



# Tracking Goal Conflict: The Motivational Determinants of Self-Control

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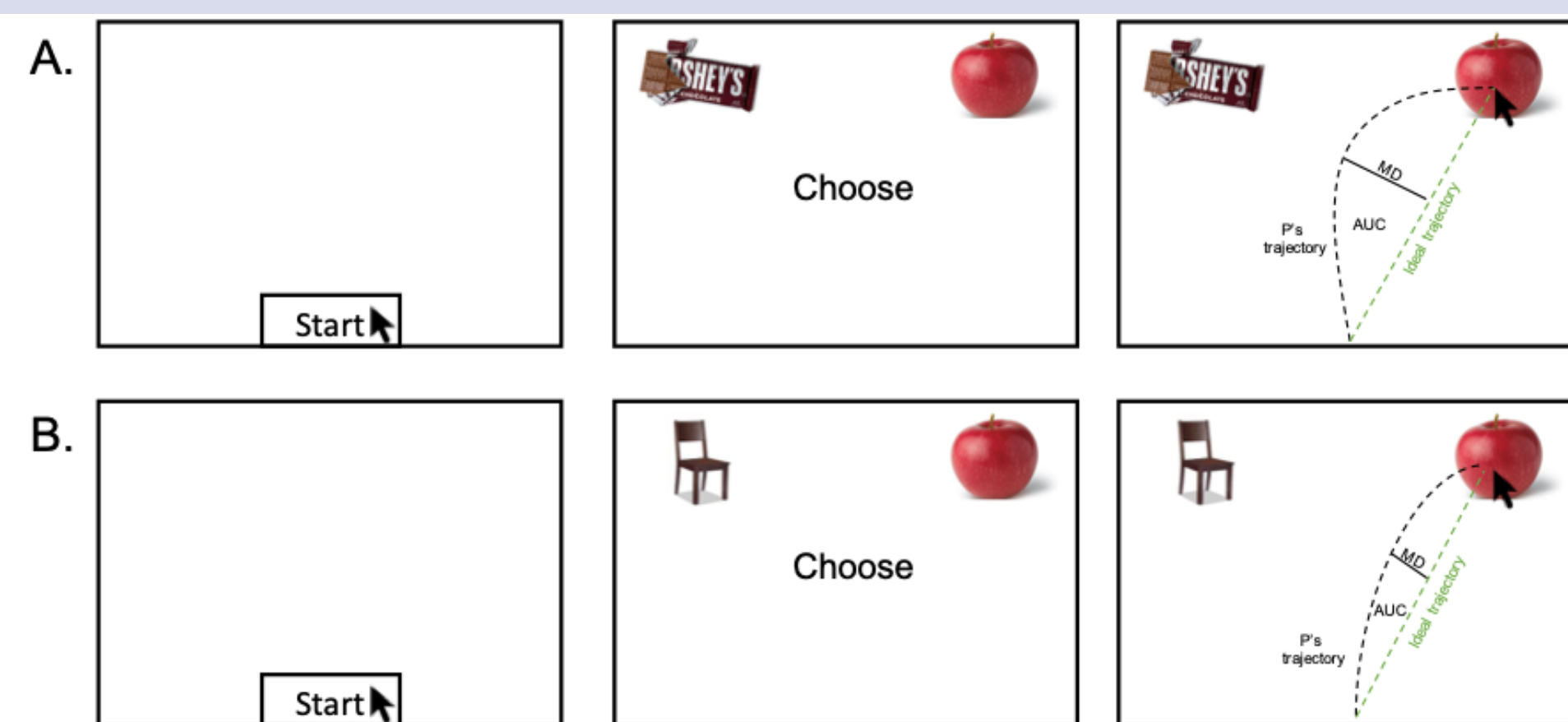
Honors Thesis advised by Dr. Angela Duckworth, Victoria Liu

## Background

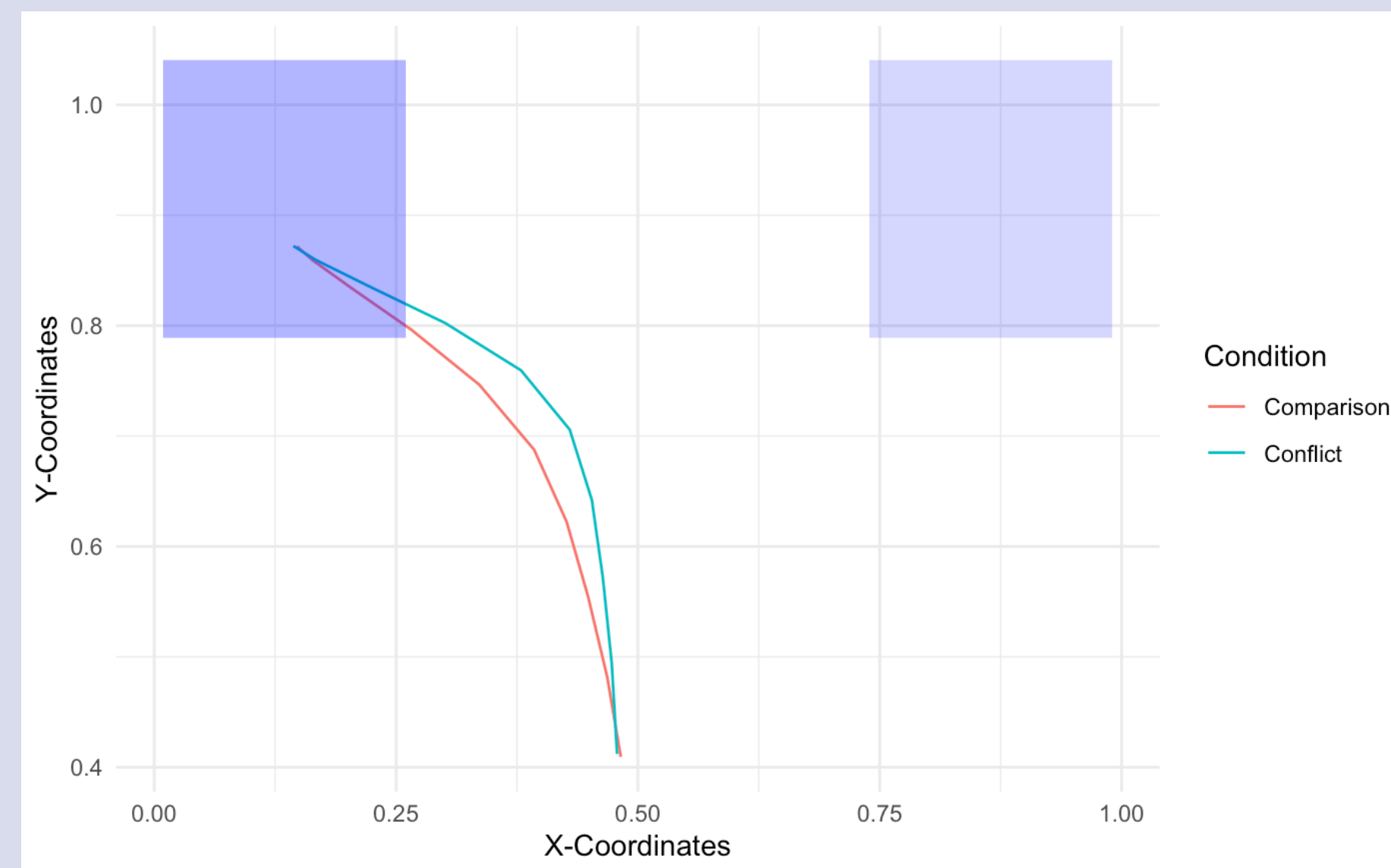
- Self-control is the self-initiated regulation of goal conflict between temptations and goal-aligned actions
- There is a critical distinction between pursuing goals for autonomous (e.g., because of personal importance) versus controlled reasons (e.g., to maintain a societal standard)
- Autonomous motivation has been linked to less goal conflict - a key indicator of whether self-control is necessary
- However, previous studies have relied upon self-reported measures of goal conflict

## Method

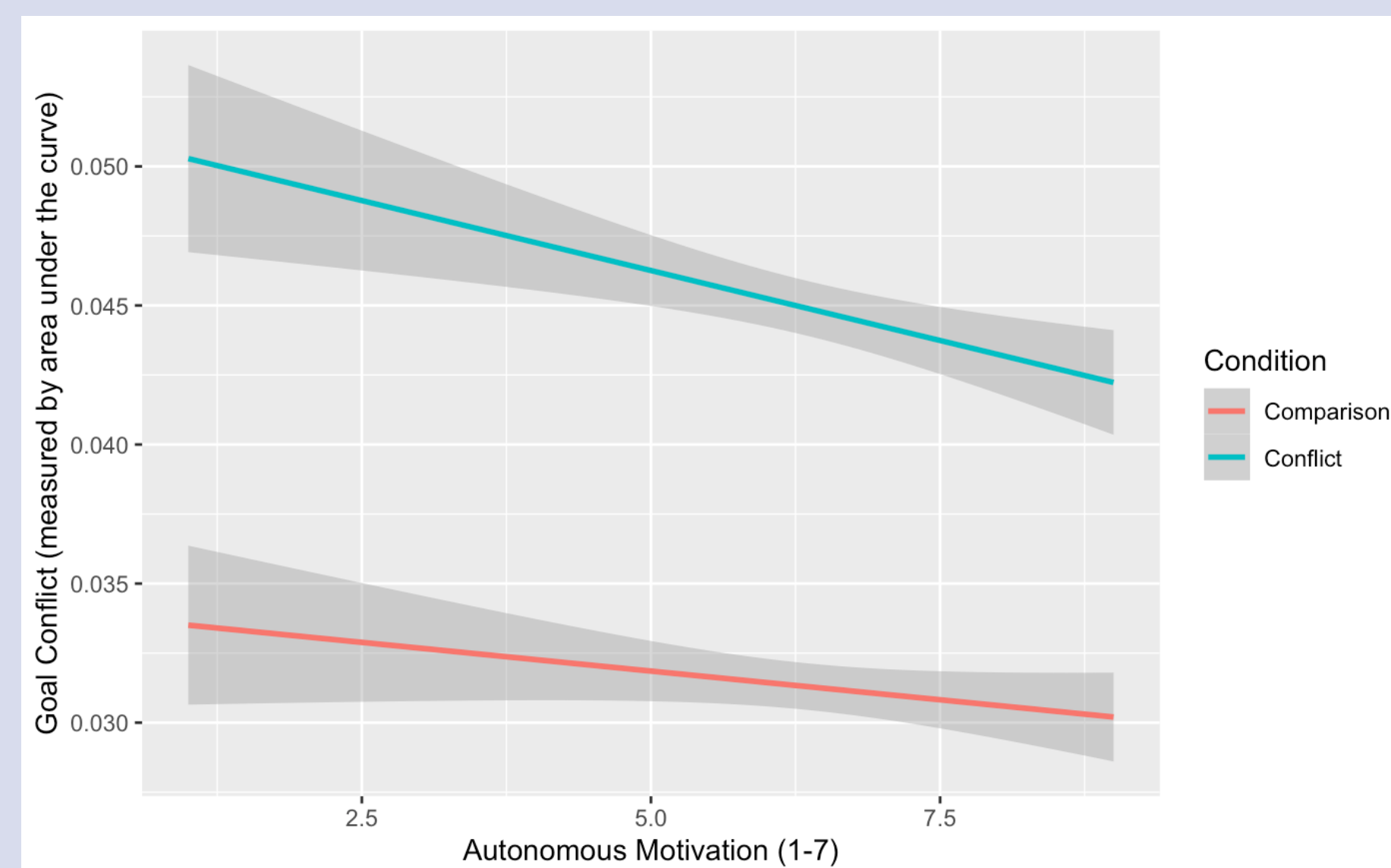
- Participants (N= 400) completed 98 self-control paradigms as we tracked the x- and y-coordinates of their mouse
- Half of the trials were between healthy and unhealthy foods (conflict), whereas the other half were between food and inedible objects (comparison)
- We operationalized goal conflict with area under the curve (AUC); the area between the participants' actual trajectories and ideal (straight-line) trajectories (see below depiction)



## H1: Goal conflict is higher when deciding between unhealthy and healthy options:



## H2: Higher autonomous motivation is significantly associated with less goal conflict:



## Results

- Hypothesis 1: AUC was significantly higher in conflict (M = 0.046) than comparison (M = 0.031,  $t(34771) = -20.62, p < 0.001$ )
- Hypothesis 2: AUC was significantly associated with higher autonomous motivation ( $\beta = -0.001006, p = 0.001$ )
- Hypothesis 3: Higher controlled motivation was significantly associated with higher AUC ( $\beta = 0.0009628, p < 0.001$ )

## Discussion

- Our results are two-fold:
  - Motivation is highly influential in determining goal conflict
  - Remote mouse-tracking studies are viable methods
- Goal conflict, a prerequisite to self-control, depends on a person's motivation for pursuing such goal
- Interventions should thus seek to shift people's motivations, rather than improve self-control, to potentiate long-term goal pursuit success
- Online mouse tracking paradigms are sufficiently valid measures of conflict by acting as proxies of eye-tracking and attentiveness
- Future studies should substantiate these findings with eye tracking, a more precise and robust method