

Logical Mechanisms

# Figure Ground Reversal (Part 1):

*(or: Humour as Category Subversion)*



**Tony Veale**  
School of Computer Science  
and informatics  
University College Dublin  
[Tony.Veale@UCD.ie](mailto:Tony.Veale@UCD.ie)

GTVH

Juxtaposition

Paradigm Shifts

## Dominant Metaphors of Creativity

- **Creativity as Agile Locomotion in a Conceptual Space**

A.I.

Mental "leaps", "flights" of the imagination, "quick"-witted, "nimble"-minded

- **Creativity as Perception or Innate Ability**

Phenomenology

"Seeing" a solution, mental "acuity", "visionaries" with "insight"

- **Creativity as a Force**

Poetry

Creative "flashes", Brain-"storming", inspiration "strikes", creative "energy"

- **Creativity as Figure-Ground Reversal**

Science, Philosophy

Thinking "outside" the box, a "revolution", turning convention on its head, etc.

## Let's Start with a Joke:

*Mary's husband works in the Guinness factory in Dublin. One fateful day, A man walks ominously up the path and knock's on Mary's door.*

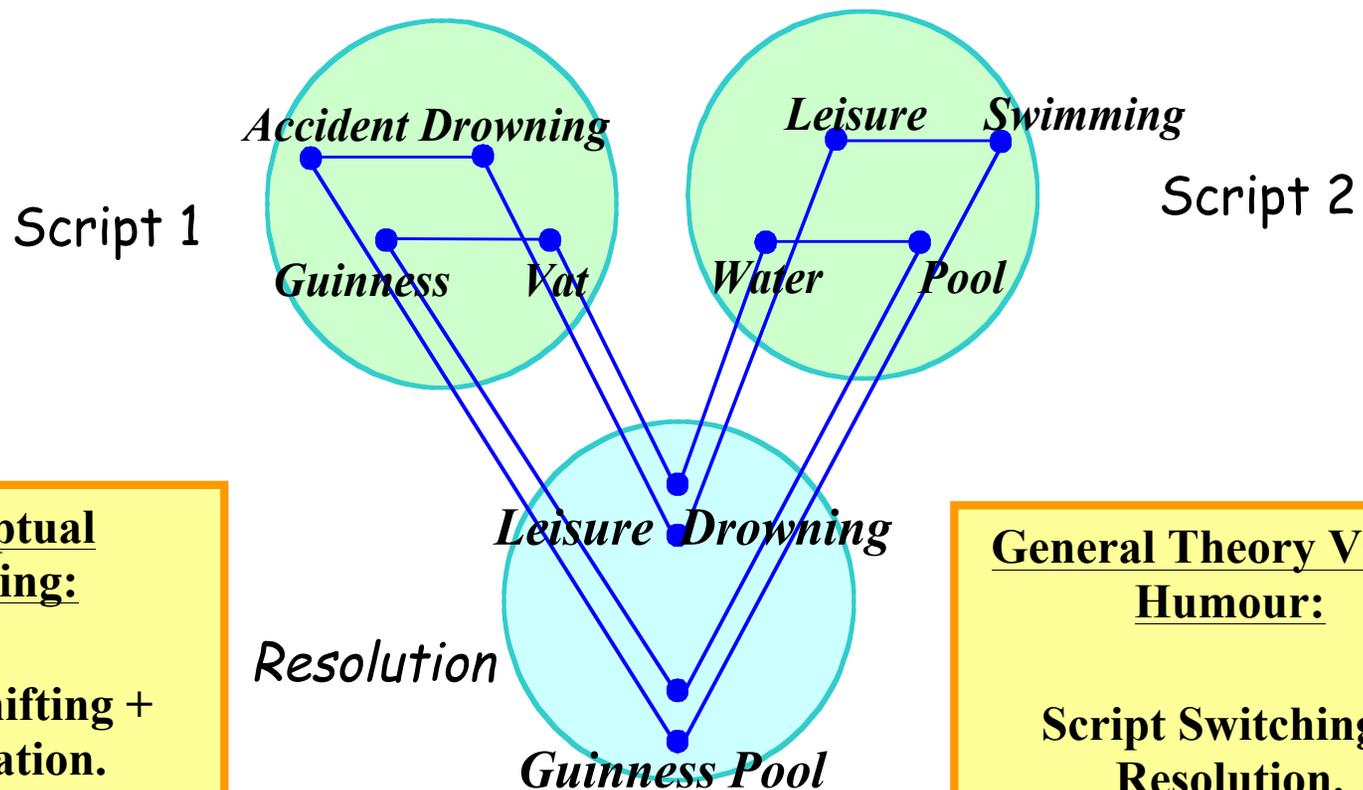
*Man: I'm sorry Mary, but your husband Pat is dead. He drowned after falling into the Guinness vat at the factory.*

*Mary: Oh My God!!! Poor Pat! Please tell me it was a quick death ...*

*Man: I'm sorry Mary, but it was quite a slow death. In fact ...*

# Jokes as Juxtaposition + Resolution

Man: ... he got out twice to use the toilet!



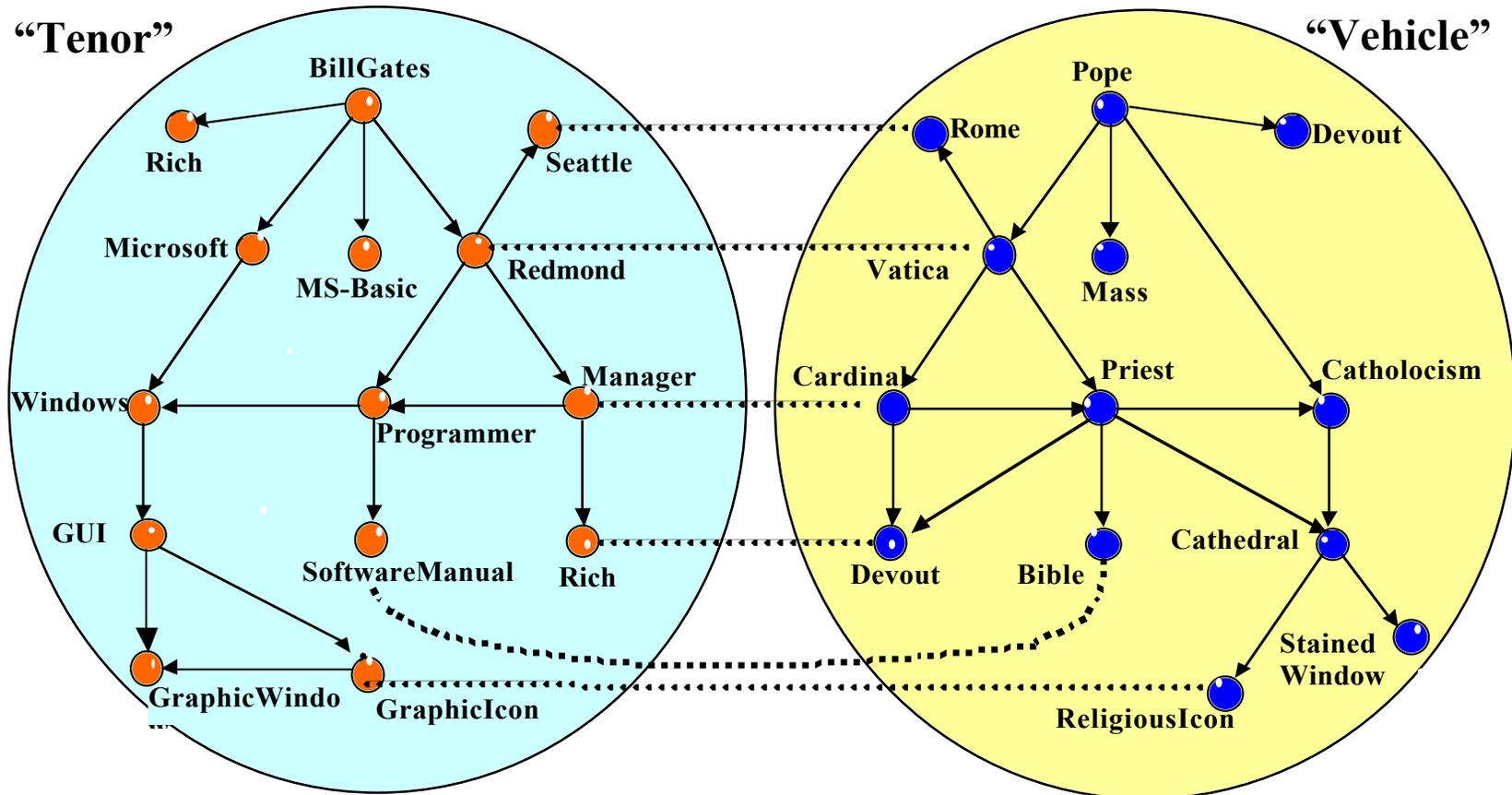
Conceptual  
Blending:

Frame Shifting +  
Elaboration.

General Theory Verbal  
Humour:

Script Switching +  
Resolution.

# Juxtaposition involves Structure-Mapping



*Also: Analogy, Bisociation, Script Switching, Frame Shifting, ...*

## Logical Mechanisms (LMs)

*Figure Ground Reversal (Tactical):*

*How many semanticists does it take to screw in a lightbulb?*

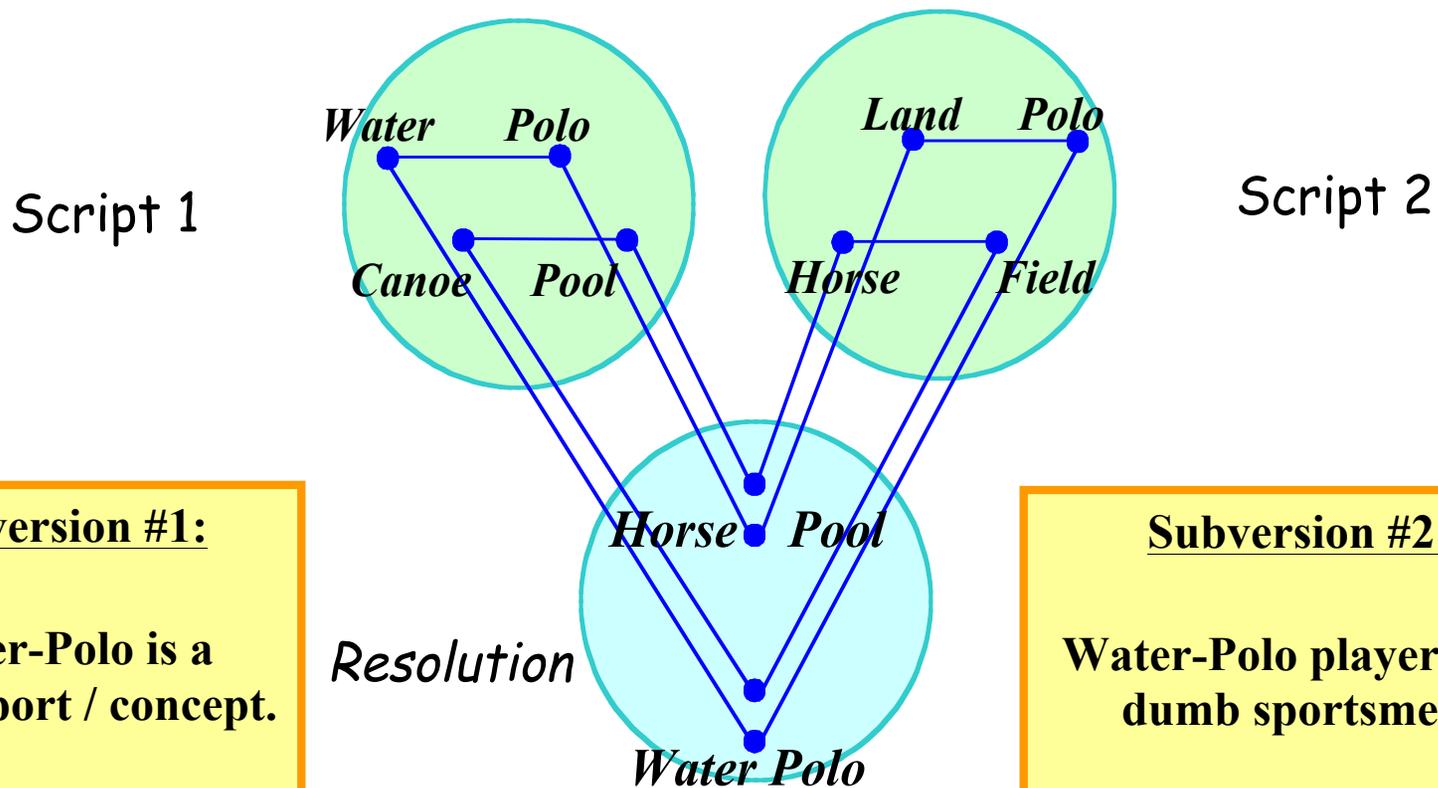
*100. One to hold the bulb and 99 to spin the room around.*

*Figure Ground Reversal (Strategic):*

*A man leaves the factory every night pushing a wheelbarrow full of worthless dirt. The security guard knows he is stealing something, but careful searches never reveal any stolen goods from the factory. Of course, he's stealing the wheelbarrows!*

# Figure-Ground-Reversal as **Category Subversion**

Tim used to play water-polo until his beloved horse drowned.



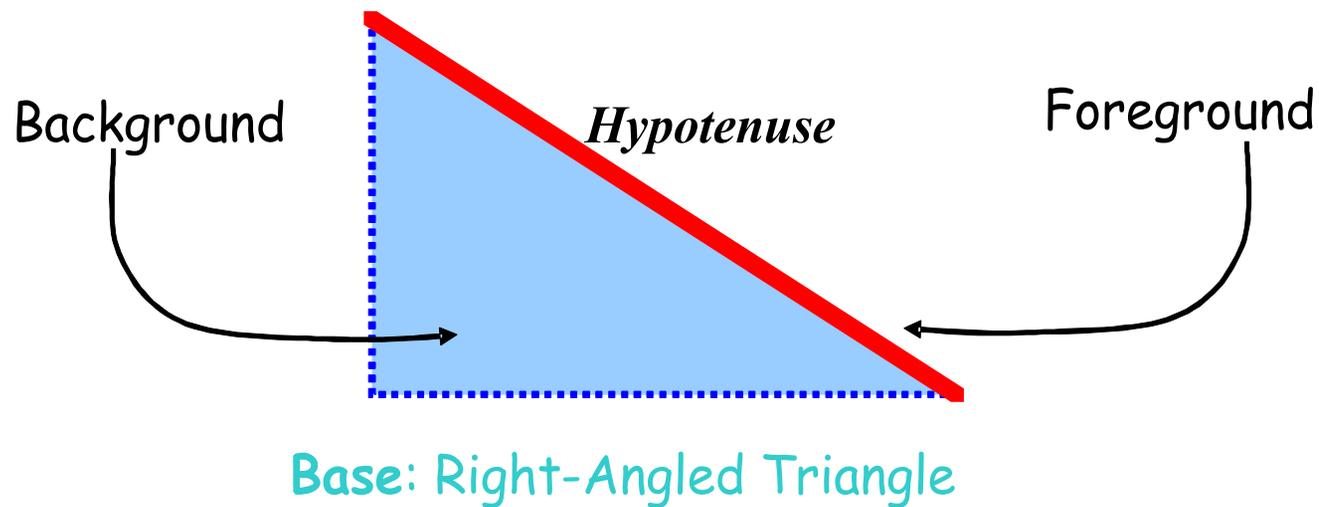
**FGR often results in **Appealing Symmetry****



The Balance of Nature

## FGR subverts **Dependent Concepts**

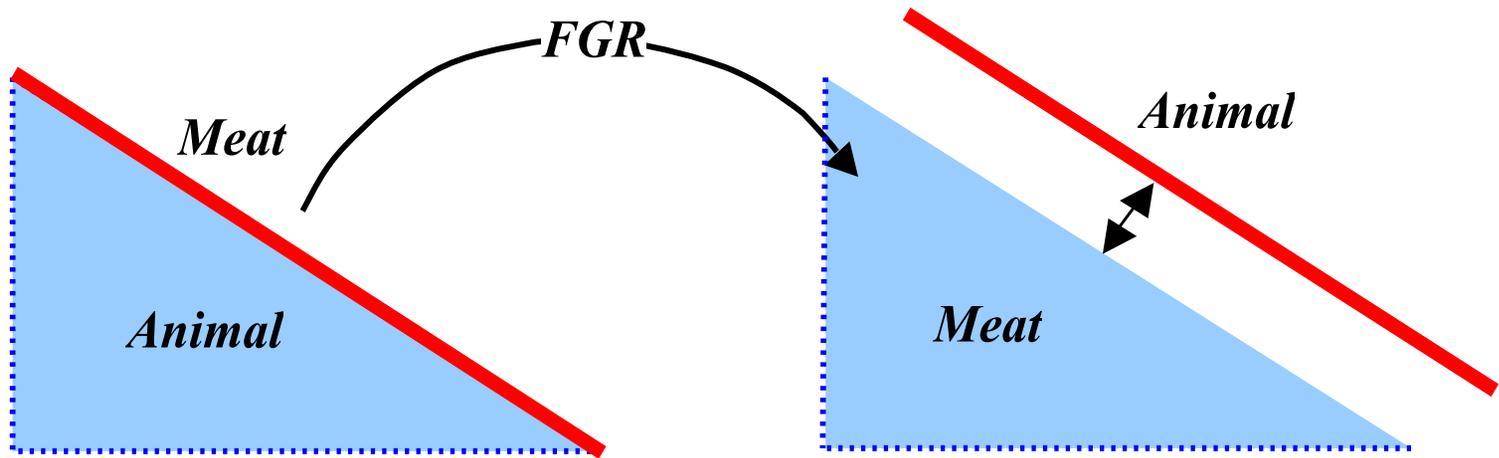
Base-Profile conceptual description in Cognitive Linguistics  
(a la Ron Langacker)



"Hypotenuse seeks two straight sides to form love triangle"

## FGR separates **Dependent Concepts**

E.g., Meat is a profiled foreground of the concept Animal

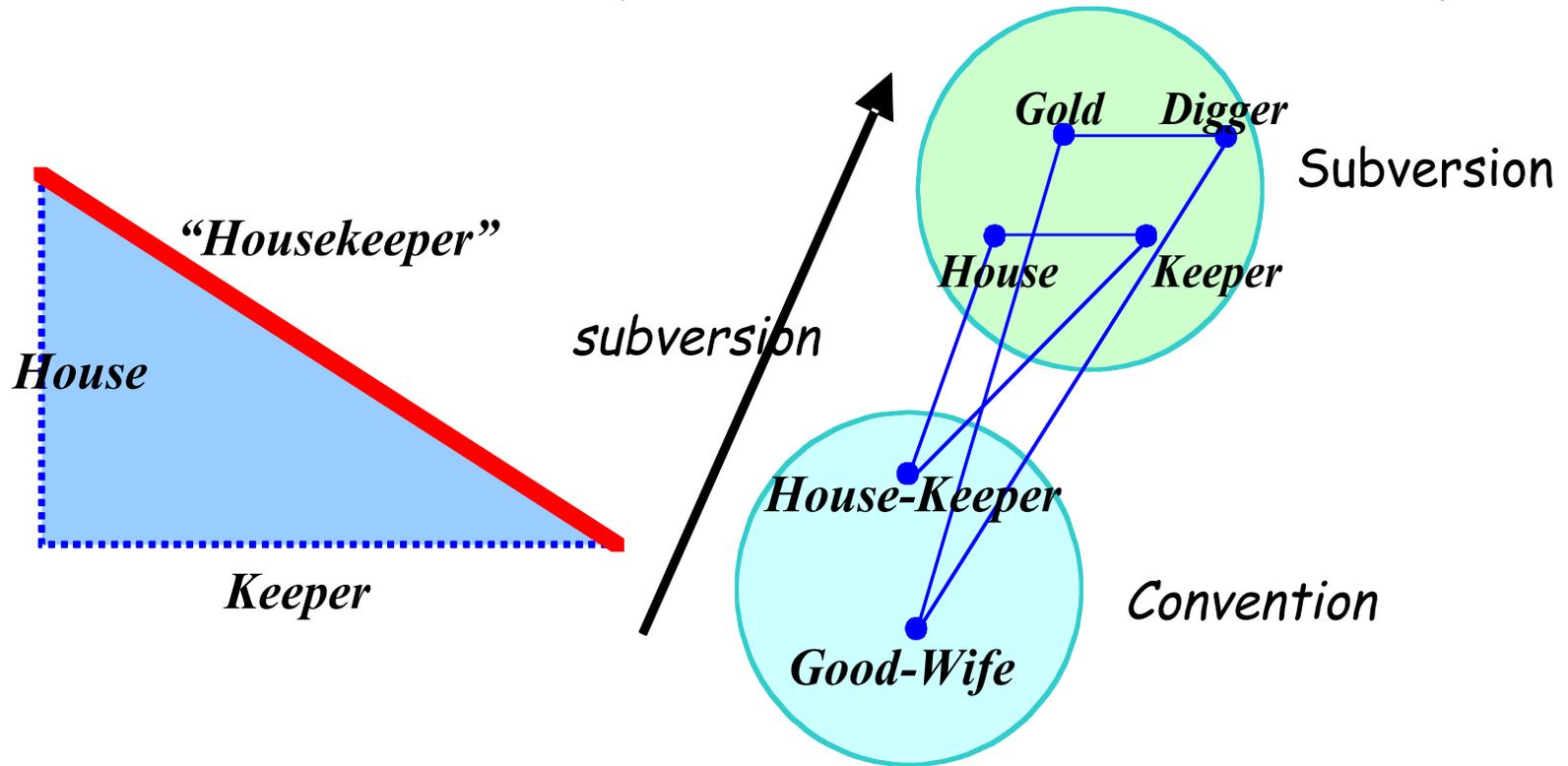


FGR makes dependent concepts more Separable and Independent

**"If God wanted us to us to be vegetarians he wouldn't have made animals out of meat"**

## FGR creates new meanings from old

Zza Zza: *Darlink, actually I am an excellent housekeeper.*



Zza Zza: *Every time I leave a man, I keep the house.*

## Subversion via FGR: A Broad Cognitive Spectrum

- *Humour: profiled / base elements of conceptual structures*
- *Reductio Ad Absurdum: Hypothesis → Axiom → Contradiction*
- *Mathematics: Postulate → Hypothesis → Dismissal*
- *Magic Tricks: Sleight of Hand → Misdirection → Surprise*
- *Thought Experiments: Theory Subversion → Focus on implicit assumpt.*
- *Narratives: Red Herrings → Misdirection → Surprise*

# FGR and Subversion in Humour

- *FGR can operate in any crevice of language where base/profile is used*
- *FGR is used to subvert conventional categories and word meanings*
- *"Humour as subversion" explains why humour is funny, daring, painful*
- *Subversion is risky, rebellious, leveling, thrilling, dangerous, social*
- *FGR/Subversion as a general framework for Creative Computation*

→ FGR on computational representations, in computational search spaces