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# **Experiment 1** Materials

GERNSBACHER, M. A., ROBERTSON, R. R. W., ROOTBERG, B. S., CAMPANA, M. E., & WERNER, N.K. (2001). The ubiquity of the advantage of first mention. Unpublished manuscript.

1)

This is an experiment in how people comprehend sentences. It is NOT a test of your personality or intelligence.

In this experiment you will be using the keys in front of you. While pressing the keys it is very important that you only press the keys when you are told to. Also, do not hold down a key or press it more than once while answering a question. The keys act just like keys on a keyboard.

Please put on the headphones now. There are volume adjuster knobs on either side to adjust the sound if it is too loud or too soft.

2)

What will happen is this: You are going to hear a series of sentences. The sentences are NOT related. That is, each sentence should be understood separately from the others. You will hear each sentence over your headphones. Before each sentence begins, you will hear a tone. This is your cue to begin listening. After you hear the tone, you will hear a sentence.

Here is an example of a warning tone and a sentence.

(P-1)

3)

Like the example you just heard, each of the sentences will be about famous people. Your job is to listen to each sentence and understand it as well as you can. We want to make sure that you are really understanding each sentence. So, after some of the sentences we will ask you a test question about the sentence you just heard. When you are going to be asked the test question, the word "QUESTION?" will appear on the screen. It will look like this:

(Question)

4)

Immediately after the word QUESTION disappears from the screen, the actual question will be shown. For example, a test question about the example sentence you heard just a second ago might be:

How popular with women were Fred Astaire and Frank Sinatra?

When the test question is shown, two answers will also be shown.

For example:

How popular with women were Fred Astaire and Frank Sinatra?

unpopular very popular

5)

To answer each test question you simply choose one of the two answers shown on the screen. To indicate to us which answer you have chosen, we want you to press one of the two keys on the keyboard on the table before you. Press the key that's on the LEFT to indicate that the answer that appears on the left side of the screen is correct. Press the key on the RIGHT to indicate that the answer that appears on the right side of the screen is correct. Don't worry that the keys are labeled "YES" and "NO." You won't need that for this part of the task. Simply use the key on the LEFT to indicate the answer on the left and the key on the RIGHT to indicate the answer on the right.

For the example question,

How popular with women were Fred Astaire and Frank Sinatra?

unpopular very popular

the correct answer is "very popular." To respond to this question you should press the key on the right. Please press this key now.

#### 6)

Some of the questions are relatively difficult. But we want you to try to answer each one as ACCURATELY as you possibly can. In addition to answering as accurately as possible, we also want you to answer as RAPIDLY as you can. The keys that you are pressing are connected to a computer which will record both how rapidly and how accurately you answer each question. So, try to answer as QUICKLY but also as CORRECTLY as you can. If you answer correctly, you'll be shown the word "CORRECT" on the computer screen. If you answer incorrectly you'll be shown the word "WRONG," and if you take more than 10 seconds to answer you'll be shown the words "NO ANSWER."

Now, let's try a practice sentence and question.

(P-2)

7)

So, now you know how to do your primary task. You'll also have a secondary task. The secondary task is this: After each sentence a name will appear on the screen. Your job is to decide whether the name shown on the screen has occurred in THE SENTENCE YOU HAVE JUST HEARD. If the name HAS OCCURRED, press the key labeled "YES." If it has not, press the key labeled "NO." Once again, we would like you to answer as ACCURATE-LY and RAPIDLY as you can. The computer will record both how rapidly and how accurately you respond. If you respond correctly, you'll be shown the word "CORRECT" on the computer screen. If you respond incorrectly you'll be shown the word "WRONG," and if you take more than 5 seconds to respond you'll be shown the words "NO ANSWER." Now let's try some practice sentences.

(P-3, P-4)

8)

OK. Now we are going to give you some practice doing both tasks. Remember your PRIMARY task is to understand each sentence as fully as possible. When the word "QUESTION?" appears on the screen, prepare to answer a question about the sentence you have just heard. After each sentence you will also perform a SECONDARY task, which is to decide rapidly and accurately whether the name being shown on the screen occurred in the sentence you have just heard. Let's do some practice sentences.

(P-5, P-6)

9)

OK. We need to tell you two more things that we didn't mention before. First, please use only ONE HAND to press the two response keys. That hand should be THE HAND YOU NORMALLY WRITE WITH. On that hand, use your pointer finger (the finger closest to your thumb) to press one key, and your middle finger to press the other key. You MUST only use those TWO fingers throughout the experiment. Second, you will only receive feedback ("CORRECT", "WRONG", or "NO ANSWER") after the questions during the actual experiment. You will not receive feedback after responding to the names.

Now, we need to find out if you want to continue to participate in the experiment (we hope you do!). If you want to participate, we need you to sign the statement of informed consent that is on the clipboard to your left. When you have signed the form the experimenter will come around and pick it up. If you have any questions feel free to ask the experimenter now.

Famous People Sentences

Practice

P1. Fred Astaire and Frank Sinatra made many women swoon by appearing on the screen.

Q: How popular with women were Fred Astaire and Frank Sinatra?

A. UNPOPULAR VERY POPULAR

P2. Roseanne and Madonna were invited to host the new comedy show.

Q: What was Roseanne invited to do?

A: HOST A COMEDY SHOW HOST AN AWARDS CEREMONY

P3. Lee Harvey Oswald and John Wilkes Booth committed horrible crimes by assassinating popular presidents.

TEST: John Wilkes Booth

P4. Henry David Thoreau and Ralph Waldo Emerson are famous for their mastery of language.

**TEST: Ernest Hemingway** 

P5. Jesse Jackson and Tommy Thompson discussed the economic ramifications of the new legislation.

TEST: Tommy Thompson

Q: What did Jesse Jackson discuss?

A: NEW LEGISLATION A POLITICAL CAMPAIGN

P6. Norman Rockwell and Georgia O'Keeffe created vastly different styles of art work.

**TEST:** Pablo Picasso

Q: How similar are the paintings of Norman Rockwell and Georgia O'Keefe?

A. VERY SIMILAR NOT VERY SIMILAR

Experimentals

1. Eddie Murphy and John Candy worked as lowly dishwashers before making it big.

**TEST:** John Candy

- Q. Where did John Candy work?
- A. IN A THEATER AT A RESTAURANT
- 2. Tim Allen and Will Smith accepted the awards on behalf of the sitcoms.

TEST: Will Smith

Q. What were the awards for?

A. SITCOMS MOVIES

3. Phil Donahue and Johnny Carson invited guests who had broken records in track.

TEST: Phil Donahue

Q. In what sport did the guests excel?

- A. RUNNING SWIMMING
- 4. Abraham Lincoln and George Washington led the country in times of great hardship.

TEST: Abraham Lincoln

Q. In what sort of times did Abraham Lincoln and George Washington lead the country?

A. GOOD TIMES HARD TIMES

5. Meg Ryan and Joe Pesci had a secret love affair several years ago.

**TEST:** Joe Pesci

Q. How many people knew about the affair ?

A. MANY JUST A FEW

6. Oprah Winfrey and Arsenio Hall asked the guests to talk about child abuse.

TEST: Arsenio Hall

- Q. What did the guests talk about?
- A. GANG ACTIVITY CHILD ABUSE
- 7. Dan Quayle and Donald Trump shook hands in front of the television cameras.

TEST: Dan Quayle

- Q. What did Dan Quayle and Donald Trump do in front of the cameras?
- A. SHOOK HANDS MADE A BUSINESS DEAL
- 8. Whitney Houston and Whoopi Goldberg spoke out in a rally for women's rights.

TEST: Whoopi Goldberg

- Q. What did Whoopi Goldberg do at the rally?
- A. COLLECTED SIGNATURES ON PETITIONS SHARED THEIR OPINIONS
- 9. Tonya Harding and Nancy Kerrigan skated many hours to prepare for the competition.
- TEST: Tonya Harding
- Q. Where did Nancy Kerrigan spend quite a bit of her time?
- A. AT THE ICE RINKAT THE HEALTH CLUB
- 10. Prince and Cher sang a duet at a common friend's wedding.
- TEST: Cher
- Q. Where did Prince and Cher sing a duet?
- A. AT A WEDDING AT GRADUATION

11. Michael Bolton and Gloria Estefan focused on spousal abuse problems in recent releases.

TEST: Gloria Estefan

Q. What did Michael Bolton sing about?

A. WORLD HUNGER SPOUSAL ABUSE

12. Walt Disney and Bill Cosby devoted much time and energy to entertaining children.

TEST: Walt Disney

Q. Whom did Walt Disney and Bill Cosby aim to entertain?

A. CHILDREN TODDLERS

13. Billy Joel and Jay Leno spent several hours talking about the music industry.

TEST: Jay Leno

Q. How many hours did Billy Joel and Jay Leno spend talking?

### A. MORE THAN ONE ONE

14. Sean Connery and Winona Ryder co-starred in a movie about the early crusades.

TEST: Winona Ryder

Q. In what era was the movie set?

A. IN THE PAST IN THE FUTURE

15. Clint Eastwood and Alfred Hitchcock attended an awards ceremony for figures in film.

TEST: Alfred Hitchcock

Q. What was the awards ceremony for?

A. MOVIE DIRECTORS FIGURES IN FILM

16. Mike Tyson and Andre Agassi worked out in a full service health club.

TEST: Andre Agassi

Q. Where did Mike Tyson exercise?

A. ON THE BEACH IN A GYM

17. Michael J. Fox and Richard M. Nixon wore business suits in front of the cameras.

TEST: Richard M. Nixon

Q. What did Michael J. Fox wear?

- A. A BUSINESS SUIT A TUXEDO
- 18. Hillary Rodham Clinton and Martin Luther King, Jr. acted as role models to many different people.

TEST: Martin Luther King, Jr.

- Q. Who admired Martin Luther King, Jr. ?
- A. ONLY ACTIVISTS MANY DIFFERENT PEOPLE
- 19. Babe Ruth and Larry Bird appeared in a deck of commemorative sports cards.
- TEST: Larry Bird
- Q. Which products featured Larry Bird?
- A. SPORTS CARDS ACTION FIGURES
- 20. Barbara Walters and Richard Simmons encouraged troubled people to focus on positive self-image.

**TEST: Richard Simmons** 

Q. What did Richard Simmons encourage people to focus on?

- A. WEIGHT LOSS SELF-IMAGE
- 21. O.J. Simpson and Michael Jordan each appeared on the covers of six magazines.

TEST: Michael Jordan

- Q. How many magazines had O.J. Simpson on their covers?
- A. SIX SEVEN
- 22. Jim Henson and Chevy Chase used humor as a way of reaching people.

TEST: Jim Henson

Q. How did Jim Henson and Chevy Chase get their messages across?

- A. THROUGH DRAMA THROUGH HUMOR
- 23. Heather Locklear and Christian Slater made plans to go downhill skiing in spring.

TEST: Heather Locklear

- Q. When did Heather Locklear and Christian Slater plan to go skiing?
- A. SPRING WINTER
- 24. Connie Chung and Dan Rather related a recent tragedy involving a school bus.
- TEST: Connie Chung
- Q. What did Connie Chung report?
- A. A ROBBERY AN ACCIDENT
- 25. Pauly Shore and Bill Murray lost all public appeal after a bad movie.
- **TEST:** Pauly Shore
- Q. When was Pauly Shore the least popular?
- A. AFTER THE MOVIE BEFORE THE MOVIE
- 26. Ricki Lake and Kurt Cobain discussed the band's thoughts about a world tour.
- TEST: Ricki Lake
- Q. What were Ricki Lake and Kurt Cobain talking about?
- A. DRUGS MUSIC
- 27. Jimi Hendrix and John Lennon remain two of the most popular musicians ever.
- TEST: Jimi Hendrix
- Q. How popular is John Lennon today?
- A. VERY POPULAR NOT POPULAR
- 28. Robin Williams and Steven Spielberg produced a movie about alligators in the sewers.
- **TEST:** Robin Williams
- Q. What was the movie which Robin Williams and Steven Speilberg produced about?
- A. CROCODILES ALLIGATORS
- 29. Vanna White and Demi Moore appeared in commercials for the various dairy products.
- TEST: Demi Moore
- Q. Where did the advertisements appear?

#### A. ON TELEVISION IN A MAGAZINE

- 30. Prince Charles and Princess Diana refused to talk to newspapers about the rumors.
- **TEST:** Prince Charles
- Q. How did Prince Charles and Princess Diana react to the rumors?
- A. DENIED THEM SAID NOTHING
- 31. Jim Carrey and Tom Hanks took turns announcing the winners of the awards.
- **TEST:** Tom Hanks
- Q. How many of the winners did Jim Carrey announce?
- A. ALL OF THEM ABOUT HALF OF THEM
- 32. Luke Perry and Brad Pitt sold many photographs to magazines marketed toward teenagers.

**TEST: Luke Perry** 

- Q. What happened to the photographs?
- A. THEY WERE DONATED THEY WERE SOLD
- 33. David Letterman and Christie Brinkley talked about the current gossip in the industry.

TEST: Christie Brinkley

- Q. What did Christie Brinkley talk about?
- A. CURRENT GOSSIP PROVEN FACTS
- 34. Harrison Ford and Julia Roberts sipped gourmet coffee while reading the new script.
- TEST: Julia Roberts
- Q. What did Harrison Ford drink while reading the script?
- A. WINE COFFEE
- 35. Bruce Willis and Danny DeVito signed autographs for screaming fans at the restaurant.
- TEST: Bruce Willis
- Q. Where did Bruce Willis sign autographs?

A. AT A RESTAURANT AT A MOVIE THEATER

36. Mariah Carey and Keanu Reeves hosted the annual auction for the children's charity.

TEST: Mariah Carey

Q. How often did the auction take place?

A. ONCE EACH YEAR ONCE EVERY TWO YEARS

37. Isaac Newton and Thomas Edison contributed greatly to the early progress of science.

TEST: Isaac Newton

Q: What field did Isaac Newton contribute the most to?

A: SCIENCE PHILOSOPHY

38. Kirstie Alley and Kim Basinger raced to the store to purchase new dresses.

TEST: Kirstie Alley

Q. Where did Kim Basinger get her new dress?

A. FROM A CATALOG FROM A STORE

39. Michael Jackson and Cindy Crawford rode spotted horses in a new music video.

TEST: Michael Jackson

Q. What color was the horse that Michael Jackson rode?

A. SPOTTED BLACK

40. John Travolta and Steve Martin portrayed dancers in a comedy about the seventies.

TEST: John Travolta

Q. What did Steve Martin portray?

A. A SINGER A DANCER

### **Filler Sentences**

1. Hugh Grant and James Dean appeared in a list of the sexiest actors.

#### TEST: Johnny Depp

2. Harry Connick, Jr. and Louis Armstrong played music for the people of the bayou.

TEST: Sammy Davis, Jr.

3. Sharon Stone and Sandra Bullock chose to represent the product in television commercials.

TEST: Nicole Kidman

4. Rush Limbaugh and Ronald Reagan discussed the role of government in peoples' lives.

TEST: Newt Gingrich

David Hasselhoff and Kiefer Sutherland recently bought matching convertibles painted bright candy red.
TEST: Matthew Broderick

6. Melanie Griffith and Aaron Spelling planned a sitcom featuring a small mountain community.

TEST: William Shatner

7. Marilyn Monroe and Charlie Chaplin became pop icons in a short amount of time.

**TEST: Elvis Presley** 

8. Aretha Franklin and Natalie Cole sang songs at the annual blues music festival.

TEST: Diana Ross

9. Brett Favre and Monica Seles kept in shape with good food and exercise.

TEST: Steffi Graf

10. Brooke Shields and Jodie Foster dined on salad and French onion soup yesterday.

TEST: Tori Spelling

11. Jenny Jones and Carol Burnett reminisced about the clothing styles of the seventies.

TEST: Sally Field

12. Dave Matthews and Ringo Starr released interactive CD's that featured their greatest hits.

TEST: Bob Dylan

13. Lucille Ball and Michael Landon appeared in television reruns every day after school.

TEST: Andy Griffith

14. Jack Nicholson and Shannen Doherty chatted over wine at the celebrity holiday party.

TEST: Drew Barrymore
15. Bruce Springsteen and Paul McCartney decided to go on a world tour together.
TEST: John Mellencamp
16. Lisa Marie Presley and Kathie Lee Gifford spoke about issues regarding dating, courtship, and marriage.
TEST: Mary Tyler Moore
17. Winston Churchill and Margaret Thatcher acted in the best interest of the country.
TEST: Queen Elizabeth
18. Mahatma Gandhi and Mother Theresa greatly deprived themselves for the benefit of others.
TEST: Nelson Mandela
19. Magic Johnson and Muhammad Ali retired from athletics to spend time with their families.
TEST: Shaquille O'Neal
20. Dolly Parton and Willie Nelson wore cowboy boots and sang about the past.
TEST: Kenny Rogers
21. Bob Barker and Pat Sajack sent the contest winners a lot of money.
TEST: Ed McMahon
22. Benjamin Franklin and Thomas Jefferson worked to ensure that the country would succeed.
TEST: Alexander Hamilton
23. Joan Rivers and Oliver North discussed controversial actions of the troops last year.
TEST: Colin Powell
24. Ulysses S. Grant and John F. Kennedy changed the course of history when in office.
TEST: Harry S. Truman
25. Michael Keaton and Michelle Pfeiffer practiced the scenes for the very last time.
TEST: Robert DeNiro
26. John Belushi and Dana Carvey acted like members in a garage rock band.

TEST: Chris Farley

- 27. Ludwig Van Beethoven and Wolfgang Amadeus Mozart composed beautiful music for the very wealthy elite. TEST: Johann Sebastian Bach 28. Saddam Hussein and Fidel Castro ruled over the people through a strong dictatorship. TEST: Adolf Hitler 29. Tom Cruise and Val Kilmer opened a theme restaurant near the beach resort. **TEST: Mel Gibson** 30. Sigmund Freud and B. F. Skinner founded two distinct schools of inquiry and thought. **TEST:** Ivan Pavlov 31. Bobby Brown and Janet Jackson hosted portions of the music awards last winter. **TEST: Marky Mark** 32. Harriet Tubman and Albert Einstein accomplished things that others had only dreamed about. **TEST: Amelia Earhart** 33. Wayne Gretzky and Jane Fonda supported stricter laws against using drugs in sports. **TEST:** Joe Montana 34. Galileo and Aristotle are held in high esteem by many cultures. **TEST: Descartes** 35. Robert Shapiro and Kato Kaelin took a break from the hearings for lunch. TEST: Johnnie Cochran 36. Jackie Onassis and Elizabeth Taylor are seen by the public as strong women. **TEST: Eleanor Roosevelt** 
  - 37. Oliver Stone and Spike Lee wrote books about being directors of movies.
  - TEST: Woody Allen
  - 38. Charlie Sheen and Emilio Estevez got very wild while attending a hockey game.
  - TEST: River Phoenix
  - 39. Bill Clinton and Ross Perot wanted to see the outcome of the polls.

TEST: George Bush

40. Richard Gere and Kevin Costner wore ties to the unveiling of the club.

TEST: Alec Baldwin