Making detailed predictions makes predictions worse

Theresa Kelly
Joe Simmons
University of Pennsylvania

How to make good predictions

**Inside View**
Think about the event as unique
Ask: What will happen this time?

**Outside View**
Use base rates to make a prediction
Ask: What usually happens?

What affects inside-view vs outside-view thinking?

How unique the case feels.

Thinking about details makes the event feel unique

**No details:**
- How long will it take you to write your next paper?

**With details:**
- What will the paper be about?
- What will your schedule be like?
- How long will it take you to write the paper?

Who will win an upcoming baseball game between the L.A. Angels and the L.A. Dodgers?

**General Version**
Who will win the game?
Angels 4 Dodgers 3

**Detailed Version**
What will the final score be?
Angels 4 Dodgers 3

Our goal is to answer four questions:

• Do detailed predictions actually make general predictions worse?
• If so, why?
• What kinds of detailed predictions make general predictions worse?
• Does making detailed predictions change your beliefs about what usually happens, or does it make you think that this time will be different?

General Methods

Amazon Mechanical Turk participants predicted sports games.

Predicted either the winning team, or a detailed prediction + winning team.

Winner Prediction

Amazon Mechanical Turk participants predicted sports games.

Predicted either the winning team, or a detailed prediction + winning team.

Score & Winner Prediction

Amazon Mechanical Turk participants predicted sports games.

Predicted either the winning team, or a detailed prediction + winning team.

Paid $0.05 per correct winning team prediction.

DV: % of participants predicting the team favored by well-calibrated betting markets to win.
General Methods

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**DV:** % of participants making “wise” predictions.

**Good predictions are not always accurate predictions (and vice versa)**

“A coin is biased to be 60% heads. Predict the next flip.”

- **Noisy measure:** Did they get it right?
- **Better measure:** Did they predict heads?

**Does predicting other game details make winner predictions worse?**

- **Relevant Detailed Predictions**
  - Hits & Winner (Experiments 4, 16, 18)
  - Total Points & Winner (Experiments 4-8, 16, 18)
  - Free Throws & Winner (Experiment 14)

- **Irrelevant Detailed Predictions**
  - Time & Winner (Experiment 5)
  - Crowd & Winner (Experiment 10)
  - Temperature & Winner (Experiment 14)

**% participants making wise predictions**

(Experiments 4-8, 14, 16, 18; n = 242 games)

Predicted Winner: 67.3%
Predicted Score & Winner: 65.2%
Predicted Relevant Details & Winner: 65.8%

\( t(241) > 4.72, p < .001 \)

**% participants making wise predictions**

(Experiments 5, 10, 14; n = 104 games)

Predicted Winner: 72.2%
Predicted Score & Winner: 69.2%
Predicted Irrelevant Details & Winner: 71.8%

\( t(103) > 4.78, p < .001 \)
Does predicting details change people’s beliefs about what usually happens ...

... or does it make them think that this time will be different?

What would usually happen?

“For each game, we will ask you to imagine that the two teams played that exact game 100 times.

What we mean by ‘that exact game’ is that each of the 100 times the game is played, the game would begin with the exact same starting conditions as the actual game.

For example, the location and home team, the win/loss records of each team, the pitchers, the player lineup, player injuries, etc. would all be the same at the beginning of each of the 100 games as they are at the beginning of the actual game.”

Winner Prediction

(Experiments 15, 17, 19; n = 126 games)

Base Rate Prediction

(Experiments 15, 17, 19; n = 126 games)
Summary of Findings

1) Predicting detailed outcomes makes predictions of more general outcomes worse.

2) Detailed predictions must be relevant to how the event unfolds to have this effect.

3) Making detailed predictions doesn’t change your belief about what usually happens, but makes you more likely to think that this time will be different.

Thank you!

Additional measures. Note that all additional measures were collected after all predictions were made in every experiment.

- Prediction Strategy (Experiments 3-13, 16, 18, 20)
- “Considerations” (Yoon et al., 2013; Experiments 1-20)
- Confidence (Experiments 3-20)
- Motivation (Experiments 3-20)
- Outcome variability (Experiment 16, 18)
- Outcome usefulness for predicting winner (Experiments 16, 18)
- Team liking (Experiment 20)
- Self-reported sports knowledge (Experiments 10-20)
- Self-reported sport following (Experiments 10-20)
- Measured Knowledge (Experiments 1-20)
- Sex & Age (Experiments 1-20)
- Instruction difficulty/confusion (Experiments 15, 17, 19)
- Optional contact for future studies (Experiments 1-20)
Betting markets are well-calibrated

% choosing Vegas favorite: Winner-Score

(Experiments 4-8, 14, 16, 18; n = 242 games)

Predicted Winner: “Who will win this game?”

Predicted Score & Winner: “What will the final score of this game be?” + Winner Prediction

Predicted Hits & Winner: “How many hits will each team get?” + Winner Prediction (Experiments 4, 16, 18)

Predicted Total Points & Winner: “How many points will be scored by both teams during this game?” + Winner Prediction (Experiments 4-8, 16, 18)

Predicted Free Throws & Winner: “How many free throws will each team attempt?” + Winner Prediction (Experiment 14)

(Experiments 5, 10, 14; n = 104 games)

Predicted Winner: “Who will win this game?”

Predicted Score & Winner: “What will the final score of this game be?” + Winner Prediction

Predicted Time & Winner: “How long will the game last?” [entered in hours and minutes] + Winner Prediction (Experiment 5)

Predicted Crowd & Winner: “What percentage of the crowd will be U.S. citizens?” + Winner Prediction (Experiment 10)

Predicted Temperature & Winner: “What will be the temperature outside of the arena at the start of the game?” + Winner Prediction (Experiment 14)