10 Things I Hate about Soar

John E. Laird

University of Michigan

1. Syntax

- \<x>

- << x y >>

- \<o> +, =, …

2. No parallel addition

If there are an arbitrary number of things to be added (multiplied, …), they must be done sequentially.

3. Difficult to debug

Non-local access and modification of data structures - distributed across multiple goals, operators, rules
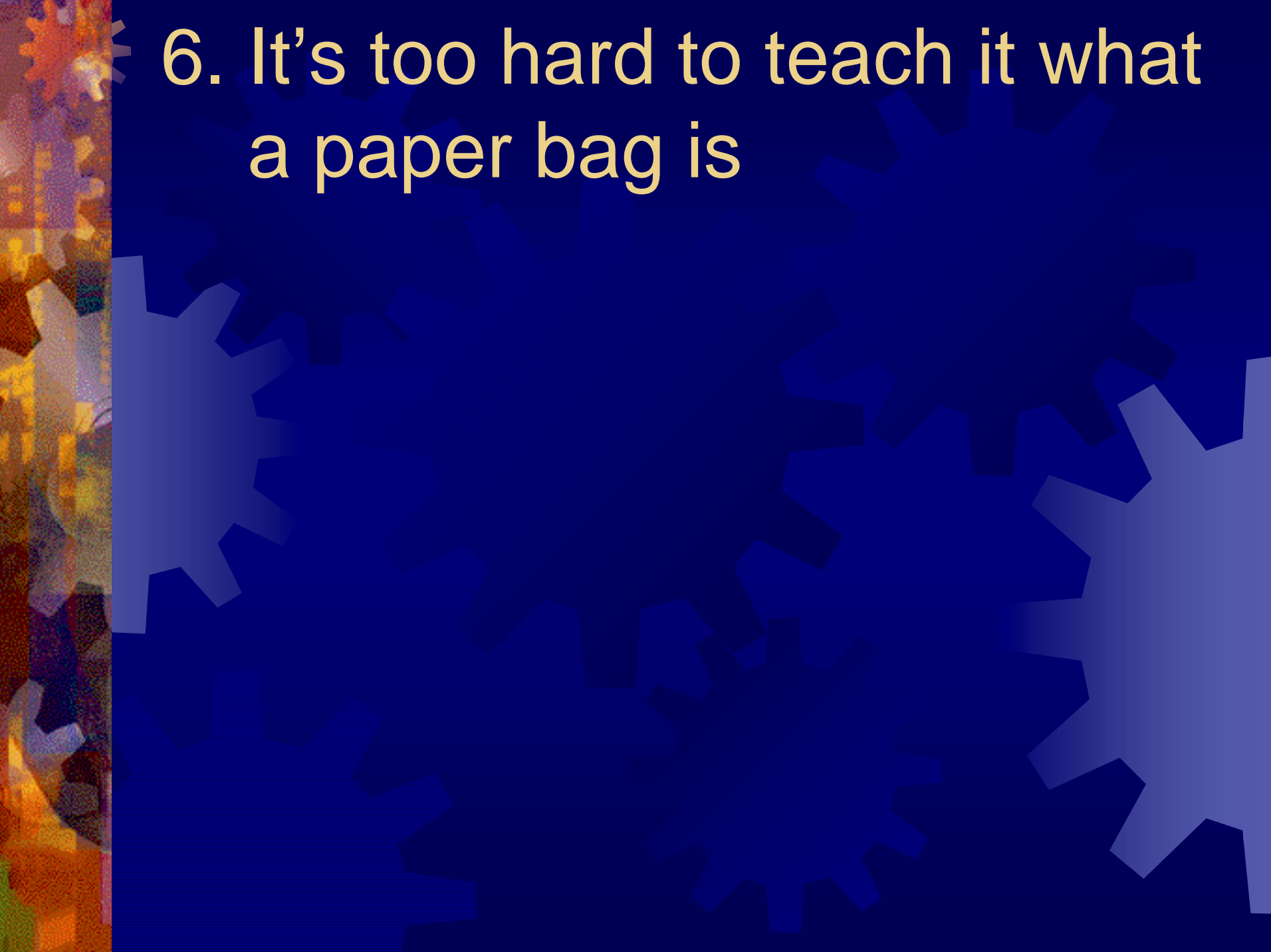
4. Undergeneralization

- Tests of symbols with variables are converted to constants
- EBL generalization would do better
  - But is it too powerful?

5. Overgeneralization

- Can learn that if A, B, C are true, do X
  - A, B, C $\rightarrow$ X

- But when D is also true, it should do Y
  - Soar's support for sets and the decision procedure allows this without using negation
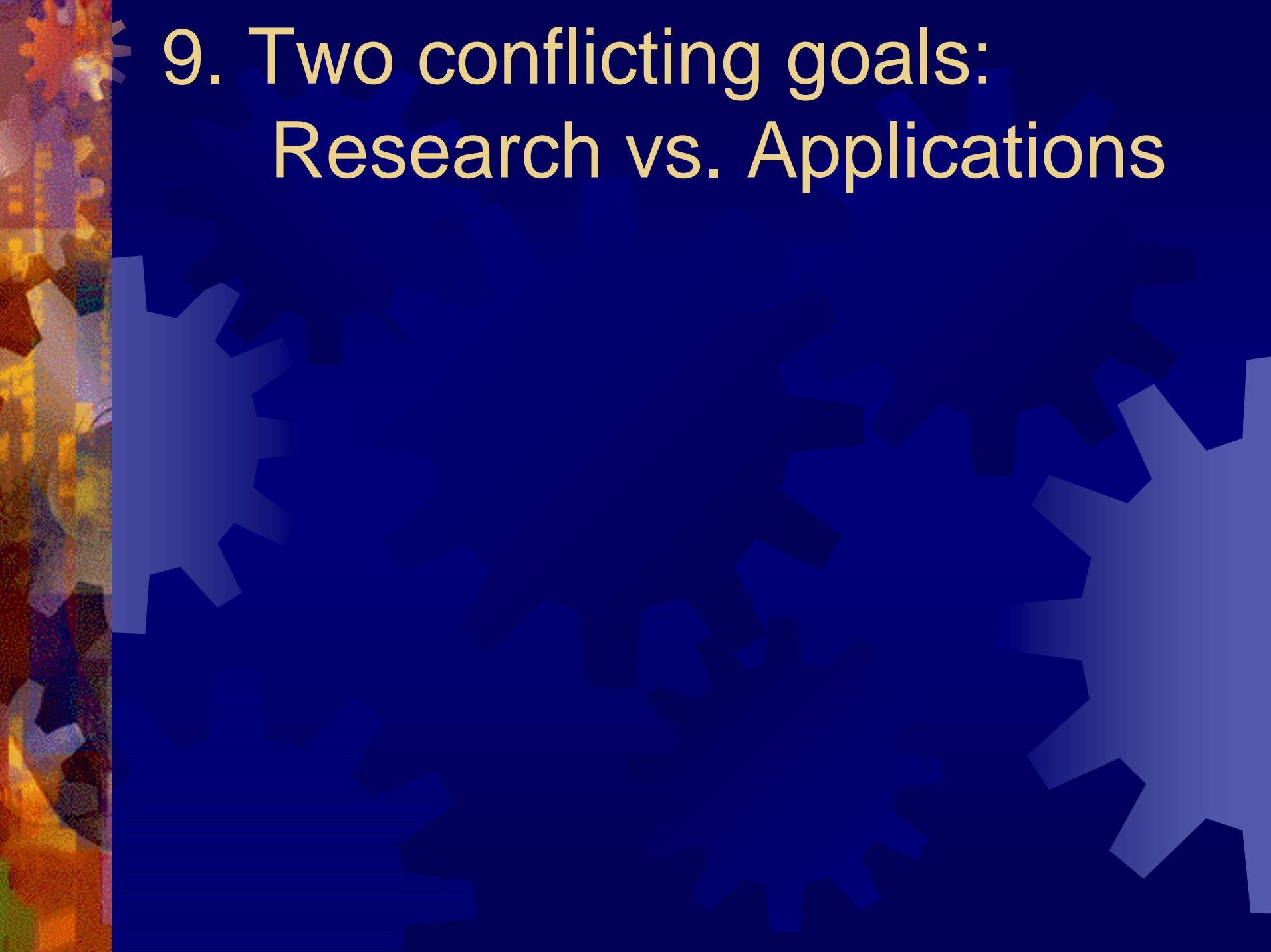
6. It's too hard to teach it what a paper bag is

7. It can't find its way out of a paper bag

8. It can't remember that it was ever in a paper bag

9. Two conflicting goals: Research vs. Applications

10. Programs in Scholarship teach my year fun