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Experiment 3 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 Unpublished manuscript.

Instructions:

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.

Please press the "yes" key to go on.

In this experiment, you will be reading sentences. The sentences are **NOT** related. That is, each sentence should be understood separately from the others. Please read each sentence carefully.

Before each sentence begins, you will hear a tone. This is your cue to get ready to read that sentence. After you hear the warning tone, the sentence will be shown, broken into four segments.

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

Please press the "yes" key to see the example.

During the auction / Veronica bought an antique, and / during the flea market / Veronica found a bargain.

Like the example you just read, each sentence will be about a person's activities. Your job is to read 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 read. When you are going to be asked a test question, the word "QUESTION" will appear at the bottom of the screen. It will look like this:

PLEASE PRESS THE "YES" KEY TO CONTINUE.

QUESTION?

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

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

For example:

When did Veronica buy an antique?

during the auction during the flea market

PLEASE PRESS THE "YES" KEY TO CONTINUE.

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 choose the answer on the right.

For the example question,

When did Veronica buy an antique?

during the auction during the flea market

the correct answer is **during the auction**. So, to respond to this question you should press the key on the left.

Please press the key on the left now.

Some of the questions are relatively difficult. But we want you to try to answer each one as **ACCURATELY** as you possibly can. The keys that you are pressing are connected to a computer that will record how accurately you answer each question 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**". If you take more than 10 seconds to answer you'll be shown the words "**NO ANSWER**".

Now, let's try another practice sentence and test question:

PLEASE PRESS THE "YES" KEY TO DO THE PRACTICE TRIAL.

At the stadium / Martha bought a bratwurst, and / in the bleachers / Martha cheered on the team.

What did Martha do in the bleachers?

bought a bratwurst cheered on the team

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 phrase will appear on the screen. Your task is to decide whether that phrase occurred in the sentence you just read. If the phrase did occur in the sentence you just read, press the key labeled "YES". If the phrase did NOT occur in the sentence you just read, press the key labeled "NO". Once again, we would like you to answer as ACCURATELY as you can. In addition to answering as accurately as possible, we also want you to

answer as RAPIDLY as you can. The computer will record both how rapidly and how accurately you respond. So, try to answerr as QUICKLY but also as CORRECTLY as you can. 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". Let's try an example.

PLEASE PRESS THE "YES" KEY TO TRY AN EXAMPLE.

During the dart match / Todd drank some ale, and / after the round / Todd ate some pretzels.

(during the tournament)

In the previous example, you should have answered "NO" because "during the tournament" did not appear in the sentence.

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 at the bottom of the screen, prepare to answer a question about the sentence you have just read. Remember you will also be performing a **SECONDARY** task, which is to decide rapidly and accurately whether the phrase shown at the top of the screen occurred in the sentence you are just read. Let's do some practice trials.

Please press the "YES" key to do the practice trials.

During the convention / Andy delivered a speech, and / following the meeting / Andy addressed the stockholders.

(during the assembly)

In the tree house / Joanne colored a picture, and / at the park / Joanne played hopscotch.

(at the park)

Where did Joanne play hopscotch?

in the tree house at the park

On the water slide / Carol watched the otters, and / by the lion's cage / Carol heard a roar.

(by the monkeys)

During the final sale / Keith shopped for shoes, and /after the markdowns / Keith bought a shirt.

(after the markdowns)

What did Keith do during the final sale?

shopped for shoes bought a shirt

In the city / Kevin rode the subway, and / in the suburbs / Kevin drove a station wagon.

(in the city)

Where did Kevin ride the subway?

in the city in the suburbs

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 short phrases.

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. When you have signed the forms the experimenter will come around and pick them up. If you have any questions feel free to ask the experimenter now.

PLEASE WAIT. THE EXPERIMENTER WILL START THE EXPERIMENT.

Experimentals:

- A1S1 = Adverb phrase one is the target, "sentence" one is used (e.g. in sentence 1 Robert sang a song would be sentence one and Robert played the guitar would be sentence two)
- A2S1 = Adverb phrase two is the target, sentence one is used.
- A1S2 = Adverb phrase one is the target, sentence two is used.
- A2S2 = Adverb phrase two is the target, sentence two is used.

1. Mismatching

- A1L Near the amps / Robert played the guitar, and / next to the keyboard / Robert sang a song.
- A2L Next to the keyboard / Robert played the guitar, and / near the amps / Robert sang a song.

(near the amps)

- A1T During the encore / Robert played the guitar, and / at the concert / Robert sang a song.
- A2T At the concert / Robert played the guitar, and / during the encore / Robert sang a song.

(during the encore)

A1L Where did Robert sing a song?
near the amps next to the keyboard

A2L Where did Robert sing a song?

next to the keyboard **near the amps**

A1T When did Robert sing a song?

during the encore at the concert

A2T When did Robert sing a song?

at the concert during the encore

2. Mismatching

A1L Next to the club / Charlie cracked a joke, and / near the car / Charlie told a story.

A2L Near the car / Charlie cracked a joke, and / next to the club / Charlie told a story.

(next to the club)

A1T Before the cast party / Charlie cracked a joke, and / during the monologue / Charlie told a story.

A2T During the monologue / Charlie cracked a joke, and / before the cast party / Charlie told a story.

(before the cast party)

A1L Where did Charlie crack a joke?

next to the club near the car

A2L Where did Charlie crack a joke?

near the car next to the club

A1T When did Charlie crack a joke?

before the cast party during the monologue

A2T When did Charlie crack a joke?

during the monologue before the cast party

3. Matching

A1L On the east side / Tim weeded the garden, and / on the west side / Tim mowed the lawn.

A2L On the west side / Tim weeded the garden, and / on the east side / Tim mowed the lawn.

(on the east side)

A1T At the time-out / Tim weeded the garden, and / at half-time / Tim mowed the lawn.

A2T At half-time / Tim weeded the garden, and / at the time-out / Tim mowed the lawn.

(at the time-out)

A1L What did Tim do on the west side?

weeded the garden mowed the lawn

A2L What did Tim do on the east side?

weeded the garden **mowed the lawn**

A1T What did Tim do at half-time?

weeded the garden **mowed the lawn**

A2T What did Tim do at the time-out?

weeded the garden mowed the lawn

4. Mismatching

A1L In the emergency room / Susie comforted the patient, and / near the nurse's station / Susie examined the x-rays.

A2L Near the nurse's station / Susie comforted the patient, and / in the emergency room / Susie examined the x-rays.

(in the emergency room)

A1T Before the procedure / Susie comforted the patient, and / after the surgery / Susie examined the x-rays.

A2T After the surgery / Susie comforted the patient, and / before the procedure / Susie examined the x-rays.

(before the procedure)

A1L Where did Susie examine the x-rays?

in the emergency room near the nurse's station

A2L Where did Susie examine the x-rays?

near the nurse's station in the emergency room

A1T When did Susie examine the x-rays?

before the procedure after the surgery

A2T When did Susie examine the x-rays?

after the surgery **before the procedure**

5. Mismatching

A1L Near the fireplace / Elaine signed the card, and / by the Christmas tree / Elaine wrapped the present.

A2L By the Christmas tree / Elaine signed the card, and / near the fireplace / Elaine wrapped the present.

(near the fireplace)

A1T After the rehearsal / Elaine signed the card, and / before the wedding / Elaine wrapped the present.

A2T Before the wedding / Elaine signed the card, and / after the rehearsal / Elaine wrapped the present.

(after the rehearsal)

A1L What did Elaine do near the fireplace? signed the card wrapped the present

A2L What did Elaine do by the Christmas tree? signed the card wrapped the present

A1T What did Elaine do after the rehearsal? signed the card wrapped the present

A2T What did Elaine do before the wedding? signed the card wrapped the present

6. Matching

A1L By the hallway / Eve laid the tiles, and / by the bathroom / Eve painted the walls.

A2L By the bathroom / Eve laid the tiles, and / by the hallway / Eve painted the walls.

(by the hallway)

A1T During January / Eve laid the tiles, and / during July / Eve painted the walls.

A2T During July / Eve laid the tiles, and / during January / Eve painted the walls.

(during January)

A1L What did Eve do by the bathroom? laid the tiles **painted the walls**

A2L What did Eve do by the hallway?

laid the tiles painted the walls

A1T What did Eve do during July?

laid the tiles painted the walls

A2T What did Eve do during January?

laid the tiles **painted the walls**

7. Matching

A1L On the desk / Kate counted the bills, and / on the worktable / Kate sorted the change.

A2L On the worktable / Kate counted the bills, and / on the desk / Kate sorted the change.

(on the desk)

A1T At brunch / Kate counted the bills, and / at dinner / Kate sorted the change.

A2T At dinner / Kate counted the bills, and / at brunch / Kate sorted the change.

(at brunch)

A1L Where did Kate count the bills?

on the desk

on the worktable

A2L Where did Kate count the bills? on the worktable on the desk

A1T When did Kate count the bills? at brunch at dinner

A2T When did Kate count the bills? at dinner at brunch

8. Mismatching

A1L By the stream / Ed gathered kindling, and / on the bluffs / Ed set up a tent.

A2L On the bluffs / Ed gathered kindling, and / by the stream / Ed set up a tent.

(by the stream)

A1T Before the hike / Ed gathered kindling, and / after the swim / Ed set up a tent.

A2T After the swim / Ed gathered kindling, and / before the hike / Ed set up a tent.

(before the hike)

A1L What did Ed do by the stream? gathered kindling set up a tent

A2L What did Ed do on the bluffs? gathered kindling set up a tent

A1T What did Ed do before the hike? **gathered kindling** set up a tent

A2T What did Ed do after the swim? gathered kindling set up a tent

9. Matching

- A1L Near the living room / Annie mixed the drinks, and / near the parlor / Annie served the snacks.
- A2L Near the parlor / Annie mixed the drinks, and / near the living room / Annie served the snacks.

(near the living room)

A1T During the national news / Annie mixed the drinks, and / during the game show / Annie served the snacks.

A2T During the game show / Annie mixed the drinks, and / during the national news / Annie served the snacks.

(during the national news)

A1L Where did Annie mix the drinks? **near the living room** near the parlor

A2L Where did Annie mix the drinks?

near the parlor near the living room

A1T When did Annie mix the drinks?

during the national news during the game show

A2T When did Annie mix the drinks?

during the game show during the national news

10. Matching

- A1L In the container / Adam measured the flour, and / in the bowl / Adam ground the nuts.
- A2L In the bowl / Adam measured the flour, and / in the container / Adam ground the nuts.

(in the container)

 $\rm A1T-Before\ greasing\ the\ pan\ /\ Adam\ measured\ the\ flour,\ and\ /\ before\ turning\ on\ the\ oven\ /\ Adam\ ground\ the\ nuts.$

A2T Before turning on the oven / Adam measured the flour, and / before greasing the pan / Adam ground the nuts.

(before greasing the pan)

A1L Where did Adam grind the nuts? in the container in the bowl

A2L Where did Adam grind the nuts?

in the bowl in the container

A1T When did Adam grind the nuts?

before greasing the pan before turning on the oven

A2T When did Adam grind the nuts? before turning on the oven **before greasing the pan**

11. Mismatching

A1L By the swing-set / Dennis climbed on the monkey bars, and / near the teeter-totter / Dennis slid on the slide.

A2L Near the teeter-totter / Dennis climbed on the monkey bars, and / by the swing-set / Dennis slid on the slide.

(by the swing-set)

A1T After school ended / Dennis climbed on the monkey bars, and / at recess / Dennis slid on the slide.

A2T At recess / Dennis climbed on the monkey bars, and / after school ended / Dennis slid on the slide.

(after school ended)

A1L What did Dennis do near the teeter-totter? climbed on the monkey bars slid on the slide

A2L What did Dennis do by the swing-set? climbed on the monkey bars slid on the slide

A1T What did Dennis do at recess? climbed on the monkey bars slid on the slide

A2T What did Dennis do after school ended? climbed on the monkey bars slid on the slide

12. Mismatching

A1L By the roll-top desk / Karen locked the door, and / near the liquor cabinet / Karen closed the drapes.

A2L Near the liquor cabinet / Karen locked the door, and / by the roll-top desk / Karen closed the drapes.

(by the roll-top desk)

A1T At the stroke of midnight / Karen locked the door, and / after the guests' departure / Karen closed the drapes.

A2T After the guests' departure / Karen locked the door, and / at the stroke of midnight / Karen closed the drapes.

(at the stroke of midnight)

A1L Where did Karen close the drapes?

by the roll-top desk **near the liquor cabinet**

A2L Where did Karen close the drapes?

near the liquor cabinet by the roll-top desk

A1T When did Karen close the drapes?

at the stroke of midnight after the guests' departure

A2T When did Karen close the drapes?

after the guests' departure at the stroke of midnight

13. Matching

A1L In the garage / Joel changed the oil, and / in the driveway / Joel inflated the tires.

A2L In the driveway / Joel changed the oil, and / in the garage / Joel inflated the tires.

(in the garage)

A1T On Tuesday / Joel changed the oil, and / on Friday / Joel inflated the tires.

A2T On Friday / Joel changed the oil, and / on Tuesday / Joel inflated the tires.

(on Tuesday)

A1L What did Joel do in the garage?

changed the oil inflated the tires

A2L What did Joel do in the driveway?

changed the oil inflated the tires

A1T What did Joel do on Tuesday?

changed the oil inflated the tires

A2T What did Joel do on Friday?

changed the oil inflated the tires

14. Matching

A1L By the upstairs bedroom / Cheryl arranged the furniture, and / by the downstairs bedroom / Cheryl hung the curtains.

A2L By the downstairs bedroom / Cheryl arranged the furniture, and / by the upstairs bedroom / Cheryl hung the curtains.

(by the upstairs bedroom)

A1T During the spring / Cheryl arranged the furniture, and / during the fall / Cheryl hung the curtains.

A2T During the fall / Cheryl arranged the furniture, and / during the spring / Cheryl hung the curtains.

(during the spring)

A1L Where did Cheryl hang the curtains?

by the upstairs bedroom by the downstairs bedroom

A2L Where did Cheryl hang the curtains?

by the downstairs bedroom by the upstairs bedroom

A1T When did Cheryl hang the curtains?

during the spring during the fall

A2T When did Cheryl hang the curtains?

during the fall **during the spring**

15. Matching

A1L In the master bedroom / Alex swept the floor, and / in the den / Alex dusted the shelves.

A2L In the den / Alex swept the floor, and / in the master bedroom / Alex dusted the shelves.

(in the master bedroom)

A1T Before opening the store / Alex swept the floor, and / before closing the store / Alex dusted the shelves.

A2T Before closing the store / Alex swept the floor, and / before opening the store / Alex dusted the shelves.

(before opening the store)

A1L Where did Alex sweep the floor?

in the master bedroom in the den

A2L Where did Alex sweep the floor?

in the den in the master bedroom

A1T When did Alex sweep the floor?

before opening the store before closing the store

A2T When did Alex sweep the floor?

before closing the store before opening the store

16. Mismatching

- A1L Near the shed / Marcia stacked the wood, and / by the workbench / Marcia wiped off the saw.
- A2L By the workbench / Marcia stacked the wood, and / near the shed / Marcia wiped off the saw.

(near the shed)

- A1T After sanding / Marcia stacked the wood, and / before drilling / Marcia wiped off the saw.
- A2T Before drilling / Marcia stacked the wood, and / after sanding / Marcia wiped off the saw.

(after sanding)

A1L What did Marcia do near the shed? stacked the wood wiped off the saw

A2L What did Marcia do by the workbench? stacked the wood wiped off the saw

A1T What did Marcia do after sanding? stacked the wood wiped off the saw

A2T What did Marcia do before drilling? stacked the wood wiped off the saw

17. Mismatching

- A1L By the shady yard / Jonah threw the horseshoes, and / in the sunny park / Jonah tossed a Frisbee.
- A2L In the sunny park / Jonah threw the horseshoes, and / by the shady yard / Jonah tossed a Frisbee.

(by the shady yard)

A1T After the gust of wind / Jonah threw the horseshoes, and / before the raindrops fell / Jonah tossed a Frisbee.

A2T Before the raindrops fell / Jonah threw the horseshoes, and / after the gust of wind / Jonah tossed a Frisbee.

(after the gust of wind)

A1L What did Jonah do in the sunny park? threw the horseshoes **tossed a Frisbee**

A2L What did Jonah do by the shady yard? threw the horseshoes **tossed a Frisbee**

A1T What did Jonah do before the raindrops fell? threw the horseshoes **tossed a Frisbee**

A2T What did Jonah do after the gust of wind? threw the horseshoes **tossed a Frisbee**

18. Mismatching

A1L Near the field / Abby sketched the scenery, and / on the hillside / Abby flew a kite.

A2L On the hillside / Abby sketched the scenery, and / near the field / Abby flew a kite.

(near the field)

A1T After sunrise / Abby sketched the scenery, and / at sunset / Abby flew a kite.

A2T At sunset / Abby sketched the scenery, and / after sunrise / Abby flew a kite.

(after sunrise)

A1L Where did Abby fly a kite?

near the field **on the hillside**

A2L Where did Abby fly a kite?

on the hillside **near the field**

A1T When did Abby fly a kite?

after sunrise at sunset

A2T When did Abby fly a kite?

at sunset after sunrise

19. Mismatching

A1L Near the fence / Steve raked the leaves, and / by the house / Steve trimmed the hedges.

A2L By the house / Steve raked the leaves, and / near the fence / Steve trimmed the hedges.

(near the fence)

A1T During the week / Steve raked the leaves, and / on Sunday / Steve trimmed the hedges.

A2T On Sunday / Steve raked the leaves, and / during the week / Steve trimmed the hedges.

(during the week)

A1L Where did Steve rake the leaves?

near the fence by the house

A2L Where did Steve rake the leaves?

by the house near the fence

A1T When did Steve rake the leaves?

during the week

on Sunday

A2T When did Steve rake the leaves?

on Sunday

during the week

20. Matching

A1L On the bed / Dave listened to the walkman, and / on the couch / Dave watched TV.

A2L On the couch / Dave listened to the walkman, and / on the bed / Dave watched TV.

(on the bed)

A1T At nightfall / Dave listened to the walkman, and / at noon / Dave watched TV.

A2T At noon / Dave listened to the walkman, and / at nightfall / Dave watched TV.

(at nightfall)

A1L Where did Dave watch TV?

on the bed

on the couch

A2L Where did Dave watch TV?

on the couch

on the bed

A1T When did Dave watch TV?

at nightfall

at noon

A2T When did Dave watch TV?

at noon

at nightfall

21. Mismatching

A1L Near the gas pump / Rachel fixed the flat, and / by the garbage can / Rachel greased the chain.

A2L By the garbage can / Rachel fixed the flat, and / near the gas pump / Rachel greased the chain.

(near the gas pump)

A1T Before the championship / Rachel fixed the flat, and / after the trials / Rachel greased the chain.

A2T After the trials / Rachel fixed the flat, and / before the championship / Rachel greased the chain.

(before the championship)

A1L What did Rachel do by the garbage can?

fixed the flat

greased the chain

A2L What did Rachel do near the gas pump?

fixed the flat

greased the chain

A1T What did Rachel do after the trials? fixed the flat **greased the chain**

A2T What did Rachel do before the championship? fixed the flat **greased the chain**

22. Matching

A1L In the family room / Andrew ironed the shirts, and / in the music room / Andrew vacuumed the rug.

A2L In the music room / Andrew ironed the shirts, and / in the family room / Andrew vacuumed the rug.

(in the family room)

A1T During the sitcom / Andrew ironed the shirts, and / during the talk show / Andrew vacuumed the rug.

A2T During the talk show / Andrew ironed the shirts, and / during the sitcom / Andrew vacuumed the rug.

(during the sitcom)

A1L What did Andrew do in the family room? ironed the shirts vacuumed the rug

A2L What did Andrew do in the music room? **ironed the shirts** vacuumed the rug

A1T What did Andrew do during the sitcom? **ironed the shirts** vacuumed the rug

A2T What did Andrew do during the talk show? **ironed the shirts** vacuumed the rug

23. Matching

A1L In the classroom / Dan studied the book, and / in the library / Dan read the notes.

A2L In the library / Dan studied the book, and / in the classroom / Dan read the notes.

(in the classroom)

A1T Before the review / Dan studied the book, and / before the exam / Dan read the notes.

A2T Before the exam / Dan studied the book, and / before the review / Dan read the notes.

(before the review)

A1L Where did Dan study the book? in the classroom in the library

A2L Where did Dan study the book?

in the library in the classroom

A1T When did Dan study the book?

before the review before the exam

A2T When did Dan study the book?

before the exam before the review

24. Mismatching

A1L By the display case / Tracy scooped out ice cream, and / near the serving line / Tracy cut the cake.

A2L Near the serving line / Tracy scooped out ice cream, and / by the display case / Tracy cut the cake.

(by the display case)

A1T After the meal / Tracy scooped out ice cream, and / before the luncheon / Tracy cut the cake.

A2T Before the luncheon / Tracy scooped out ice cream, and / after the meal / Tracy cut the cake.

(after the meal)

A1L What did Tracy do by the display case? **scooped out ice cream** cut the cake

A2L What did Tracy do near the serving line? scooped out ice cream cut the cake

A1T What did Tracy do after the meal? **scooped out ice cream** cut the cake

A2T What did Tracy do before the luncheon? **scooped out ice cream** cut the cake

25. Mismatching

A1L In the basement / Sybil lifted weights, and / on the first floor / Sybil did aerobics.

A2L On the first floor / Sybil lifted weights, and / in the basement / Sybil did aerobics.

(in the basement)

A1T After the interview / Sybil lifted weights, and / before the appointment / Sybil did aerobics.

A2T Before the appointment / Sybil lifted weights, and / after the interview / Sybil did aerobics.

(after the interview)

A1L What did Sybil do in the basement? **lifted weights** did aerobics

A2L What did Sybil do on the first floor? **lifted weights** did aerobics

A1T What did Sybil do after the interview? **lifted weights** did aerobics

A2T What did Sybil do before the appointment? **lifted weights** did aerobics

26. Matching

A1L In the back / Erica watered the flowers, and / in the front / Erica fertilized the lawn.

A2L In the front / Erica watered the flowers, and / in the back / Erica fertilized the lawn.

(in the back)

A1T On Monday / Erica watered the flowers, and / on Thursday / Erica fertilized the lawn.

A2T On Thursday / Erica watered the flowers, and / on Monday / Erica fertilized the lawn.

(on Monday)

A1L What did Erica do in the front?

watered the flowers fertilized the lawn

A2L What did Erica do in the back? watered the flowers fertilized the lawn

A1T What did Erica do on Thursday?

watered the flowers **fertilized the lawn**

A2T What did Erica do on Monday?

watered the flowers fertilized the lawn

27. Mismatching

A1L Near the lava lamp / Justin put on an album, and / by the bean bag / Justin poured a beer.

A2L By the bean bag / Justin put on an album, and / near the lava lamp / Justin poured a beer.

(near the lava lamp)

A1T After the introduction / Justin put on an album, and / before the celebration / Justin poured a

beer.

A2T Before the celebration / Justin put on an album, and / after the introduction / Justin poured a beer.

(after the introduction)

A1L Where did Justin put on an album? **near the lava lamp** by the bean bag

A2L Where did Justin put on an album?

by the bean bag near the lava lamp

A1T When did Justin put on an album?

after the introduction before the celebration

A2T When did Justin put on an album?

before the celebration after the introduction

28. Mismatching

A1L Next to the pantry / Brenda fried the eggs, and / near the breakfast nook / Brenda brewed the coffee.

A2L Near the breakfast nook / Brenda fried the eggs, and / next to the pantry / Brenda brewed the coffee.

(next to the pantry)

A1T At the commercial / Brenda fried the eggs, and / after the special bulletin / Brenda brewed the coffee.

A2T After the special bulletin / Brenda fried the eggs, and / at the commercial / Brenda brewed the coffee.

(at the commercial)

A1L Where did Brenda brew the coffee?

next to the pantry near the breakfast nook

A2L Where did Brenda brew the coffee?

near the breakfast nook **next to the pantry**

A1T When did Brenda brew the coffee?

at the commercial after the special bulletin

A2T When did Brenda brew the coffee?

after the special bulletin at the commercial

29. Matching

A1L By the statue / Mark wrote the music, and / by the fountain / Mark made up the words.

A2L By the fountain / Mark wrote the music, and / by the statue / Mark made up the words.

(by the statue)

A1T During the winter / Mark wrote the music, and / during the summer / Mark made up the words.

A2T During the summer / Mark wrote the music, and / during the winter / Mark made up the words.

(during the winter)

A1L Where did Mark make up the words? by the statue by the fountain

A2L Where did Mark make up the words? by the fountain by the statue

A1T When did Mark make up the words? during the winter during the summer

A2T When did Mark make up the words? during the summer during the winter

30. Matching

A1L In the office / John sorted the mail, and / in the cubicle / John typed a letter.

A2L In the cubicle / John sorted the mail, and / in the office / John typed a letter.

(in the office)

A1T After lunch / John sorted the mail, and / after break / John typed a letter.

A2T After break / John sorted the mail, and / after lunch / John typed a letter.

(after lunch)

A1L Where did John sort the mail?

in the office in the cubicle

A2L Where did John sort the mail? in the cubicle in the office

A1T When did John sort the mail? after lunch after break

A2T When did John sort the mail? after break after lunch

31. Matching

A1L In the reception area / Amelia chilled the champagne, and / in the great hall / Amelia decorated the room.

A2L In the great hall / Amelia chilled the champagne, and / in the reception area / Amelia decorated the room.

(in the reception area)

A1T Before the ceremony / Amelia chilled the champagne, and / before the reception / Amelia decorated the room.

A2T Before the reception / Amelia chilled the champagne, and / before the ceremony / Amelia decorated the room.

(before the ceremony)

A1L Where did Amelia chill the champagne? in the reception area in the great hall

A2L Where did Amelia chill the champagne? in the great hall in the reception area

A1T When did Amelia chill the champagne?

before the ceremony before the reception

A2T When did Amelia chill the champagne? **before the reception** before the ceremony

32. Matching

A1L Near downtown / Katie interrogated the suspect, and / near uptown / Katie performed the autopsy.

A2L Near uptown / Katie interrogated the suspect, and / near downtown / Katie performed the autopsy.

(near downtown)

A1T Before the sting / Katie interrogated the suspect, and / before the arrest / Katie performed the autopsy.

A2T Before the arrest / Katie interrogated the suspect, and / before the sting / Katie performed the autopsy.

(before the sting)

A1L What did Katie do near downtown? **interrogated the suspect** performed the autopsy

A2L What did Katie do near uptown?

interrogated the suspect performed the autopsy

A1T What did Katie do before the sting?

interrogated the suspect performed the autopsy

A2T What did Katie do before the arrest?

interrogated the suspect performed the autopsy

33. Matching

A1L Next to the bush / Drew spotted a kangaroo, and / next to the foothills / Drew noticed a zebra.

A2L Next to the foothills / Drew spotted a kangaroo, and / next to the bush / Drew noticed a zebra.

(next to the bush)

A1T At 4:00 p.m. / Drew spotted a kangaroo, and / at 8:00 a.m. / Drew noticed a zebra.

A2T At 8:00 a.m. / Drew spotted a kangaroo, and / at 4:00 p.m. / Drew noticed a zebra.

(at 4:00 p.m.)

A1L What did Drew do next to the foothills?

spotted a kangaroo noticed a zebra

A2L What did Drew do next to the bush?

spotted a kangaroo noticed a zebra

A1T What did Drew do at 8:00 a.m.?

spotted a kangaroo noticed a zebra

A2T What did Drew do at 4:00 p.m.?

spotted a kangaroo noticed a zebra

34. Mismatching

A1L Near the water / Amanda built sand castles, and / by the pier / Amanda skipped stones.

A2L By the pier / Amanda built sand castles, and / near the water / Amanda skipped stones.

(near the water)

A1T Before the contest / Amanda built sand castles, and / after jet skiing / Amanda skipped stones.

A2T After jet skiing / Amanda built sand castles, and / before the contest / Amanda skipped stones.

(before the contest)

A1L Where did Amanda skip stones? near the water **by the pier**

A2L Where did Amanda skip stones

by the pier near the water

A1T When did Amanda skip stones?

before the contest after jet skiing

A2T When did Amanda skip stones?

after jet skiing **before the contest**

35. Matching

A1L In the main entrance / Peter took off the raincoat, and / in the mud room / Peter folded the umbrella.

A2L In the mud room / Peter took off the raincoat, and / in the main entrance / Peter folded the umbrella.

(in the main entrance)

A1T After greeting the hosts / Peter took off the raincoat, and / after entering the room / Peter folded the umbrella.

A2T After entering the room / Peter took off the raincoat, and / after greeting the hosts / Peter folded the umbrella.

(after greeting the hosts)

A1L What did Peter do in the mud room?

took off the raincoat **folded the umbrella**

A2L What did Peter do in the main entrance? took off the raincoat **folded the umbrella**

A1T What did Peter do after entering the room? took off the raincoat **folded the umbrella**

A2T What did Peter do after greeting the hosts? took off the raincoat **folded the umbrella**

36. Mismatching

A1L On the dance floor / Chad blew up balloons, and / near the bar / Chad hung up streamers.

A2L Near the bar / Chad blew up balloons, and / on the dance floor / Chad hung up streamers.

(on the dance floor)

A1T During the morning / Chad blew up balloons, and / before evening / Chad hung up streamers.

A2T Before evening / Chad blew up balloons, and / during the morning / Chad hung up streamers.

(during the morning)

A1L Where did Chad hang up streamers? on the dance floor **near the bar**

A2L Where did Chad hang up streamers? near the bar on the dance floor

A1T When did Chad hang up streamers? during the morning **before evening**

A2T When did Chad hang up streamers? before evening **during the morning**

37. Mismatching

A1L On the express lane / Jason switched on the defroster, and / near the exit ramp / Jason adjusted the rearview mirror.

A2L Near the exit ramp / Jason switched on the defroster, and / on the express lane / Jason adjusted the rearview mirror.

(on the express lane)

A1T After passing the tollbooth / Jason switched on the defroster, and / before reaching the traffic jam / Jason adjusted the rearview mirror.

A2T Before reaching the traffic jam / Jason switched on the defroster, and / after passing the tollbooth / Jason adjusted the rearview mirror.

(after passing the tollbooth)

A1L What did Jason do on the express lane? **switched on the defroster** adjusted the rearview mirror

A2L What did Jason do near the exit ramp? **switched on the defroster** adjusted the rearview mirror

A1T What did Jason do after passing the tollbooth? **switched on the defroster** adjusted the rearview mirror

A2T What did Jason do before reaching the traffic jam? **switched on the defroster** adjusted the rearview mirror

38. Matching

A1L In the deep kettle / Gretchen boiled the pasta, and / in the large pot / Gretchen stirred the sauce.

A2L In the large pot / Gretchen boiled the pasta, and / in the deep kettle / Gretchen stirred the sauce.

(in the deep kettle)

A1T During the baby's nap / Gretchen boiled the pasta, and / during the baby's playtime / Gretchen stirred the sauce.

A2T During the baby's playtime / Gretchen boiled the pasta, and / during the baby's nap / Gretchen stirred the sauce.

(during the baby's nap)

A1L Where did Gretchen boil the pasta? in the deep kettle in the large pot

A2L Where did Gretchen boil the pasta? in the large pot in the deep kettle

A1T When did Gretchen boil the pasta? **during the baby's nap** during the baby

during the baby's nap during the baby's playtime

A2T When did Gretchen boil the pasta? **during the baby's playtime** during the baby's nap

39. Matching

A1L By the workroom / Catherine sharpened pencils, and / by the copy room / Catherine got out paper.

A2L By the copy room / Catherine sharpened pencils, and / by the workroom / Catherine got out paper.

(by the workroom)

A1T During homeroom / Catherine sharpened pencils, and / during biology / Catherine got out paper.

A2T During biology / Catherine sharpened pencils, and / during homeroom / Catherine got out paper.

(during homeroom)

A1L Where did Catherine get out paper? by the workroom by the copy room

A2L Where did Catherine get out paper? by the copy room by the workroom

A1T When did Catherine get out paper? during homeroom **during biology**

A2T When did Catherine get out paper? during biology **during homeroom**

40. Matching

A1L In the meat department / Joan pushed the cart, and / in the produce section / Joan consulted the grocery list.

A2L In the produce section / Joan pushed the cart, and / in the meat department / Joan consulted the grocery list.

(in the meat department)

A1T After the taste test / Joan pushed the cart, and / after the coupon giveaway / Joan consulted the grocery list.

A2T After the coupon giveaway / Joan pushed the cart, and / after the taste test / Joan consulted the grocery list.

(after the taste test)

A1L What did Joan do in the meat department? **pushed the cart** consulted the grocery list

A2L What did Joan do in the produce section? **pushed the cart** consulted the grocery list

A1T What did Joan do after the taste test? **pushed the cart** consulted the grocery list

A2T What did Joan do after the coupon giveaway? **pushed the cart** consulted the grocery list

41. Mismatching

A1L Next to the dresser / Mary folded the clothes, and / in the guest room / Mary straightened the bed.

A2L In the guest room / Mary folded the clothes, and / next to the dresser / Mary straightened the bed.

(next to the dresser)

A1T Before tea-time started / Mary folded the clothes, and / after cocktail hour ended / Mary straightened the bed.

A2T After cocktail hour ended / Mary folded the clothes, and / before tea-time started / Mary straightened the bed.

(before tea-time started)

A1L What did Mary do in the guest room? folded the clothes straightened the bed

A2L What did Mary do next to the dresser? folded the clothes straightened the bed

A1T What did Mary do after cocktail hour ended? folded the clothes **straightened the bed**

A2T What did Mary do before tea-time started? folded the clothes **straightened the bed**

42. Mismatching

A1L On the lounge chair / Sharon sipped some tea, and / near the pool / Sharon munched on cookies.

A2L Near the pool / Sharon sipped some tea, and / on the lounge chair / Sharon munched on cookies.

(on the lounge chair)

A1T At 2:00 p.m. / Sharon sipped some tea, and / before 5:00 p.m. / Sharon munched on cookies.

A2T Before 5:00 p.m. / Sharon sipped some tea, and / at 2:00 p.m. / Sharon munched on cookies.

(at 2:00 p.m.)

A1L What did Sharon do on the lounge chair? sipped some tea munched on cookies

A2L What did Sharon do near the pool?

sipped some tea munched on cookies

A1T What did Sharon do at 2:00 p.m.?

sipped some tea munched on cookies

A2T What did Sharon do before 5:00 p.m.? sipped some tea munched on cookies

43. Mismatching

A1L In the dining room / Kyle lit the candles, and / on the table / Kyle placed the napkins.

A2L On the table / Kyle lit the candles, and / in the dining room / Kyle placed the napkins.

(in the dining room)

A1T During the speeches / Kyle lit the candles, and / after the awards / Kyle placed the napkins.

A2T After the awards / Kyle lit the candles, and / during the speeches / Kyle placed the napkins.

(during the speeches)

A1L Where did Kyle light the candles? in the dining room on the table

A2L Where did Kyle light the candles?

on the table in the dining room

A1T When did Kyle light the candles?

during the speeches after the awards

A2T When did Kyle light the candles?

after the awards during the speeches

44. Mismatching

A1L Near the courtroom / Joe bribed the witness, and / by the police station / Joe erased the tapes.

A2L By the police station / Joe bribed the witness, and / near the courtroom / Joe erased the tapes.

(near the courtroom)

A1T Before the trial / Joe bribed the witness, and / after the interrogation / Joe erased the tapes.

A2T After the interrogation / Joe bribed the witness, and / before the trial / Joe erased the tapes.

(before the trial)

A1L What did Joe do by the police station? bribed the witness erased the tapes

A2L What did Joe do near the courtroom? bribed the witness erased the tapes

A1T What did Joe do after the interrogation? bribed the witness erased the tapes

A2T What did Joe do before the trial?

bribed the witness erased the tapes

45. Matching

A1L In the operating room / Harold examined the EEG, and / in the recovery room / Harold monitored the blood pressure.

A2L In the recovery room / Harold examined the EEG, and / in the operating room / Harold monitored the blood pressure.

(in the operating room)

A1T During the operation / Harold examined the EEG, and / during recovery / Harold monitored the blood pressure.

A2T During recovery / Harold examined the EEG, and / during the operation / Harold monitored the blood pressure.

(during the operation)

A1L What did Harold do in the recovery room?

examined the EEG monitored the blood pressure

A2L What did Harold do in the operating room?

examined the EEG monitored the blood pressure

A1T What did Harold do during recovery?

examined the EEG monitored the blood pressure

A2T What did Harold do during the operation?

examined the EEG monitored the blood pressure

46. Matching

A1L On the wooden board / Monica chopped the vegetables, and / on the tile countertop / Monica cut up the meat.

A2L On the tile countertop / Monica chopped the vegetables, and / on the wooden board / Monica cut up the meat.

(on the wooden board)

A1T Before the guests arrived / Monica chopped the vegetables, and / before the grill got hot / Monica cut up the meat.

A2T Before the grill got hot / Monica chopped the vegetables, and / before the guests arrived / Monica cut up the meat.

(before the guests arrived)

A1L Where did Monica chop the vegetables? on the wooden board on the tile countertop

A2L Where did Monica chop the vegetables? on the tile countertop on the wooden board

A1T When did Monica chop the vegetables?

before the guests arrived before the grill got hot

A2T When did Monica chop the vegetables?

before the grill got hot before the guests arrived

47. Matching

A1L Near the greenhouse / Janet repotted an ivy, and / near the sun room / Janet pruned a fern.

A2L Near the sun room / Janet repotted an ivy, and / near the greenhouse / Janet pruned a fern.

(near the greenhouse)

A1T On Memorial Day / Janet repotted an ivy, and / on Labor Day / Janet pruned a fern.

A2T On Labor Day / Janet repotted an ivy, and / on Memorial Day / Janet pruned a fern.

(on Memorial Day)

A1L What did Janet do near the sun room? repotted an ivy **pruned a fern**

A2L What did Janet do near the greenhouse? repotted an ivy **pruned a fern**

A1T What did Janet do on Labor Day? repotted an ivy **pruned a fern**

A2T What did Janet do on Memorial Day? repotted an ivy **pruned a fern**

48. Mismatching

A1L By the refrigerator / Bobby crushed the ice, and / on the cutting board / Bobby squeezed the oranges.

A2L On the cutting board / Bobby crushed the ice, and / by the refrigerator / Bobby squeezed the oranges.

(by the refrigerator)

A1T At happy hour / Bobby crushed the ice, and / before last call / Bobby squeezed the oranges.

A2T Before last call / Bobby crushed the ice, and / at happy hour / Bobby squeezed the oranges.

(at happy hour)

A1L What did Bobby do by the refrigerator? **crushed the ice** squeezed the oranges

A2L What did Bobby do on the cutting board? crushed the ice squeezed the oranges

A1T What did Bobby do at happy hour?

squeezed the oranges

A2T What did Bobby do before last call?

crushed the ice squeezed the oranges

Fillers:

1. T-Matching

At the start of the day / James petted the cat, and / at the end of the day / James fed the dog. (at mid-day)

2. T-Matching

Before the cook-off / Pamela steamed the broccoli, and / before the judging / Pamela broiled the beef. (before the sampling)

3. T-Mismatching

Before the invasion / Philip planned an attack, and / after the war / Philip tortured the prisoners. (after the bombing)

4. L-Matching

On the chair lift / Shawna lost a pole, and / on the ski slopes / Shawna broke a leg. (on the snow)

5. T-Mismatching

After the taxi ride / Craig checked the baggage, and / before the flight / Craig read a magazine. (before the take-off)

6. L-Mismatching

Near the pond / Melissa baited the hook, and / by the dock / Melissa caught a fish. (by the boat)

7. T-Matching

At 8:00 p.m. / Greg rode the exercise bike, and / at 6:00 a.m. / Greg took a shower. (at 5:00 p.m.)

8. T-Mismatching

During the service / Maria sang a hymn, and / before the sermon / Maria said a prayer. (during communion)

9. L-Matching

In the storeroom / Joshua stocked shelves, and / in the restaurant / Joshua cleaned the booths. (in the dish room)

10. T-Mismatching

At twilight / Tina made a deposit, and / after hours / Tina withdrew some money. (at dusk)

11. T-Mismatching

Before the bonfire / Brett chopped wood, and / during the cookout / Brett made a fire ring.

(during the ghost story)

12. L-Matching

Near the barn / Emily milked the cows, and / near the pasture / Emily rode a horse. (near the silo)

13. T-Mismatching

Before the lecture / Jerry bought gum, and / after the tour / Jerry hailed a cab. (after the slide show)

14. L-Mismatching

Near the ocean / Kirsten lay on the sand, and / by the beach / Kirsten ordered lemonade. (by the coast)

15. L-Matching

On the chalkboard / Morton drew a graph, and / on the transparency / Morton presented a chart. (on the overhead projector)

16. T-Matching

During the safari / Jenny photographed the wildlife, and / during the jungle cruise / Jenny videotaped the inhabitants.

(during the excursion)

17. L-Mismatching

In the beaker / Herman mixed potions, and / by the examining table / Herman performed an experiment. (in the laboratory)

18. T-Matching

After the hors d'oeuvres / Michelle ordered food, and / after the entree / Michelle ate dessert. (after the drinks)

19. L-Mismatching

Near the river / Scott found an ancient coin, and / next to the waterfall / Scott discovered a secret passageway.

(next to the rapids)

20. L-Matching

On the fairgrounds / Gina shared cotton candy, and / on the roller coaster / Gina clutched the restraining bar.

(on the Ferris wheel)

21. T-Mismatching

Before the photo shoot / Brian mixed the chemicals, and / after the fashion show / Brian viewed the negatives.

(after the modeling session)

22. L-Matching

By the coffee maker / Sydney spread a rumor, and / by the fax machine / Sydney told a lie. (by the computer)

23. T-Matching

On the day of the festival / Fred drank a beer, and / on the day of the gig / Fred smoked a cigarette. (on the day of the carnival)

24. T-Mismatching

After the engagement / Elena purchased a dress, and / before the shower / Elena got a perm. (after the bachelorette party)

25. T-Mismatching

Before the lasso contest / Vaughn ate a sandwich, and / after the bull ride / Vaughn slurped a smoothie. (before the bucking bronco)

26. L-Mismatching

In the planetarium / Melanie looked at the stars, and / near the observatory / Melanie gazed at the moon. (in the sky)

27. L-Mismatching

In the country / Griffin rode a motorcycle, and / near the dirt road / Griffin went in the ditch. (near the farm)

28. L-Mismatching

On the grass / Dana read a novel, and / by the lake / Dana picked wildflowers. (by the bushes)

29. L-Matching

In the courtyard / Billy saw a ghost, and / in the apartment / Billy had a nightmare. (in the stairway)

30. L-Mismatching

By the student union / Debby met a friend, and / on the terrace / Debby listened to a band. (by the cafeteria)

31. L-Mismatching

In the game room / Aaron shot pool, and / near the change machine / Aaron played laser tag. (near the arcade)

32. T-Matching

On March 1st / Tricia saved a life, and / on October 22nd / Tricia delivered a baby. (on December 15th)

33. T-Matching

During the first pitch / Jacob parked the bike, and / during the double play / Jacob bought a hot dog. (during the home run)

34. T-Matching

During the exhibit / Julia studied a sculpture, and / during the discussion session / Julia critiqued a painting. (during the art show)

35. L-Matching

Near the roulette wheel / Jeremy rolled the dice, and / near the slot machines / Jeremy spent the quarters. (near the craps table)

36. L-Mismatching

In front of the net / Will shot the puck, and / next to the boards / Will checked the defenseman. (in front of the penalty box)

37. T-Matching

Before exiting the ramp / Randy shifted gears, and / before changing lanes / Randy honked the horn. (before signaling to turn)

38. L-Matching

Near the DJ booth / Ann danced to techno, and / near the lounge / Ann took a drink. (near the disco ball)

39. T-Mismatching

Before math class/ Joey played hide and seek, and / after arts and crafts / Joey filled a pail. (before gym period)

40. L-Matching

In the chicken coop / Adrienne collected the eggs, and / in the pen / Adrienne slopped the pigs. (in the barnyard)

41. L-Matching

In the hotel room / Paul packed the suitcases, and / in the parking lot / Paul loaded the trunk. (in the lobby)

42. T-Matching

During the relays / Jeannie snapped photographs, and / during the victory lap / Jeannie stood in awe. (during the hurdles)

43. T-Matching

During the previews / Chauncy paid for popcorn, and / during the credits / Chauncy ate a candy bar. (during the movie)

44. T-Mismatching

After the lake cruise / Gertrude docked the boat, and / before the dock party / Gertrude ordered a beverage.

(after the ferry ride)

45. T-Mismatching

Before the appetizers / Toby chose a steak, and / after the salad / Toby picked out the pastries. (after the main course)

46. L-Mismatching

By the fairway / Valerie spotted the ball, and / next to the green / Valerie pulled out a putter. (by the sand trap)

47. L-Matching

By the gondola / Lisa gazed at the mountains, and / by the moguls / Lisa fell down.

(by the bunny hill)

48. L-Mismatching

In the dressing room / Virginia changed her clothes, and / on the stage / Virginia gave a speech. (in the orchestra pit)