

Supplement 1: Experimental Items for Experiments 1, 2A, and 2B

1. Experiment 1

1.1. Exposure Block

1.1.1. Direct object gap

- (1) The book that the famous non-fiction author wrote ___ about the adventure was named for an explorer.
- (2) The quarterly reports that the frazzled government auditor read ___ about the accounts were fraudulent.
- (3) The minivan that the eccentric old lady drove ___ around the city went unnoticed by the highway patrol.
- (4) The officer that the hysterically sobbing victim phoned ___ about the attack was discussed on the news.
- (5) The painting that the infamously successful burglar stole ___ from the museum was well guarded.
- (6) The national anthem that the school marching band played ___ before the game was beautifully performed.
- (7) The opponent that the champion lightweight boxer fought ___ in the title fight was on the poster for the next fight.
- (8) The tree that the highly skilled archer hit ___ with an arrow was very far away.
- (9) The salmon that the novice sous chef prepared ___ for the diners was disliked by the waiters.
- (10) The audition that the ambitious, fresh-faced actor performed ___ for the director was a huge success.
- (11) The shed that the quiet, ill-tempered craftsman built ___ from old wood was quite unstable.
- (12) The caviar that the fabulously wealthy family ate ___ as an appetizer was from France.
- (13) The wedding dress that the extremely detail-oriented seamstress sewed ___ for the bride looked beautiful on the big day.
- (14) The cartoon that the giggling blond child drew ___ with the crayons was from a coloring book.
- (15) The assistant that the experienced circus performer trained ___ for the lion taming act was unafraid of anything.
- (16) The hotel that the jovial old custodian cleaned ___ for twenty-five years was ruined by the financial crisis.
- (17) The hot soup that the harried line cook spilled ___ on the floor was hard to clean up.
- (18) The professional quarterback that the affable sports writer interviewed ___ on the morning show was famous for his arm.
- (19) The chapter that the easily overwhelmed freshman reviewed ___ before the test clarified many concepts.
- (20) The rock that the happy, playful girl threw ___ into the air was found at the beach.
- (21) The cheating student that the irate senior professor lectured ___ in front of the class was used as an example.
- (22) The leather couch that the young newlywed couple bought ___ for their new apartment was perfect for their living room.
- (23) The balsamic vinegar that the quirky young foodie poured ___ from the bottle was a dark reddish brown.
- (24) The country that the renowned jungle explorer discovered ___ in South America was lush and beautiful.

1.1.2. Prepositional Object Gap

- (1) The book that the famous non-fiction author wrote the interesting article about __ was named for an explorer.
- (2) The quarterly reports that the frazzled government auditor read the short summary of __ were fraudulent.
- (3) The minivan that the hysterically sobbing victim phoned the local precinct about __ was discussed on the news.
- (4) The officer that the hysterically sobbing victim phoned the local precinct about __ was discussed on the news.
- (5) The painting that the infamously successful burglar stole the beautiful watercolor instead of __ was well guarded.
- (6) The national anthem that the school marching band played the fight song after __ was beautifully performed.
- (7) The opponent that the champion lightweight boxer fought the endless match against __ was on the poster for the next fight.
- (8) The tree that the highly skilled archer hit the red bulls eye on __ was very far away.
- (9) The salmon that the novice sous chef prepared the special sauce for __ was disliked by the waiters.
- (10) The audition that the ambitious, fresh-faced actor performed the long monologue for __ was a huge success.
- (11) The shed that the quiet, ill-tempered craftsman built the unique furniture in __ was quite unstable.
- (12) The caviar that the fabulously wealthy family ate the delicious lobster after __ was from France.
- (13) The wedding dress that the extremely detail-oriented seamstress sewed the tiny crystals onto __ looked beautiful on the big day.
- (14) The cartoon that the giggling blond child drew the purple hat onto __ was from a coloring book.
- (15) The assistant that the experienced circus performer trained the huge lion with __ was unafraid of anything.
- (16) The hotel that the jovial old custodian cleaned the enormous fountains for __ was ruined by the financial crisis.
- (17) The hot soup that the harried line cook spilled the minced garlic into __ was hard to fix.
- (18) The professional quarterback that the affable sports writer interviewed the college star with __ was famous for his arm.
- (19) The chapter that the easily overwhelmed freshman reviewed the quick summary of __ clarified many concepts.
- (20) The rock that the happy, playful girl threw the red ball at __ was found at the beach.
- (21) The cheating student that the irate senior professor lectured the whole class about __ was used as an example.
- (22) The leather couch that the young newlywed couple bought the matching loveseat after __ was perfect for their living room.
- (23) The balsamic vinegar that the quirky young foodie poured the extra virgin olive oil into __ was a dark reddish brown.
- (24) The country that the renowned jungle explorer discovered the wide river in __ was lush and beautiful.

1.2. Experimental Block

- (1) a. The bill that the notoriously conservative senator wrote the lengthy statement about __ was hurting his popularity.
b. The bill about which the notoriously conservative senator wrote the lengthy statement __ was hurting his popularity.
- (2) a. The documents that the tenacious corporate lawyer read the brief annotations about __ hurt her client's case.
b. The documents about which the tenacious corporate lawyer read the brief annotations __ hurt her client's case.
- (3) a. The convertible that the handsome young businessman drove his wealthy girlfriend in __ was watched by the police.
b. The convertible in which the handsome young businessman drove his wealthy girlfriend __ was watched by the police.
- (4) a. The informant that the decorated police detective phoned the familiar number for __ was missing.
b. The informant for whom the decorated police detective phoned the familiar number __ was missing.
- (5) a. The suitcase that the stealthy, wanted thief stole the precious jewels from __ was full of sentimental items.
b. The suitcase from which the stealthy, wanted thief stole the precious jewels __ was full of sentimental items.
- (6) a. The tournament that the undefeated soccer team played their historic rivals in __ made the entire school cheer.
b. The tournament in which the undefeated soccer team played their historic rivals __ made the entire school cheer.
- (7) a. The dragon that the noble, armor-clad knight fought the incredible battle against __ was discussed by the king's council.
b. The dragon against which the noble, armor-clad knight fought the incredible battle __ was discussed by the king's council.
- (8) a. The ball that the amateur baseball player hit the advancing runner with __ was given to him to keep.
b. The ball with which the amateur baseball player hit the advancing runner __ was given to him to keep.
- (9) a. The poster that the lead gubernatorial candidate prepared the clever slogan for __ turned out well.
b. The poster for which the lead gubernatorial candidate prepared the clever slogan __ turned out well.
- (10) a. The show that the colorfully bedazzled dancers performed the famous routine in __ was very popular.
b. The show in which the colorfully bedazzled dancers performed the famous routine __ was very popular.
- (11) a. The house that the affordable, self-employed contractor built the huge addition on __ was featured in an architecture magazine.
b. The house on which the affordable, self-employed contractor built the huge addition __ was featured in an architecture magazine.
- (12) a. The burger that the beautiful young celebrity ate the curly fries with __ became popular shortly afterward.
b. The burger with which the beautiful young celebrity ate the curly fries __ became popular shortly afterward.

- (13) a. The costume that the creative single mother sewed the googly eyes onto __ looked acceptably spooky on Halloween.
b. The costume onto which the creative single mother sewed the googly eyes __ looked acceptably spooky on Halloween.
- (14) a. The character that the opinionated political cartoonist drew the funny stories about __ made him popular with the studio.
b. The character about which the opinionated political cartoonist drew the funny stories __ made him popular with the studio.
- (15) a. The army spy that the esteemed lieutenant colonel trained the young recruits with __ was a great leader.
b. The army spy with whom the esteemed lieutenant colonel trained the young recruits __ was a great leader.
- (16) a. The mansion that the pleasant, loyal maid cleaned the wooden floors in __ was quite old.
b. The mansion in which the pleasant, loyal maid cleaned the wooden floors __ was quite old.
- (17) a. The sparkling water that the nervous new waiter spilled the red wine into __ was very expensive.
b. The sparkling water into which the nervous new waiter spilled the red wine __ was very expensive.
- (18) a. The coach that the respected talent scout interviewed the tennis player for __ was well known.
b. The coach for whom the respected talent scout interviewed the tennis player __ was well known.
- (19) a. The evidence file that the irritable federal agent reviewed the multiple notes on __ caused him concern.
b. The evidence file on which the irritable federal agent reviewed the multiple notes __ caused him concern.
- (20) a. The toy car that the rosy-cheeked little boy threw the old blanket over __ was painted blue.
b. The toy car over which the rosy-cheeked little boy threw the old blanket __ was painted blue.
- (21) a. The substitute teacher that the stern vice principal lectured the misbehaved students for __ was very grateful for the help.
b. The substitute teacher for whom the stern vice principal lectured the misbehaved students __ was very grateful for the help.
- (22) a. The sunscreen that the very pale teenager bought the soothing aloe after __ was a precautionary measure.
b. The sunscreen after which the very pale teenager bought the soothing aloe __ was a precautionary measure.
- (23) a. The solution that the careful chemistry student poured the corrosive acid into __ was colorless.
b. The solution into which the careful chemistry student poured the corrosive acid __ was colorless.
- (24) a. The treasure that the angry, bearded pirate discovered the weathered map to __ was worth millions of dollars.
b. The treasure to which the angry, bearded pirate discovered the weathered map __ was worth millions of dollars.

2. Experiment 2A

2.1. Stories

In each of the twelve stories presented below, the critical sentences are bolded.

2.1.1. Story 1

Jane recently moved to a new apartment but she needed to decorate it to have everything look the way she wanted. A friend helped her dress the windows in her living room to set the color palette. **The drapes that her friend hung __ from the curtain rod looked great.** She was happy with how the curtains looked, but the apartment still needed work. Jane wanted more furniture to fill the space. First, she decided to focus on her bedroom. **The new furniture that Jane envisioned __ in the bedroom would be painted to match her newly hung drapes.** She thought that would tie the whole apartment together. She began her furniture search on Craigslist. Jane had seen a posting for a bedroom set before she moved, and she decided to buy it. **The nightstand that she bought __ with the dresser was perfect for her new bedroom.** After she brought it into her apartment, she was surprised to find a hidden drawer containing a letter. **The letter that Jane discovered __ inside the secret drawer was very dusty.** Jane couldn't resist reading the letter, but unfortunately it wasn't very interesting at all, so she threw it away.

(Direct object gap)

Jane recently moved to a new apartment but she needed to decorate it to have everything look the way she wanted. A friend helped her dress the windows in her living room to set the color palette. **The curtain rod that her friend hung the drapes from __ looked great.** She was happy with how the curtains looked, but the apartment still needed work. Jane wanted more furniture to fill the space. First, she decided to focus on her bedroom. **The bedroom that Jane envisioned the new furniture in __ would be painted to match her newly hung drapes.** She thought that would tie the whole apartment together. She began her furniture search on Craigslist. Jane had seen a posting for a bedroom set before she moved, and she decided to buy it. **The dresser that she bought the nightstand with __ was perfect for her new bedroom.** After she brought it into her apartment, she was surprised to find a hidden drawer containing a letter. **The secret drawer that Jane discovered the letter inside __ was very dusty.** Jane couldn't resist reading the letter, but unfortunately it wasn't very interesting at all, so she threw it away.

(Prepositional object gap)

2.1.2. Story 2

It was a beautiful morning, so Tom the squirrel decided to go on an adventure through town. **An acorn that he hid __ under a fallen branch was his first destination.** He ran to where he thought the branch was, but he couldn't seem to find it. Tom knew that he needed help to solve this mystery. He thought that his cat and dog friends could help him. **The cat that Tom always saw __ with the dog usually knew where to find things.** He went to their house but they weren't there. After walking around for what felt like forever, Tom could only find his chipmunk friend, Patches, to help him. They went to check one of her favorite hiding places to see if any of her treasures were missing too. **A coin that Patches buried __ next to the pine cone wasn't there either.** Why was everything disappearing?! They decided to head back to Tom's house, which they could see in the distance. As they kept walking, more strange things started happening. **The treehouse that Tom built __ beside the log cabin disappeared completely.** All of a sudden, Tom felt a falling sensation but then he jerked awake only to find that it was a beautiful morning and that all was right with the world. It turned out he had been dreaming all along.

(Direct object gap)

It was a beautiful morning, so Tom the squirrel decided to go on an adventure through town. **A fallen branch that he hid an acorn under __ was his first destination.** He ran to where he thought the branch was, but he couldn't seem to find it. Tom knew that he needed help to solve this mystery. He thought that his cat and dog friends could help him. **The dog that Tom always saw the cat with __ usually knew where to find things.** He went to their house but they weren't there. After walking around for what felt like forever, Tom could only find his chipmunk friend, Patches, to help him. They went to check one of her favorite hiding places to see if any of her treasures were missing too. **The pine cone that Patches buried a coin next to __ wasn't there either.** Why was everything disappearing?! They decided to head back to Tom's house, which they could see in the distance. As they kept walking, more strange things started happening. **The log cabin that Tom built the treehouse beside __ disappeared completely.** All of a sudden, Tom felt a falling sensation but then he jerked awake only to find that it was a beautiful morning and that all was right with the world. It turned out he had been dreaming all along.

(Prepositional object gap)

2.1.3. Story 3

Jake was really hungry and wanted to try one of the new restaurants in his neighborhood, but he didn't know which one to go to. **The review that he read __ about the restaurant's menu helped him make his decision.** Jake was excited to see that the restaurant only served hamburgers and that many of the burgers received four star ratings from the reviewers. Just as his mouth started to water, Jake remembered the last time he ate a hamburger. **The food poisoning that Jake got __ from the hamburger was still painful to recall.** So, Jake knew he had to change his plans and started looking for inspiration. He searched through his junk drawer, where he found a number of things that he had forgotten about. **The invitation to this year's block party that he found __ under the take-out menus gave him an idea.** Jake decided to call all of his neighbors and have them over for a huge take-out feast, which became a yearly neighborhood tradition. **The tradition that they started __ with the feast was talked about forever.** Everyone loved the opportunity to come together as a neighborhood, and, best of all, no one had to cook.

(Direct object gap)

Jake was really hungry and wanted to try one of the new restaurants in his neighborhood, but he didn't know which one to go to. **The restaurant's menu that he read a review about __ helped him make a decision.** Jake was excited to see that the restaurant only served hamburgers and that many of the burgers received four star ratings from the reviewers. Just as his mouth started to water, Jake remembered the last time he ate a hamburger. **The hamburger that Jake got the food poisoning from __ was still painful to recall.** So, Jake knew he had to change his plans and started looking for inspiration. He searched through his junk drawer, where he found a number of things that he had forgotten about. **The take-out menus that he found the invitation to this year's block party under __ gave him an idea.** Jake decided to call all of his neighbors and have them over for a huge take-out feast, which became a yearly neighborhood tradition. **The feast that they started the tradition with __ was talked about forever.** Everyone loved the opportunity to come together as a neighborhood and, best of all, no one had to cook.

(Prepositional object gap)

2.1.4. Story 4

George woke up late on his first day at his new job! **The alarm that he programmed __ on his phone didn't work properly.** George went into his closet to pick out a fresh shirt to wear. To his dismay, his favorite shirt was in poor condition. **The wrinkles that George found __ on the shirt needed to be ironed.** After ironing his shirt thoroughly, George ran downstairs to eat breakfast. His roommate, Dan,

offered to make him coffee. **The hazelnut creamer that Dan poured __ into the coffee had a pleasant aroma.** Energized, George scarfed down his breakfast and hurried out the door to catch a bus. Heavy rain made the streets muddy and the visibility was very poor. **The road that the bus driver saw __ through the window needed to be cleaned.** The bus finally pulled up to George's stop and he jumped out of his seat to make his way to the office. Luckily, George made it to work just in time.

(Direct object gap)

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(Prepositional object gap)

2.1.5. Story 5

Kelly wanted to watch a movie. She loves soccer and plays on a team, so a newly released documentary about the real life of a professional soccer player caught her eye immediately. **The review that Kelly saw __ about the movie was written by a close friend of the real life main character.** The movie told the story of a girl named Paula and her exciting soccer career. She was very good, so she got to play in many international tournaments where she was able to meet coaches and new friends including girls from Spain and London. **The other soccer players that Paula met __ through the coaches were widely admired.** The other girls helped her improve her game and they worked together every day to help her get better. **The skills that she learned __ from the team practices were very difficult.** The movie ended with Paula becoming a part of the Olympic team and ultimately winning the gold medal at the Games. **The medal that the US team won __ in the championship game made all of the American fans cheer.** Kelly really enjoyed the movie. She ended up going to see the movie again with all of her teammates as inspiration before their own championship game!

(Direct object gap)

Kelly wanted to watch a movie. She loves soccer and plays on a team, so a newly released documentary about the real life of a professional soccer player caught her eye immediately. **The movie that Kelly saw the review about __ was written by a close friend of the real life main character.** The movie told the story of a girl named Paula and her exciting soccer career. She was very good, so she got to play in many international tournaments where she was able to meet coaches and new friends including girls from Spain and London. **The coaches that Paula met the other soccer players through __ were widely admired.** The other girls helped her improve her game and they worked together every day to help her get better. **The team practices that she learned the skills from __ were very difficult.** The movie ended with Paula becoming a part of the Olympic team and ultimately winning the gold medal at the Games. **The championship game that the US team won the medal in __ made all of the American fans cheer.** Kelly really enjoyed the movie. She ended up going to see the movie again with all of her teammates as inspiration before their own championship game!

(Prepositional object gap)

2.1.6. Story 6

Joe decided to take a jog after a stressful day's work. **A path that Joe discovered __ through a park seemed to be the most scenic route.** After running for a while, Joe looked for a nice place to rest. He saw a tree lined stream near an old bridge in the distance. **The shady spot that Joe found __ along the cool stream provided relief on such a hot day.** Feeling recharged, Joe felt it was time to power through to the end of his jog. It was then that Joe heard a little girl laughing. He turned to find the source of the sound. **The puppy that the little girl chased __ around the mother looked very happy.** The sight made Joe smile, and he ran on, feeling better after such a long day. He decided to continue his jog through a tunnel near the park. **The mural that he saw __ in the tunnel was newly restored.** Joe was very happy to see that people were looking after the park and enjoying it on such a beautiful day. He stopped at a food cart at the exit to the park to grab a bottle of water. Joe was tired after such a long run, but felt a lot less stressed and was certainly thankful for that.

(Direct object gap)

Joe decided to take a jog after a stressful day's work. **The park that Joe discovered a path through __ seemed to be the most scenic route.** After running for a while, Joe looked for a nice place to rest. He saw a tree lined stream near an old bridge in the distance. **The cool stream that Joe found the shady spot along __ provided relief on such a hot day.** Feeling recharged, Joe felt it was time to power through to the end of his jog. It was then that Joe heard a little girl laughing. He turned to find the source of the sound. **The mother that the little girl chased the puppy around __ looked very happy.** The sight made Joe smile, and he ran on, feeling better after such a long day. He decided to continue his jog through a tunnel near the park. **The tunnel that he saw the mural in __ was newly restored.** Joe was very happy to see that people were looking after the park and enjoying it on such a beautiful day. He stopped at a food cart at the exit to the park to grab a bottle of water. Joe was tired after such a long run, but felt a lot less stressed and was certainly thankful for that.

(Prepositional object gap)

2.1.7. Story 7

Recently a little boy had a birthday, so he sent his friends invitations. Later, his mom wrote an email to remind their parents to RSVP. **The email that the boy's mom wrote __ about the invitations made the party sound great.** The little boy's friends were so excited that they all agreed to come! On the day of the party, the boy and his mom spent all morning setting up for the guests. **The decorations that they hung __ with the tape matched the party's theme.** All of the guests arrived on time and, best of all, they were carrying gifts! The boy's mother told him not to open the presents yet. She encouraged him to be a good host and suggested that he serve his guests refreshments. **The drinks that the boy distributed __ with the snacks hit the spot!** After enjoying the refreshments, the guests at the party decided to play some games, and a ball was thrown mistakenly into the kitchen. **The special icing that the mother made __ for the cake was ruined.** All of the boys' friends felt horrible for ruining the party, but luckily the birthday boy's mom had thought ahead, and pulled ice cream out of the freezer to save the day!

(Direct object gap)

Recently a little boy had a birthday, so he sent his friends invitations. Later, his mom wrote an email to remind their parents to RSVP. **The invitations that the boy's mom wrote the email about __ made the party sound great.** The little boy's friends were so excited that they all agreed to come! On the day of the party, the boy and his mom spent all morning setting up for the guests. **The tape that they hung the decorations with __ matched the party's theme.** All of the guests arrived on time and, best of all, they were carrying gifts! The boy's mother told him not to open the presents yet. She encouraged him to be a good host and suggested that he serve his guests refreshments. **The snacks**

that the boy handed out the drinks with __ hit the spot! After enjoying the refreshments, the guests at the party decided to play some games, and a ball was mistakenly thrown into the kitchen. **The cake that the mother made the special icing for __ was ruined.** All of the boy's friends felt horrible for ruining the party, but luckily the birthday boy's mom had thought ahead, and pulled ice cream out of the freezer to save the day!

(Prepositional object gap)

2.1.8. Story 8

One day, a young couple, John and Mary, decided to drive to the mall. They searched for a map and got in their car. **The route that the couple found __ with the map was convenient.** When John and Mary got to the mall, they ran into Bill, an old friend from college who was known for always telling funny stories, and he did not let them down! **The punchline that Bill told __ to the joke was hilarious.** After talking with Bill for about an hour, John and Mary realized that they were hungry, so the couple decided to go to the food court. Mary wanted something to eat, and a drink to help wash it down. When they finally got to the food court, Mary saw something very disappointing! **The soda that she wanted __ with the meal was expensive.** She ended up deciding on her second choice, which was much cheaper. After an underwhelming lunch, the young couple headed back to the stores they passed on their way to the food court where they had seen ads for clothes with special deals. **Unfortunately, the deals that they saw __ for the clothes were gone.** John and Mary were so disappointed that they left the mall and went to see a movie instead.

(Direct object gap)

One day, a young couple, John and Mary, decided to drive to the mall. They searched for a map and got in their car. **The map that the couple found the route with __ was convenient.** When John and Mary got to the mall, they ran into Bill, an old friend from college who was known for always telling funny stories, and he did not let them down! **The joke that Bill told the punchline to __ was hilarious.** After talking with Bill for about an hour, John and Mary realized that they were hungry, so the couple decided to go to the food court. Mary wanted something to eat, and a drink to help wash it down. When they finally got to the food court, Mary saw something very disappointing! **The meal that she wanted the soda with __ was expensive.** She ended up deciding on her second choice, which was much cheaper. After an underwhelming lunch, the young couple headed back to the stores they passed on their way to the food court where they had seen ads for clothes with special deals. **Unfortunately, the clothes that they saw the deals for __ were gone.** John and Mary were so disappointed that they left the mall and went to see a movie instead.

(Prepositional object gap)

2.1.9. Story 9

Last week a pair of robbers strolled into a bank, and handed a teller a note demanding money. **The amount that the teller read off __ of the note surprised her because they only wanted a small sum of money.** Not knowing what else to do she handed over the money and the robbers fled. However, there were police officers waiting for them around the corner. The officers turned on their lights and started to chase them. **The robbers that the police officers chased __ in the cars were held up by a large group of pedestrians.** The robbers made it to their getaway car but they were having trouble getting in. Before they went into the bank, the robbers had hidden the key near the car. **But, the key that the one robber had stored __ in the little box was missing!** Since the robbers couldn't get into their car, the police officers were quickly approaching them. They had the robbers surrounded. **The plan that the robbers carried out __ for the heist had failed.** The cops were able to arrest the robbers and put them in jail for a long time.

(Direct object gap)

Last week a pair of robbers strolled into a bank, and handed a teller a note demanding money. **The note that the teller read the amount off of __ surprised her because they only wanted a small sum of money.** Not knowing what else to do she handed over the money and the robbers fled. However, there were police officers waiting for them around the corner. The officers turned on their lights and started to chase them. **The cars that the police officers chased the robbers in __ were held up by a large group of pedestrians.** The robbers made it to their getaway car but they were having trouble getting in. Before they went into the bank, the robbers had hidden the key near the car. **But, the little box that the one robber had stored the key in __ was missing!** Since the robbers couldn't get into their car, the police officers were quickly approaching them. They had the robbers surrounded. **The heist that the robbers carried out the plan for __ had failed.** The officers were able to arrest the robbers and put them in jail for a long time.

(Prepositional object gap)

2.1.10. Story 10

Jill and Justin planned to spend a day exploring New York City. Over the past few weeks, they had been reading all the information they could find about things to do there. **The blog post that their friend wrote __ about the newspaper article gave great tips about the most popular attractions in the city.** They decided that they definitely wanted to go shopping in Times Square and that in the evening they would see a Broadway play. They left on the train the next morning. After they arrived in New York, they made their way to Times Square. **The crowds that they encountered __ in the shops were enormous.** They looked around for a while, but decided not to buy anything so that they would not have to carry bags with them the rest of the day. After all of their time in the crowds, Jill and Justin were exhausted and they decided to find a place where they could eat lunch. **The delicious sandwich that Jill discovered __ on the deli's menu was much more expensive than she expected.** The couple decided to splurge, though, since it was their first time in the city. Then, they walked through Central Park until it was time for them to take their seats for the show. **The famous actress that the couple watched __ in the musical made them want to come back and see a Broadway performance again.** Jill and Justin were sad to leave after such an exciting day in the city.

(Direct object gap)

Jill and Justin planned to spend a day exploring New York City. Over the past few weeks, they had been reading all the information they could find about things to do there. **The newspaper article that their friend wrote the blog post about __ gave great tips about the most popular attractions in the city.** They decided that they definitely wanted to go shopping in Times Square and that in the evening they would see a Broadway play. They left on the train the next morning. After they arrived in New York, they made their way to Times Square. **The shops that they encountered the crowds in __ were enormous.** They looked around for a while, but decided not to buy anything so that they would not have to carry bags with them the rest of the day. After all of their time in the crowds, Jill and Justin were exhausted and they decided to find a place where they could eat lunch. **The deli's menu that Jill discovered the delicious sandwich on __ was much more expensive than she expected.** The couple decided to splurge, though, since it was their first time in the city. Then, they walked through Central Park until it was time for them to take their seats for the show. **The musical that the couple watched the famous actress in __ made them want to come back and see a Broadway performance again.** Jill and Justin were sad to leave after such an exciting day.

(Prepositional object gap)

2.1.11. Story 11

There once was a kingdom ruled by a queen and her daughter who never left the castle. The princess sometimes dreamt of traveling, and she wrote crazy adventure stories in a private diary held in a secret box. **The diary that the princess hid __ in the box had a supposedly unbreakable lock.** But one day her mother found the box and, intrigued by the secretive lock, broke into it. She was heartbroken by the thought of her daughter leaving, so she decided to trap her daughter in a tower of the castle. **The princess that the queen locked __ in the tower was hidden from the rest of the kingdom.** The tower was cold and dark and wet. The princess decided to send a note to her mother on an empty breakfast tray left for her by a servant. **The note that the servant delivered __ on the dish went straight to the queen.** When she saw the note, she realized how unhappy her daughter was. She decided to let the princess leave the tower, and even the kingdom! The princess decided to take advantage of her mother's kindness and traveled far and wide. **The new experiences that she enjoyed __ on the adventures were amazing!**

(Direct object gap)

There once was a kingdom ruled by a queen and her daughter who never left the castle. The princess sometimes dreamt of traveling, and she wrote crazy adventure stories in a private diary held in a secret box. **The box that the princess hid the diary in __ had a supposedly unbreakable lock.** But one day her mother found the box and, intrigued by the secretive lock, broke into it. She was heartbroken by the thought of her daughter leaving, so she decided to trap her daughter in a tower of the castle. **The tower that the queen locked the princess in __ was hidden from the rest of the kingdom.** The tower was cold and dark and wet. The princess decided to send a note to her mother on an empty breakfast tray left for her by a servant. **The dish that the servant delivered the note on __ went straight to the queen.** When she saw the note, she realized how unhappy her daughter was. She decided to let the princess leave the tower, and even the kingdom! The princess decided to take advantage of her mother's kindness and traveled far and wide. **The adventures that she enjoyed the new experiences on __ were amazing!**

(Prepositional object gap)

2.1.12. Story 12

Anna and Seth had plans to attend their city orchestra's performance on Saturday night at the world renowned concert hall. The building had recently undergone major renovations so the couple was equally excited to see how they had turned out. **The performance that they saw __ in the hall had been advertised throughout the city.** On the program that night was a symphony by Mozart and Seth's favorite piece, the violin concerto by Beethoven. For the concerto, the orchestra welcomed a special guest: a famous violinist. **The solo that the violinist played __ in the piece was met with a standing ovation from the audience.** Seth wanted the violinist's autograph after the performance was over. He bought one of her CDs and asked her to sign it. **The autograph that the musician signed __ on the CD immediately became a precious piece of memorabilia for Seth.** It was a wonderful night at the orchestra! The next week, Seth was reading the newspaper and saw an article about the concert hall. **The Mozart symphony that the orchestra performed __ in the concert received rave reviews in the city newspaper.**

(Direct object gap)

Anna and Seth had plans to attend their city orchestra's performance on Saturday night at the world renowned concert hall. The building had recently undergone major renovations so the couple was equally excited to see how they had turned out. **The hall that they saw the performance in __ had been advertised throughout the city.** On the program that night was a symphony by Mozart and Seth's favorite piece, the violin concerto by Beethoven. For the concerto, the orchestra welcomed a

special guest: a famous violinist. **The piece that the violinist played the solo in __ was met with a standing ovation from the audience.** Seth wanted the violinist's autograph after the performance was over. He bought one of her CDs and asked her to sign it. **The CD that the musician signed the autograph on __ immediately became a precious piece of memorabilia for Seth.** It was a wonderful night at the orchestra! The next week, Seth was reading the newspaper and saw an article about the concert hall. **The concert that the orchestra performed the Mozart symphony in __ received rave reviews in the city newspaper.**

(Prepositional object gap)

2.2. Target items

- (1) a. The bill **that** the notoriously conservative senator wrote the lengthy statement **about** was hurting his popularity.
b. The bill **about which** the notoriously conservative senator wrote the lengthy statement was hurting his popularity.
- (2) a. The documents **that** the tenacious corporate lawyer read the brief annotations **about** hurt her client's case.
b. The documents **about which** the tenacious corporate lawyer read the brief annotations hurt her client's case.
- (3) a. The convertible **that** the handsome young businessman drove his wealthy girlfriend **in** was watched by the police.
b. The convertible **in which** the handsome young businessman drove his wealthy girlfriend was watched by the police.
- (4) a. The informant **that** the decorated police detective phoned the familiar number **for** was missing.
b. The information **for whom** the decorated police detective phoned the familiar number was missing.
- (5) a. The suitcase **that** the stealthy, wanted thief stole the precious jewels **from** was full of sentimental items.
b. The suitcase **from which** the stealthy, wanted thief stole the precious jewels was full of sentimental items.
- (6) a. The tournament **that** the undefeated soccer team played their historic rivals **in** made the entire school cheer.
b. The tournament **in which** the undefeated soccer team played their historic rivals mad the entire school cheer.
- (7) a. The dragon **that** the noble, armor-clad knight fought the incredible battle **against** was discussed by the king's council.
b. The dragon **against which** the noble, armor-clad knight fought the incredible battle was discussed by the king's council.
- (8) a. The ball **that** the amateur baseball player hit the advancing running **with** was given to him to keep.
b. The ball **with which** the amateur baseball player hit the advancing runner was given to him to keep.
- (9) a. The poster **that** the lead gubernatorial candidate prepared the clever slogan **for** turned out well.
b. The poster **for which** the lead gubernatorial candidate prepared the clever slogan turned out well.
- (10) a. The show **that** the colorfully bedazzled dancers performed the famous routine **in** was very popular.
b. The show **in which** the colorfully bedazzled dancers performed the famous routine was very popular.

- (11) a. The house **that** the nice, affordable contractor built the huge addition **on** was featured in an architecture magazine.
 b. The house **on which** the nice, affordable contractor built the huge addition was featured in an architecture magazine.
- (12) a. The burger **that** the beautiful young celebrity ate the curly fries **with** became popular shortly afterward.
 b. The burger **with which** the beautiful young celebrity ate the curly fries became popular shortly afterward.
- (13) a. The costume **that** the creative single mother sewed the googly eyes **onto** looked acceptably spooky on Halloween.
 b. The costume **onto which** the creative single mother sewed the googly eyes looked acceptably spooky on Halloween.
- (14) a. The character **that** the opinionated political cartoonist drew the funny stories **about** made him popular with the studio.
 b. The character **about whom** the opinionated political cartoonist drew the funny stories made him popular with the studio.
- (15) a. The army spy **that** the esteemed lieutenant colonel trained the young recruits **with** was a great leader.
 b. The army spy **with whom** the esteemed lieutenant colonel trained the young recruits was a great leader.
- (16) a. The mansion **that** the pleasant, loyal maid cleaned the wooden floors **in** was quite old.
 b. The mansion **in which** the pleasant, loyal maid cleaned the wooden floors was quite old.
- (17) a. The sparkling water **that** the nervous new waiter spilled the red wine **into** was very expensive.
 b. The sparkling water **into which** the nervous new waiter spilled the red wine was very expensive.
- (18) a. The coach **that** the respected talent scout interviewed the tennis player **for** was well known.
 b. The coach **for whom** the respected talent scout interviewed the tennis player was well known.
- (19) a. The evidence file **that** the irritable federal agent reviewed the multiple notes **on** caused him concern.
 b. The evidence file **on which** the irritable federal agent reviewed the multiple notes caused him concern.
- (20) a. The toy car **that** the rosy-cheeked little boy threw the old blanket **over** was painted blue.
 b. The toy car **over which** the rosy-cheeked little boy threw the old blanket was painted blue.
- (21) a. The substitute teacher **that** the stern vice principal lectured the misbehaved students **for** was grateful for the help.
 b. The substitute teacher **for whom** the stern vice principal lectured the misbehaved students was grateful for the help.
- (22) a. The sunscreen **that** the very pale teenager bought the soothing aloe **after** was a precautionary measure.
 b. The sunscreen **after which** the very pale teenager bought the soothing aloe was a precautionary measure.
- (23) a. The solution **that** the careful chemistry student poured the corrosive acid **into** was colorless.
 b. The solution **into which** the careful chemistry student poured the corrosive acid was colorless.
- (24) a. The treasure **that** the angry, bearded pirate discovered the weathered map **to** was worth millions of dollars.
 b. The treasure **to which** the angry, bearded pirate discovered the weathered map was worth millions of dollars.

3. Experiment 2B

3.1. Stories

The stories in Experiment 2B were identical to those in Experiment 2A (see Section 2.1.)

3.2. Target items

- (1) a. The book that the author wrote thoughtfully about __ was named for an explorer.
b. The city that the author wrote thoughtfully about __ was named for an explorer.
- (2) a. The quarterly reports that the auditor read extensively about __ were the center of a major scandal.
b. The bank tellers that the auditor read extensively about __ were the center of a major scandal.
- (3) a. The officer that the victim phoned immediately about __ was discussed on the news.
b. The assault that the victim phoned immediately about __ was discussed on the news.
- (4) a. The suitcase that the thief stole discreetly from __ was full of precious jewels.
b. The store that the thief stole discreetly from __ was full of precious jewels.
- (5) a. The opponents that the boxer fought passionately with __ were on the poster for the next fight.
b. The gloves that the boxer fought passionately with __ were on the poster for the next fight.
- (6) a. The introductory material that the professor taught regularly about __ was a favorite among the students.
b. The national monument that the professor taught regularly about __ was a favorite among the students.
- (7) a. The hotel that the custodian cleaned diligently for __ was ruined by the financial crisis.
b. The millionaire that the custodian cleaned diligently for __ was ruined by the financial crisis.
- (8) a. The tennis player that the sports writer interviewed eagerly about __ was the topic of a new book.
b. The unexpected victory that the sports writer interviewed eagerly about __ was the topic of a new book.
- (9) a. The substitute teacher that the principal lectured sternly about __ was ineffectual.
b. The standardized test that the principal lectured sternly about __ was ineffectual.
- (10) a. The maintenance man that the management company paid reluctantly for __ improved the building.
b. The plumbing work that the management company paid reluctantly for __ improved the building.
- (11) a. The minivan that the old lady drove slowly past __ went unnoticed by the highway patrol.
b. The accident that the old lady drove slowly past __ went unnoticed by the highway patrol.
- (12) a. The ballad that the country star sang mournfully about __ was the topic of a radio interview.
b. The lover that the country star sang mournfully about __ was the topic of a radio interview.
- (13) a. The tango that the performer danced energetically in __ was fantastic.
b. The outfit that the performer danced energetically in __ was fantastic.
- (14) a. The textbook that the freshman reviewed casually with __ was on the desk.
b. The highlighter that the freshman reviewed casually with __ was on the desk.
- (15) a. The wedding dress that the seamstress sewed diligently for __ looked beautiful on the big day.
b. The blushing bride that the seamstress sewed diligently for __ looked beautiful on the big day.
- (16) a. The lesson that the teacher prepared hurriedly for __ disrupted her normal routine.
b. The blizzard that the teacher prepared hurriedly for __ disrupted her normal routine.
- (17) a. The executive that the criminal kidnapped cruelly for __ was absent during the investigation.
b. The syndicate that the criminal kidnapped cruelly for __ was absent during the investigation.
- (18) a. The supper that the cook prepared skillfully for __ was disliked by the waiters.
b. The client that the cook prepared skillfully for __ was disliked by the waiters.

- (19) a. The team that the athlete trained endlessly for __ was covered by the local newspaper.
b. The match that the athlete trained endlessly for __ was covered by the local newspaper.
- (20) a. The lady that the designer dressed elegantly for __ was thought to be very important.
b. The party that the designer dressed elegantly for __ was thought to be very important.
- (21) a. The consultant that the man phoned hurriedly about __ was mentioned by the CEO.
b. The equipment that the man phoned hurriedly about __ was mentioned by the CEO.
- (22) a. The plaque that the tourists read carefully about __ was photographed by the group.
b. The castle that the tourists read carefully about __ was photographed by the group.
- (23) a. The research team that the biologist instructed intensely about __ had been highly productive.
b. The bacterial strain that the biologist instructed intensely about __ had been highly productive.
- (24) a. The general that the soldier killed mercilessly for __ was conquered by the opponent.
b. The country that the soldier killed mercilessly for __ was conquered by the opponent.