

IUC Advanced Fuel Cycle ACE

Goals

The goals of the IUC Nuclear Fuel Cycle ACE directly contribute to the vision of nuclear revitalization within Idaho and are:

- (1) Increase collaborative nuclear research and education opportunities between the IUC and INL,
- (2) Stimulate / encourage awareness of research opportunities among IUC faculty and students,
- (3) Technically support fuel cycle-related R&D at the INL,
- (4) Disseminate information on fuel cycle activities and promote IUC fuel cycle R&D capability to the broader university community.



IUC ACE Workshops Advanced Fuel Cycle

1st ACE Workshop, Idaho Falls
IUC/INL Fuel Cycle Activities

2nd ACE Workshop, Boise
Nuclear Materials Research, Issues, and Applications

3rd ACE Workshop and Short Course, Idaho Falls
High Level Nuclear Waste

Strategic and Tactical Opportunities

Nuclear Waste Forms
Designed for Specific Isotopes

Corrosion Resistant Materials
For Pyroprocessing

Modeling of Cold Crucible
Melt Processing

Alternative Uses for Sr, Cs, I, ...

Bubbles and Splashing
In Pyroprocessing

Measuring and Modeling
Kinetics of Fuel Reprocessing

Electrorefining Process Scale Up

Modeling of Thermodynamics and
Phase Diagrams for New Fuel and
Waste Forms

Conversion of Metal Dendrites
To Oxide

Demonstration of Reduction
Of MOX

Waste Policy in Idaho

Surrogate Validation

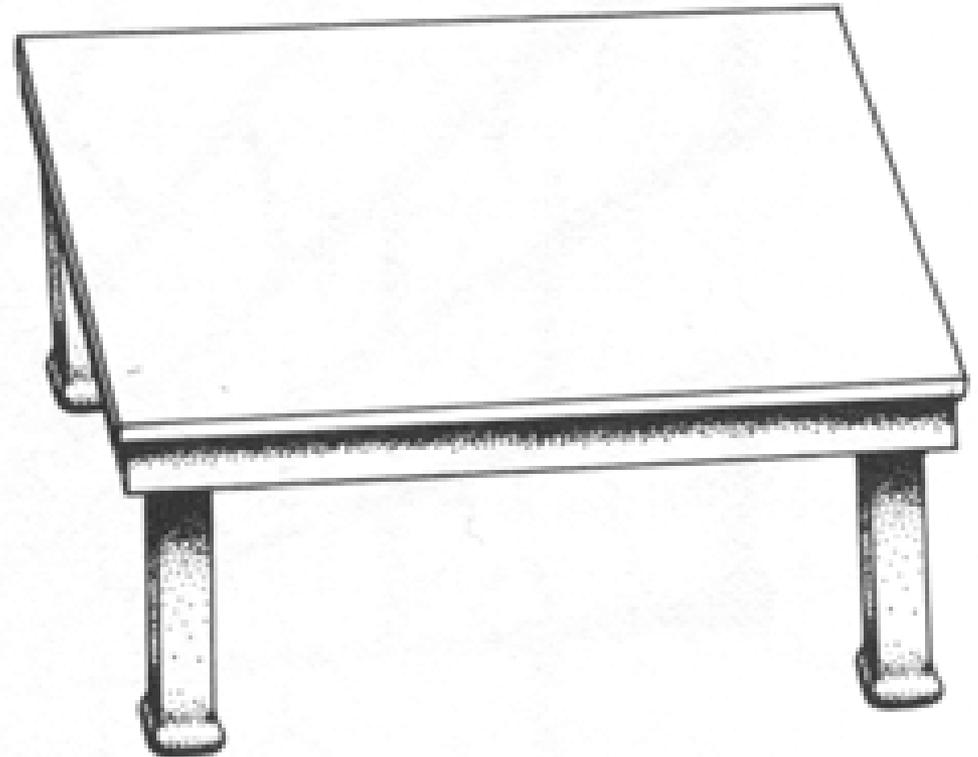
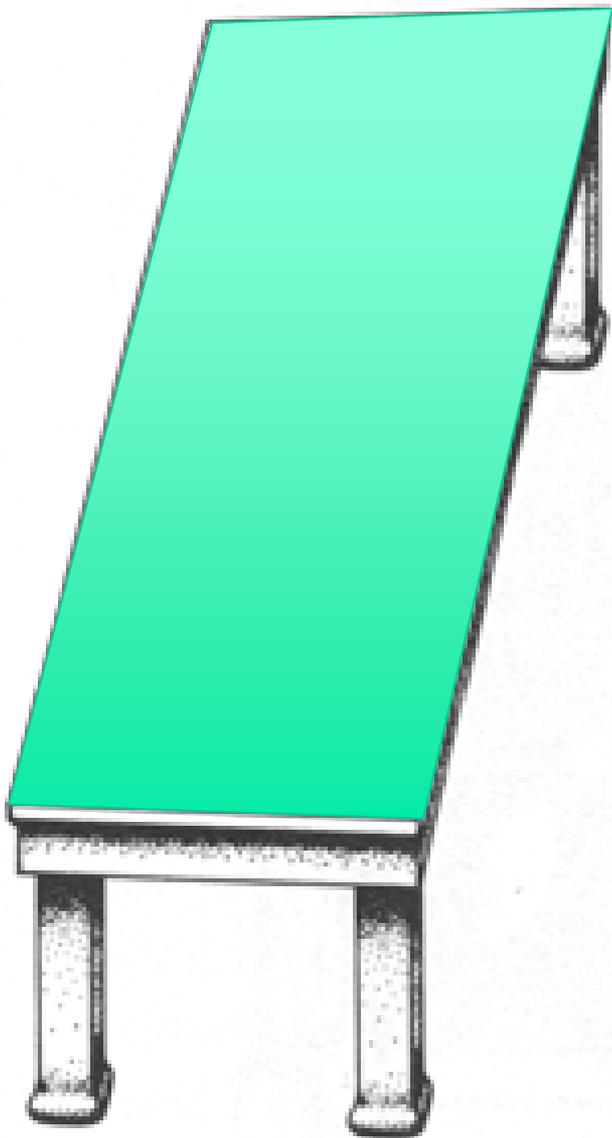
Effect of p_{O_2} on Electrorefining
Salt Reactivity



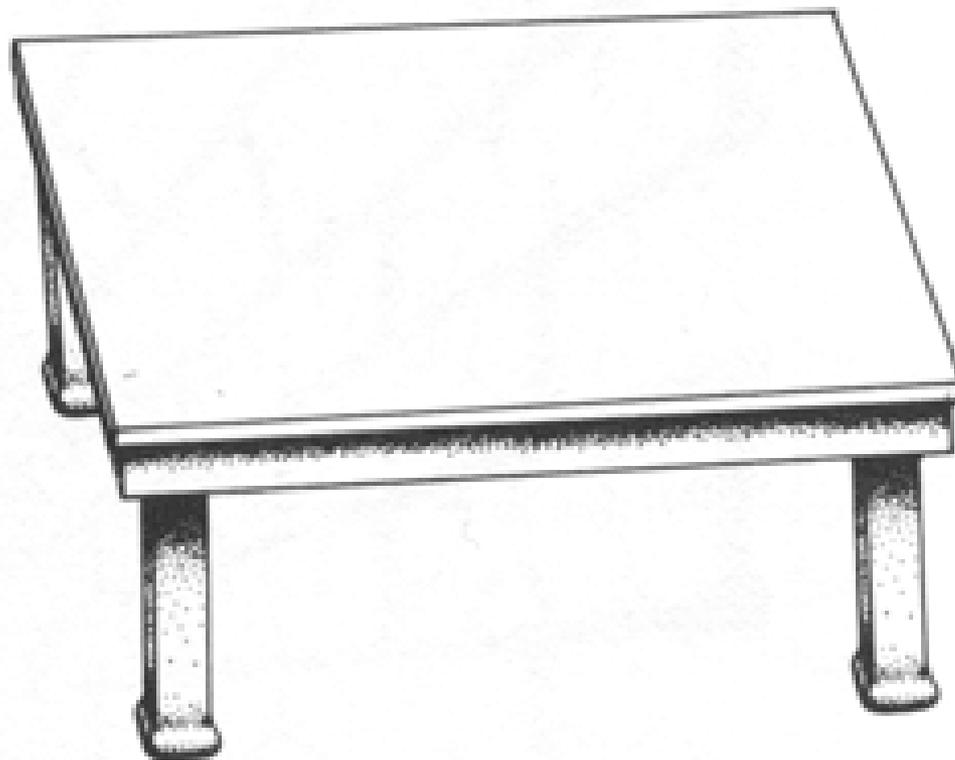
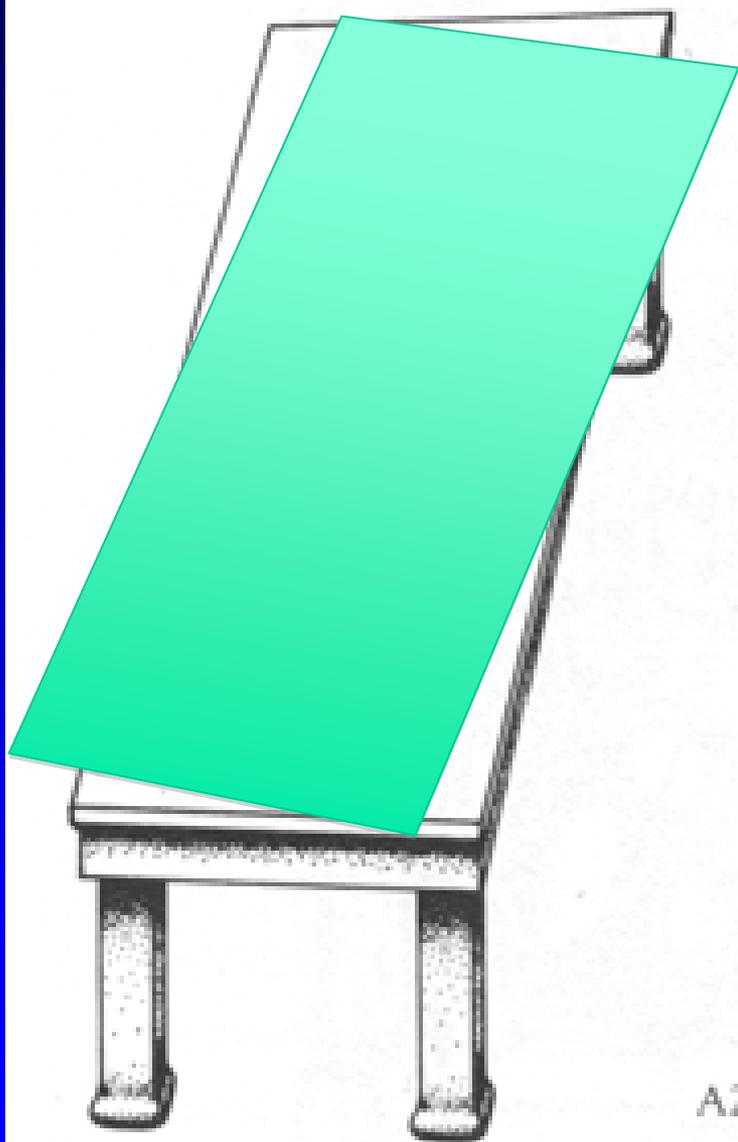
4th IUC ACE Workshop Advanced Fuel Cycle

Enrichment

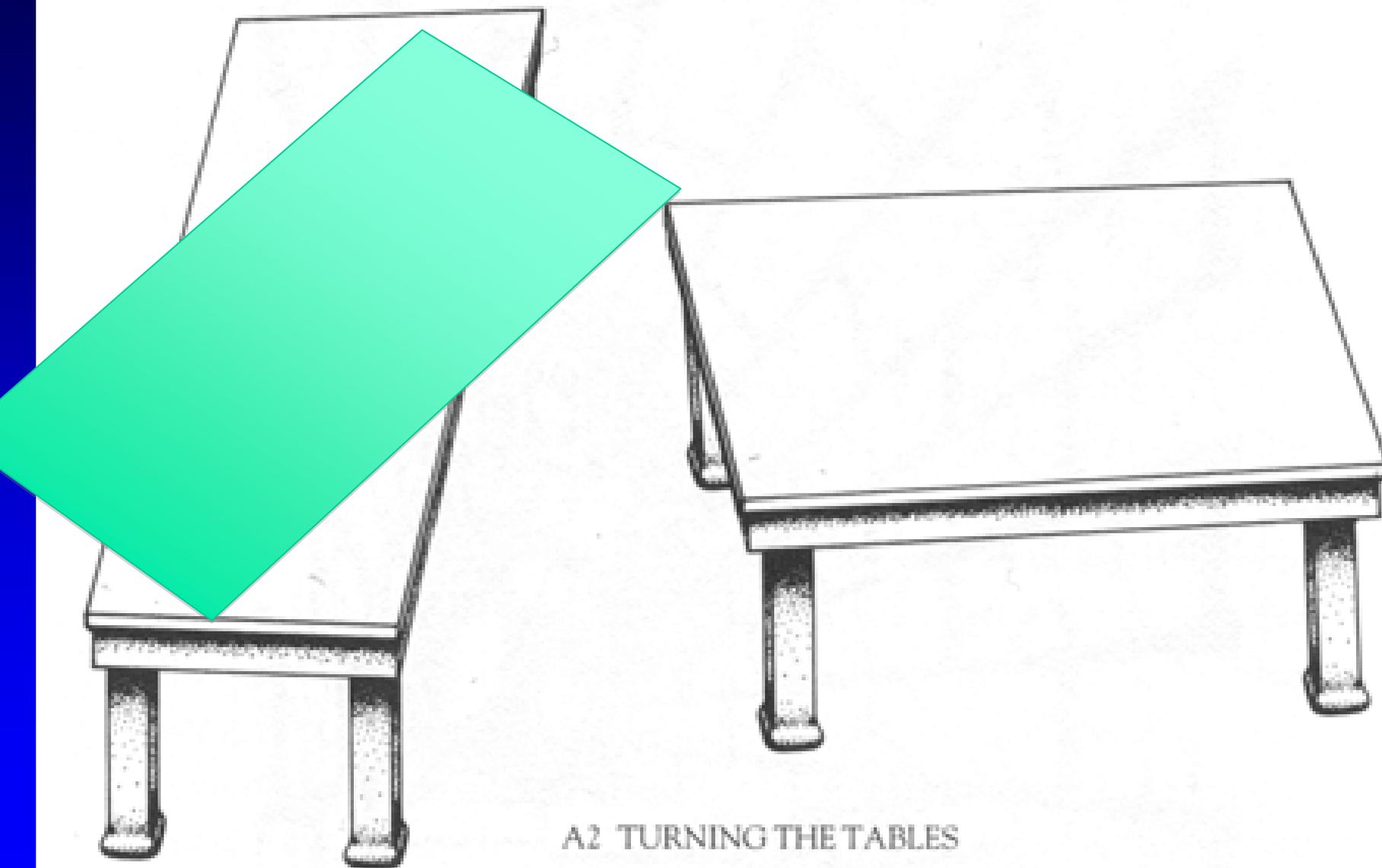




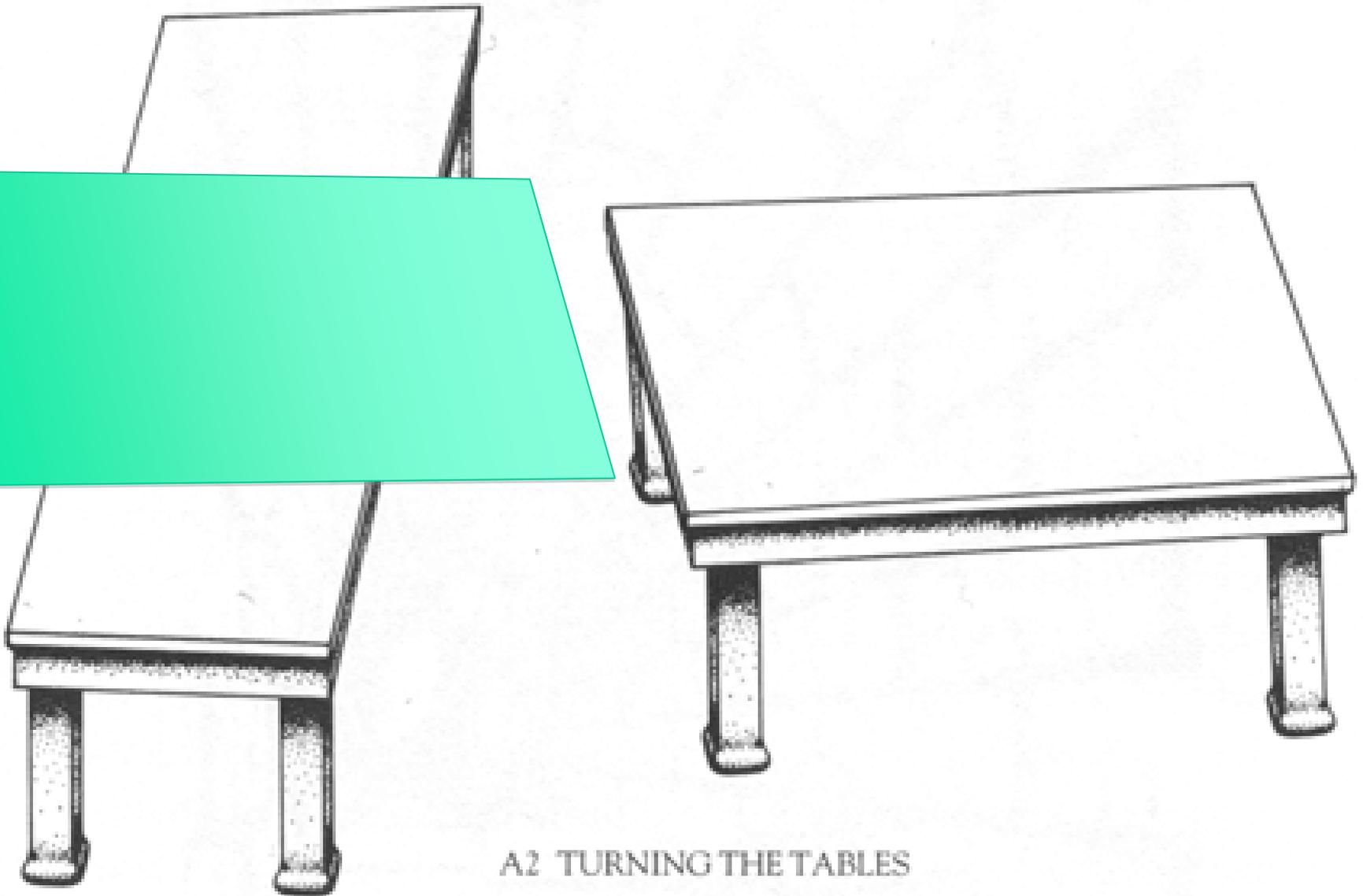
A2 TURNING THE TABLES



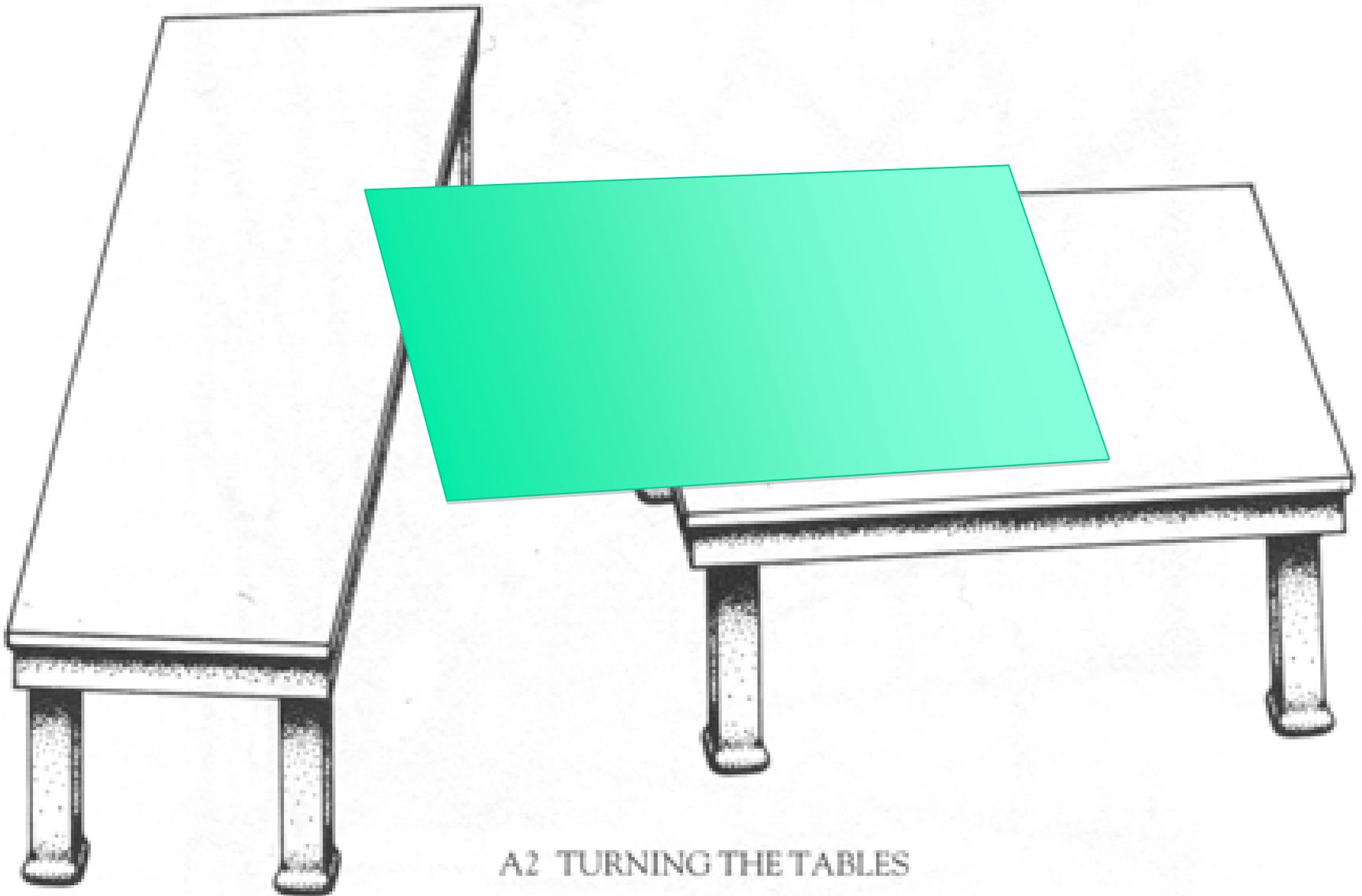
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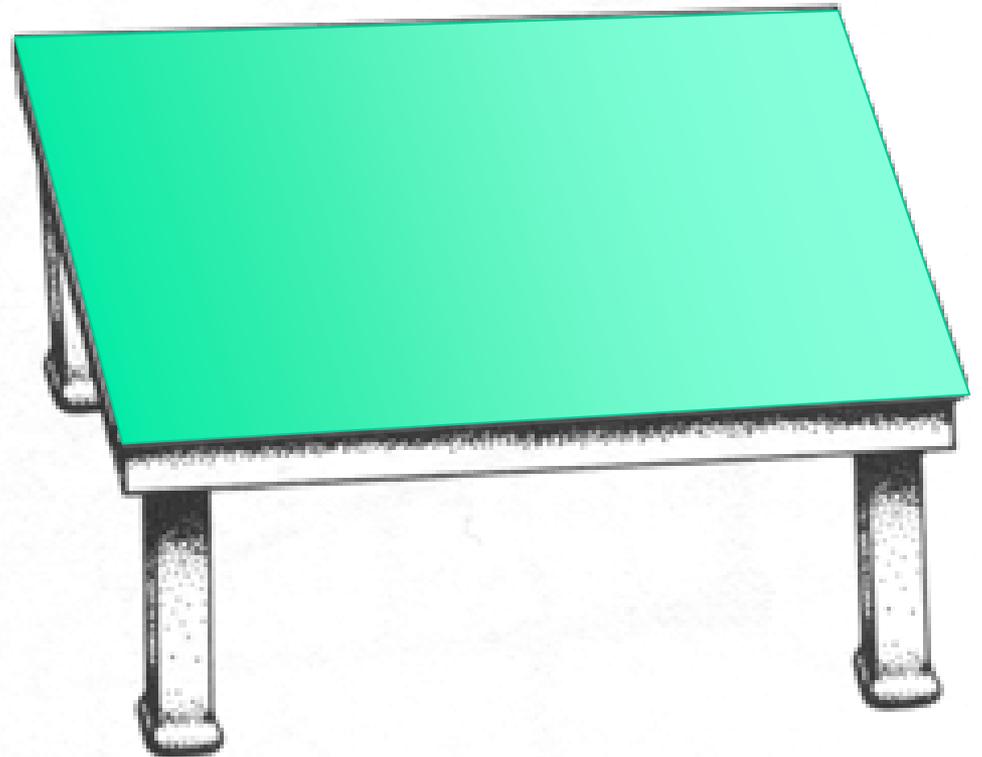
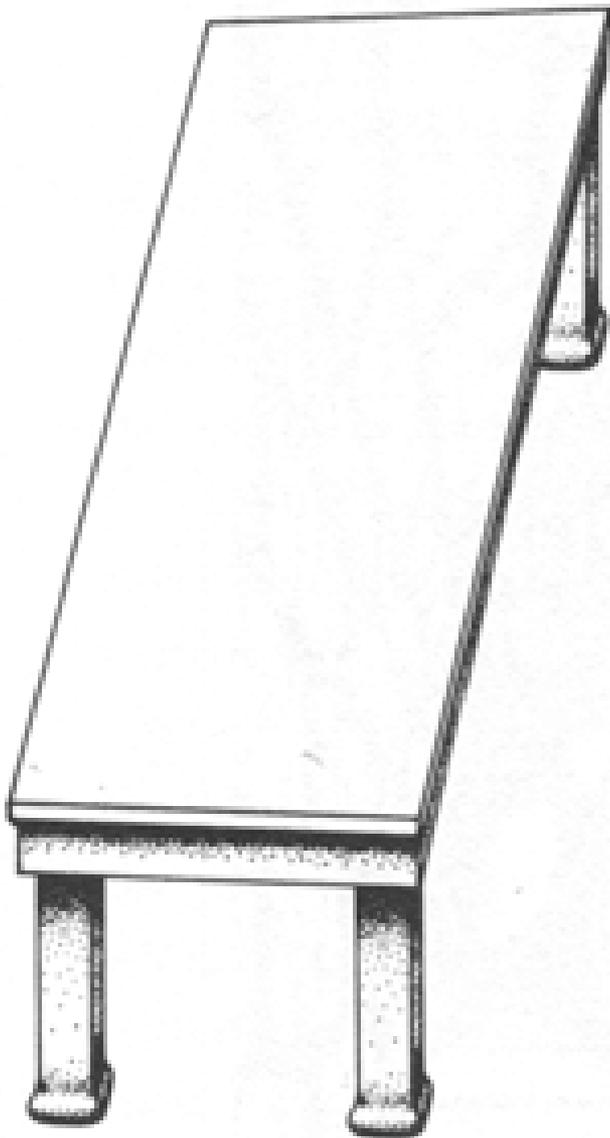
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University Involvement is not just about filling gaps
or providing basic research, it
Is about giving alternative perspectives.

