

Conceptualizing and Measuring the Positive Utility of Travel

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Background

The transportation paradigm

- Traveling is a **means to an end**: going someplace or getting somewhere.
- Travel demand is a **derived demand** (from demand for spatially-separated activities).
- Travel time is a **disutility** to be minimized.
- These perspectives dominate **travel behavior analysis** and **travel demand modeling**.

Alternative perspectives

- Maslow's (1943) hierarchy of needs** motivating human behavior are: homeostasis (maintaining the body), safety, love, esteem, and self-actualization (achieving one's potential).
- Motivation theory (Ryan & Deci, 2000) distinguishes **extrinsic motives** (the activity is a means to an end) from **intrinsic motives** (the activity is done for its own sake).
- Psychological subjective well-being (Ryan & Deci, 2001) includes **hedonic** (pleasure, happiness, desires) and **eudaimonic** (purpose, goals, self-realization) aspects.

What is the positive utility of travel?

Mokhtarian & Salomon (2001)

The tripartite nature of the **affinity for travel**:

- The activities conducted at the destination.
- The activities conducted while traveling.
- The activity of traveling itself.

My definition

The positive utility of travel (PUT) includes **any benefits accrued to the traveler through the act of traveling.**

Destination activities

Benefits from reaching a destination with activity potential.

Travel is: a means to a productive end.



Above: Riding the school bus to school.
Left: Walking home from the grocery store.

Note: This is not a focus of my study.

Travel activities

Benefits from travel-based multitasking:

- "Active" activities
- "Passive" activities
- Exercise or physical activity

Travel is: the setting for other activities.



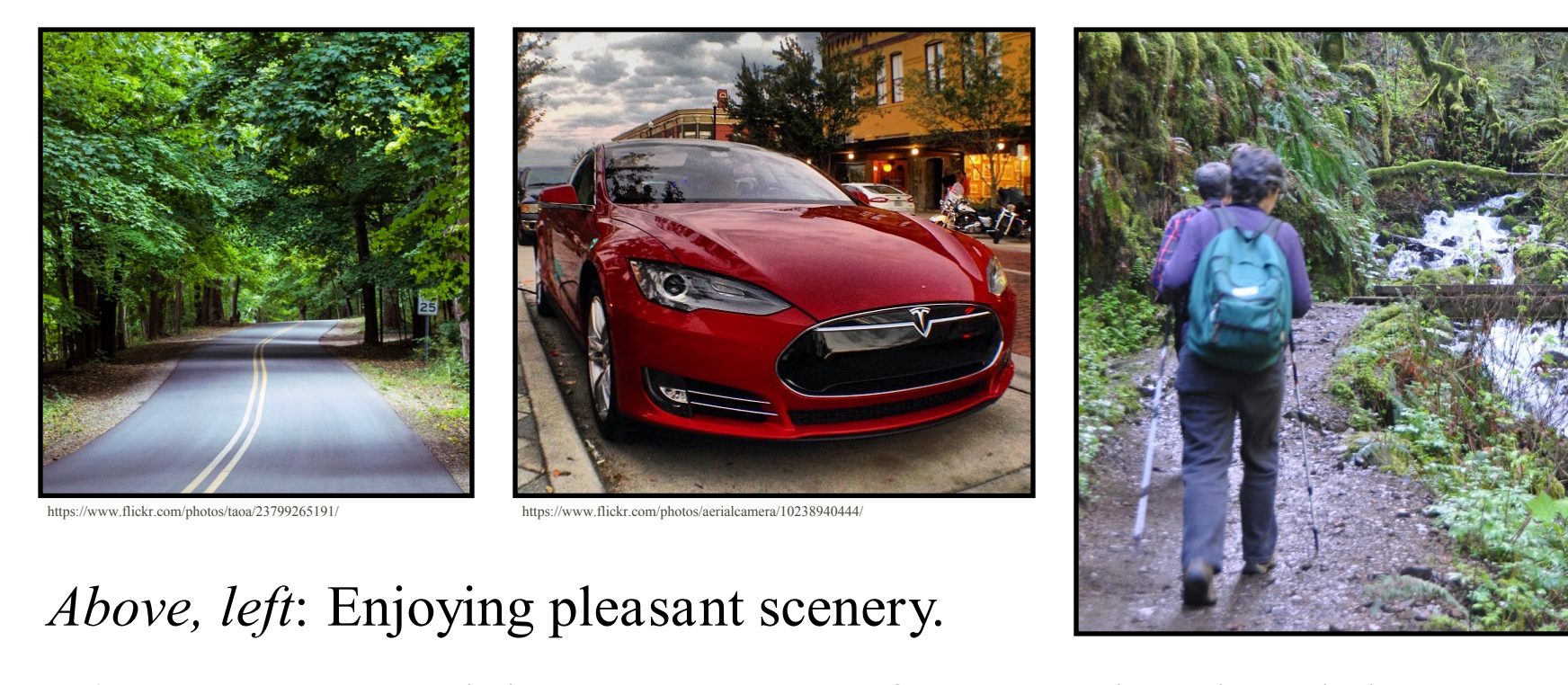
Above, left: Reading a newspaper while riding the train.
Left: Listening to the car radio.
Above: Bicycling to work for exercise.

Travel experiences

All other benefits:

- Affective enjoyment
- Symbolic expressions/fulfillment
- Travel as the activity

Travel is: a) the setting for experiences, b) a means to a fulfilling end, and c) an end in and of itself.



Above, left: Enjoying pleasant scenery.
Above, center: Driving a sports car for control and social status.
Above, right: Hiking and other forms of outdoor recreation.

How to measure PUT? Ask...

Do you ever make a trip for any of the following reasons?

- By a longer but more scenic route than normal
- With no particular destination in mind
- Just to get out of the house

Would you like to walk, bike, drive, and ride transit less, the same, or more than you currently do?

What would be your ideal one-way commute travel time?

Suppose you could snap your fingers and be instantly "teleported" between home and work.

Would you prefer to teleport, or to spend some time commuting? Why?

While commuting, what did you do?

- Talk face-to-face
- Talk on the phone
- Read print/electronic
- Listen to music or radio
- Write or edit documents
- Eat/drink
- Care for others
- Exercise
- View scenery
- Rest/sleep

On a scale from wasted to useful, how would you rate your commute?

Did you feel this way while commuting?

- Happy
- Active
- Engaged
- Relaxed
- Comfortable
- Attentive
- Excited
- Strong
- Proud

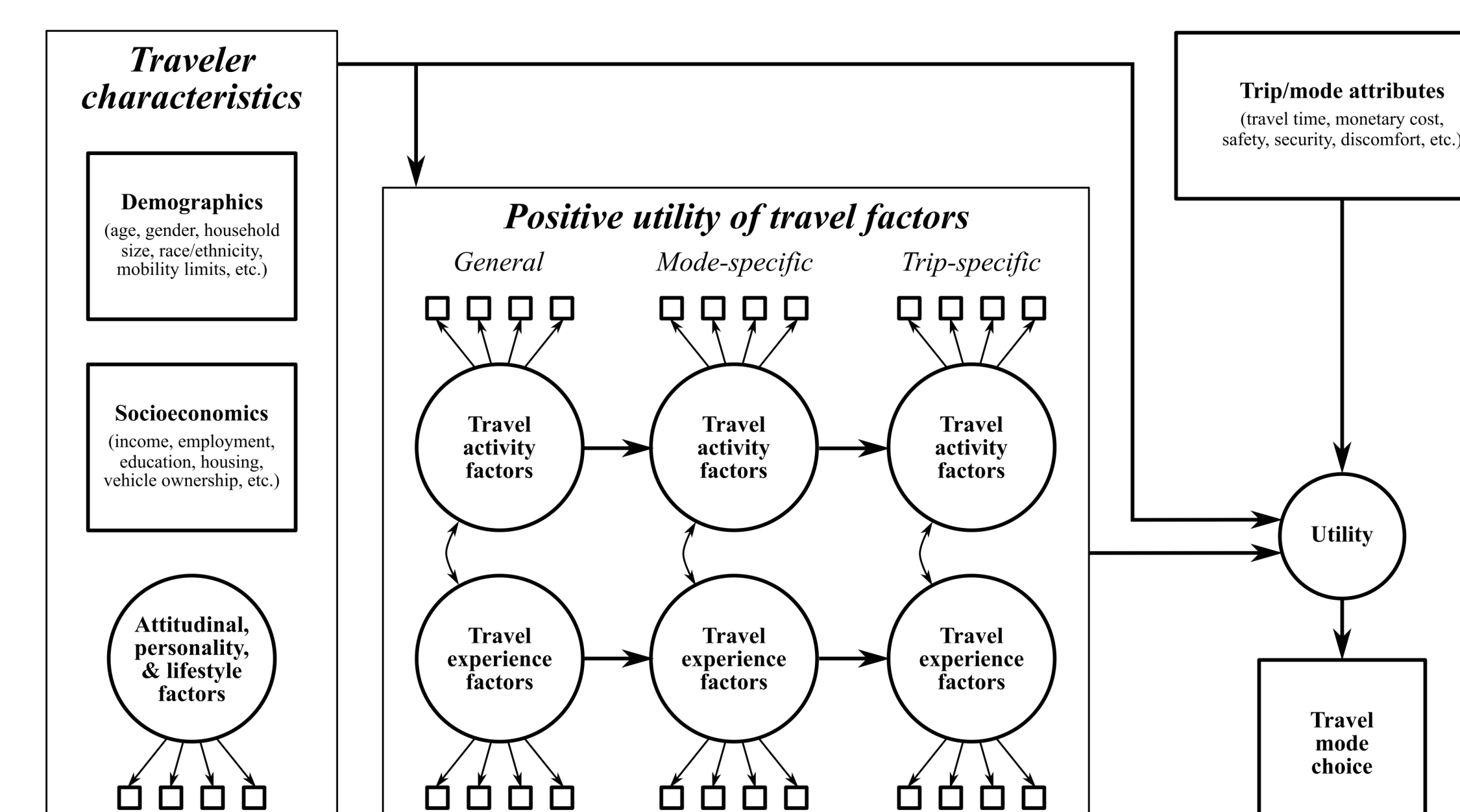
Did commuting allow you to fulfill your desire, express, or improve ___?

- Variety
- Control
- Social status
- Independence
- Confidence
- Mental health

How much did you like this trip?

My PUT study

- Measuring PUT and its effects on mode choice
- Online survey (fall 2016) of Portland-area commuters



Implications of PUT

Transportation planning

- Improve estimates of the **value of travel time savings**, used for major project cost-benefit analysis.

Transportation policy

- Design **interventions**—via multitasking and positive experiences—to encourage walking, bicycling, transit.

The future

- Anticipate the travel behavior impacts of **autonomous cars**.



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