

APPENDIX 4: QUESTIONNAIRES

The following series of questionnaires dealt with all aspects of the driving simulator, the study that the participants took part in, and the Automated Highway System (as described for experiments 1 through 5). The results of the questions pertaining to experiments 1 and 2 are reported in Levitan and Bloomfield.⁽⁷⁾ There is a different questionnaire for each of the control-transfer conditions and a questionnaire for the control condition.

1. Questionnaire for subjects who got control of speed and steering simultaneously.
2. Questionnaire for subjects who got control of steering first.
3. Questionnaire for subjects who got control of speed first.
4. Questionnaire for control subjects.

Questionnaire for Subjects Who Got Control of Speed and Steering Simultaneously

Instructions

The following series of questions deals with the driving simulator, the experiment that you just took part in, and the Automated Highway System. For most of the questions, you will be asked to provide a rating from 0 to 100. The meanings of the two endpoints of the scale are provided for each question. Your answer can be any whole number between 0 and 100; do not use fractions or decimals. A space is provided for you to write your answer in.

Example:

| Question | Scale | Your Rating |
|-----------------------------------------------------------------|----------------------------------------------|-------------|
| How would you rate the importance of air bags in driver safety? | 0 = Very unimportant 100 = Very important | _____ |

If you think that air bags are pretty important in driver safety, you would provide a rating of over 50; the more important you think they are, the closer your rating would be to 100. If you think that air bags are not too important, you would provide a rating of less than 50; the more *unimportant* you think they are, the closer your rating would be to 0.

Questions

| Question | Scale | Your Rating |
|-----------------------------------------------------------------------|---------------------------------------------|-------------|
| 1. How much did you enjoy driving the simulator? | 0 = Not at all 100 = A lot | _____ |
| 2. How did driving in the simulator compare to driving in your car? | 0 = Very different 100 = Very similar | _____ |
| 3. How realistic was the view out of the windshield in the simulator? | 0 = Very artificial 100 = Very realistic | _____ |
| 4. How realistic were the sounds in the simulator? | 0 = Very artificial 100 = Very realistic | _____ |
| 5. How realistic was the vehicle motion in the simulator? | 0 = Very artificial 100 = Very realistic | _____ |
| 6. While driving the simulator, how did you feel? | 0 = Did not feel well 100 = Felt fine | _____ |

| Question | Scale | Your Rating |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------|
| 7. In this study, when your car was under automatic control, how did you feel about the speed at which you traveled? | 0 = Would have preferred to go much slower 100 = Would have preferred to go much faster | _____ |
| 8. In this study, when your car was under automatic control, how did you feel about the separation distance between you and the car ahead? | 0 = Would have preferred a much longer separation 100 = Would have preferred a much shorter separation | _____ |

9-12. During the experiment, when your car was under automated control, you were given an opportunity to request various kinds of information. An example of each kind of information is shown below. For each kind of information, you are asked to tell whether you looked at it during the experiment and to rate its *usefulness*. You are then given an opportunity to tell what you especially liked or did not like about the information presented and how you would change it.

- 9a. Did you look at the **CURRENT LOCATION** information (shown below) during the experiment?
- Yes (Please go to question 9b.)
- No (Please go to question 10a.)

| Question | Scale | Your Rating |
|----------------------------------------------------------------------|-------------------------------------|-------------|
| 9b. How useful did you find the CURRENT LOCATION information? | 0 = Not useful 100 = Very useful | _____ |

| CURRENT LOCATION | |
|---------------------|-------------------------------------|
| Last exit: | Exit 14, County Road N |
| Distance past exit: | 8.1 miles |
| Next exit: | |
| Distance to exit: | Exit 17, County Road I 0.3 miles |

(Question 9b continued on next page.)

What did you especially like or not like about the CURRENT LOCATION information?
How would you change it to make it more *useful*?

10a. Did you look at the NEXT EXIT information (shown below) during the experiment?

- Yes (Please go to question 10b.)
- No (Please go to question 11a.)

| Question | Scale | Your Rating |
|---------------------------------------------------------|-------------------------------------|-------------|
| 10b. How useful did you find the NEXT EXIT information? | 0 = Not useful 100 = Very useful | _____ |

| | |
|----------------------|------------------------|
| NEXT EXIT | |
| Next exit: | Exit 17, County Road I |
| Distance to exit: | 0.3 miles |
| Travel time to exit: | 0 minutes 18 seconds |

What did you especially like or not like about the NEXT EXIT information? How would you change it to make it more *useful*?

11a. Did you look at the TIME TO DESTINATION information (shown below) during the experiment?

Yes (Please go to question 11b.)

No (Please go to question 12a.)

Question

Scale

Your Rating

11b. How useful did you find the TIME TO DESTINATION information?

0 = Not useful
100 = Very useful

| | |
|-----------------------------|--------------------------|
| TIME TO DESTINATION | |
| Destination: | County Road Q Exit 32 |
| Travel time to destination: | 43 minutes 22 seconds |

What did you especially like or not like about the TIME TO DESTINATION information?
How would you change it to make it more *useful*?

12a. Did you look at the TRAFFIC AHEAD information (shown on the next page) during the experiment?

Yes (Please go to question 12b.)

No (Please go to question 13)

Question

Scale

Your Rating

12b. How useful did you find the TRAFFIC AHEAD information?

0 = Not useful
100 = Very useful

| | |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------|
| TRAFFIC AHEAD | |
| Distance to destination: | 28.4 miles |
| Traffic ahead: | Accident blocking far right lane at Exit S, 42.7 miles ahead. Traffic congestion in center lane at that exit also. |

What did you especially like or not like about the TRAFFIC AHEAD information? How would you change it to make it more *useful*?

13. Are there other kinds of information you would find useful during an actual trip on an Automated Highway System?

| Question | Scale | Your Rating |
|----------|-------|-------------|
|----------|-------|-------------|

| | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------|
| 14. How understandable were the messages saying that you should take control of your car (“To regain control of the vehicle, put your hands on the steering wheel and press the accelerator or brake”)? | 0 = Very hard to understand 100 = Very easy to understand | _____ |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------|

| | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------|
| 15. When you were given back control of the car after the period of automated travel, you took control of both steering and speed at the same time. How did you feel about getting control back in this way? | 0 = This way was very bad 100 = This way was very good | _____ |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------|

16. Would you have preferred to have been given control of the car back in some other way?

Yes (Please explain below.)

No

| Question | Scale | Your Rating |
|----------|-------|-------------|
|----------|-------|-------------|

| | | |
|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------|
| 17. How would you describe the manner in which you controlled your car <i>immediately after leaving</i> the automated lane? | 0 = Very uncontrolled 100 = Very controlled | _____ |
|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------|

| Question | Scale | Your Rating |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 18. <i>After leaving the automated lane, you drove for about 10 minutes. How was your driving at the end of the 10 minutes compared to the beginning?</i> | 0 = Driving at the end was very different from driving at the beginning 100 = Driving at the end was the same as driving at the beginning | <hr/> |
| 19. Which lane did you prefer to be in? | 0 = Strongly preferred manual lane 100 = Strongly preferred automated lane | <hr/> |
| 20. Which lane was it more challenging to be in? | 0 = More challenging in the manual lanes 100 = More challenging in the automated lane | <hr/> |
| 21. How would you feel if an Automated Highway System were installed on I-380 between Iowa City and Waterloo? | 0 = Very unenthusiastic 100 = Very enthusiastic | <hr/> |
| 22. If an Automated Highway System were installed on I-380, what lane would you prefer driving in? | 0 = Would strongly prefer manual lanes 100 = Would strongly prefer automated lane | <hr/> |
| 23. If an Automated Highway System were installed on I-380, how would you feel about your safety? | 0 = Would feel much safer without an Automated Highway System 100 = Would feel much safer with an Automated Highway System | <hr/> |
| 24. How would the installation of an Automated Highway System affect the stress of driving? | 0 = Would greatly decrease stress 100 = Would greatly increase stress | <hr/> |

| | | |
|-----------------|--------------|--------------------|
| Question | Scale | Your Rating |
|-----------------|--------------|--------------------|

| | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------|
| <p>25. How much would you like to be told as to why the Automated Highway System is doing things with your vehicle such as accelerating, lane changing, and so on?</p> | <p>0 = Not at all 100 = A lot</p> | <p>_____</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------|

26. What kinds of information would you like to be able to provide to the Automated Highway System? (For example, if there is some disturbance on the road ahead, would you like to be able to tell that to the System?)

27. Do you have any comments on the Automated Highway System?

28. What type of vehicle do you *usually* drive? Please check one and indicate the make and year.

| | Make | Year |
|------------------------------------------------|-------|-------|
| <input type="checkbox"/> Car | _____ | _____ |
| <input type="checkbox"/> Van | _____ | _____ |
| <input type="checkbox"/> Truck | _____ | _____ |
| <input type="checkbox"/> Motorcycle | _____ | _____ |
| <input type="checkbox"/> Other (specify) _____ | _____ | _____ |

29. Does your vehicle have cruise control?

Yes (Please go to question 30.)

No (Stop. You have completed the questionnaire.)

Question

Scale

Your Rating

30. How often do you use the cruise control on your vehicle?

0 = Hardly ever
100 = Almost always

Questionnaire for Subjects Who Got Control of Steering First

Instructions

The following series of questions deals with the driving simulator, the experiment that you just took part in, and the Automated Highway System. For most of the questions, you will be asked to provide a rating from 0 to 100. The meanings of the two endpoints of the scale are provided for each question. Your answer can be any whole number between 0 and 100; do not use fractions or decimals. A space is provided for you to write your answer in.

Example:

| Question | Scale | Your Rating |
|-----------------------------------------------------------------|----------------------------------------------|-------------|
| How would you rate the importance of air bags in driver safety? | 0 = Very unimportant 100 = Very important | _____ |

If you think that air bags are pretty important in driver safety, you would provide a rating of over 50; the more important you think they are, the closer your rating would be to 100. If you think that air bags are not too important, you would provide a rating of less than 50; the more *unimportant* you think they are, the closer your rating would be to 0.

Questions

| Question | Scale | Your Rating |
|-----------------------------------------------------------------------|---------------------------------------------|-------------|
| 1. How much did you enjoy driving the simulator? | 0 = Not at all 100 = A lot | _____ |
| 2. How did driving in the simulator compare to driving in your car? | 0 = Very different 100 = Very similar | _____ |
| 3. How realistic was the view out of the windshield in the simulator? | 0 = Very artificial 100 = Very realistic | _____ |
| 4. How realistic were the sounds in the simulator? | 0 = Very artificial 100 = Very realistic | _____ |
| 5. How realistic was the vehicle motion in the simulator? | 0 = Very artificial 100 = Very realistic | _____ |
| 6. While driving the simulator, how did you feel? | 0 = Did not feel well 100 = Felt fine | _____ |

| Question | Scale | Your Rating |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------|
| 7. In this study, when your car was under automatic control, how did you feel about the speed at which you traveled? | 0 = Would have preferred to go much slower 100 = Would have preferred to go much faster | _____ |
| 8. In this study, when your car was under automatic control, how did you feel about the separation distance between you and the car ahead? | 0 = Would have preferred a much longer separation 100 = Would have preferred a much shorter separation | _____ |

9-12. During the experiment, when your car was under automated control, you were given an opportunity to request various kinds of information. An example of each kind of information is shown below. For each kind of information, you are asked to tell whether you looked at it during the experiment and to rate its *usefulness*. You are then given an opportunity to tell what you especially liked or did not like about the information presented and how you would change it.

9a. Did you look at the CURRENT LOCATION information (shown below) during the experiment?

- Yes (Please go to question 9b.)
 No (Please go to question 10a.)

| Question | Scale | Your Rating |
|---------------------------------------------------------------|-------------------------------------|-------------|
| 9b. How useful did you find the CURRENT LOCATION information? | 0 = Not useful 100 = Very useful | _____ |

| CURRENT LOCATION | |
|---------------------|-------------------------------------|
| Last exit: | Exit 14, County Road N |
| Distance past exit: | 8.1 miles |
| Next exit: | |
| Distance to exit: | Exit 17, County Road I 0.3 miles |

(Question 9b continued on next page.)

What did you especially like or not like about the CURRENT LOCATION information?
How would you change it to make it more *useful*?

- 10a. Did you look at the NEXT EXIT information (shown below) during the experiment?
- Yes (Please go to question 10b.)
 - No (Please go to question 11a.)

| Question | Scale | Your Rating |
|---------------------------------------------------------|-------------------------------------|-------------|
| 10b. How useful did you find the NEXT EXIT information? | 0 = Not useful 100 = Very useful | _____ |

| NEXT EXIT | |
|----------------------|------------------------|
| Next exit: | Exit 17, County Road I |
| Distance to exit: | 0.3 miles |
| Travel time to exit: | 0 minutes 18 seconds |

What did you especially like or not like about the NEXT EXIT information? How would you change it to make it more *useful*?

11a. Did you look at the TIME TO DESTINATION information (shown below) during the experiment?

- Yes (Please go to question 11b.)
- No (Please go to question 12a.)

Question

Scale

Your Rating

11b. How useful did you find the TIME TO DESTINATION information?

0 = Not useful
100 = Very useful

| | |
|-----------------------------|--------------------------|
| TIME TO DESTINATION | |
| Destination: | County Road Q Exit 32 |
| Travel time to destination: | 43 minutes 22 seconds |

What did you especially like or not like about the TIME TO DESTINATION information? How would you change it to make it more *useful*?

12a. Did you look at the TRAFFIC AHEAD information (shown on the next page) during the experiment?

- Yes (Please go to question 12b.)
- No (Please go to question 13)

Question

Scale

Your Rating

12b. How useful did you find the TRAFFIC AHEAD information?

0 = Not useful
100 = Very useful

| | |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------|
| TRAFFIC AHEAD | |
| Distance to destination: | 28.4 miles |
| Traffic ahead: | Accident blocking far right lane at Exit S, 42.7 miles ahead. Traffic congestion in center lane at that exit also. |

What did you especially like or not like about the TRAFFIC AHEAD information? How would you change it to make it more *useful*?

13. Are there other kinds of information you would find useful during an actual trip on an Automated Highway System?

| Question | Scale | Your Rating |
|----------|-------|-------------|
|----------|-------|-------------|

| | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------|
| <p>14. How understandable were the messages saying that you should take control of your car (“To regain control of the steering, put your hands on the steering wheel” and “You now control the steering. To regain control of the speed, press the accelerator or brake pedal”)?</p> | <p>0 = Very hard to understand 100 = Very easy to understand</p> | <p>_____</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------|

| | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|--------------|
| <p>15. When you were given back control of the car after the period of automated travel, you took control of steering first followed by speed. How did you feel about getting control back in this way?</p> | <p>0 = This way was very bad 100 = This way was very good</p> | <p>_____</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|--------------|

16. Would you have preferred to have been given control of the car back in some other way?

Yes (Please explain below.)

No

| Question | Scale | Your Rating |
|----------|-------|-------------|
|----------|-------|-------------|

| | | |
|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--------------|
| <p>17. How would you describe the manner in which you controlled your car <i>immediately after leaving</i> the automated lane?</p> | <p>0 = Very uncontrolled 100 = Very controlled</p> | <p>_____</p> |
|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--------------|

| Question | Scale | Your Rating |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 18. <i>After leaving the automated lane, you drove for about 10 minutes. How was your driving at the end of the 10 minutes compared to the beginning?</i> | 0 = Driving at the end was very different from driving at the beginning 100 = Driving at the end was the same as driving at the beginning | _____ |
| 19. Which lane did you prefer to be in? | 0 = Strongly preferred manual lane 100 = Strongly preferred automated lane | _____ |
| 20. Which lane was it more challenging to be in? | 0 = More challenging in the manual lanes 100 = More challenging in the automated lane | _____ |
| 21. How would you feel if an Automated Highway System were installed on I-380 between Iowa City and Waterloo? | 0 = Very unenthusiastic 100 = Very enthusiastic | _____ |
| 22. If an Automated Highway System were installed on I-380, what lane would you prefer driving in? | 0 = Would strongly prefer manual lanes 100 = Would strongly prefer automated lane | _____ |
| 23. If an Automated Highway System were installed on I-380, how would you feel about your safety? | 0 = Would feel much safer without an Automated Highway System 100 = Would feel much safer with an Automated Highway System | _____ |
| 24. How would the installation of an Automated Highway System affect the stress of driving? | 0 = Would greatly decrease stress 100 = Would greatly increase stress | _____ |

Question

Scale

Your Rating

25. How much would you like to be told as to why the Automated Highway System is doing things with your vehicle such as accelerating, lane changing, and so on?

0 = Not at all
100 = A lot

26. What kinds of information would you like to be able to provide to the Automated Highway System? (For example, if there is some disturbance on the road ahead, would you like to be able to tell that to the System?)

27. Do you have any comments on the Automated Highway System?

28. What type of vehicle do you usually drive? Please check one and indicate the make and year.

| | Make | Year |
|------------------------------------------------|-------------|-------------|
| <input type="checkbox"/> Car | _____ | _____ |
| <input type="checkbox"/> Van | _____ | _____ |
| <input type="checkbox"/> Truck | _____ | _____ |
| <input type="checkbox"/> Motorcycle | _____ | _____ |
| <input type="checkbox"/> Other (specify) _____ | _____ | _____ |

29. Does your vehicle have cruise control?

- Yes (Please go to question 30.)
- No (Stop. You have completed the questionnaire.)

Question

Scale

Your Rating

30. How often do you use the cruise control on your vehicle?

0 = Hardly ever
100 = Almost always

Questionnaire for Subjects Who Got Control of Speed First

Instructions

The following series of questions deals with the driving simulator, the experiment that you just took part in, and the Automated Highway System. For most of the questions, you will be asked to provide a rating from 0 to 100. The meanings of the two endpoints of the scale are provided for each question. Your answer can be any whole number between 0 and 100; do not use fractions or decimals. A space is provided for you to write your answer in.

Example:

| Question | Scale | Your Rating |
|-----------------------------------------------------------------|----------------------------------------------|-------------|
| How would you rate the importance of air bags in driver safety? | 0 = Very unimportant 100 = Very important | _____ |

If you think that air bags are pretty important in driver safety, you would provide a rating of over 50; the more important you think they are, the closer your rating would be to 100. If you think that air bags are not too important, you would provide a rating of less than 50; the more *unimportant* you think they are, the closer your rating would be to 0.

Questions

| Question | Scale | Your Rating |
|-----------------------------------------------------------------------|---------------------------------------------|-------------|
| 1. How much did you enjoy driving the simulator? | 0 = Not at all 100 = A lot | _____ |
| 2. How did driving in the simulator compare to driving in your car? | 0 = Very different 100 = Very similar | _____ |
| 3. How realistic was the view out of the windshield in the simulator? | 0 = Very artificial 100 = Very realistic | _____ |
| 4. How realistic were the sounds in the simulator? | 0 = Very artificial 100 = Very realistic | _____ |
| 5. How realistic was the vehicle motion in the simulator? | 0 = Very artificial 100 = Very realistic | _____ |
| 6. While driving the simulator, how did you feel? | 0 = Did not feel well 100 = Felt fine | _____ |

| Question | Scale | Your Rating |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------|
| 7. In this study, when your car was under automatic control, how did you feel about the speed at which you traveled? | 0 = Would have preferred to go much slower 100 = Would have preferred to go much faster | _____ |
| 8. In this study, when your car was under automatic control, how did you feel about the separation distance between you and the car ahead? | 0 = Would have preferred a much longer separation 100 = Would have preferred a much shorter separation | _____ |

9–12. During the experiment, when your car was under automated control, you were given an opportunity to request various kinds of information. An example of each kind of information is shown below. For each kind of information, you are asked to tell whether you looked at it during the experiment and to rate its *usefulness*. You are then given an opportunity to tell what you especially liked or did not like about the information presented and how you would change it.

- 9a. Did you look at the **CURRENT LOCATION** information (shown below) during the experiment?
- Yes (Please go to question 9b.)
- No (Please go to question 10a.)

| Question | Scale | Your Rating |
|----------------------------------------------------------------------|-------------------------------------|-------------|
| 9b. How useful did you find the CURRENT LOCATION information? | 0 = Not useful 100 = Very useful | _____ |

| CURRENT LOCATION | |
|---------------------|------------------------|
| Last exit: | Exit 14, County Road N |
| Distance past exit: | 8.1 miles |
| | |
| Next exit: | Exit 17, County Road I |
| Distance to exit: | 0.3 miles |

(Question 9b continued on next page.)

What did you especially like or not like about the CURRENT LOCATION information?
How would you change it to make it more *useful*?

10a. Did you look at the NEXT EXIT information (shown below) during the experiment?

- Yes (Please go to question 10b.)
- No (Please go to question 11a.)

| Question | Scale | Your Rating |
|---------------------------------------------------------|-------------------------------------|-------------|
| 10b. How useful did you find the NEXT EXIT information? | 0 = Not useful 100 = Very useful | _____ |

| NEXT EXIT | |
|----------------------|------------------------|
| Next exit: | Exit 17, County Road I |
| Distance to exit: | 0.3 miles |
| Travel time to exit: | 0 minutes 18 seconds |

What did you especially like or not like about the NEXT EXIT information? How would you change it to make it more *useful*?

11a. Did you look at the TIME TO DESTINATION information (shown below) during the experiment?

Yes (Please go to question 11b.)

No (Please go to question 12a.)

Question

Scale

Your Rating

11b. How useful did you find the TIME TO DESTINATION information?

0 = Not useful
100 = Very useful

| | |
|-----------------------------|--------------------------|
| TIME TO DESTINATION | |
| Destination: | County Road Q Exit 32 |
| Travel time to destination: | 43 minutes 22 seconds |

What did you especially like or not like about the TIME TO DESTINATION information? How would you change it to make it more *useful*?

12a. Did you look at the TRAFFIC AHEAD information (shown on the next page) during the experiment?

Yes (Please go to question 12b.)

No (Please go to question 13)

Question

Scale

Your Rating

12b. How useful did you find the TRAFFIC AHEAD information?

0 = Not useful
100 = Very useful

| | |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------|
| TRAFFIC AHEAD | |
| Distance to destination: | 28.4 miles |
| Traffic ahead: | Accident blocking far right lane at Exit S, 42.7 miles ahead. Traffic congestion in center lane at that exit also. |

What did you especially like or not like about the TRAFFIC AHEAD information? How would you change it to make it more *useful*?

13. Are there other kinds of information you would find useful during an actual trip on an Automated Highway System?

| Question | Scale | Your Rating |
|----------|-------|-------------|
|----------|-------|-------------|

| | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------|
| <p>14. How understandable were the messages saying that you should take control of your car (“To regain control of the speed, press the accelerator or brake pedal” and “You now control the speed. To regain control of the steering, put your hands on the steering wheel”)?</p> | <p>0 = Very hard to understand 100 = Very easy to understand</p> | <p>_____</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------|

| | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|--------------|
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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|--------------|

16. Would you have preferred to have been given control of the car back in some other way?

Yes (Please explain below.)

No

| Question | Scale | Your Rating |
|----------|-------|-------------|
|----------|-------|-------------|

| | | |
|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--------------|
| <p>17. How would you describe the manner in which you controlled your car <i>immediately after leaving</i> the automated lane?</p> | <p>0 = Very uncontrolled 100 = Very controlled</p> | <p>_____</p> |
|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--------------|

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| | | |
|-----------------|--------------|--------------------|
| Question | Scale | Your Rating |
|-----------------|--------------|--------------------|

| | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------|
| <p>25. How much would you like to be told as to why the Automated Highway System is doing things with your vehicle such as accelerating, lane changing, and so on?</p> | <p>0 = Not at all 100 = A lot</p> | <p>_____</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------|

26. What kinds of information would you like to be able to provide to the Automated Highway System? (For example, if there is some disturbance on the road ahead, would you like to be able to tell that to the System?)

27. Do you have any comments on the Automated Highway System?

28. What type of vehicle do you *usually* drive? Please check one and indicate the make and year.

| | Make | Year |
|------------------------------------------------|-------|-------|
| <input type="checkbox"/> Car | _____ | _____ |
| <input type="checkbox"/> Van | _____ | _____ |
| <input type="checkbox"/> Truck | _____ | _____ |
| <input type="checkbox"/> Motorcycle | _____ | _____ |
| <input type="checkbox"/> Other (specify) _____ | _____ | _____ |

29. Does your vehicle have cruise control?

Yes (Please go to question 30.)

No (Stop. You have completed the questionnaire.)

Question

Scale

Your Rating

30. How often do you use the cruise control on your vehicle?

0 = Hardly ever
100 = Almost always

Questionnaire for Control Subjects

Instructions

The following series of questions deals with the driving simulator, the experiment that you just took part in, and the Automated Highway System. For most of the questions, you will be asked to provide a rating from 0 to 100. The meanings of the two endpoints of the scale are provided for each question. Your answer can be any whole number between 0 and 100; do not use fractions or decimals. A space is provided for you to write your answer in.

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| 2. How did driving in the simulator compare to driving in your car? | 0 = Very different 100 = Very similar | _____ |
| 3. How realistic was the view out of the windshield in the simulator? | 0 = Very artificial 100 = Very realistic | _____ |
| 4. How realistic were the sounds in the simulator? | 0 = Very artificial 100 = Very realistic | _____ |
| 5. How realistic was the vehicle motion in the simulator? | 0 = Very artificial 100 = Very realistic | _____ |
| 6. While driving the simulator, how did you feel? | 0 = Did not feel well 100 = Felt fine | _____ |

| Question | Scale | Your Rating |
|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------|
| 7. In this study, how did you feel about the fact that while you were driving, one of the lanes (the left) was not available for you to use? | 0 = It didn't matter 100 = It mattered a lot | _____ |

8. What type of vehicle do you *usually* drive? Please check one and indicate the make and year.

| | Make | Year |
|------------------------------------------------|-------|-------|
| <input type="checkbox"/> Car | _____ | _____ |
| <input type="checkbox"/> Van | _____ | _____ |
| <input type="checkbox"/> Truck | _____ | _____ |
| <input type="checkbox"/> Motorcycle | _____ | _____ |
| <input type="checkbox"/> Other (specify) _____ | _____ | _____ |

9. Does your vehicle have cruise control?

- Yes (Please go to question 10.)
- No (Stop. You have completed the questionnaire.)

| Question | Scale | Your Rating |
|--------------------------------------------------------------|----------------------------------------|-------------|
| 10. How often do you use the cruise control on your vehicle? | 0 = Hardly ever 100 = Almost always | _____ |