



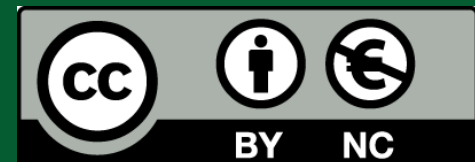
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# Materials from Recognise Video-Lectures

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# Legal Concepts and Embodied Cognition

An Embodied Approach to the Internal Point of View

# Part II.

# Grounding the Internal Point of View

Analyzing the Internal Point of View from an Embodied Perspective

# Two Views about Concepts

Traditional View	Embodied View
Concepts are definition-like <b>criteria of application</b> of words.	Concepts are <b>patterns of activation of neurons</b> formed by interrelated experiences.
e.g., My concept of BANANA is a set of necessary or sufficient conditions for the correct use of the word «banana»	e.g., My concept of BANANA is a pattern of activation of neurons formed in interacting with bananas and people talking about bananas: experiences of smell, taste, form; linguistic abilities, the ability to peel bananas; memories of jokes about bananas etc.
Concepts are <b>tidy</b> .	Concepts are <b>messy</b> .
Concepts are <b>amodal</b> (having them doesn't feel like anything)	Concepts are <b>multimodal</b> (having them is associated with a lot of sensory experiences)

# An Experiment on Legal Concepts

Concrete Concepts		Abstract Concepts	
Food	Artefacts	Theoretical	Institutional
Apple	Bed	Acceleration	Contract
Banana	Book	Calculation	Marriage
Basil	Chair	Electron	Parliament
Carrot	Computer	Energy	President
Chestnut	Hammer	Equation	Property
Eggplant	Knife	Gravitation	State
Grape	Painting	Liter	Trial
Mushroom	Pot	Mass	Duty
Orange	Screwdriver	Meter	Justice
Pepper	Sculpture	Molecule	Norm
Potato	Spoon	Multiplication	Responsibility
Pumpkin	Tower	Subtraction	Rights
Strawberry	Umbrella	Sum	Sanction
Tomato	Wheel	Temperature	Validity

Pure- Institutional

Meta- Institutional

Della Rosa et al., (2010)

Villani et al., (2019)

Roversi et al., (2013)  
Theoretical reasons

# An Experiment on Legal Concepts

**Law group:** (N= 274) students and professionals in the law field

**Control group:** (N = 263) students and professionals in other fields than law

**Task:** evaluate concepts using a 7-point scale on one of the 16 dimensions

PROCESS

	1	2	3	4	5	6	7	
very abstract	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	very concrete

VALIDITY

	1	2	3	4	5	6	7	
negative emotions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	positive emotions

classic

language

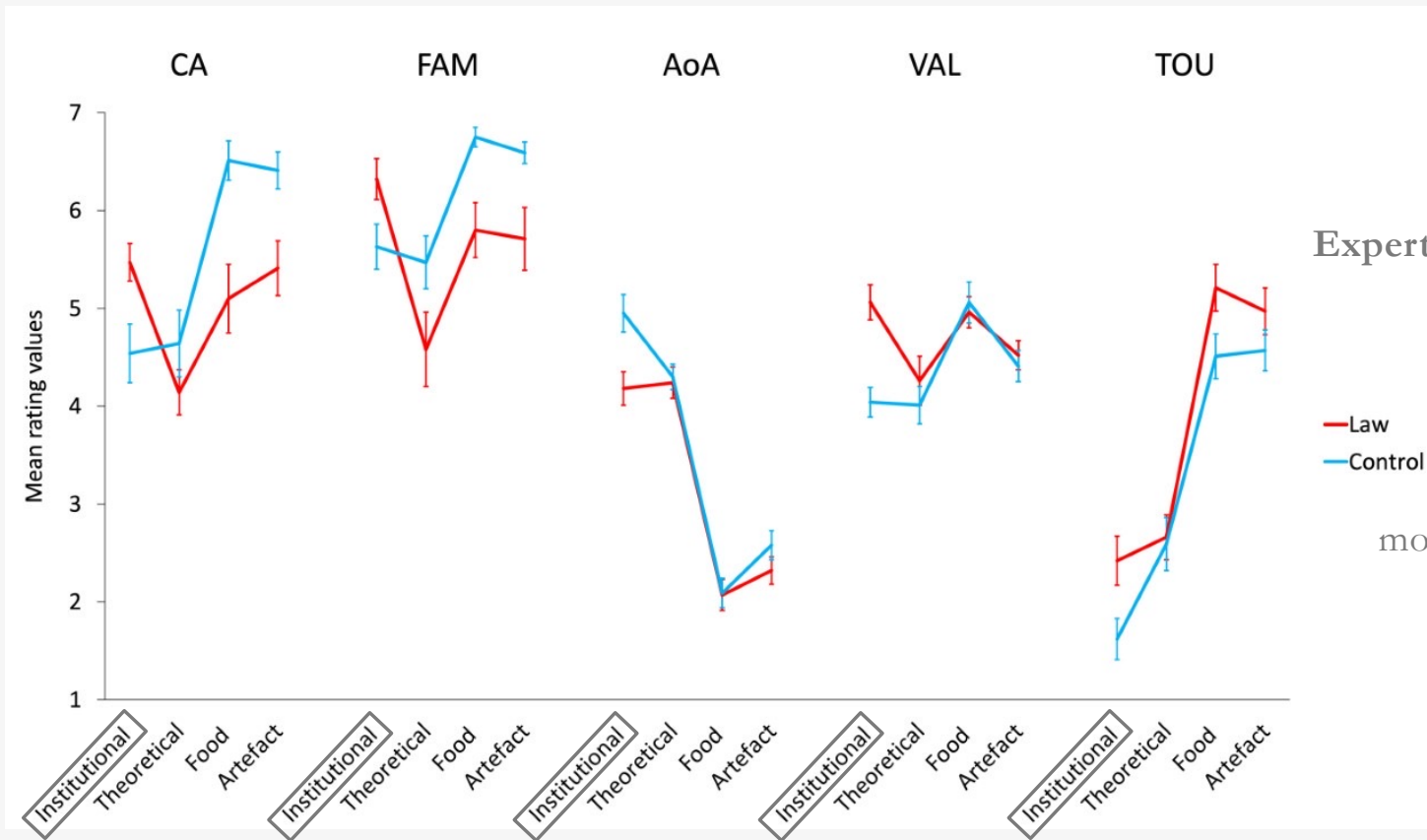
sensory  
modalities

inner  
emotions  
states

social

- Imageability (IMG);
- Abstractness (ABS)
- Concreteness (CNR)
- Context availability (CAT)
- Familiarity (FAM)
- Age of acquisition (AoA)
- Modality of acquisition (MoA)
- Body-Object-Interaction (BoI)
- 5 senses (VIS,TAU,HEA,TAS,SME)
- Hand involvement (HAN)
- Mouth involvement (MOUTH)
- Interoception (INT)
- Metacognition (META)
- Emotionality (EMO)
- Valence (VAL)
- Sociality (SOC)
- Social Metacognition (MESO)

# An Experiment on Legal Concepts



Experts rated institutional concepts:

more contextually situated (CA)

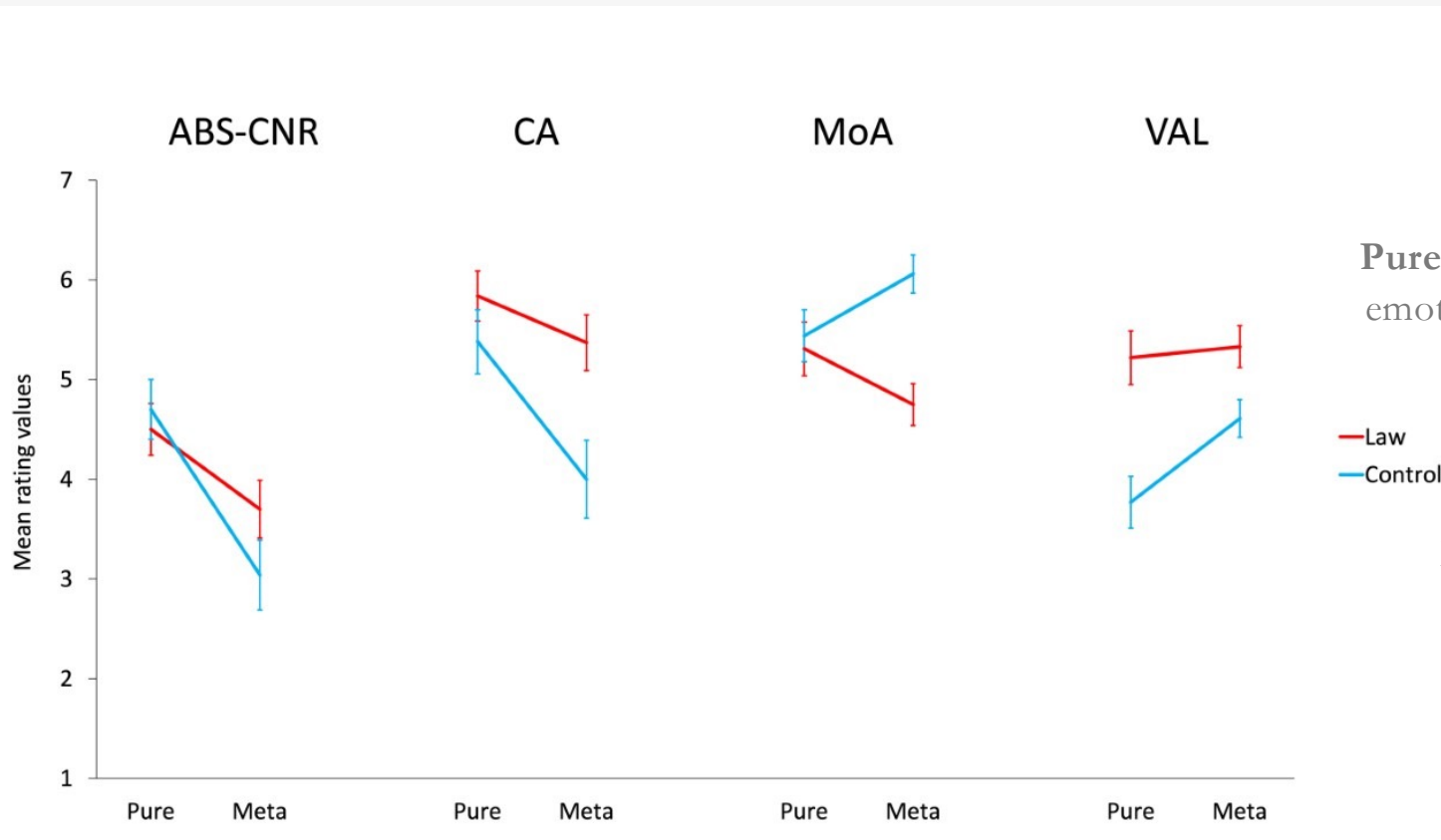
more familiar (FAM)

acquired earlier (low AoA)

positive valence (high VAL)

more tactile experience (high TOU)

# An Experiment on Legal Concepts



Experts rated:

**Pure & Meta** institutional concepts:  
emotional positive states (high VAL)

**Meta** institutional concepts:  
contextually situated (CA)  
more concrete (ABS-CNR)  
less language acquisition (MoA)

— Law  
— Control

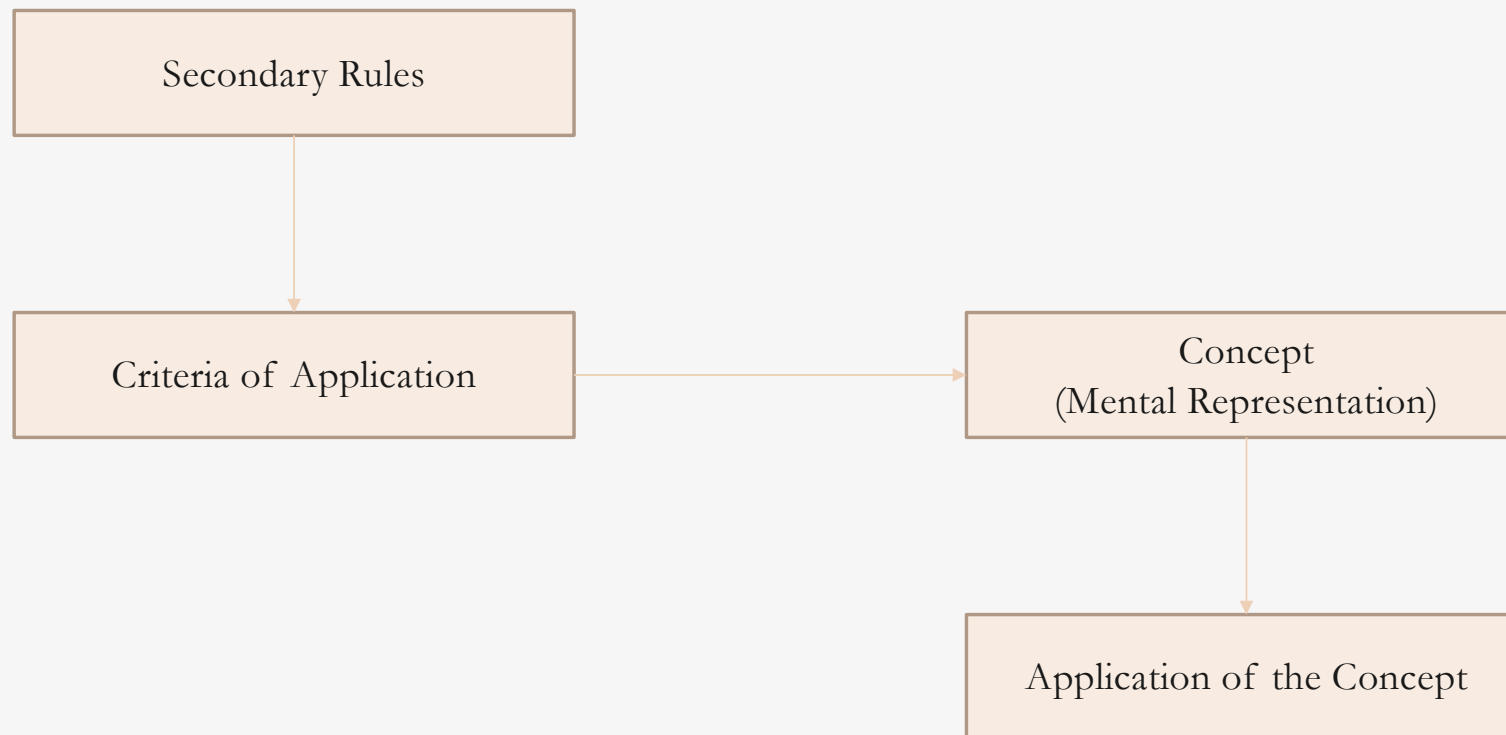


# Embodied Internal Point of View

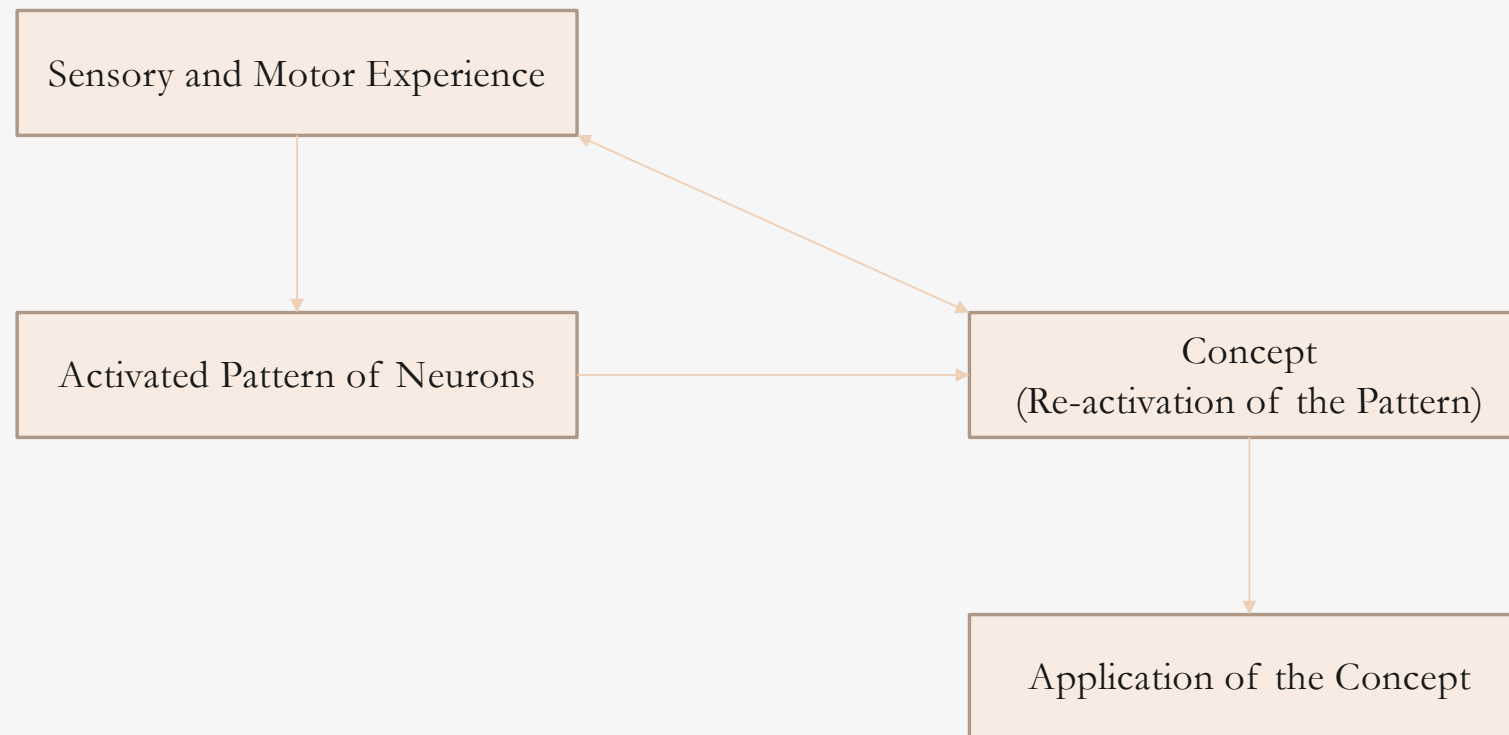
Qualifying Hart's Perspective



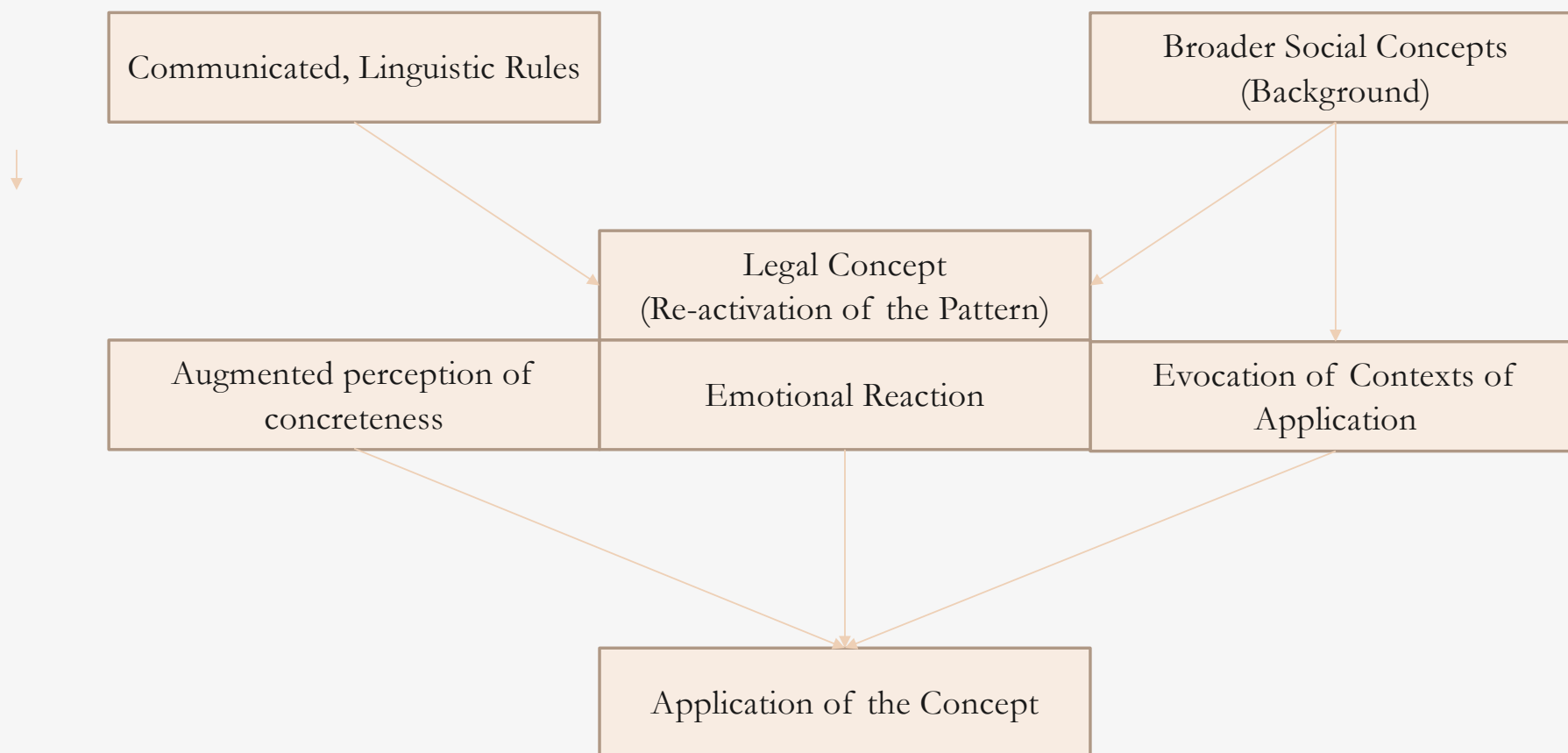
# A Traditional View About Legal Concepts



# An Embodied View About Concepts



# An Embodied View about Legal Concepts



# Some References

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# Thank you!

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