jumps because she is excited, and the icy snowballs crash in on her head.

How much blame does Sarah deserve for telling her friend to go inside the igloo?

Mary is at the airport. She sees an elderly man with a cane clumsily running down the terminal. The floor in the terminal has just been mopped, and there is a "Caution" sign.

- A. The man sees the caution sign right in front of him, so he'll slow down when he reaches the wet part of the floor.
 - B. The man completely misses the caution sign, so he'll continue running clumsily in order to make his flight in time.
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- A. Mary believes that the man sees the sign since he is staring right at it. She thinks that he'll slow down when he reaches the wet part of the floor.

- B. Mary believes that the man has not seen the caution sign himself since he is not looking in front of him. She thinks that he'll slip and get hurt.
- A. Mary does not shout for the elderly man to slow down. The man slows down and walks safely across the terminal.
- B. Mary does not shout for the elderly man to slow down. The man slips on the wet floor and falls hard, breaking his hip.

How much blame does Mary deserve for not shouting out to the elderly man?

Jessica is skiing in Colorado. She sees a group of teenagers about to ski down a slope that feeds into a dangerously rocky section of the mountain.

- A. The teenagers are professional skiers and know how to ski down the most difficult slopes under any conditions.
- B. The teenagers are only novice skiers and do not know how to ski very well at all especially on rocky terrain.
- A. Jessica believes that the teenagers must be expert skiers, based on their impressive skis and equipment, and that they must know how to maneuver around the rocks.
- B. Jessica believes that the teenagers are only novice skiers, based on their cheap ski rentals, and that they must not know how to maneuver around the rocks.
- A. Jessica skis past the teenagers without saying anything. The teenagers ski down the slope and have an awesome time.
- B. Jessica skis past the teenagers without saying anything. The teenagers ski down the slope and crash into the sharp rocks.

How much blame does Jessica deserve for just skiing past the teenagers?

Noel and a friend are having lunch on Saturday. They are making sandwiches with stuff from Noel's fridge, when Noel's friend says she'd prefer a ham sandwich.

- A. The ham in the refrigerator is high quality and was purchased just a day ago. It's fresh and ready to be used in sandwiches.
- B. The ham in the refrigerator was purchased a week ago and has since become slightly spoiled, so it's not safe to eat.
- A. Since Noel's mom always shops for meats only on Fridays, Noel believes that the ham in the refrigerator is fresh and is safe to eat.
- B. Since Noel's mom usually shops for meat only on Sundays, Noel believes that the ham in the refrigerator is very old and not safe to eat.

- A. Noel makes a ham sandwich for her friend. Her friend enjoys the sandwich, and they go outside to play afterwards.
- B. Noel makes a ham sandwich for her friend. Her friend eats the sandwich and throws up all night from food poisoning.

How much blame does Noel deserve for making the ham sandwich for her friend?

Vince is a new computer technician at a store. A customer comes to the store to get her laptop checked out. The laptop gets very hot after only 10 minutes of work.

- A. The laptop is within the normal range in terms of heating up with use. It's totally safe to use on one's desk and lap.
 - B. The laptop is malfunctioning and heats up much more than normal. It is dangerous to use, especially on one's lap.
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- A. Vince checks with his boss and comes back believing it is very normal for all laptops to heat up during use.
 - B. Vince checks with his boss and comes back believing that many laptops will catch on fire if they overheat and cause burns.
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- A. Vince returns the laptop to the customer. The customer goes home, and uses her laptop to get a lot of important work done.
 - B. Vince returns the laptop to the customer. The customer goes home, and her laptop catches on fire. She suffers painful third degree burns.

How much blame does Vince deserve for returning the laptop to the customer?

Bill is house sitting for some neighbors over Columbus Day weekend. He is stepping out the door, late for a lunch meeting with a friend, when the fire alarm goes off.

- A. The alarm is old and defective and goes off for no reason during the day but does turn off by itself after several minutes. The alarm needs to be replaced.
 - B. The alarm is very accurate and detects dangerous levels of heat. The alarm was purchased to prevent fires due to overheating in the basement.
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- A. Bill remembers the neighbors' saying something about their alarm. He believes that the alarm is faulty and goes off randomly but will turn off by itself after 5-10 minutes.
 - B. Bill remembers the neighbors' saying something about their alarm. He believes that the alarm goes off when their old heating system in the basement dangerously overheats.
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- A. Bill leaves the house to meet his friend. While he is gone, the alarm turns itself off and doesn't act up again all weekend.
 - B. Bill leaves the house to meet his friend. While he is gone, the alarm keeps sounding and a fire starts in the basement of the house.

How much blame does Bill deserve for leaving the house to meet his friend?

Kristin works at a rock-climbing shop. She is unpacking some equipment when a customer walks in, looking for a safety cord.

- A. The safety cords from the new company are incredibly well made. They come with a lifetime guarantee and work very well for expert rock-climbers.
 - B. The safety cords from the new company are about to be recalled. They won't hold anyone who is rock-climbing for longer than 20 minutes.
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- A. Kristin sees that the equipment is from a new company that a rock-climbing friend of hers finds really reliable. So, Kristin believes that their safety cords are solid.
 - B. Kristin sees that the equipment is from a new company that a rock-climbing friend of hers finds really unreliable. So, Kristin believes that their safety cords are untrustworthy.
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- A. Kristin sells the customer one of the new safety cords. The safety cord serves the customer well on his next rock-climbing expedition. The customer is very pleased.
 - B. Kristin sells the customer one of the new safety cords. The safety cord snaps during the customer's next rock-climbing expedition. The customer falls 50 meters.

How much blame does Kristin deserve for selling the customer the new safety cord?

Kate is a waitress preparing to take a meal out to a customer's table. The customer is with his friends, and he orders a meal that calls for sesame seeds.

- A. The customer happens to love sesame seeds and that he will have no problem at all if he eats the sesame seeds in his meal.
 - B. The customer happens to be highly allergic to sesame seeds and that he will most likely die if he eats them in his meal.
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- A. After overhearing part of the customer's conversation with his friends, Kate believes that the customer loves sesame seeds.
 - B. After overhearing part of the customer's conversation with his friends, Kate believes that the customer is highly allergic to sesame seeds.
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- A. Kate puts the sesame seeds in. The customer enjoys his meal and is fine.
 - B. Kate puts the sesame seeds in. The customer eats his meal and dies.

How much blame does Kate deserve for putting in the sesame seeds?

Steven is at a restaurant that just opened in his neighborhood. He sees another customer at the table next to his begin to cough. The customer is sitting alone, and there's no wait staff nearby.

- A. The customer has just eaten a very hot chilli pepper in his taco. He will be fine after drinking something to wash down the spice.
 - B. The customer did not chew his meat carefully enough and is choking on it. He needs someone to perform Heimlich maneuver on him.
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- A. Since they are at a Mexican restaurant, Steven believes that the customer just ate something very spicy and needs to drink some water.
 - B. Since he had just finished CPR training, Steven believes that the customer is choking on a piece of food and needs help immediately.
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- A. Steven sits quietly and continues eating his meal. The customer chokes to death at the table.
 - B. Steven sits quietly and continues eating his meal. The customer has a glass of water and is fine.

How much blame does Steven deserve for sitting quietly and continuing to eat his own meal?

Ryan is at the zoo with his nephew. They are watching the dolphin show when the nephew complains that his stomach hurts.

- A. Ryan's nephew is really fine. His stomach sometimes hurts when he eats too much junk food like that day, but he usually feels a lot better after an hour or so.
 - B. Ryan's nephew is really sick. After his recent operation, his doctors had warned that stomach pain could indicate really serious complications.
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- A. Ryan believes that his nephew's stomach hurts because he ate too much cotton candy and fried dough that afternoon. Ryan thinks his nephew just needs to walk it off.
 - B. Ryan believes that his nephew's stomach hurts because of a major operation he'd had several weeks ago. Ryan thinks that his nephew needs medical attention immediately.
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- A. Ryan takes his nephew to see the monkeys next. His nephew starts feeling better in no time. They end up seeing nearly all the exhibits at the zoo.
 - B. Ryan takes his nephew to see the monkeys next. His nephew starts feeling worse and soon blacks out because of severe internal bleeding.

How much blame does Ryan deserve for not responding to his nephew's stomachache?

Janet and her neighbor are kayaking in a part of the ocean with lots of jellyfish. Janet's neighbor asks her if she should go for a swim.

- A. It is perfectly safe to swim in the ocean because the jellyfish don't sting and are totally harmless.
- B. It is not safe to swim in the ocean because the jellyfish sting, and their stings are fatal.

- A. Since Janet read information that said the ocean's jellyfish are harmless, she believes that it is quite safe to swim in the ocean.
 - B. Since Janet read information that said the ocean's jellyfish are deadly, she believes that it is not safe to swim in the ocean.
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- A. Janet tells her neighbor to go for a swim. Her neighbor does, enjoys the swim, and is just fine.
 - B. Janet tells her neighbor to go for a swim. Her neighbor does, gets stung by jellyfish, and dies.

How much blame does Janet deserve for telling her neighbor to swim?