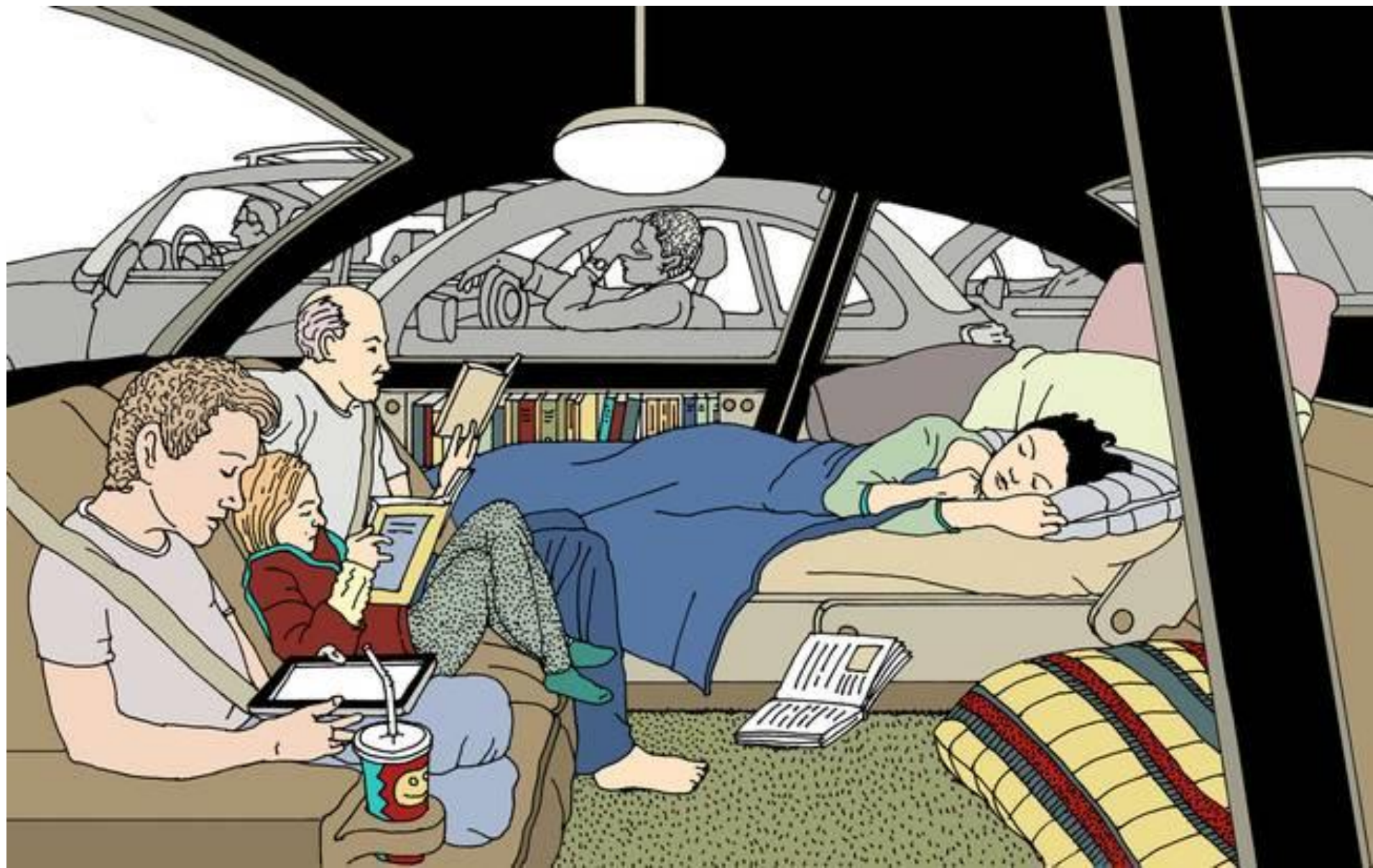


A day in the life with AV

Automated Driving On-line College tour, Webinar 3
25/06/2020

Baiba Pudāne,
Sander van Cranenburgh,
Casper Chorus





Poll #1

What would you do doing travel in AV?



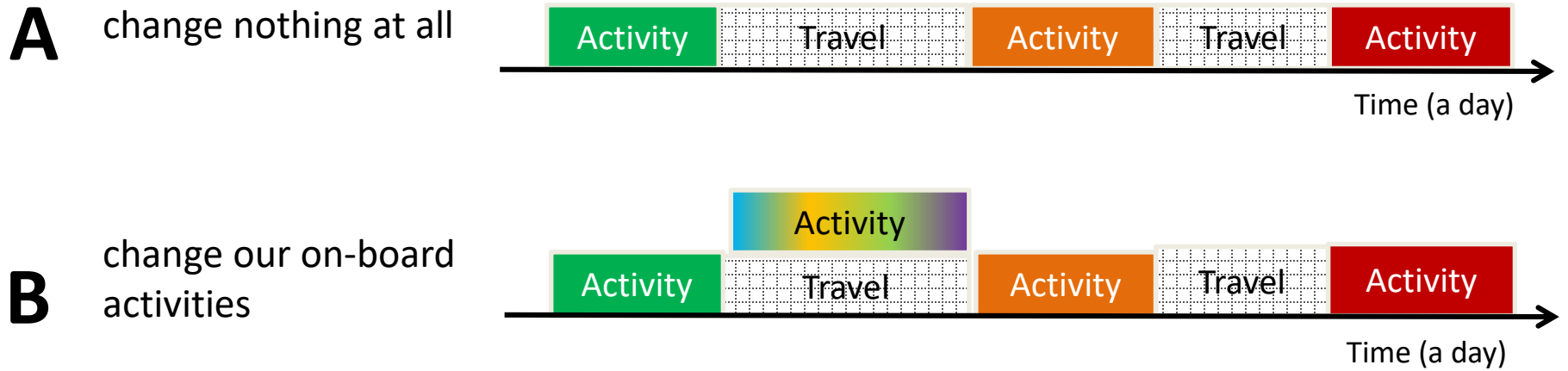
- A. Work
- B. Eat
- C. Engage in leisure
- D. Other activity (e.g., sleep, get ready)
- E. Nothing

How could using an AV change our days?

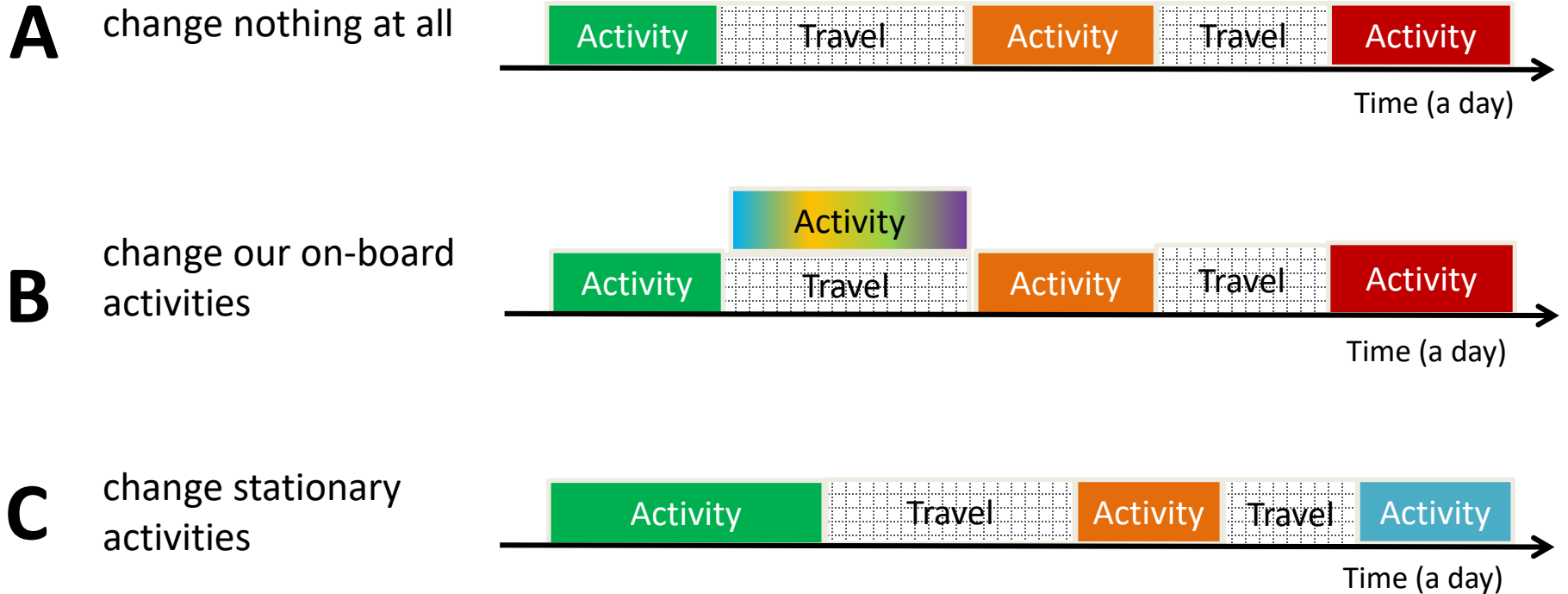
A change nothing at all



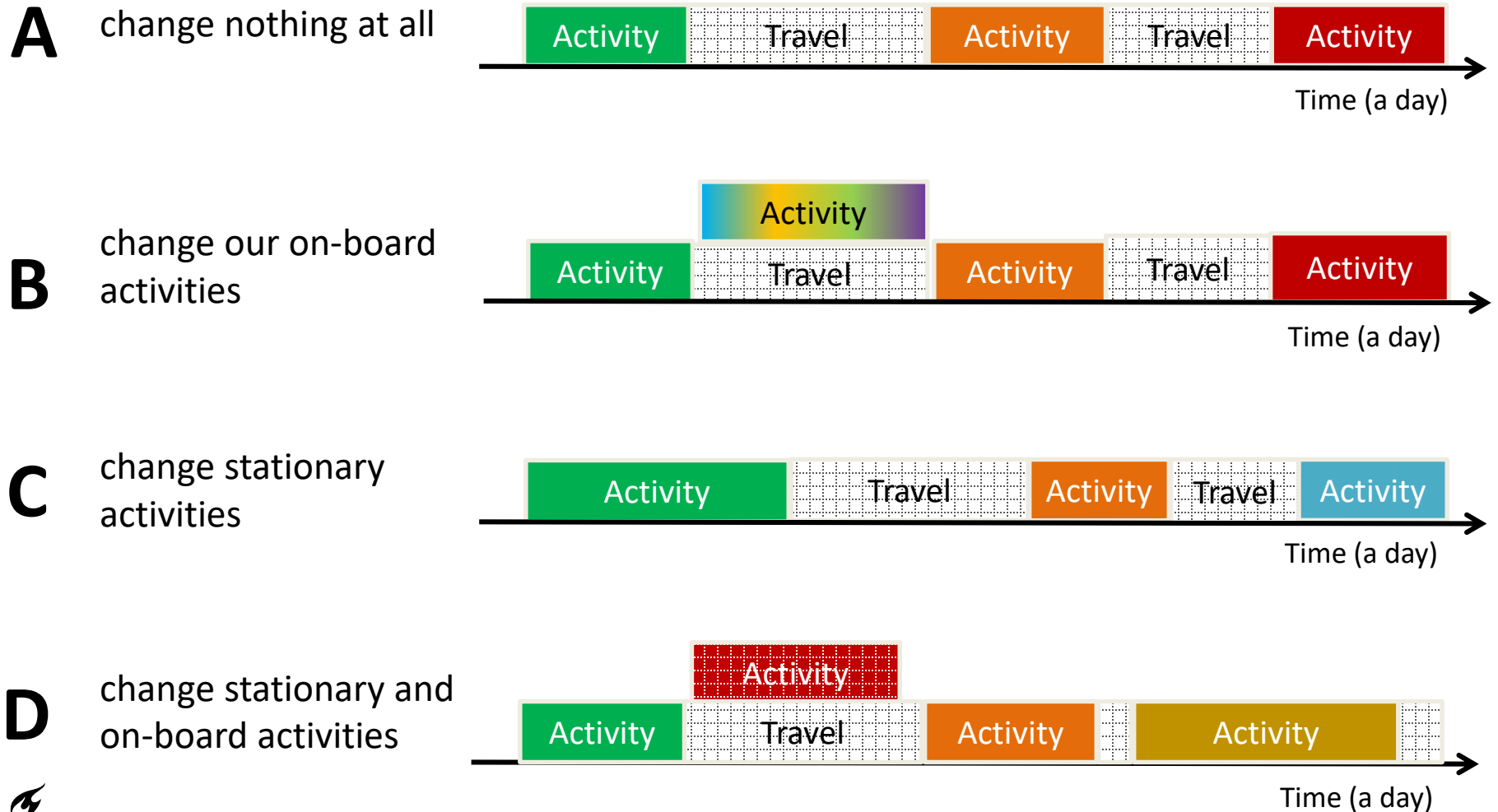
How could using an AV change our days?



How could using an AV change our days?



How could using an AV change our days?



Poll #2

How would using an AV change your day?

- A** change nothing at all
- B** change my on-board activities
- C** change stationary activities
- D** change stationary and on-board activities



Survey: activity schedules now & with AVs

SURVEY

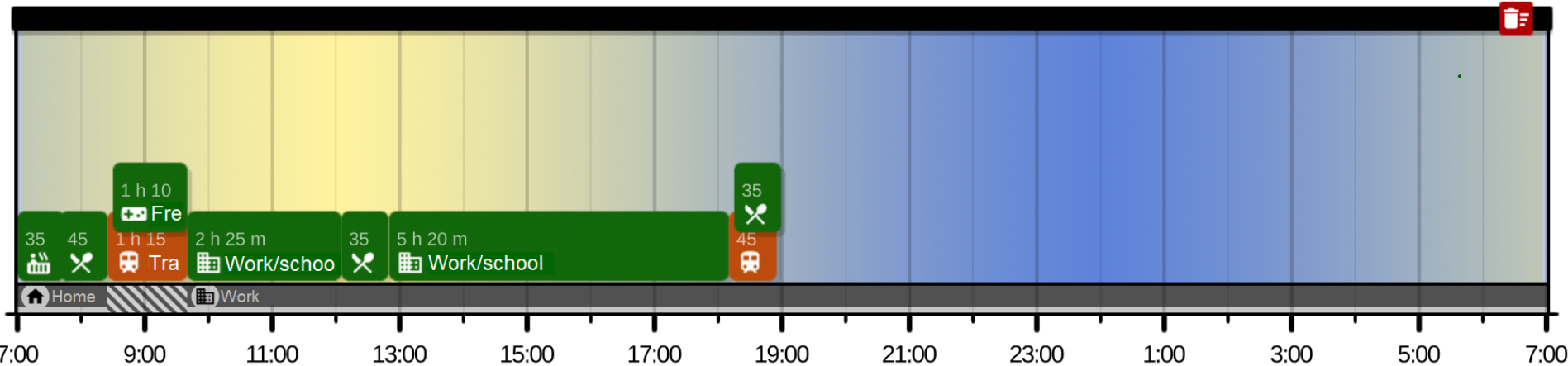
Step 5 / 8

TASK 1 - PUBLIC TRANSPORT

Recall the last work day when you used (mainly) public transport for all of your trips. Approximate that day here as closely as possible.

[Watch the instruction video again](#)

Night sleep	Getting ready (in the morning / for sleep)	Work/school
Meal (including preparation): breakfast/lunch/di...	Shopping	Services: haircut, doctor, bank, massage, etc.
Free time/leisure: sports/meeting friends/movie/...	Household: cleaning/take care of children or pets	Others...
Travel to work/school → 75 min	Travel to a restaurant → 75 min	Travel to service → 20 min
Travel to leisure location → 30 min	Drop off / pick up, e.g., bring children to sc... 45 min	Travel to a shopping centre → 15 min
Travel home → 75 min	Travel to other activity... → 30 min	



<https://automated-vehicles-survey.orbitgames.nl/?ID=baiba-test>

Survey: activity schedules now & with AVs

SURVEY

Step 5 / 8

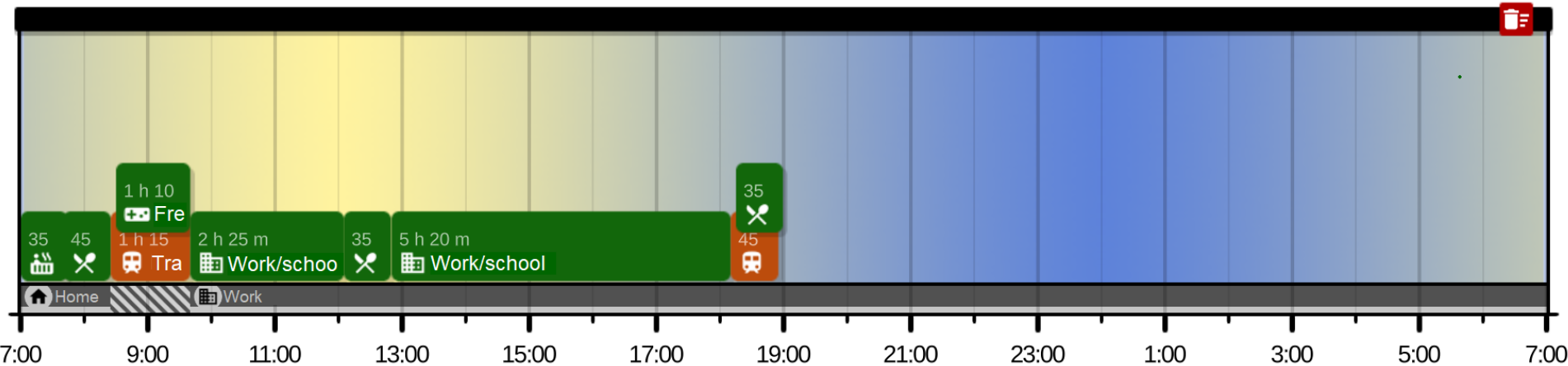
1st task – a current mode
2nd task – AV (2 types)

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Survey: activity schedules now & with AVs

SURVEY

Step 5 / 8

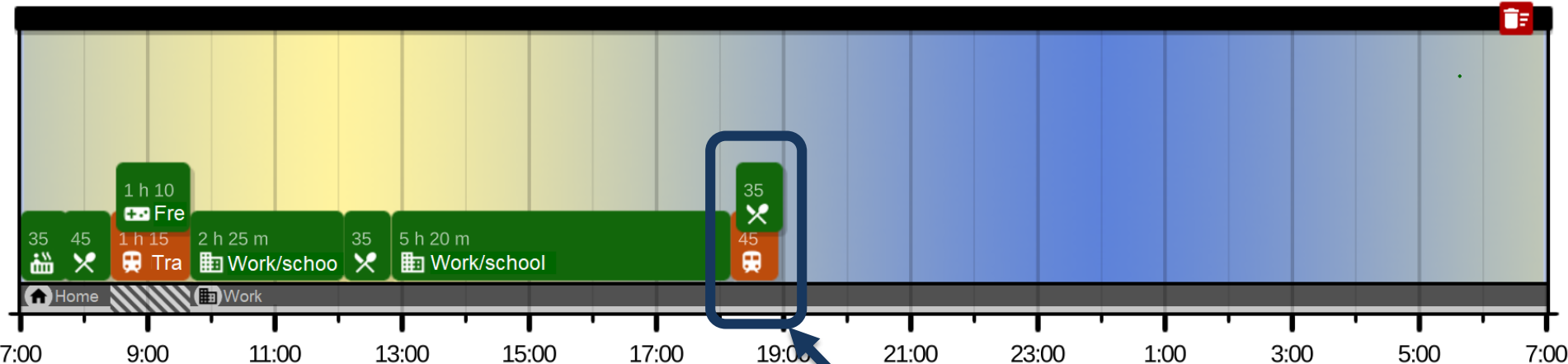
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Multitasking during travel

<https://automated-vehicles-survey.orbitgames.nl/?ID=baiba-test>

Results: schedule changes

- A change nothing at all
- B change my on-board activities
- C change stationary activities
- D change stationary and on-board activities

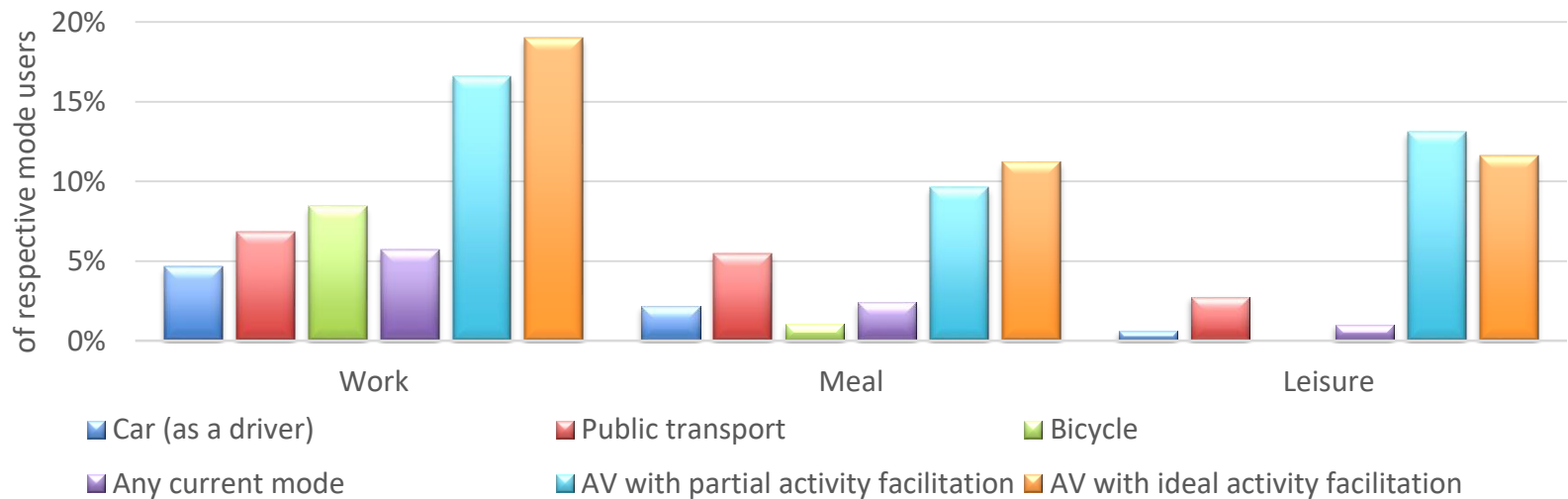
Results: schedule changes

A	change nothing at all	55%
B	change my on-board activities	9%
C	change stationary activities	16%
D	change stationary and on-board activities	20%

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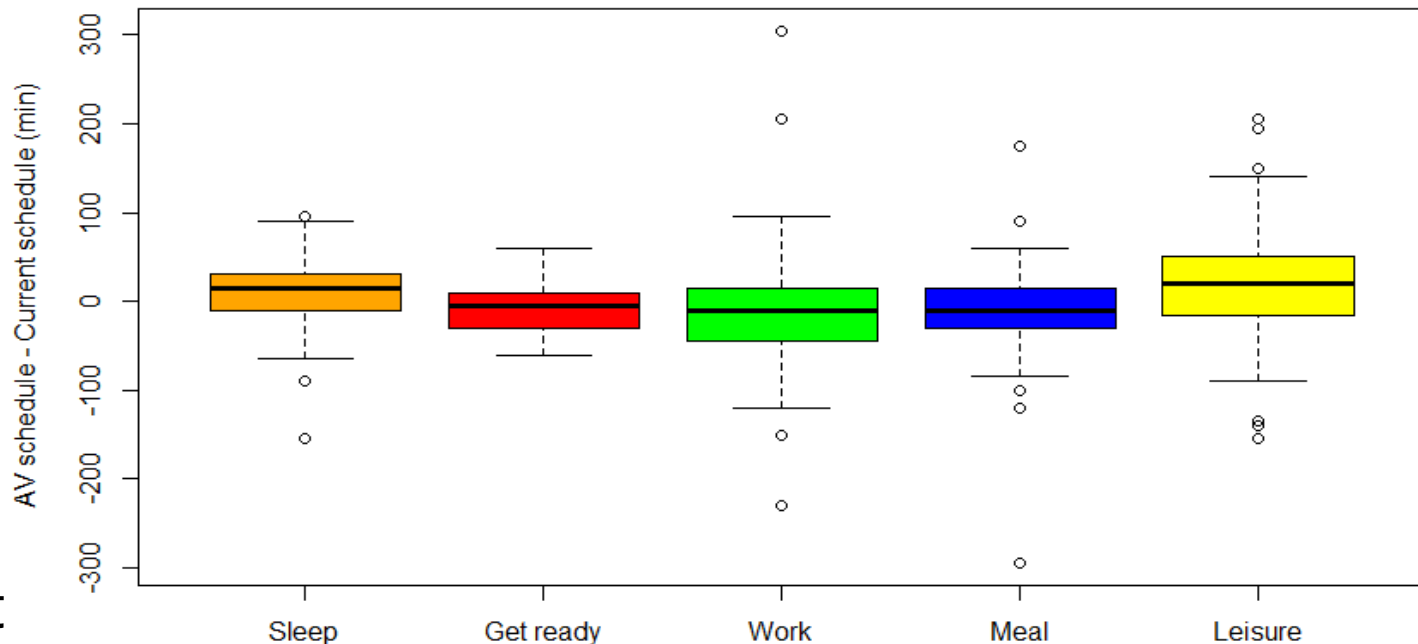
On-board activities: share of respondents selecting ...



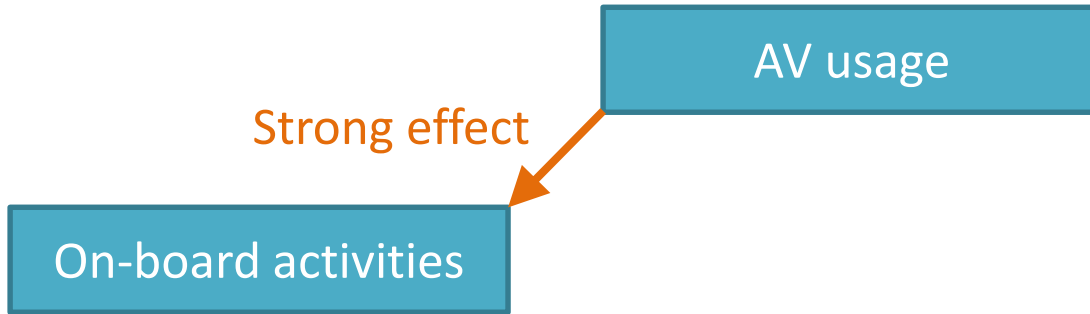
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Stationary activities: duration changes (when different from 0)



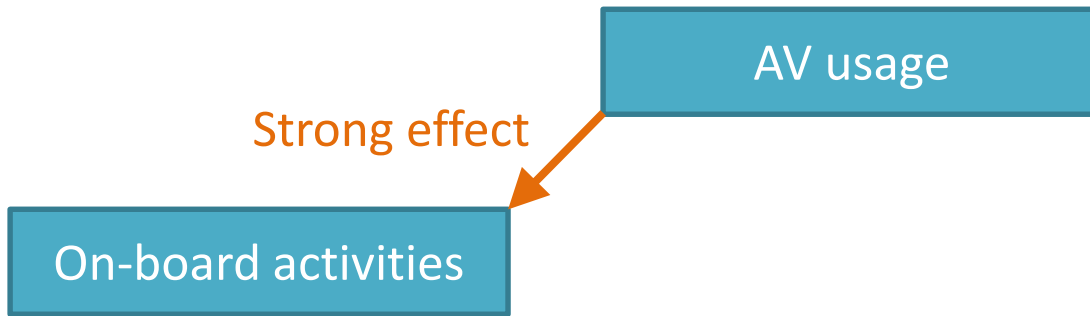
Results: on-board activities



Selection: On-board get ready, work, meal, leisure more frequent in AVs

Duration: On-board get ready, work longer in AVs

Results: on-board activities



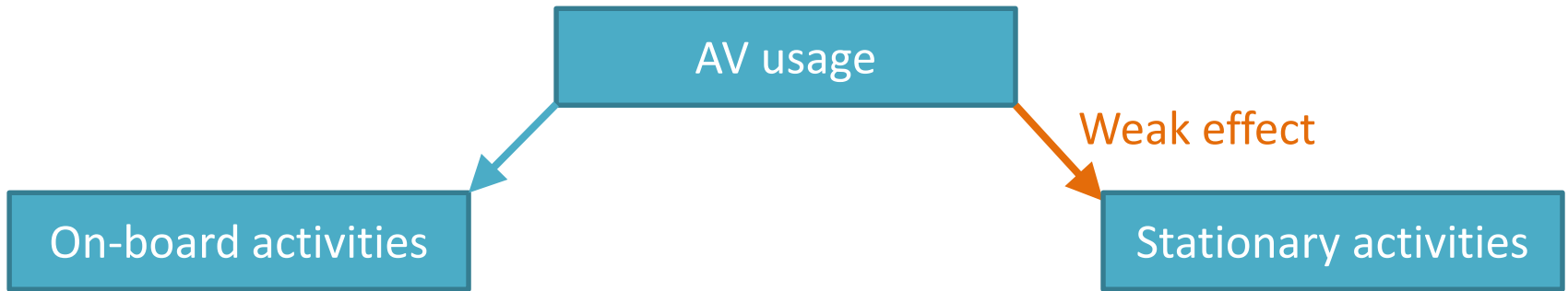
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In addition, some groups indicated more change with AVs:

High income or higher education	more likely to work and have meals in AV
High income	longer work in AV
Higher education	more likely to engage in leisure in AV
Age groups 18-24 and 35-54	longer leisure in AV
Not single, low to medium income	more frequent get ready in AVs

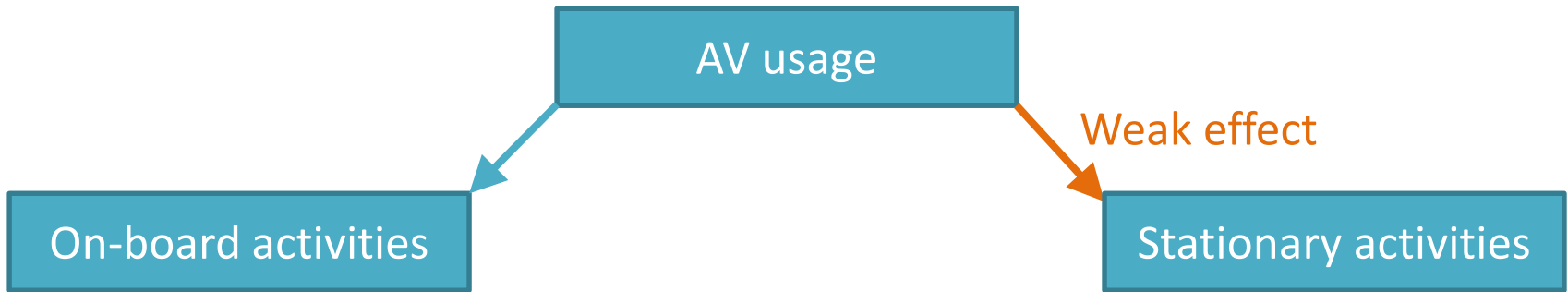
Results: stationary activities



Selection and duration of stationary activities: no changes in aggregate

Also mean # of trips did not change

Results: stationary activities



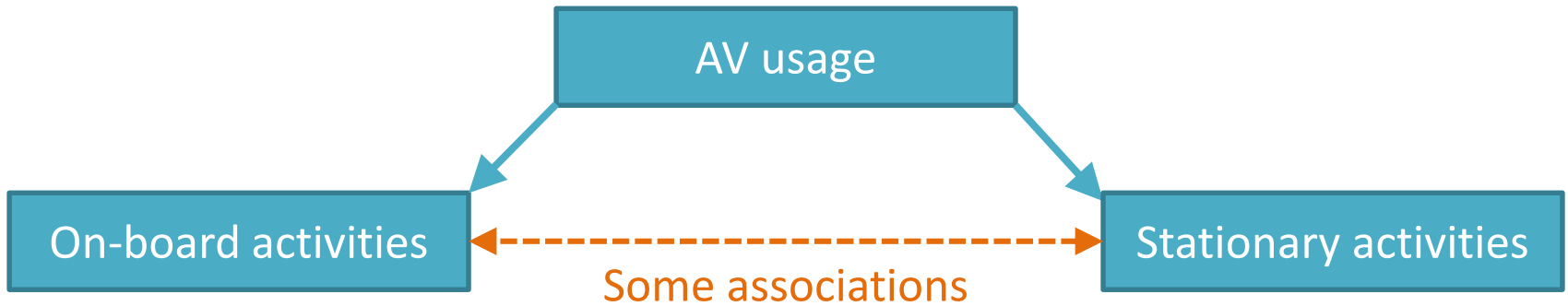
Selection and duration of stationary activities: no changes in aggregate

Also mean # of trips did not change

But some activity changes in socio-demographic groups:

Adults with children <12 y.o	shorter get ready & longer leisure in AV schedule
Higher education	more likely to indicate get ready
Age groups 18-24 and 55+	more likely to indicate meal
Single, age group 45+	more likely to indicate leisure

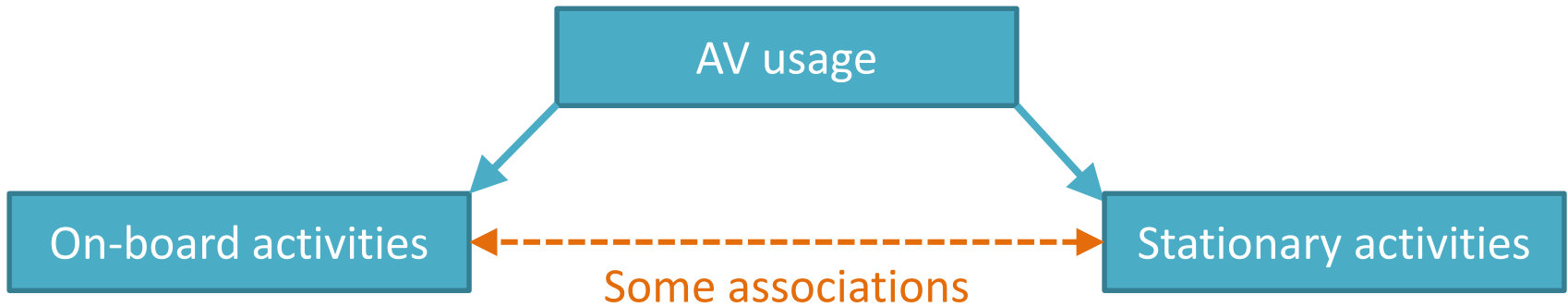
Results: on-board & stationary associations



On-board activities in AV depend on the stationary schedules

Stationary schedules are influenced by on-board activities

Results: on-board & stationary associations



On-board activities in AV depend on the stationary schedules

Stationary schedules are influenced by on-board activities

The direction cannot be determined, but we can see some intuitive associations:

On-board	Stationary
Longer get ready in AV	Meals less likely selected, get ready shorter
Longer work in AV	Meals more likely selected, but shorter
Longer leisure in AV	Shorter leisure outside of AV

Questions for policy and modelling

1. Will activity schedules with AVs differ from the present ones?
 - Is Value of Travel Time (VoTT) a good measure of AV time-use effects?

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1. Will activity schedules with AVs differ from the present ones?
 - Is Value of Travel Time (VoTT) a good measure of AV time-use effects?

2. Will AVs lead to more person- and vehicle- travel?
 - Would shared AVs mitigate increasing vehicle-travel?

3. Will AVs lead to more congestion?
 - How will AVs affect departure time choices?



Thank you!

Stay in touch: b.pudane@tudelft.nl





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HAPPe HOUR by eANTAL

