Name: Tirsa Ramos-Pedersen

Product: Mercedes C350e

Goal: Mainly to drive. But specifically, to change gear, turn off door open alarm, and navigate through the screen prompt.

1. Trying to put the car into drive. I looked all around the center console area for cues on how to twist the knob to start the car. Ex:

 maybe?

The gear shift was behind the wheel, where the window wipers usually are. Then I had to find the window wipers.

2. There was a loud alarm sound with the prompt stating "Risk att bilen rullar Läge P är inte ilagt" (risk of rolling, parking break is not engaged). It was very distressing, and the cause?– my door was open. Once closed, the ringing and prompt stopped.

3. To navigate through the screen on the dashboard we twisted the knob in the center console. I was dependent on my husband to change the stations or look at directions, because otherwise I would have to look away from the road for too long. At times I would pull over to interact with the screen. When researching the car for this project I found a hidden affordance that the plate over the knob was a touch screen! We never used that feature.

## Expected

## Reality

# 1. What is it about the design that **suggests** action?

What strategies did the designers seem to employ, how successful are they, what prior experience is assumed etc?

- **Knob:** Perceptible affordance of twisting to navigate the screen. But the plate over it, had the hidden affordance of being able to navigate the through the screen.
- **Gear stick:** perceptible affordance, feedforward with the expected letters on it (P, R, N, D) but need to find it first!
- **Error prompt:** feedback was good. The alarm went off because of an issue and turned off when the issue was resolved. However, feedforward was wrong, prompt had nothing to do with the door being open.

# 2. What is it about the design that **sustains** action?

What strategies did the designers seem to employ, how successful are they, what prior experience is assumed etc?

- Things worked as they should and gave enough feedforward and feedback, but everything was in a different place than I was accustomed to.
- They assume that people are familiar with their brand and how they design the interior of their cars. Since it was a rental, I didn't know how to interact with it properly, despite driving for 12 years in many different types of cars.

# 3. Critique the interaction, attempting to identify how and why the breakdown occurs

- Should be "mistake proof"
- There were numerous times when I was so frustrated, I took pictures and sent them to my friend who worked at Mercedes for help. I had to call the rental company when the alarm wouldn't stop ringing. Only to feel like an idiot because all that was needed was to close my door. I searched for clues to try and understand what was going on, but still felt lost. This disengagement and having to think of what to do is an example of a breakdown in the design (Norman 2002, p.19).

- **Knob:** false affordance- gear shift? No.
- **Gear Stick:** being in the spot that usually houses the windshield wipers. Then needing to find the wipers.
- **Plate over the knob:** hidden affordance-didn't make susceptibility available. Only now know it is a touch pad.
- **Error prompt:** prompt did not give proper feedback. Semantics were unrelated to the alarm.

Quickly illustrate any ideas you have to improve the design, or illustrate alternative products which suggest a superior approach

o Knob + Plate: Introduce feedforward by being illuminated, with lights that move, similar to the "slide to unlock" screen. To allow perceivable affordance.

o Gear stick: Provide signifiers, a prompt could appear on the screen if the person has been sitting in the car for a while and still hasn't interacted with the gear shift. The semantic feedforward prompt could say, "Welcome, gear shift is located behind the steering wheel, have a safe journey."

o Door Open Alarm: The alarm should be accompanied by an icon that shows that a door is open. Or a blinking light at the door to draw your attention to it.