



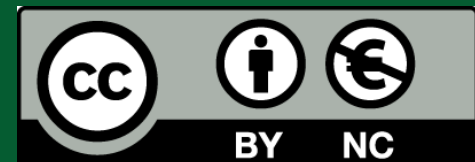
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Materials from Recognise Video-Lectures

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Legal Concepts and Embodied Cognition

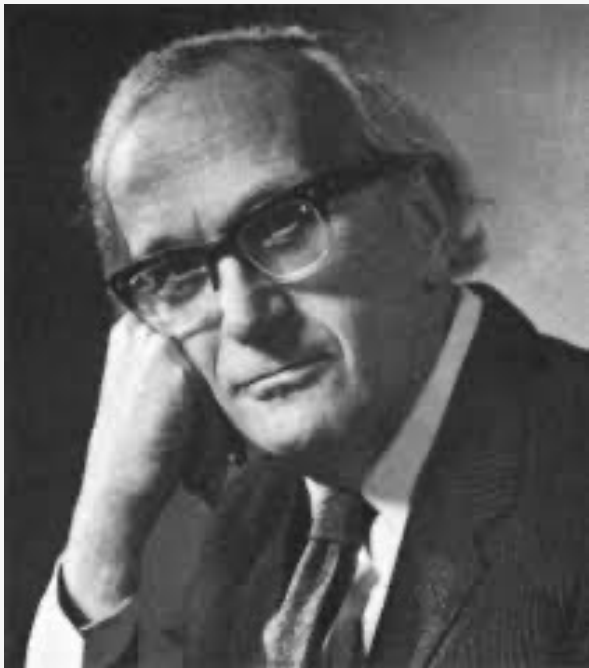
An Embodied Approach to the Internal Point of View

Part I.

Being Internal to the Law

Hart's Notion of the Internal Point of View and Its Relation to Concepts

H.L.A. Hart (1907-1992)



THE CONCEPT OF LAW

SECOND EDITION

BY
H. L. A. HART

With a Postscript edited by
Penelope A. Bulloch and Joseph Raz

CLARENDON PRESS · OXFORD

The Concept of Law

1st ed. 1961, 2nd ed. 1994

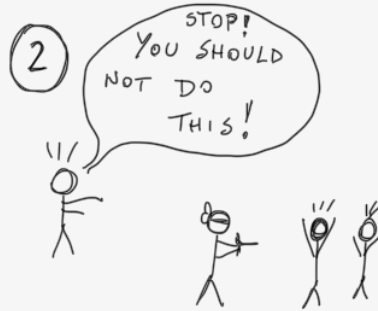
Internal Point of View (Primary Rules)

Rules \neq habits

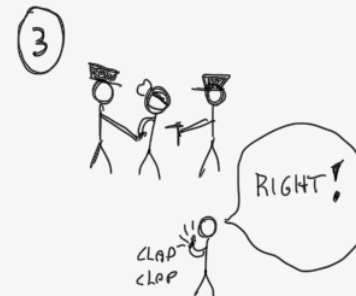
Social practice theory of rules



Critical reflective attitude



Reaction to violation
Use of normative language

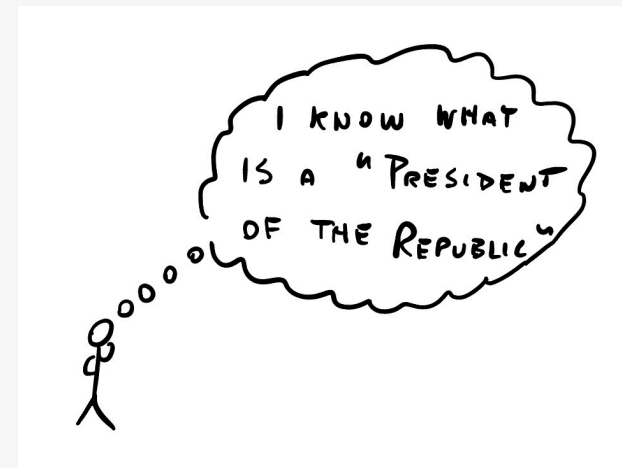


Justification of reaction

Internal Point of View (Secondary Rules)

With the addition to the system of secondary rules, the range of what is said and done from the internal point of view is much extended and diversified. With this extension comes a whole set of new concepts and they demand a reference to the internal point of view for their analysis. These include the notions of legislation, jurisdiction, validity, and, generally, of legal powers, private and public. There is a constant pull towards an analysis of these in the terms of ordinary or 'scientific', fact-stating or predictive discourse. But this can only reproduce their external aspect: to do justice to their distinctive, internal aspect we need to see the different ways in which the law-making operations of the legislator, the adjudication of a court, the exercise of private or official powers, and other 'acts-in-the-law' are related to secondary rules.

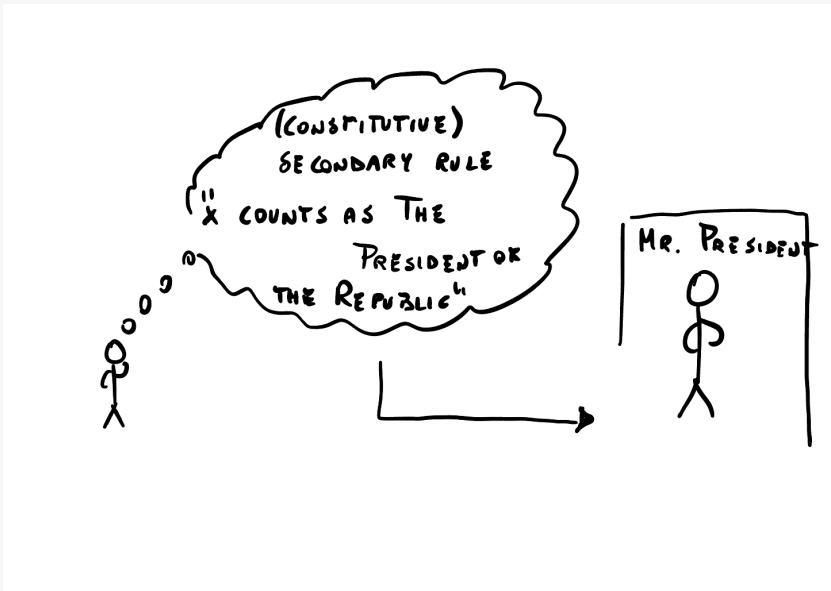
(Hart 2012, 98-99)



Constitutive Rules → Secondary Rules

Some rules regulate antecedently existing activities. For example, the rule “drive on the right side of the road” regulates driving; but driving can exist prior to the existence of that rule. However, some rules do not merely regulate, they also create the very possibility of certain activities.

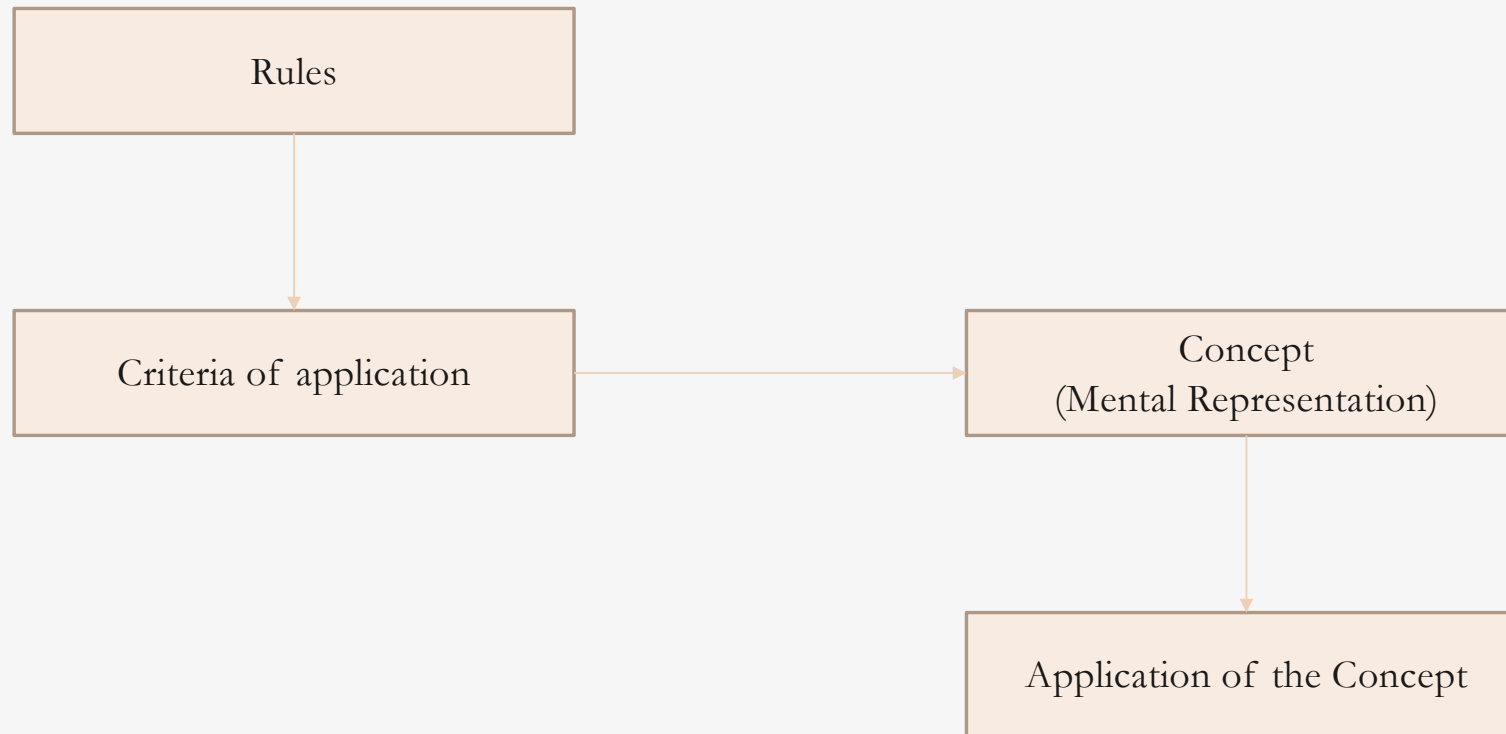
(Searle 1995, 27-8)



Rule-defined Concepts?

Are Concepts Constituted by Rules in such a Straightforward Manner?

A Traditional View About Concepts



Embodied Concepts

Concepts as Dynamic and Grounded Entities

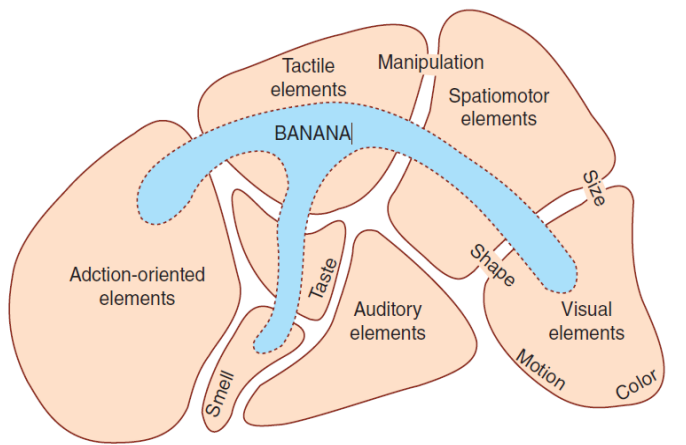
Embodied Cognition on Concepts

Conceptual knowledge is grounded on sensory and motor systems

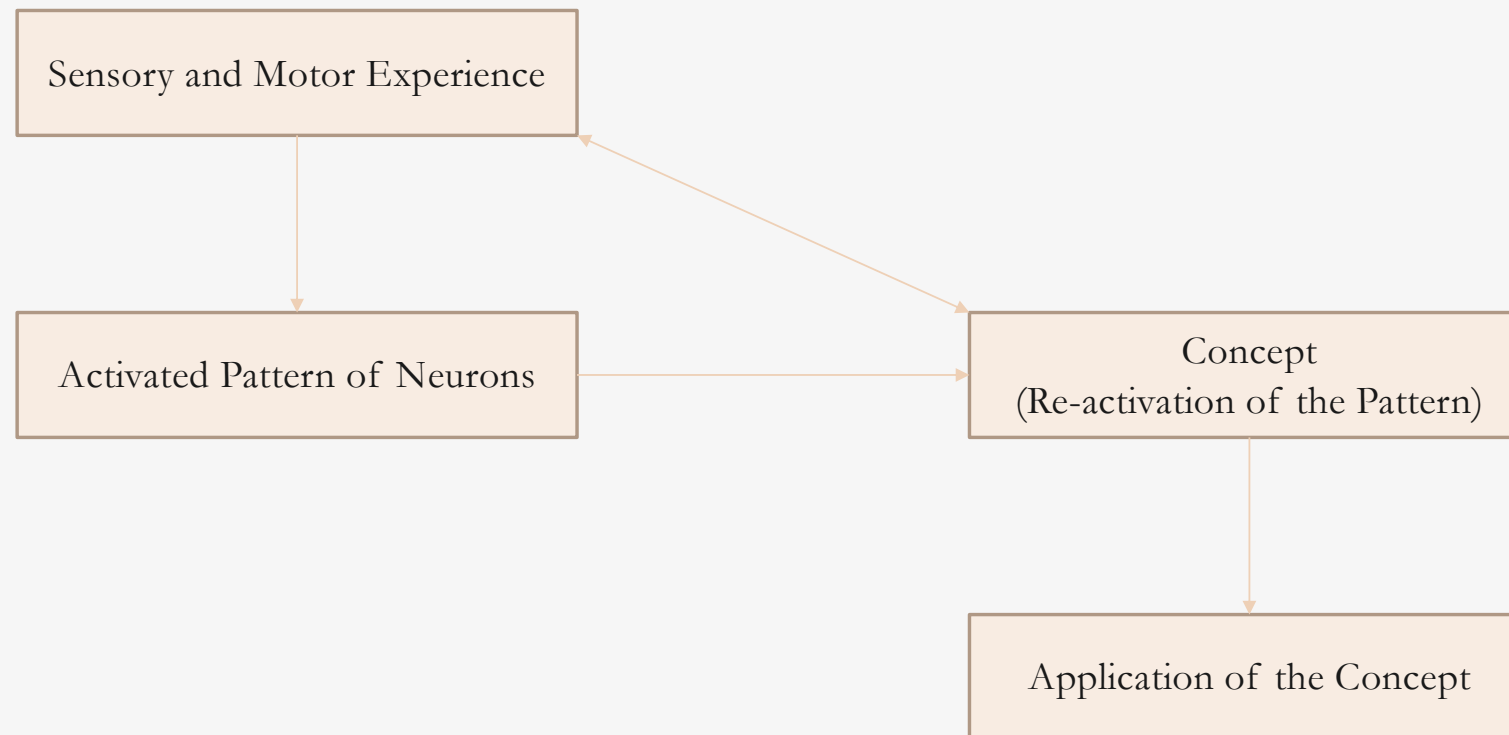
Concepts: re-activation of the distributed activation pattern of neurons across multimodal brain areas that is activated when perceiving and interacting with the referent.

“flexible entities, re-enacting and integrating relevant information of a given category in a situated context to support goal-oriented actions”

(Barsalou 1999; Barsalou 2008).



An Embodied View About Concepts



Some References

- Barsalou, L. W. 1999. Perceptions of Perceptual Symbols. *Behavioral and Brain Sciences* 22(04): 637-660.
- Barsalou, L. W. 2008. Grounded Cognition. *Annual Review of Psychology* 59: 617-45.
- Hart, H.L.A. 2012. *The Concept of Law. Second Edition*. Oxford: Clarendon Press. (1st ed. 1961, 2nd ed. 1994.)
- Borghi, A. M., & Binkofski, F. 2014. *Words as Social Tools: An Embodied View on Abstract Concepts*. New York, NY: Springer.
- Kramer, M. 2018. Hart and the Metaphysics and Semantics of Legal Normativity. *Ratio Juris*, 31(4): 396-420.
- Pettit, P. 2019. Social Norms and the Internal Point of View: An Elaboration of Hart's Genealogy of Law. *Oxford Journal of Legal Studies*, 39(2): 229-258.
- Shapiro, S. 2006. What is the Internal Point of View? *Fordham Law Review*. 75(3): 1157-1170.
- Searle, J. 1995. *The Construction of Social Reality*. New York: Free Press.
- Searle, J. 2010. *Making the Social World*. Oxford: Oxford University Press.

Part II.

Grounding the Internal Point of View

Analyzing the Internal Point of View from an Embodied Perspective

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

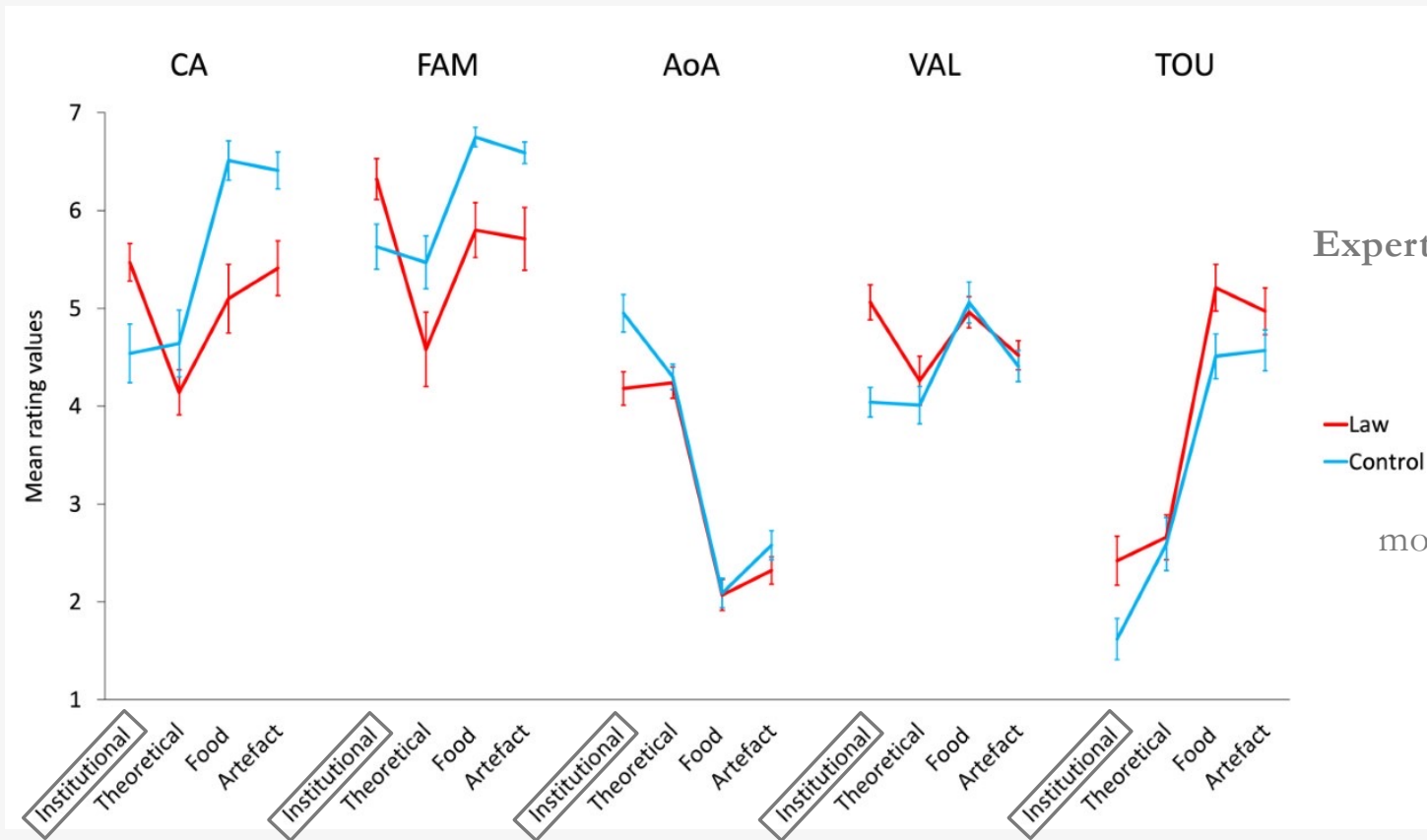
sensory
modalities

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

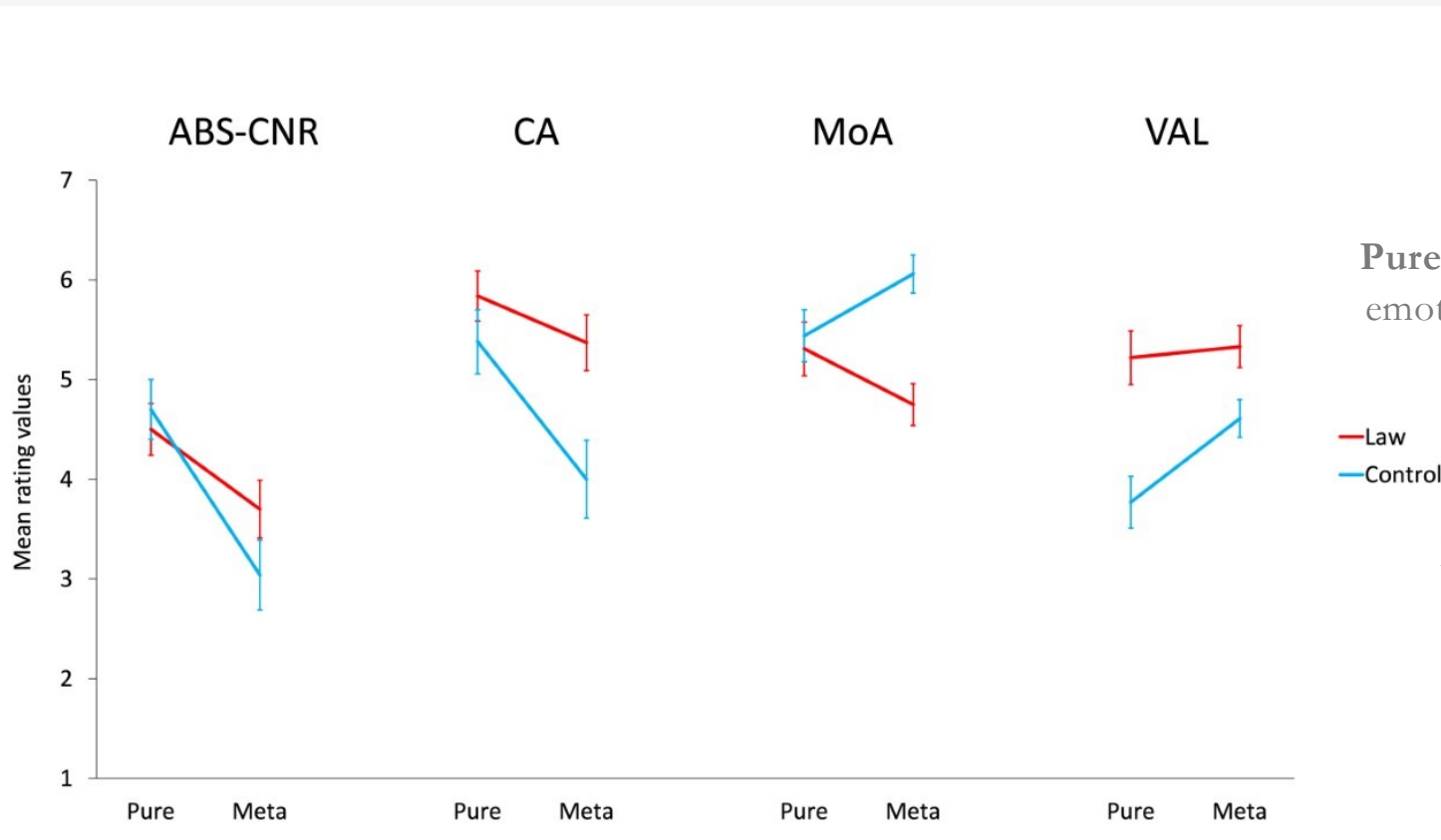


Experts rated institutional concepts:

- more contextually situated (CA)
- more familiar (FAM)
- acquired earlier (low AoA)
- positive valence (high VAL)
- more tactile experience (high TOU)

— Law
— Control

An Experiment on Legal Concepts



Experts rated:

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

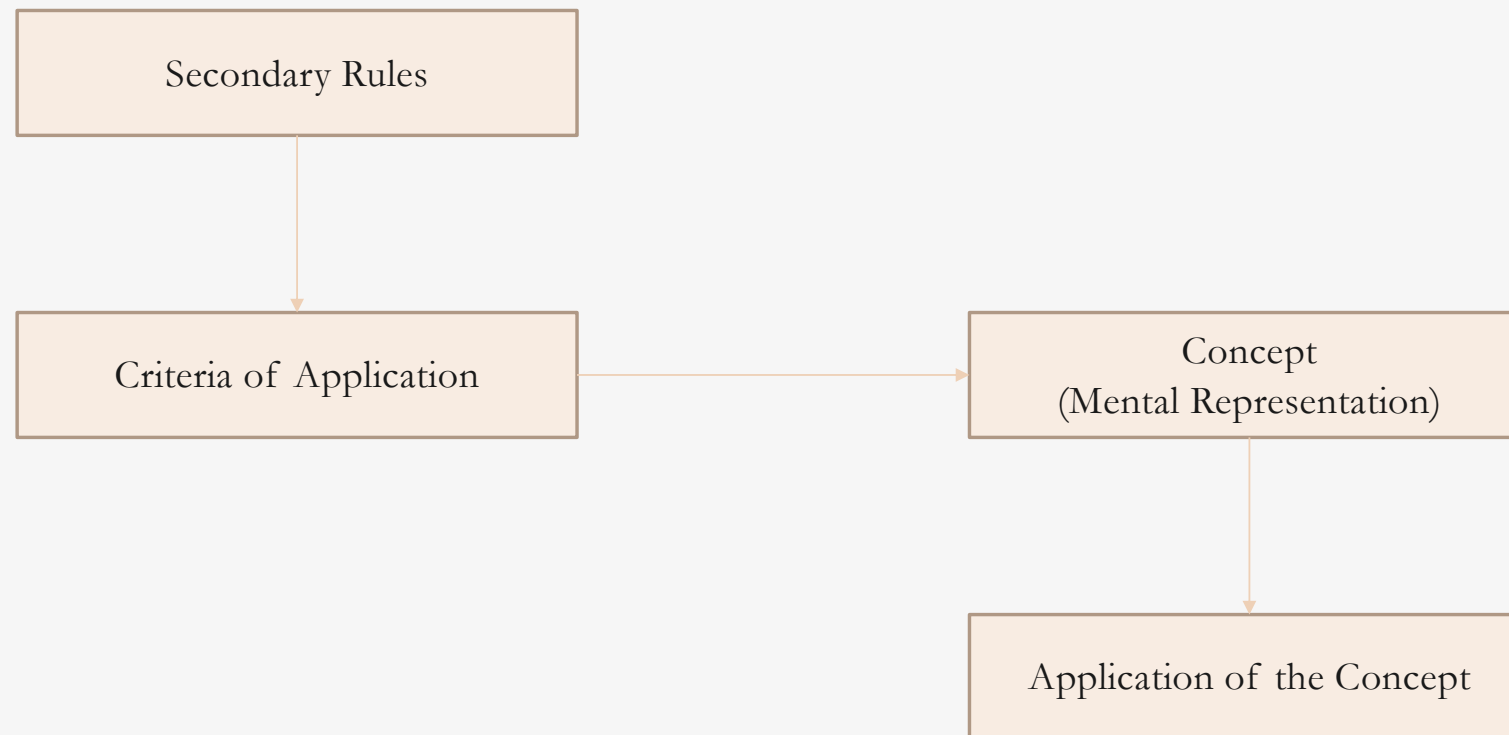
Meta institutional concepts:
contextually situated (CA)
more concrete (ABS-CNR)
less language acquisition (MoA)

— Law
— Control

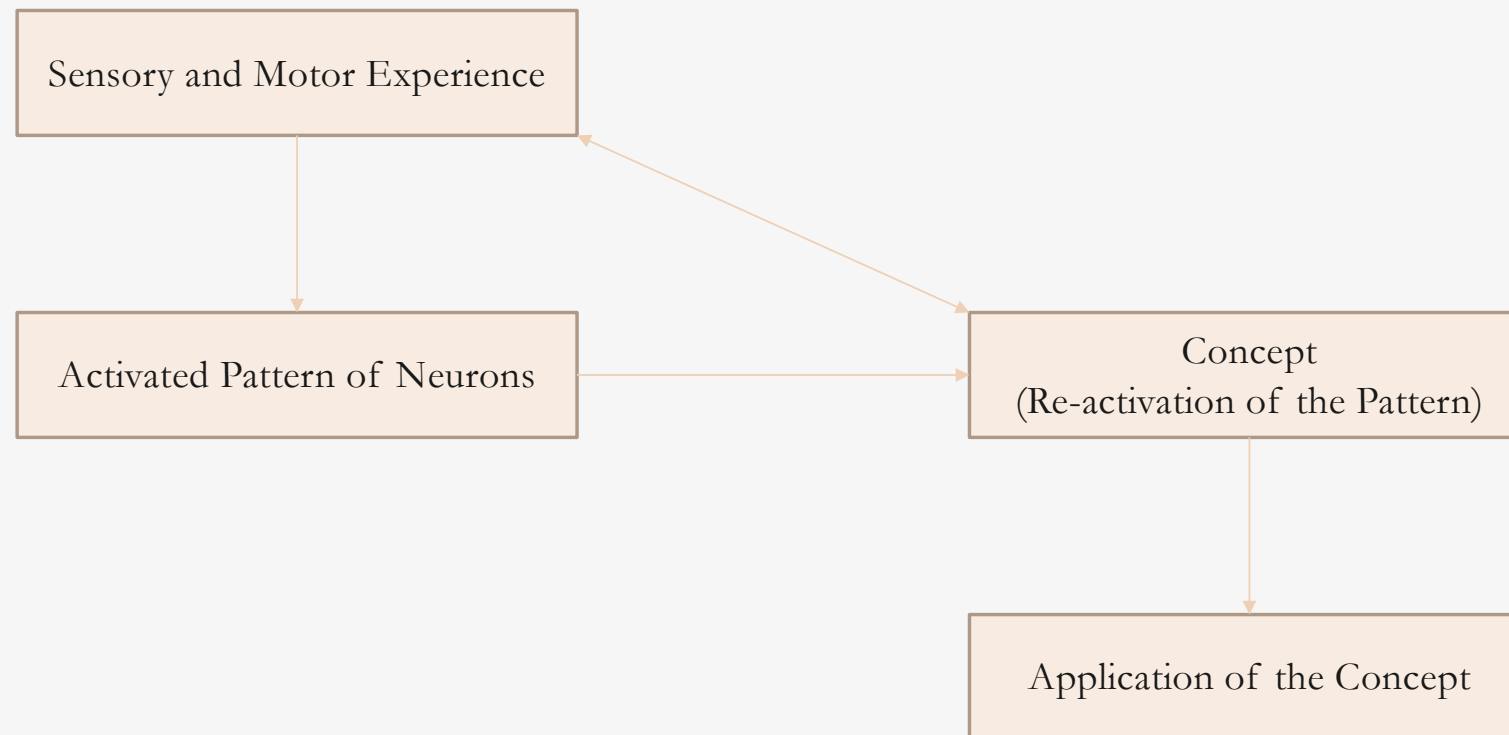
Embodied Internal Point of View

Qualifying Hart's Perspective

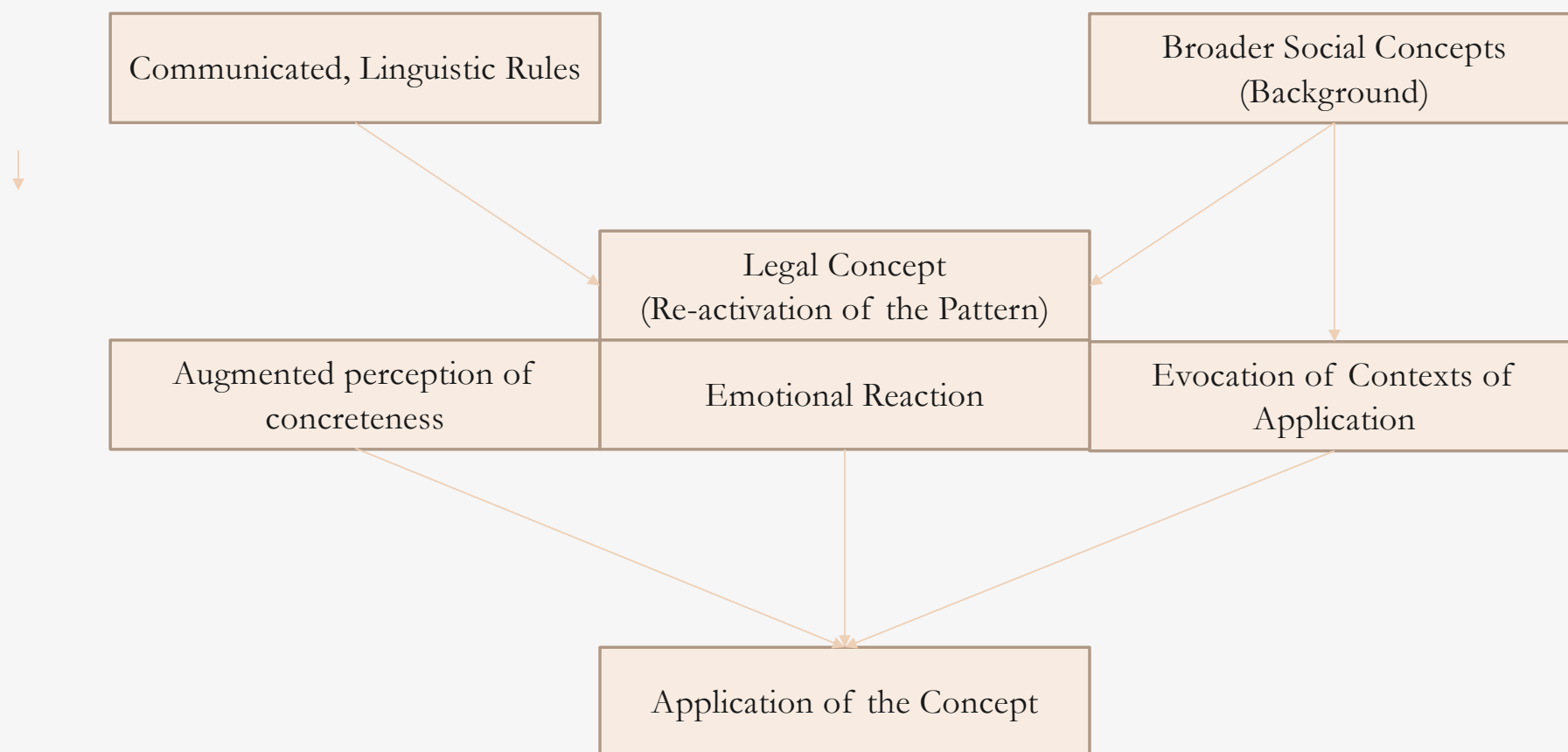
A Traditional View About Legal Concepts



An Embodied View About Concepts



An Embodied View about Legal Concepts



Some References

- Della Rosa, Pasquale A., Catricalà, E., Vigliocco, G., & Cappa, S. F. 2010. Beyond the Abstract Concrete Dichotomy: Mode of Acquisition, Concreteness, Imageability, Familiarity, Age of Acquisition, Context Availability, and Abstractness Norms for a Set of 417 Italian Words. *Behavior Research Methods* 42(4): 1042-48. <https://doi.org/10.3758/BRM.42.4.1042>
- Roversi, C. 2018. Constitutive Rules and the Internal Point of View. *Argumenta: Journal of Analytic Philosophy* 4: 139-56.
- Roversi, C. M. Ubertone, C. Villani, S. d'Ascenzo, and L. Lugli. 2022. Alice in Wonderland: Experimental Jurisprudence on the Internal Point of View. *Jurisprudence: An International Journal of Legal and Political Thought*. <https://doi.org/10.1080/20403313.2022.2109884>
- Villani, C., Lugli, L., Liuzza, M. T., & Borghi, A. M. 2019. Varieties of Abstract Concepts and Their Multiple Dimensions. *Language and Cognition* 11(3): 403-30.
- Villani, C., S. D'Ascenzo, A.M. Borghi, C. Roversi, M. Benassi, and L. Lugli. 2021. Is Justice Grounded? How Expertise Shapes Conceptual Representation of Institutional Concepts. *Psychological Research* 86: 2434-50.

Thank you!

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