



The Inference Heuristic as a Source of Essentialist Thought

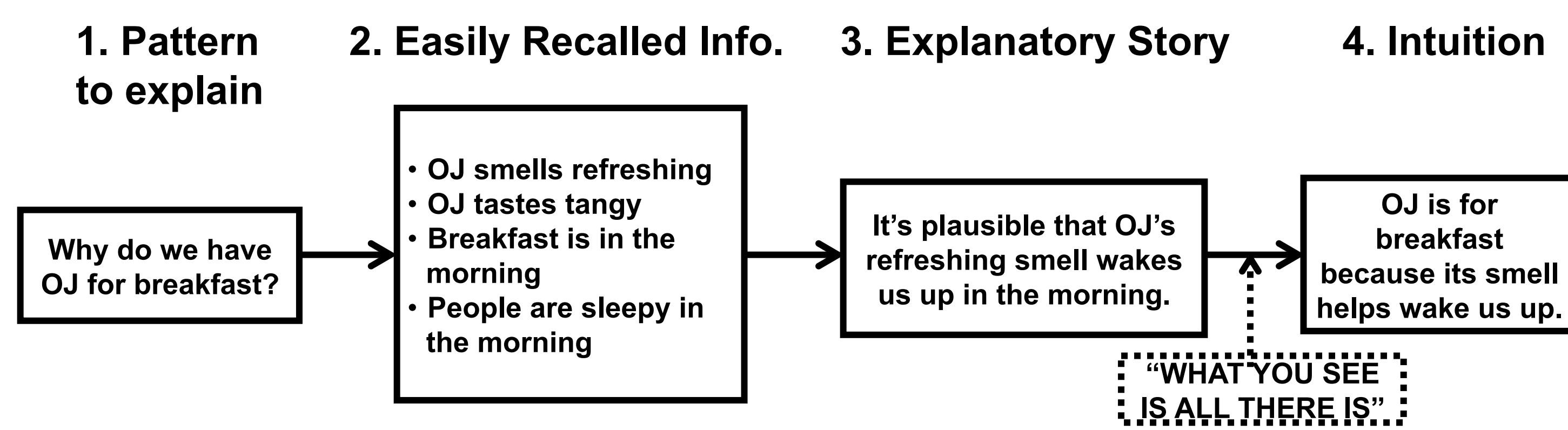


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Introduction

- According to **psychological essentialism**, people assume that some internal, microstructural property is responsible for membership in natural and social categories (e.g., *tigers, gold, women*) and the traits associated with category membership.¹
- Essentialism of social categories predicts stereotyping and prejudice.²
- We propose that essentialism arises from a tendency to explain patterns in the world by referring to the inherent features of the entities involved in the pattern—the **inference heuristic** (Figure 1).³
- For example, the early belief that there is something inherent about girls that makes them prefer pink may be elaborated over development into the essentialist notion that something like girl DNA or girl hormones is responsible for all of the properties of girls, including a preference for pink.
- Hypothesis:** Inference-based thinking will predict psychological essentialism in adults.

Figure 1. An Example of the Inference Heuristic in Action



Study 1

Participants: 360. Recruited via university subject pools and Mechanical Turk. 37 excluded for inattention or non-US IP addresses.

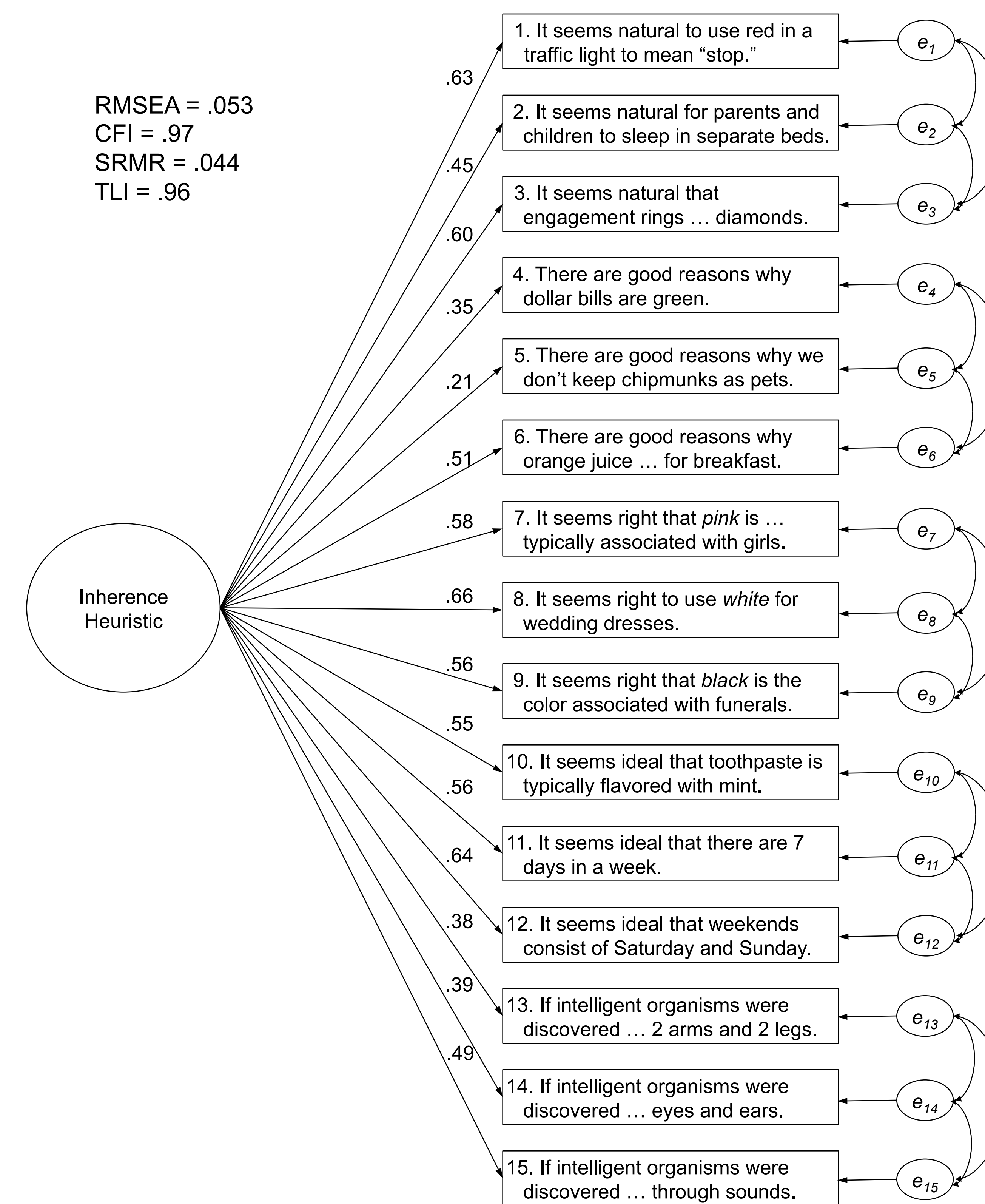
Method: Participants completed an Inference Heuristic Scale, an Essentialism Scale for social categories, and one of three sets of control scales:

- **Cognitive Style**—Need for Cognition⁴, Need for Closure⁵, and Attributional Complexity⁶
- **Cognitive Ability**—a modified Raven's Progressive Matrices⁷, Counterfactual Thinking⁸, Gough Creative Personality Checklist⁹
- **System Justification**—Social Dominance Orientation¹⁰, Belief in a Just World¹¹, Right-Wing Authoritarianism¹²

Results: The Inference Heuristic Scale:

- Demonstrated a single factor structure (Figure 2)
- Significantly predicted essentialism (Table 1)

Figure 2. The Inference Heuristic Scale



Control Variables	Zero Order Correlation	Partial Correlation
Total Sample	$r(321) = .39, p < .001$	
Cognitive Style	$r(104) = .38, p < .001$	$r_{XY \cdot 123}(101) = .37, p < .001$
Cognitive Ability	$r(103) = .38, p < .001$	$r_{XY \cdot 456}(100) = .33, p = .001$
System Justification	$r(110) = .40, p < .001$	$r_{XY \cdot 789}(107) = .38, p < .001$

Table 1. Correlations between the Inference Heuristic and Essentialism Scales.

- Correlated with measures of cognitive style, cognitive ability, and system justification:
 - Need for Cognition: $r(104) = -.34, p < .001$
 - Need for Closure: $r(104) = .19, p = .056$
 - Raven's Progressive Matrices: $r(103) = -.28, p = .004$
 - Belief in a Just World: $r(110) = .27, p = .004$
 - Right-Wing Authoritarianism: $r(110) = .36, p < .001$

Study 2

Purpose: To determine whether the results of Study 1 replicate with a different measure of essentialism, specific to racial categories.

Participants: 120. Recruited via Mechanical Turk. 13 excluded for inattention or non-US IP addresses.

Method: Participants completed an Inference Heuristic Scale, the Lay Theory of Race Scale¹³, a Conformity Scale¹⁴, a modified version of Raven's Progressive Matrices⁶, and the Social Dominance Orientation Scale¹⁰.

Results: The Inference Heuristic Scale predicted essentialism. On its own, $r(105) = .31, p = .001$. When the three other scales were controlled for, $r_{XY \cdot 123}(102) = .25, p = .007$.

Conclusion

- Thinking about patterns in terms of inherent features is related to psychological essentialism in adults, even when several potentially confounding variables are controlled for.
- When combined with evidence from our lab that the tendency to rely on inherent explanations emerges earlier than psychological essentialism, we believe this provides a compelling account for the origins of psychological essentialism in human thought.

Contact Information & Acknowledgements

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This work was supported in part by UIUC research funds to Cimpian.

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