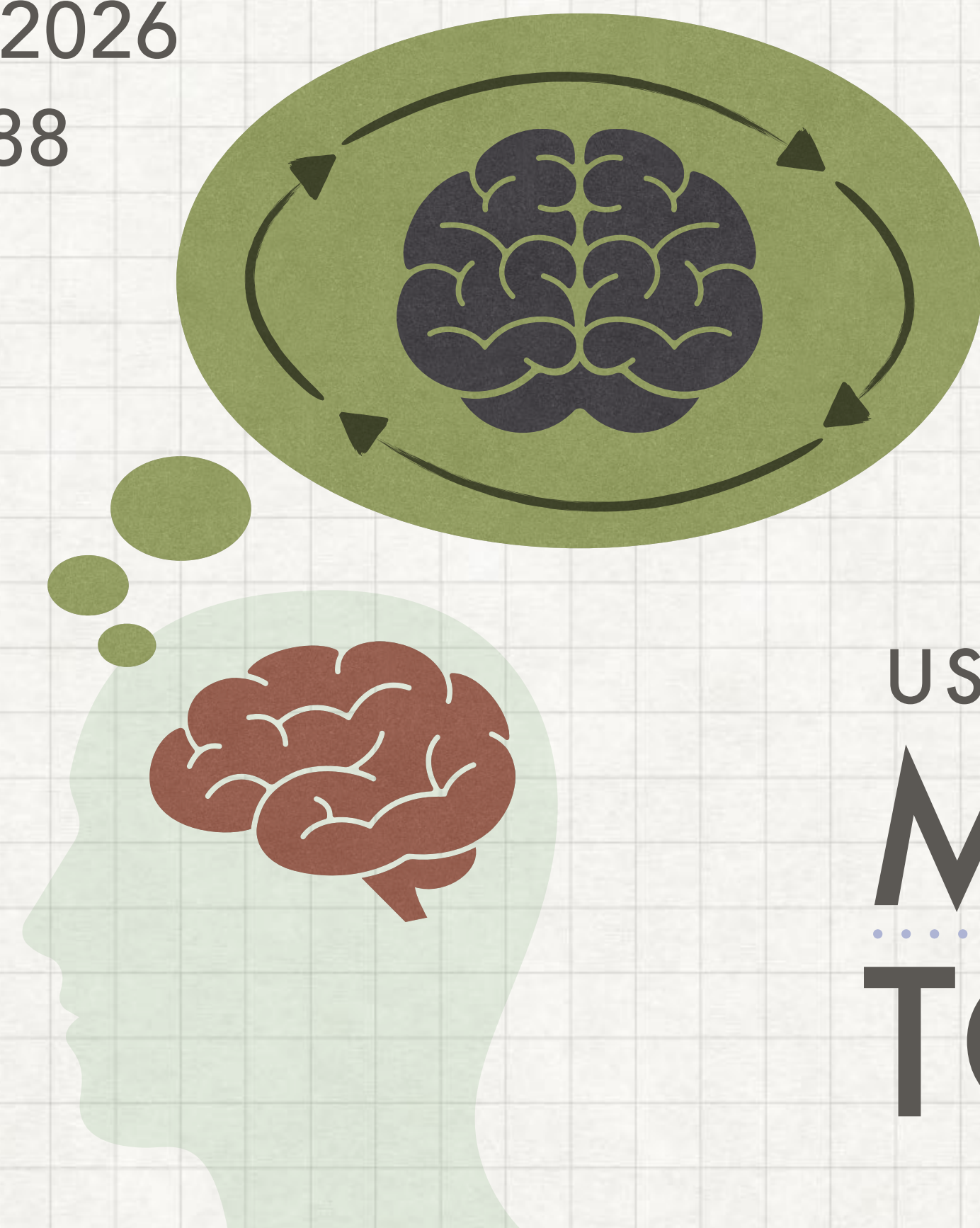


Summer 2026

SOWK 588

Week 03



USING  
**METACOGNITION**  
.....  
**TO CHECK BIASES**  
.....

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# PLAN FOR WEEK THREE

## LEARNING OBJECTIVES

- Differentiate between System 1 and System 2 thinking and identify how each influences policy analysis and decision-making.
- Identify common forms of cognitive dissonance and describe how dissonance can cause bias.
- Recognize common cognitive traps and reflect on their potential impact.
- Apply principles of systems thinking to reframe conventional problem-solving approaches and anticipate unintended consequences in policy interventions.

## AGENDA

- Engage in activities that illustrate metacognitive processes and thinking styles.
- Explore cognitive reflection and the difference between intuitive and analytical reasoning.
- Reflect on the impact of cognitive dissonance and bias in policy analysis.
- Apply systems thinking concepts to examine the limitations of conventional problem-solving.

# METACOGNITION

---

Reflect on your  
thought processes  
and how you think.

Draw a graphical  
representation



Consider the  
relationship to cognitive  
speed, emotion, and  
motivation

## YOUR THINKING STYLE DEVELOPING A VISUAL METAPHOR

Prompt:

**HOW DOES YOUR  
MIND PROCESS  
INFORMATION  
UNDER PRESSURE?**



Image generated using OpenAI 2025

# COGNITIVE REFLECTION TEST

## SYSTEM 1 VS 2 THINKING

If John can drink one barrel of water in 6 days, and Mary can drink one barrel of water in 12 days, how long would it take them to drink one barrel of water together?

(Toplak et al. 2014)

# COGNITIVE REFLECTION TEST

## SYSTEM 1 VS 2 THINKING

Jerry received both the 15th highest and the 15th lowest mark in the class. How many students are in the class?

(Toplak et al. 2014)



Image generated using OpenAI 2025

# COGNITIVE REFLECTION TEST

## SYSTEM 1 VS 2 THINKING

A man buys a pig for \$60, sells it for \$70, buys it back for \$80, and sells it finally for \$90. How much has he made?

(Toplak et al. 2014)



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## SYSTEM 1



## SYSTEM 2



## REFLECTING ON THE SPEED OF COGNITION

- What are some of the benefits and challenges of each way of thinking?
- What are the use cases of system 1 and 2 thinking in general?
- How do each system's strengths/weaknesses show up in policy decisions?

# COGNITIVE DISSONANCE

an internal intellectual and emotional dilemma we experience when there is a discrepancy (or tension or inconsistency) between an idea, concept, or belief that we hold as true or valid, and:

(Linguiti, 2022, p. 120)

- Another idea, concept, or belief we also hold as true or valid,
- Actions we have previously taken or decisions we've made,
- The views of an admired public person or party,
- An ideology, political platform, or worldview to which we subscribe,
- The views of our social reference group, such as our friends, family, and colleagues,
- The way we earn our living, or
- Our sense of self-esteem, identity, and of who we are.

# COGNITIVE DISSONANCE

an internal intellectual and emotional dilemma we experience when there is a discrepancy (or tension or inconsistency) between an idea, concept, or belief that we hold as true or valid, and:

## SMALL GROUP DISCUSSION

What kinds of information or perspectives would make you feel cognitive dissonance about that position?

How might cognitive dissonance influence the way we analyze social problems or recommend policies?

(Linguiti, 2022, p. 120)

- Another idea, concept, or belief we also hold as true or valid,
- Actions we have previously taken or decisions we've made,
- The views of an admired public person or party,
- An ideology, political platform, or worldview to which we subscribe,
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Jacob Campbell  
@Jacob

This might be the first executive order since he has taken office that might not be a terrible idea. It is wild to have it be initiated by a conservative influencer sending a text message. But maybe the result isn't a bad idea? I don't know enough of what the potential ramifications of this fast tracking might cause, but I am very interested in this field of study.

NPR Report [Trump expedites review of psychedelics to treat mental health disorders] ([npr.org/2026/04/18/nx-s1-57898...](https://npr.org/2026/04/18/nx-s1-57898...))



0 Boosts    0 Quotes    0 Faves

Apr 19, 2026 at 11:29 AM    Public



Jacob Campbell  
@Jacob    53d

Very interesting recent episode of the InSocialWork podcast...

[Psychedelics: Harm Reduction for Inexperienced Users] ([insocialwork.org/psychedelics-...](https://insocialwork.org/psychedelics-...))

# WE HAVE TO BE ABLE TO CHECK OUR BIASES

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## Eight artificial dyes will be phased out of US food supply, Health Secretary RFK Jr. says

Swapna Venugopal Ramaswamy  
USA TODAY

April 22, 2025    Updated April 23, 2025, 9:52 p.m. ET

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**'No Kings Day' organizers aim to reclaim American flag during nationwide protests**  
In all 50 states, grassroots groups are organizing "No Kings Day" rallies to oppose Donald Trump's military parade, set to take place on his birthday.

[Eight artificial dyes](#) will be eliminated from medications and the nation's food supply by the end of 2026, including those found in candy, ice cream, soft drinks and jams, according to Health and Human Services Secretary [Robert F. Kennedy Jr.](#)

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**SCARED  
STRAIGHT**  
1999

**SCARED  
STRAIGHT  
PROGRAMS  
AS A STAND-  
ALONE  
STRATEGY ARE  
NOT  
EFFECTIVE**

These randomized trials, conducted over a 25-year period in eight different jurisdictions, provide evidence that 'Scared Straight' and other 'juvenile awareness' programs are not effective as a stand-alone crime prevention strategy. More importantly, they provide empirical evidence under experimental conditions - that these programs likely increase the odds that children exposed to them will commit offenses in future. Despite the variability in the type of intervention used, ranging from harsh, confrontational interactions to tours of the facility converge on the same result: an increase in criminality in the experimental group when compared to a no-treatment control. **Doing nothing would have been better than exposing juveniles to the program.**

(Petrosino et al., 2013, p. 31, emphasis my own)

# SEEMINGLY WELL-INTENTIONED INTERVENTIONS

CAN SOMETIMES PRODUCE THE OPPOSITE RESULT WHEN:

- Address symptoms rather than underlying problems.
- Seems obvious and often succeeds in the short run.
- Achieve short-term gains that are undermined by longer-term impacts.
- Produce unintentional negative consequences.
- Leads us to assume that we are not responsible for the problem recurrence.

THINKING OF THE WHOLE AS AN  
INTERCONNECTED SET OF  
ELEMENTS ORGANIZED IN A WAY  
THAT IT UNDERSTANDS THE  
CONNECTIONS SO AS TO ACHIEVE  
A DESIRED PURPOSE.

# CONVENTIONAL VERSES SYSTEMS THINKING

## Conventional Thinking

## Systems Thinking

The connection between problems and their causes is obvious and easy to trace.

The relationship between problems and their causes is indirect and not obvious

Others, either within or outside our organization, are to blame for our problems and must be the ones to change.

We unwittingly create our own problems and have significant control or influence in solving them through changing our behavior.

A policy designed to achieve short-term success will also assure long-term success.

Most quick fixes have unintended consequences: They make no difference or make matters worse in the long run.

In order to optimize the whole, we must optimize the parts.

In order to optimize the whole, we must improve relationships among the parts

Aggressively tackle many independent initiatives simultaneously.

Only a few key coordinated changes sustained over time will produce large systems change.

QUESTIONS

FOCUS

ACTION OR RESPONSE

What happened?

EVENTS

React  
Firefight

What's been happening?

TRENDS & PATTERNS

Anticipate  
Forecast

Why

SYSTEMS STRUCTURE

- Pressures
- Policies
- Power Dynamics
- Perceptions
- Purpose

Change  
Create

Leverage Learning

Iceberg from  
Vecteezy

(Adapted from Innovation Associates Organizational Learning as cited in Stroh, 2015, Figure 3.2)

# COGNITIVE TRAPS

## THREE AREAS WE MIGHT FALL INTO

### Downsides of Defending Against Dissonance

- Selective Exposure and Compartmentalization
- Confirmation and Disconfirmation Bias
- Group Bias: The Halo and Horns Effect
- Aversion to Uncertainty and Risk

### Mood-Driven Mistakes

- Priming
- Backfire Effect
- Overconfidence Trap

### Mental Missteps

- Framing
- Anchoring
- Availability and Mirror Imaging
- Coherence and the WYSIATI Phenomenon