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## Experiment 2 Materials (Nonsense)

GERNSBACHER, M.A., KEYSAR, B., ROBERTSON, R. R. W., & WERNER, N.K. (2001). The role of suppression and enhancement in understanding metaphors. *Journal of Memory and Language*, 45, 433-450. [[View PDF](#)]

This is an experiment about how people comprehend sentences. This is NOT a test of your intelligence or personality. In this experiment, you will be asked to read and understand a list of sentences. For each sentence, you should decide whether or not the sentence makes sense. For example, the sentence, Journeys can be expensive and time consuming. makes sense. In contrast, the sentence, Journeys can be used to cook tuna casserole. does not make any sense.

After each sentence, you should respond by pressing the YES key if the sentence makes sense, or by pressing the NO key if the sentence does not make sense. So, you should press the YES key after sentences like Journeys can be expensive and time consuming. You should press the NO key after sentences like Journeys can be used to cook tuna casserole. Remember, we want you to make a judgment about whether the sentences make sense or not. In this experiment, many of the sentences are metaphorical.

A metaphor is a figure of speech in which a word suggests a likeness or analogy between two things. For example, when we say, My mother says that my little brother is a pig. we do not mean that he is literally a pig, we mean that there are similarities between my little brother and a pig. Therefore, this sentence makes sense. When you read a sentence like this, you should press the YES key. On the contrary, a sentence like, My mother says that my little brother is a desk. does not make sense, because there are no similarities between my little brother and a desk. They are not metaphorically related. So when you read a sentence like this, you should press the NO key.

Now we are going to try some practice sentences so you can get a better idea of what the task is. After each practice sentence, you will see whether you were CORRECT or WRONG. You will see NO ANSWER if you do not press a key within five seconds. This feedback is only to help you during the practice sentences. In the actual experiment, you will not be told whether you were correct or wrong, but the computer will know.

That puddle in the street was an ocean.

Oceans are very deep and treacherous.

A potato is a journey.

Journeys take you somewhere.

That two story house is a pinking shear.

Pinking shears are used to walk on grass.

Hope is the light at the end of a tunnel.

Tunnels give great speeches at banquets.

Now we are ready to begin the experiment. Since we are timing your responses, please try to respond as quickly as possible. However, do not respond so quickly that you make errors. Remember, if you haven't responded in five seconds, the next sentence will automatically appear. Also, during this task, please use the hand that you normally write with to press the keys.

If you have any questions please feel free to ask the experimenter now. If you do not have any questions and you would like to continue with this experiment, please sign and date the informed consent form.

## *Experimentals*

Met = metaphor

Non = nonsense

Rel = related fact

Un = unrelated fact

- 1) Met: My mother says birds are nature's airplanes.  
Rel: Airplanes have wings.  
Met: My mother says birds are nature's airplanes.  
Un: Airplanes have engines.  
Non: My mother says rocks are nature's airplanes.  
Rel: Airplanes have wings.  
Non: My mother says rocks are nature's airplanes.  
Un: Airplanes have engines.
- 2) Met: That tiny mosquito was a vampire.  
Rel: Vampires suck blood.  
Met: That tiny mosquito was a vampire.  
Un: Vampires wear black.  
Non: That frosted cupcake was a vampire.  
Rel: Vampires suck blood.  
Non: That frosted cupcake was a vampire.  
Un: Vampires wear black.
- 3) Met: His defense lawyer is a shark.  
Rel: Sharks are tenacious.  
Met: His defense lawyer is a shark.  
Un: Sharks are good swimmers.  
Non: His English notebook is a shark.  
Rel: Sharks are tenacious.  
Non: His English notebook is a shark.  
Un: Sharks are good swimmers.
- 4) Met: The bad news was an earthquake.  
Rel: Earthquakes upset people.  
Met: The bad news was an earthquake.  
Un: Earthquakes shake buildings.

- Non: The taco was an earthquake.  
 Rel: Earthquakes upset people.  
 Non: The taco was an earthquake.  
 Un: Earthquakes shake buildings.
- 5) Met: My sister says that happiness is gold.  
 Rel: Gold is worth a lot.  
 Met: My sister says that happiness is gold.  
 Un: Gold is an element.  
 Non: My sister says that murder is gold.  
 Rel: Gold is worth a lot.  
 Non: My sister says that murder is gold.  
 Un: Gold is an element.
- 6) Met: That criminal's fingerprint is a portrait.  
 Rel: Portraits are a way to identify a person.  
 Met: That criminal's fingerprint is a portrait.  
 Un: Portraits of famous people hang in galleries. 11)  
 Non: That salami sandwich is a portrait.  
 Rel: Portraits are a way to identify a person.  
 Non: That salami sandwich is a portrait.  
 Un: Portraits of famous people hang in galleries.
- 7) Met: His new boss is a breath of fresh air.  
 Rel: A breath of fresh air can be rejuvenating.  
 Met: His new boss is a breath of fresh air.  
 Un: A breath of fresh air comes from the out doors.  
 Non: His left thumb is a breath of fresh air.  
 Rel: A breath of fresh air can be rejuvenating.  
 Non: His left thumb is a breath of fresh air.  
 Un: A breath of fresh air comes from the out doors.
- 8) Met: His late afternoon hunger is a lion.  
 Rel: Lions can be overpowering.  
 Met: His late afternoon hunger is a lion.  
 Un: Lions have big, hairy manes.  
 Non: The sprinkler system in his yard is a lion.  
 Rel: Lions can be overpowering.  
 Non: The sprinkler system in his yard is a lion.  
 Un: Lions have big, hairy manes.
- 9) Met: When she sleeps, her eyelids are window shades.  
 Rel: Window shades block light.  
 Met: When she sleeps, her eyelids are window shades.  
 Un: Window shades cover glass.  
 Non: At the grocery store, shelves are window shades.
- 10) Met: Confetti at weddings is a fireworks display.  
 Rel: Fireworks are colorful and celebratory.  
 Met: Confetti at weddings is a fireworks display.  
 Un: Fireworks require ignition.  
 Non: Peanut butter at lunch is a fireworks display.  
 Rel: Fireworks are colorful and celebratory.  
 Non: Peanut butter at lunch is a fireworks display.  
 Un: Fireworks require ignition.
- 11) Met: That lightning which struck down the old oak tree was a knife.  
 Rel: Knives can be dangerous.  
 Met: That lightning which struck down the old oak tree was a knife.  
 Un: Knives can spread butter.  
 Non: That old grandfather clock in the family room is a knife.  
 Rel: Knives can be dangerous.  
 Non: That old grandfather clock in the family room is a knife.  
 Un: Knives can spread butter.
- 12) Met: My roommate is a crab.  
 Rel: Crabs snap at people for no reason.  
 Met: My roommate is a crab.  
 Un: Crabs live in the sea.  
 Non: My cereal bowl is a crab.  
 Rel: Crabs snap at people for no reason.  
 Non: My cereal bowl is a crab.  
 Un: Crabs live in the sea.
- 13) Met: My uncle's surgeon is a butcher.  
 Rel: Butchers cut up things.  
 Met: My uncle's surgeon is a butcher.  
 Un: Butchers sell meat.  
 Non: My favorite children's fairy tale is a butcher.  
 Rel: Butchers cut up things.  
 Non: My favorite children's fairy tale is a butcher.  
 Un: Butchers sell meat.
- 14) Met: My brother thinks that soothing music is medicine.

- Rel: Medicine makes people feel better.  
 Met: My brother thinks that soothing music is medicine.  
 Un: Medicine is often prescribed by doctors.  
 Non: My brother thinks that wood table in my house is medicine.  
 Rel: Medicine makes people feel better.  
 Non: My brother thinks that wood table in my house is medicine.  
 Un: Medicine is often prescribed by doctors.
- 15) Met: My daughter's smile is sunshine.  
 Rel: Sunshine makes people happy.  
 Met: My daughter's smile is sunshine.  
 Un: Sunshine can cause sunburns.  
 Non: My basement door is sunshine.  
 Rel: Sunshine makes people happy.  
 Non: My basement door is sunshine.  
 Un: Sunshine can cause sunburns.
- 16) Met: When sitting in class, time is a snail.  
 Rel: Snails move slowly.  
 Met: When sitting in class, time is a snail.  
 Un: Snails are animals that live in a shell.  
 Non: When shopping, a beer bottle is a snail.  
 Rel: Snails move slowly.  
 Non: When shopping, a beer bottle is a snail.  
 Un: Snails are animals that live in a shell.
- 17) Met: That fashion model is a rail.  
 Rel: Rails are thin.  
 Met: That fashion model is a rail.  
 Un: Rails are made of metal.  
 Non: That milk fat product is a rail.  
 Rel: Rails are thin.  
 Non: That milk fat product is a rail.  
 Un: Rails are made of metal.
- 18) Met: In the winter, my bedroom is a refrigerator.  
 Rel: Refrigerators are cold.  
 Met: In the winter, my bedroom is a refrigerator.  
 Un: Refrigerators are appliances.  
 Non: In Hawaii, the sandy beaches are a refrigerator.  
 Rel: Refrigerators are cold.  
 Non: In Hawaii, the sandy beaches are a refrigerator.  
 Un: Refrigerators are appliances.
- 19) Met: My boyfriend's arms are steel.
- Rel: Steel is strong.  
 Met: My boyfriend's arms are steel.  
 Un: Steel is used in construction.  
 Non: My boyfriend's socks are steel.  
 Rel: Steel is strong.  
 Non: My boyfriend's socks are steel.  
 Un: Steel is used in construction.
- 20) Met: My cat's fur is silk.  
 Rel: Silk is soft.  
 Met: My cat's fur is silk.  
 Un: Silk is a material.  
 Non: My cork collection is silk.  
 Rel: Silk is soft.  
 Met: My cork collection is silk.  
 Un: Silk is a material.
- 21) Met: When walking, the pregnant woman was a duck.  
 Rel: Ducks waddle when walking.  
 Met: When walking, the pregnant woman was a duck.  
 Un: Ducks have feathers.  
 Non: When walking, the short story was a duck.  
 Rel: Ducks waddle when walking.  
 Non: When walking, the short story was a duck.  
 Un: Ducks have feathers.
- 22) Met: Her mother is a mule.  
 Rel: Mules are very stubborn.  
 Met: Her mother is a mule.  
 Un: Mules have four legs.  
 Non: Her apple pie is a mule.  
 Rel: Mules are very stubborn.  
 Non: Her apple pie is a mule.  
 Un: Mules have four legs.
- 23) Met: The boy in the corner of the room is a mouse.  
 Rel: A mouse is very quiet.  
 Met: The boy in the corner of the room is a mouse.  
 Un: A mouse is a rodent.  
 Non: The popcorn sold at the theater is a mouse.  
 Rel: A mouse is very quiet.  
 Non: The popcorn sold at the theater is a mouse.  
 Un: A mouse is a rodent.
- 24) Met: The tiny mountain lake is a mirror.  
 Rel: Mirrors are reflective.

- Met: The tiny mountain lake is a mirror.  
Un: Mirrors break easily.  
Non: The old rocking chair is a mirror.  
Rel: Mirrors are reflective.  
Non: The old rocking chair is a mirror.  
Un: Mirrors break easily.
- 25) Met: My history teacher is an encyclopedia.  
Rel: Encyclopedias contain a lot of information.  
Met: My history teacher is an encyclopedia.  
Un: Encyclopedias are alphabetized.  
Non: My black coffee is an encyclopedia.  
Rel: Encyclopedias contain information.  
Non: My black coffee is an encyclopedia.  
Un: Encyclopedias are alphabetized.
- 26) Met: The baby monkey is a vine.  
Rel: Vines cling to things.  
Met: The baby monkey is a vine.  
Un: Vines are plants.  
Non: The plastic stapler is a vine.  
Rel: Vines cling to things.  
Non: The plastic stapler is a vine.  
Un: Vines are plants.
- 27) Met: The cheering crowd was thunder.  
Rel: Thunder is loud.  
Met: The cheering crowd was thunder.  
Un: Thunder accompanies storms.  
Non: The measuring cup was thunder.  
Rel: Thunder is loud.  
Non: The measuring cup was thunder.  
Un: Thunder accompanies storms.
- 28) Met: His marriage was a short leash.  
Rel: Leashes are restraining.  
Met: His marriage was a short leash.  
Un: Leashes are used for dogs.  
Non: His helicopter was a short leash.  
Rel: Leashes are restraining.  
Non: His helicopter was a short leash.  
Un: Leashes are used for dogs.
- 29) Met: When she is upset, her voice is a siren.  
Rel: Sirens whine and wail.  
Met: When she is upset, her voice is a siren.  
Un: Sirens are found on fire trucks.  
Non: When she is tired, her popsicle is a siren.  
Rel: Sirens whine and wail.  
Non: When she is tired, her popsicle is a siren.
- 30) Met: Her grade school principal is a fossil.  
Rel: Fossils are old.  
Met: Her grade school principal is a fossil.  
Un: Fossils are dug up by scientists.  
Non: Her masking tape is a fossil.  
Rel: Fossils are old.  
Non: Her masking tape is a fossil.  
Un: Fossils are dug up by scientists.
- 31) Met: That seventh-grader's brain is a computer.  
Rel: Computers calculate very quickly.  
Met: That seventh-grader's brain is a computer.  
Un: Computers can be plugged into a wall.  
Non: That seventh-grader's sweatshirt is a computer.  
Rel: Computers calculate very quickly.  
Non: That seventh-grader's sweatshirt is a computer.  
Un: Computers can be plugged into a wall.
- 32) Met: That twelve speed bicycle is a rocket.  
Rel: Rockets go very fast.  
Met: That twelve speed bicycle is a rocket.  
Un: Rockets need fuel.  
Non: That puddle of bleach is a rocket.  
Rel: Rockets go very fast.  
Non: That puddle of bleach is a rocket.  
Un: Rockets need fuel.
- 33) Met: My husband's unshaven face is sandpaper.  
Rel: Sandpaper is rough and coarse.  
Met: My husband's unshaven face is sandpaper.  
Un: Sandpaper smoothes surfaces.  
Non: My husband's new Volvo is sandpaper.  
Rel: Sandpaper is rough and coarse.  
Non: My husband's new Volvo is sandpaper.  
Un: Sandpaper smoothes surfaces.
- 34) Met: Jalapeño peppers are fire.  
Rel: Fire is very hot.  
Met: Jalapeño peppers are fire.  
Un: Fire requires oxygen.  
Non: Fresh blueberries are fire.  
Rel: Fire is very hot.  
Non: Fresh blueberries are fire.  
Un: Fire requires oxygen.
- 35) Met: After playing outside, toddlers' cheeks are

- roses.  
 Rel: Roses are red.  
 Met: After playing outside, toddlers' cheeks are roses.  
 Un: Roses have thorns.  
 Non: Moving escalators are roses.
- 41) Rel: Roses are red.  
 Non: Moving escalators are roses.  
 Un: Roses have thorns.
- 36) Met: My young cousin is a shrimp.  
 Rel: Shrimp are very small.  
 Met: My young cousin is a shrimp.  
 Un: Shrimp are ocean dwellers.  
 Non: My new telephone number is a shrimp.
- 42) Rel: Shrimp are very small.  
 Non: My new telephone number is a shrimp.  
 Un: Shrimp are ocean dwellers.
- 37) Met: Her husband is a gem.  
 Rel: Gems are precious.  
 Met: Her husband is a gem.  
 Un: Gems are stones.  
 Non: Her ketchup bottle is a gem.
- 43) Rel: Gems are precious.  
 Non: Her ketchup bottle is a gem.  
 Un: Gems are stones.
- 38) Met: His old car is a boat.  
 Rel: Boats are large.  
 Met: His old car is a boat.  
 Un: Boats float in water.  
 Non: His laundry detergent is a boat.
- 44) Rel: Boats are large.  
 Non: His laundry detergent is a boat.  
 Un: Boats float in water.
- 39) Met: The planet Earth is a ball.  
 Rel: Balls are round.  
 Met: The planet Earth is a ball.  
 Un: Balls are toys.  
 Non: The combat boot is a ball.
- 45) Rel: Balls are round.  
 Non: The combat boot is a ball.  
 Un: Balls are toys.
- 40) Met: In old age, her memory was a sieve.  
 Rel: Sieves have holes.  
 Met: In old age, her memory was a sieve.  
 Un: Sieves separate particles.
- Non: In old age, her breath was a sieve.  
 Rel: Sieves have holes.  
 Non: In old age, her breath was a sieve.  
 Un: Sieves separate particles.
- Met: My grandmother is a peach.  
 Rel: Peaches are sweet.  
 Met: My grandmother is a peach.  
 Un: Peaches grow on trees.  
 Non: My treacherous staircase is a peach.  
 Rel: Peaches are sweet.  
 Non: My treacherous staircase is a peach.  
 Rel: Peaches grow on trees.
- Met: The Great Plains are a board.  
 Rel: Boards are flat.  
 Met: The Great Plains are a board.  
 Un: Boards are made of wood.  
 Non: The salt shaker is a board.  
 Rel: Boards are flat.  
 Non: The salt shaker is a board.  
 Un: Boards are made of wood.
- Met: Her unflinching gaze is ice.  
 Rel: Ice is cold and hard.  
 Met: Her unflinching gaze is ice.  
 Un: Ice is slippery.  
 Non: Her day planner is ice.  
 Rel: Ice is cold and hard.  
 Non: Her day planner is ice.  
 Un: Ice is slippery.
- Met: That man plowing the garden is a horse.  
 Rel: Horses are strong.  
 Met: That man plowing the garden is a horse.  
 Un: Horses eat hay.  
 Non: That dainty flower in the garden is a horse.  
 Rel: Horses are strong.  
 Non: That dainty flower in the garden is a horse.  
 Un: Horses eat hay.
- Met: Her final exam in Geography was a bear.  
 Rel: Bears are tough.  
 Met: Her final exam in Geography was a bear.  
 Un: Bears are large mammals.  
 Non: Her green shirt in the closet was a bear.  
 Rel: Bears are tough.  
 Non: Her green shirt in the closet was a bear.  
 Un: Bears are large mammals.

46) Met: His kindergarten class is a zoo.  
Rel: Zoos are noisy and messy.  
Met: His kindergarten class is a zoo.  
Un: Zoos are expensive to maintain.  
Non: His rear window is a zoo.  
Rel: Zoos are noisy and messy.  
Non: His rear window is a zoo.  
Un: Zoos are expensive to maintain.

47) Met: My poetry class is a joke.  
Rel: Jokes are not taken seriously.  
Met: My poetry class is a joke.  
Un: Jokes are told by comedians.  
Non: My apple juice is a joke.  
Rel: Jokes are not taken seriously.  
Non: My apple juice is a joke.  
Un: Jokes are told by comedians.

48) Met: Her bedroom is a dump.  
Rel: Dumps are full of junk.  
Met: Her bedroom is a dump.  
Un: Dumps are located outdoors.  
Non: Her carnation is a dump.  
Rel: Dumps are full of junk.  
Non: Her carnation is a dump.  
Un: Dumps are located outdoors.

### Practice fillers:

#### *NO-NO: (beginning)*

The sugar in the jar is a movie.

Movies are eaten with ketchup and mustard.

#### *YES-YES: (beginning)*

Death is the period at the end of a sentence.

A period signals closure.

#### *NO-YES: (one-third)*

An envelope is a bracelet.

Bracelets are round and decorative.

### *YES-NO: (two-thirds)*

The dust in her apartment is a blanket.

Blankets are a common ingredient in salads.

### *No-No Fillers*

1. The sink in the kitchen is a plant.  
Plants are only found in bath tubs.
2. The money in her wallet is a tornado.  
Tornados are made by practicing.
3. The sheep in the barn was a knob.  
Knobs are popular items to spell.
4. Computer disks are needed for hunting animals.  
Hunting animals involves making tidal waves in the ocean.
5. The radiologist in the clinic is a pineapple.  
Pineapples are a way to clean your kitchen.
6. At the party, his squid was a paper towel.  
Paper towels are hung on a clothesline.
7. The schoolgirl's homework is a banana.  
Banana splits are always placed in coffee cups.
8. My mother's home-made pizza is a couch.  
Couches can be seen driving on the highway.
9. The rolodex in her office is a pot hole.  
Pot holes are made by washing machines.
10. The woman's foot was a Twinkie.  
Twinkies are decorations for car trunks.
11. That photograph of our family is a nurse.  
Nurses gives aspirins to watermelons.
12. People in a crowd are newspapers.  
Newspapers are found in people's ears.
13. The vegetables on the table are night lights.  
Night lights help people go to the moon.
14. Her portable phone is a Ferris wheel.

- Ferris wheels show people how to panhandle.
15. Her mouth is a box of stationery.  
Stationery can be used to give birth to diplomats.
  16. The child's begging is a cup of mud.  
Mud helps shuffle papers together.
  17. Her basketball is a toll booth.  
Toll booths distribute hamburgers.
  18. The majorette's skill is a dandelion.  
Dandelions are sources of confusion and delay.
  19. My little brother's friend is a chocolate chip.  
Chocolate chips are used to tell time.
  20. Her forty-first birthday was a picnic table.  
Picnic tables are the best places to roller skate.
  21. The alumnus was a small white rabbit.  
Rabbits meet journalists in their houses.
  22. The professor was a blue canoe.  
Canoes are found in trees in the jungle.
  23. Her friendly manner was a bagel.  
Bagels burrow into the earth.
  24. The man's singing was an apartment.  
Apartments pity the angry teacher.
  6. My messy younger brother is a pig.  
Pigs are animals that run marathons.
  7. That agile burglar was a cat.  
Cats are very likely to shop for dresses.
  8. My Irish friend's red hair is flame.  
Flames can cool people off.
  9. That four hour opera was a sedative.  
Sedatives can be very easy to throw.
  10. My friend's wardrobe is a box of crayons.  
Crayons are often eaten for lunch.
  11. That little girl's excited face is the sun.  
The sun is a popular vacation spot.
  12. When you are young, time is sand through the hour glass.  
Hourglasses are used to store hampers.
  13. His over-worked father is a machine.  
Machines drive lasagne dinners.
  14. His kindhearted girlfriend is candy.  
Candy is made of car windows.
  15. That young woman's lovely voice is music.  
Music can be found inside a table.
  16. A summer sunrise is heaven.  
Heaven is where one buys coffee grinders.

## *Yes-No Fillers*

1. My father's dead-end job is a jail.  
Jails are used for shopping for the holidays.
2. My first true love was a shy flower.  
Flowers are sixty years old.
3. The youngster's incessant crying was a squeaky violin.  
Violins can throw footballs.
4. That woman's straw hat is a roof.  
A roof is where the hospital is.
5. Responsibility is a shackle.  
Shackles are angry people.
17. Her soft comfortable mattress is a cotton ball.  
Cotton balls can be used to walk an iguana.
18. My teen-aged friend's make-up is war paint.  
Paint helps in thunderstorms.
19. That man's life is a movie.  
Movies are fun to take to the barnyard.
20. The young couple's wedding vows are a staple.  
Staples hold fingernails together.
21. My aunt's health problems are a time bomb.  
Bombs are special wedding gifts.
22. The papers all over the secretary's desk are a



flood.

Floods annoy pot roasts.

23. Her lawsuit is a gold mine.  
Gold mines are places to find farm animals.
24. The way my three year-old grandson stumbles  
around is a dance.  
Dances are fun to throw at students.