The Great Parking Debate: A Research Methods Case Study

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Part I – The Question

At the end of a long day of shopping, Katelyn and Lisa were walking out to Lisa’s car, ready to go home. Putting their shopping bags in the trunk, Lisa slipped into the driver’s seat while Katelyn took her position as passenger.

Lisa put the key in the ignition and absently said to Katelyn, “Looks like someone’s waiting for our spot.” Lisa started the car. The vehicle waiting for their spot honked.

“That drives me nuts,” Lisa said in response to the horn. “I’m going, I’m going. Be patient,” she muttered under her breath to the driver of the other car. Although she had been about to put the car in reverse and pull out of the spot, she dug into her purse for her lipstick.

“Lisa, that other car is waiting. Why aren’t you leaving?” asked Katelyn.

“I will,” said Lisa. “I can’t put lipstick on while I’m driving. Besides, it’s my spot and I can stay in it as long as I want.”

“Now you’re being rude,” Katelyn scolded her friend. “I always try to leave as quickly as I can when another car is waiting.”

“You do not,” Lisa responded. “I’ve ridden with you and you make the other person wait.”

Lisa pulled out of the parking spot as Katelyn shot back: “Do not.”

“Do too,” Lisa continued the argument. “Everyone takes longer to leave a parking spot when someone’s waiting. It’s an instinctual thing—we’re defending our territory.”

Katelyn responded with a snort. “Instinct? I don’t think so. People are nicer than that. Except for a few rude people like you,” she said teasingly, “most of us leave faster when someone’s waiting.”

“As a psych major it seems like that’s something you could study,” Lisa responded.

“Maybe I’ll make that my next project for my research methods class,” Katelyn replied. “I’ll let you know what I find out.”

Questions

Help Katelyn find out whether she is right or Lisa is right. In groups of 2–3:

1. Identify the specific research question(s) implied by their discussion.
2. What hypothesis would your group suggest?
3. What predictions can you make if your hypothesis is correct?
4. How could you test the predictions? In other words, if you were to investigate this issue, how might you do it?
Part II — Finding a Method

A few weeks later Katelyn met Lisa for lunch. She brought up their parking debate and told Lisa about a study she had found that addressed the question.

In this study, the researchers stood in front of the main entrance to a shopping mall and watched shoppers as they left. They timed the shoppers from the time they opened their vehicle’s door to when they had completely left the parking space. The researchers noted how many people were traveling in the vehicle as well as whether or not another vehicle was waiting for the parking space.

Questions

1. What method are the researchers using to investigate the research question (case study, survey, naturalistic observation, or experiment)?
2. How does this test the hypothesis?
3. Based on the hypothesis, what would you expect they would find?
Part III — And Now, Some Results

The researchers designated those drivers that had another vehicle waiting for them to pull out of their parking spot *intruded upon*. Those who did not have another vehicle waiting for them to leave were *not intruded upon*.

For the 200 drivers observed, average seconds to leave the parking space were as follows:

- *Intruded upon* .......... 39.03 seconds
- *Not intruded upon* ...... 32.15 seconds

The researchers also looked at whether it took those traveling with others longer to leave than those who were alone:

- *Traveling alone* .......... 30.64 seconds
- *Traveling with others* .... 37.45 seconds

Questions

1. What does this tell us? Do the data support your hypothesis?
2. What might be a weakness (or some weaknesses) of this method?
3. How might the researchers use another method to explore this research question?
4. Are there additional effects that the researchers should investigate?
Part IV – That’s Not All

The researchers were concerned that the type of car waiting or some behavior of the driver of that car might make a difference in the actions of the people in their first study. To deal with this, they designed an experiment. They used a low status car (1985 Nissan Maxima) and a high status car (1994 Infinity Q45 or 1993 Lexus SC400). They had three levels of intrusion: (1) no intrusion (no car waited for the spot), (2) low intrusion (the other car waited four spaces from and facing the direction of the departing car), and (3) high intrusion (the car waited four spaces from the departing car, turned on its turn signal, and honked the horn once after the driver sat behind the wheel). The high status cars were involved in half of each of the intrusion conditions; the low status cars in the other half of the intrusion conditions. An observer recorded the number of seconds it took the driver to leave the space after he/she opened the door.

Questions

1. What do you think the hypotheses of the researchers were?
2. What would you predict they would find?
3. What made this study an experiment and not a naturalistic observation?
Part V – More Results

Below are data from the study.

Average number of seconds that vehicles took to leave a parking space in 3 conditions:
  - High intrusion .................. 42.75 seconds
  - Low intrusion ................... 30.80 seconds
  - No intrusion .................... 26.45 seconds

The researchers did not find any significant effect for whether the intruding car was high or low status.

Questions
1. What did the researchers find about the effect of intrusion on length of time to leave a space?
Part VI – The Final Word

“I was right!” Lisa crowed when Katlyn told her about the results. “I knew people took longer to leave when someone else was waiting. Everyone knows that.”

“Maybe not everyone, Lisa,” Katlyn countered. “These researchers did one more study to see if people knew the effect intruding cars have on people.”

Katlyn explained: “The researchers asked participants whether another driver would affect the time they took to vacate their space. Participants made judgments on a scale from 1, “make the time shorter,” to 7, “make the time longer,” with 4 in the middle as “no effect.”

“The researchers asked people to make the judgment for their own behavior and for others’ behavior and whether the other car honked or not.”

“What did they find?” Lisa asked.

“Here’s the table of their findings,” Katlyn replied, pulling a sheet of paper from her bag.

<table>
<thead>
<tr>
<th>Low intrusion</th>
<th>High intrusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own behavior</td>
<td>1.87</td>
</tr>
<tr>
<td>Others' behavior</td>
<td>2.83</td>
</tr>
</tbody>
</table>

Lisa studied the table for a few seconds. “What does this tell us?” she asked.

Questions

1. What does it tell us about what people think they do and think others do in response to intrusion?
2. Do these results and the results of the other studies tell us about anything else besides parking? Do people behave in similar ways in other places besides parking lots? In what other kinds of situations might these results help us understand human behavior?

References