



On the Interactional Meaning of Fundamental Legal Concepts

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Seeking foundations...

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Just considering our field after Hohfeld's work (1917), the most known are Kanger and Kanger (1966), Lindahl (1977), Makinson (1986), Saunders (1989), Jones and Sergot (1995, 2001), Allen and Saxon (1995), Sartor (2006), and more recently, here at JURIX, Pace and Schapachnik (2012).



Do such *fundamental* concepts exist?

- The difficulty of underpinning the essence of legal relation supports the *legal realist* position, illustrated by Alf Ross with the famous Tû-Tû paper.



Do such *fundamental* concepts exist?

- The difficulty of underpinning the essence of legal relation supports the *legal realist* position, illustrated by Alf Ross with the famous Tû-Tû paper.
- In this, he considers an (imaginary) tribe Noît-cif living in the south pacific...



Tû-Tû – Alf Ross (1952)

“This tribe [..] holds the belief that in the case of an infringement of certain taboos –for example, if a man encounters his mother-in-law, or if a totem animal is killed, or if someone has eaten of the food prepared for the chief – there arises what is called *tû-tû*. The members of the tribe also say that the person who committed the infringement has become *tû-tû*.”

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descriptive / prescriptive functions

Tû-Tû – Alf Ross (1952)

“It is obvious that the [...] tribe dwells in a state of darkest superstition. *tû-tû* is of course nothing at all, a word devoid of any meaning whatever.”

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“It is obvious that the [...] tribe dwells in a state of darkest superstition. *tû-tû* is of course nothing at all, a word devoid of any meaning whatever.”

“Ownership, claim, and other words, when used in legal language, have the same function as the word *tû-tû*; **they are words without meaning**, without any semantic reference, and **serve a purpose only as a technique of presentation.**”

Inferential meaning

- Sartor (2009), partially agrees with Ross, but defends the latter component, arguing that terms expressing legal qualifications have still an *inferential meaning*.
 - We need a common terminological ground to be able to make sense of communications.
 - Obviously, this may change in time.

Two (big) problems

- competing and debated (formal) semantics
- *constructivist* nature of (legal) normative systems

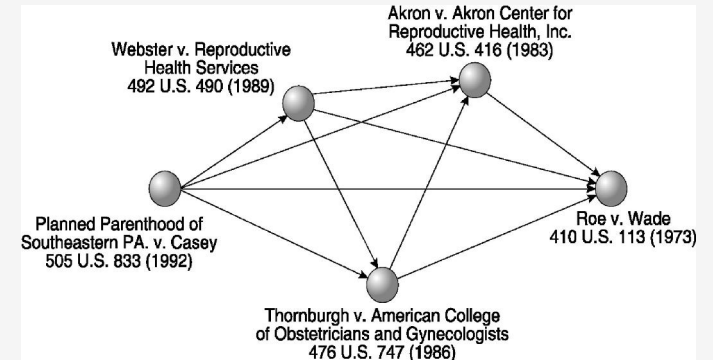
Two (big) problems

- competing and debated (formal) semantics
- *constructivist* nature of (legal) normative systems
- *Is the quest for a fundamental common ontological ground for legal concepts therefore doomed to fail?*
- Probably yes, but, without pretension of exhaustiveness, the present paper aims to shed light on some of the issues from a different perspective.



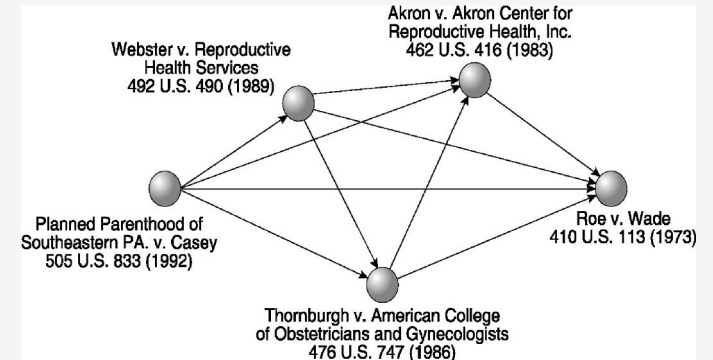
Normative systems

- as systems of norms



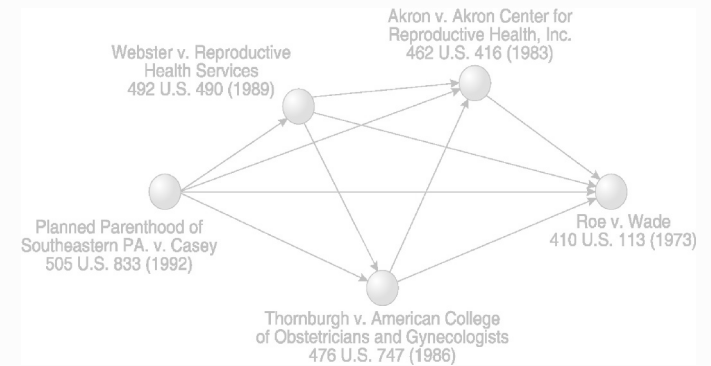
Normative systems

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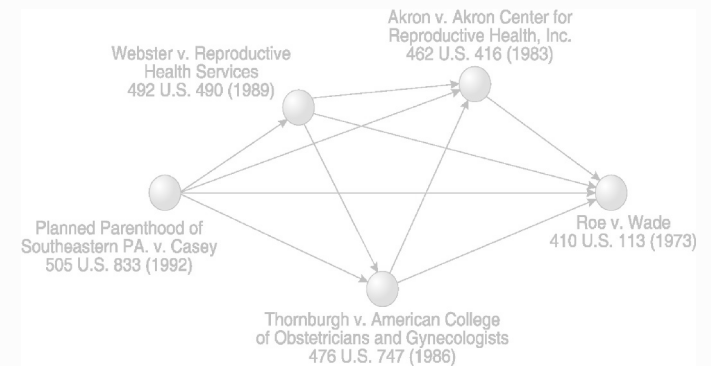


- as systems of components (e.g. agents) whose behaviour is *norm-guided*



Normative systems

- as systems of norms
→ *inferential meaning*



- as systems of components (e.g. agents) whose behaviour is *norm-guided*
→ *interactional meaning*



Representational model



- Model requirements: *communication between concurrent components* and *local causation*.

Representational model



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→ overlap with **process modeling**

Representational model



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- Taking advantage of this overlap, we consider **Petri Nets** as ground formalism, as they are simple, well known and intensively studied and used in many domains (engineering, biology, computer science, business modeling, etc.)

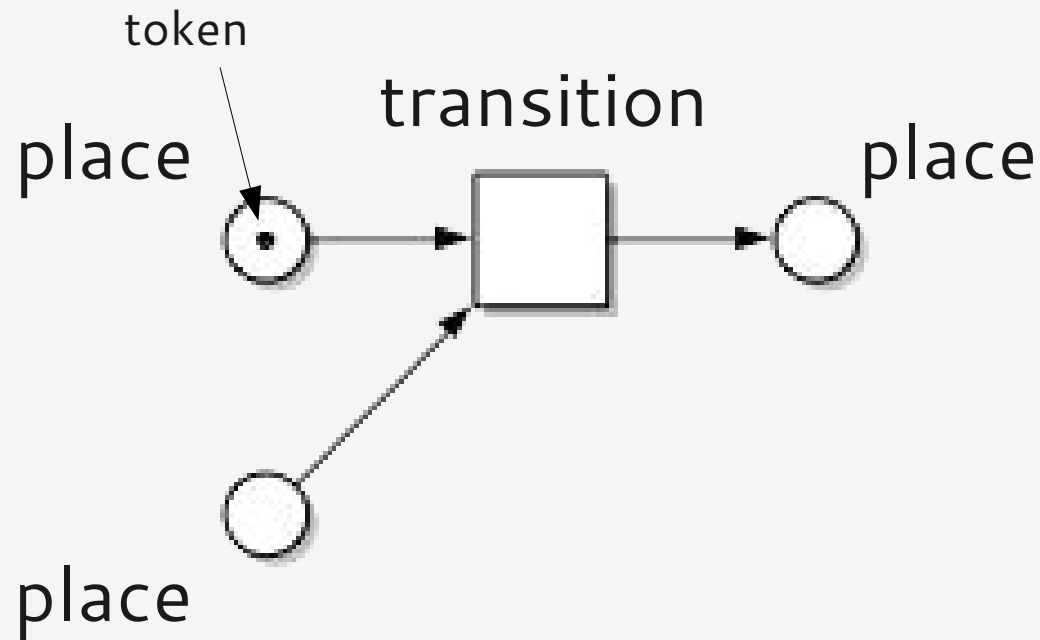
Representational model



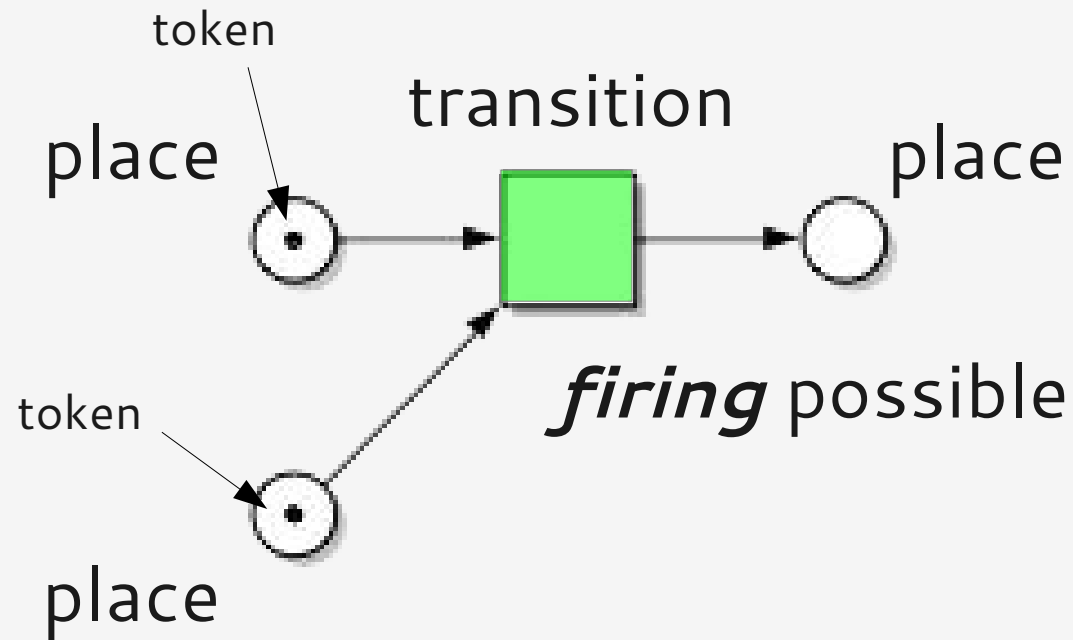
- Model requirements: *communication between concurrent components* and *local causation*.
→ overlap with **process modeling**
- Taking advantage of this overlap, we consider **Petri Nets** as ground formalism, as they are simple, well known and intensively studied and used in many domains (engineering, biology, computer science, business modeling, etc.) → *visual programming techniques to mediate between natural and formal languages*

4-slides-introduction to Petri Nets

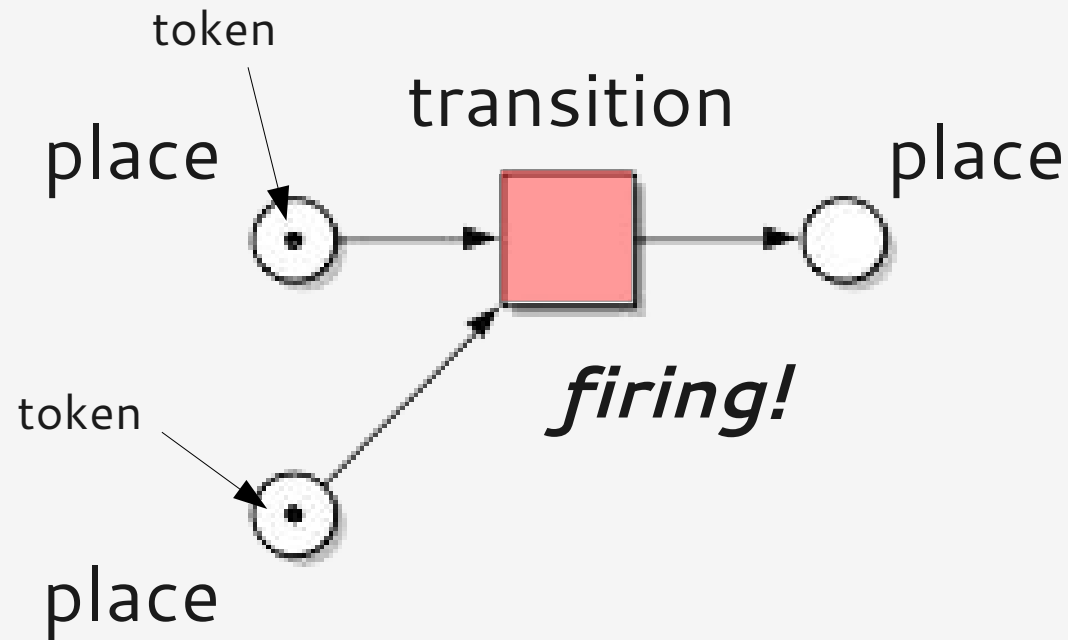
Petri Nets: the basics



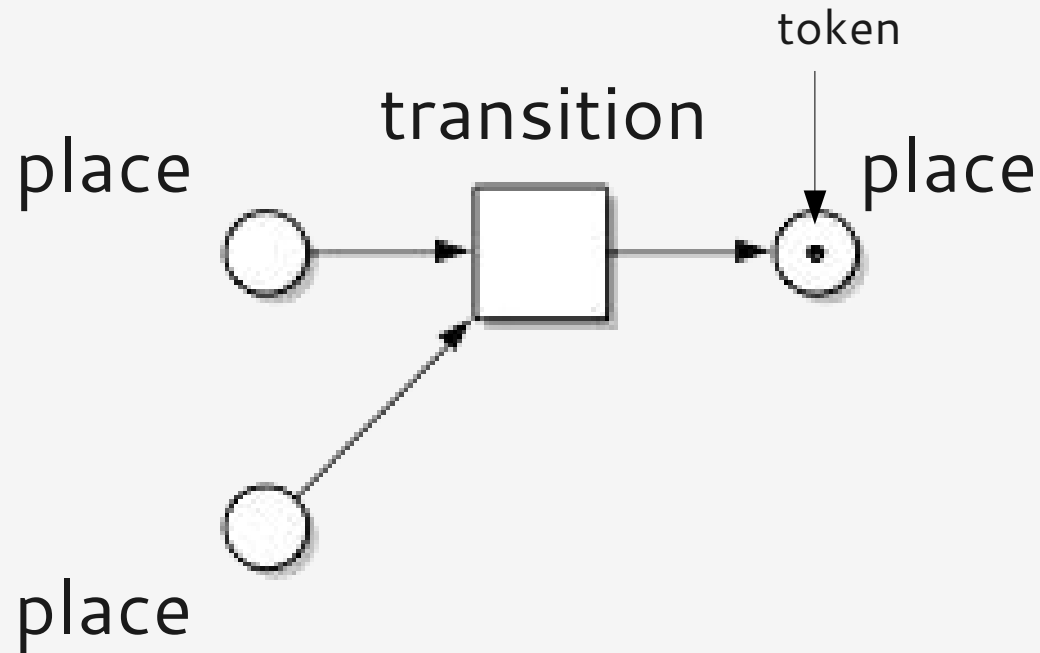
Petri Nets: the basics



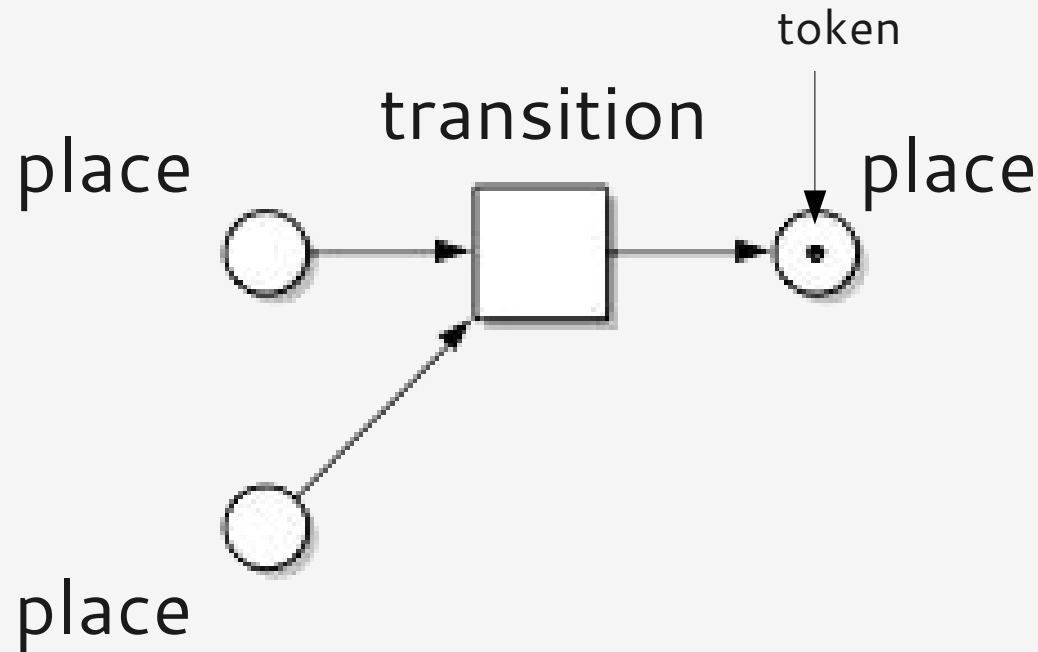
Petri Nets: the basics



Petri Nets: the basics



Petri Nets: the basics



- Informal meaning:
 - places (circles): potential local states
 - transition (boxes): events
 - tokens (dots) in current local states

A sale transaction



*A **sale** transaction in 4 events:*

- offer
- acceptance



*A **sale** transaction in 4 events:*

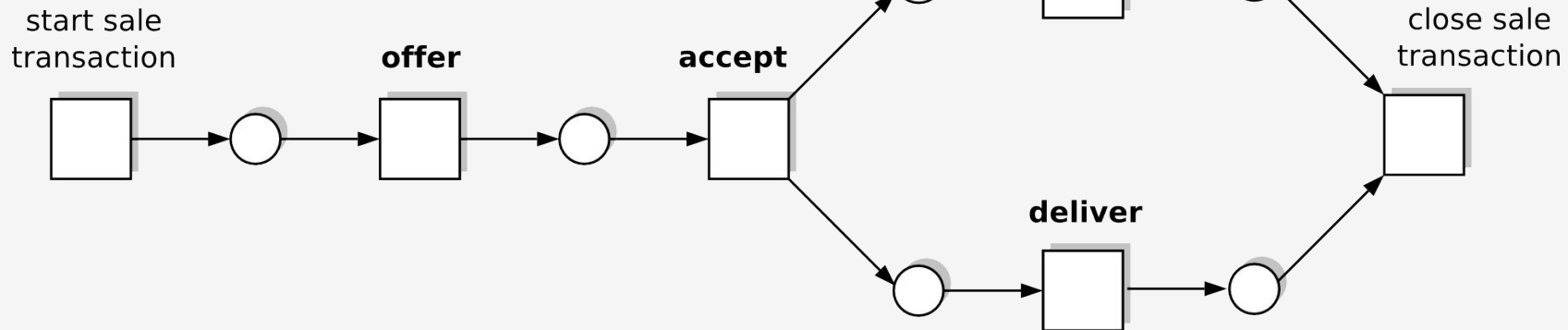
- offer
- acceptance
- payment



A *sale* transaction in 4 events:

- offer
- acceptance
- payment
- delivery





A **sale** transaction in 4 events:

- offer
- acceptance
- payment
- delivery

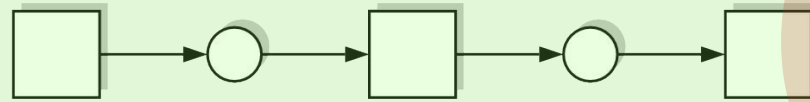




start sale transaction

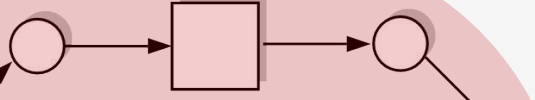
offer

accept

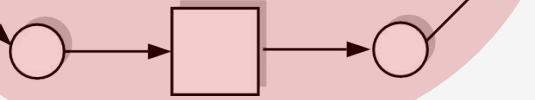


sequential execution

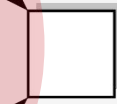
pay



deliver



close sale transaction



concurrent execution





start sale transaction

offer

accept

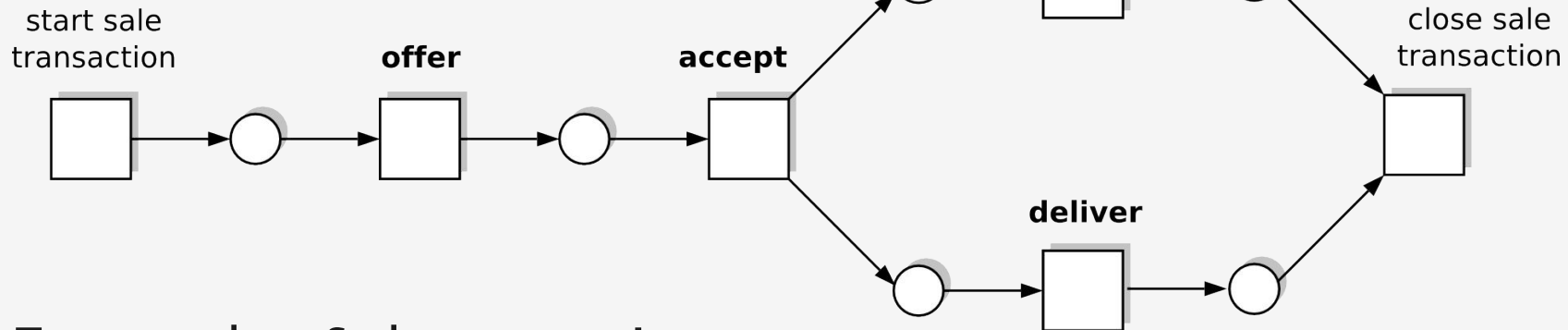
pay

close sale transaction

deliver

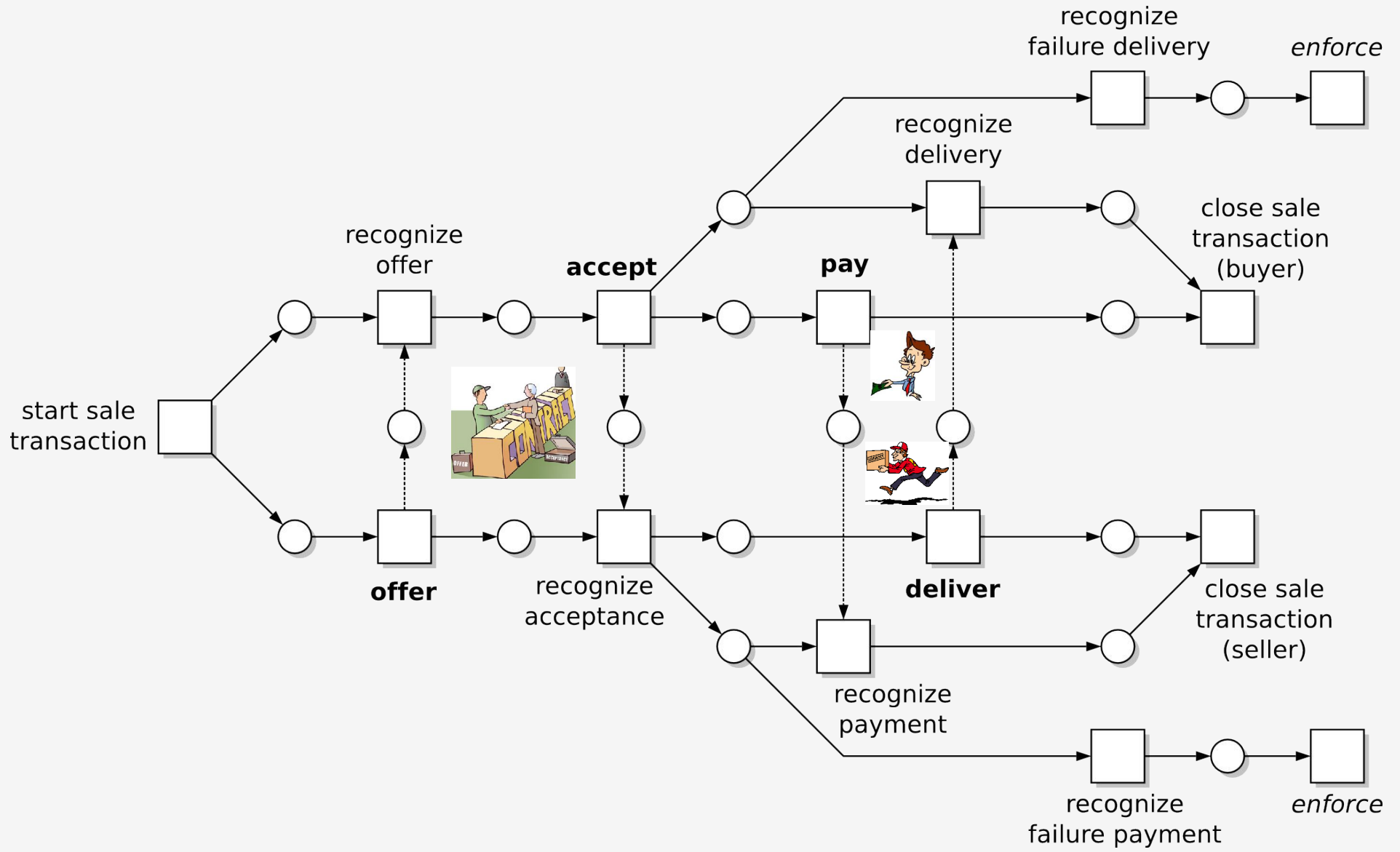


- For each of these actions, there is a performer/ emitter and a recipient.



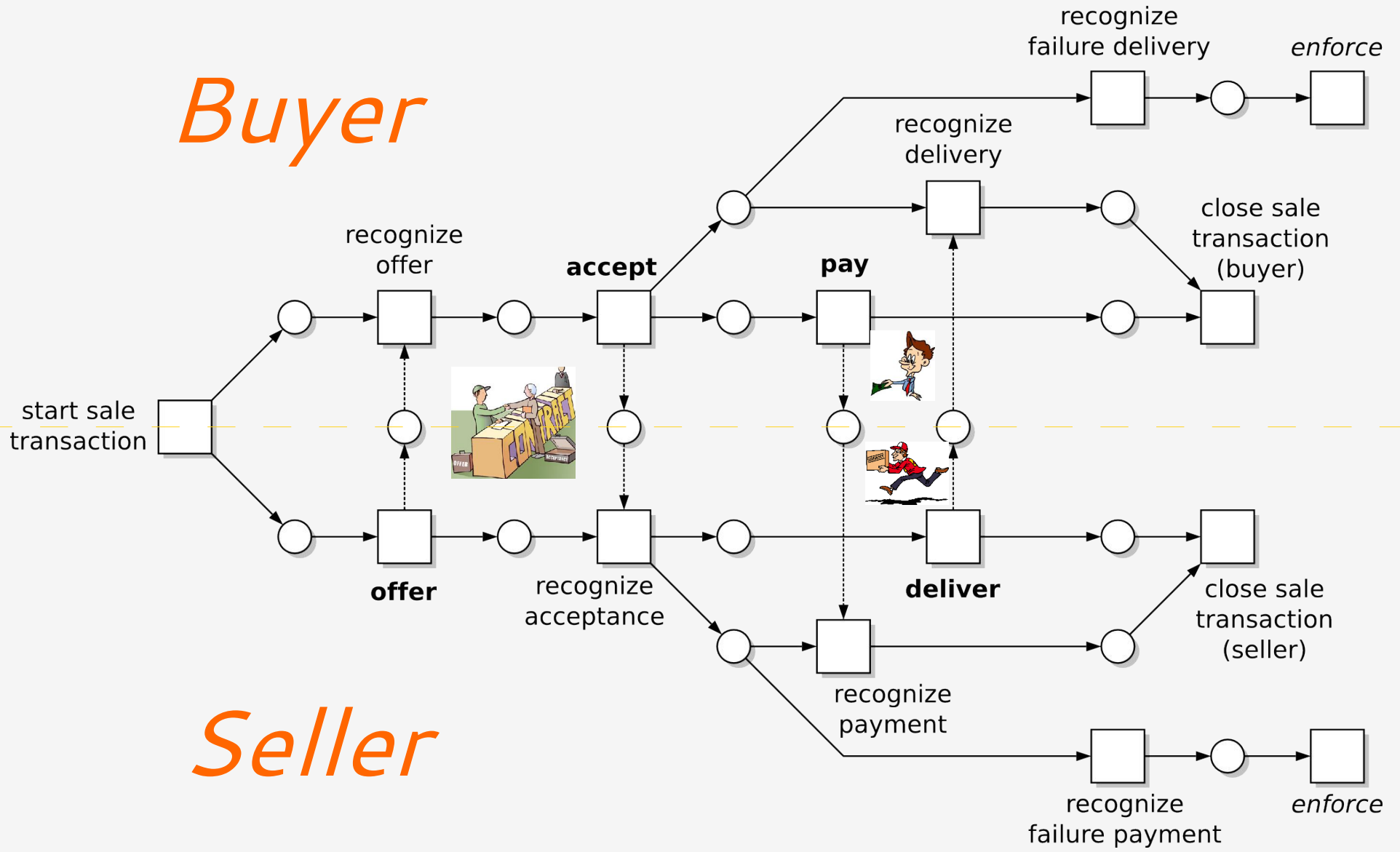
- For each of these actions, there is a performer/ emitter and a recipient.

→ Let us separate **generation** from **reception**.

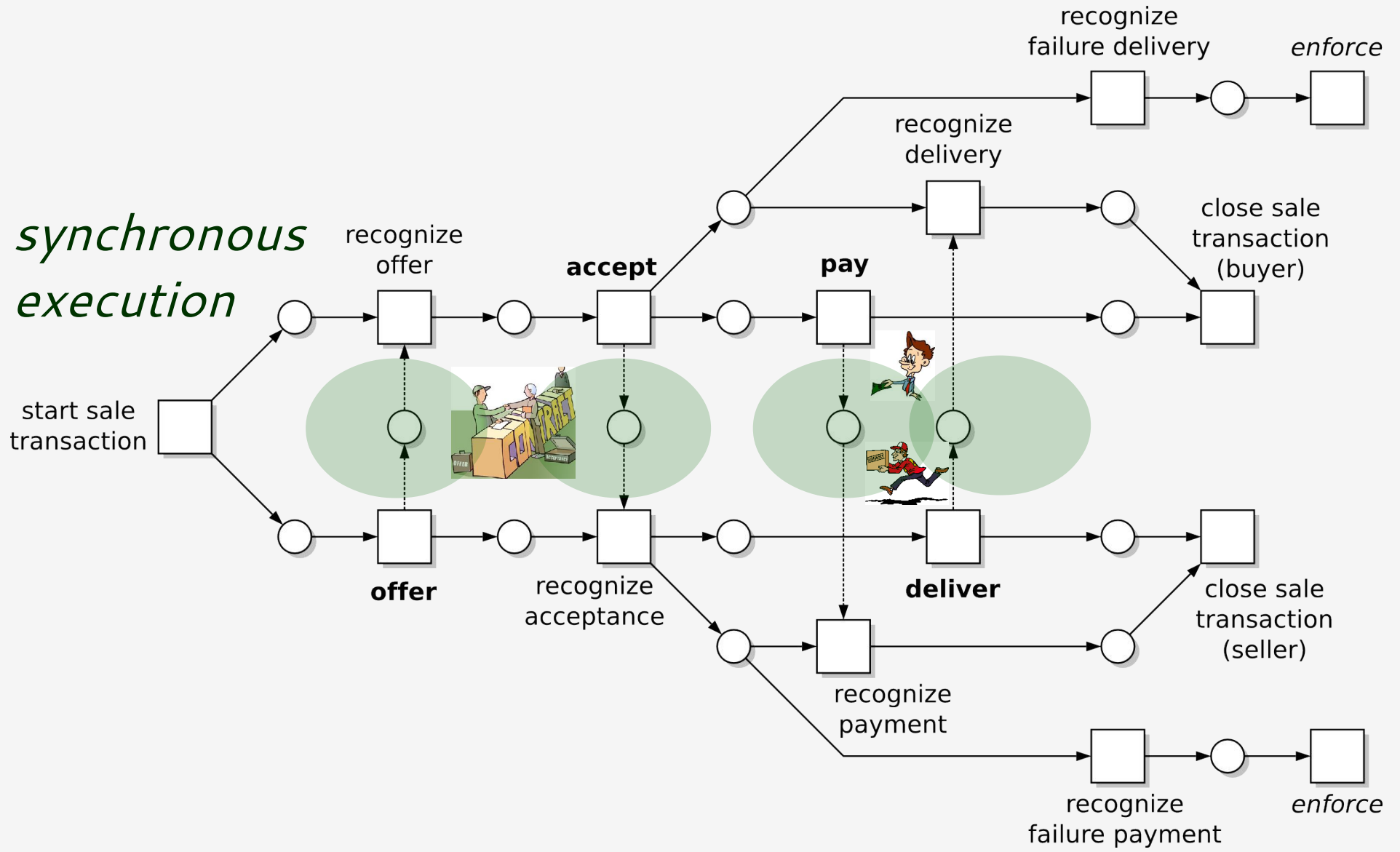


Buyer

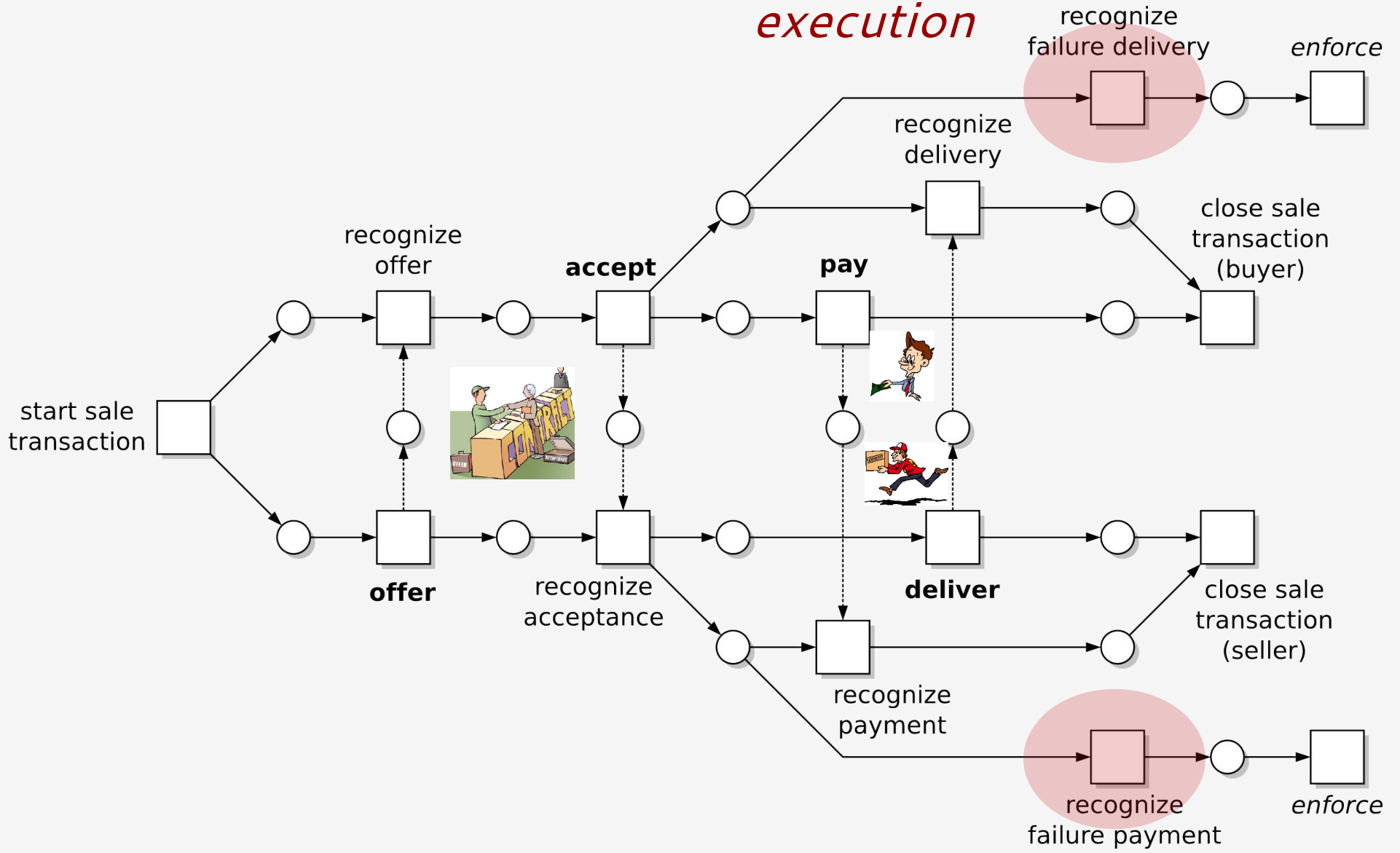
Seller

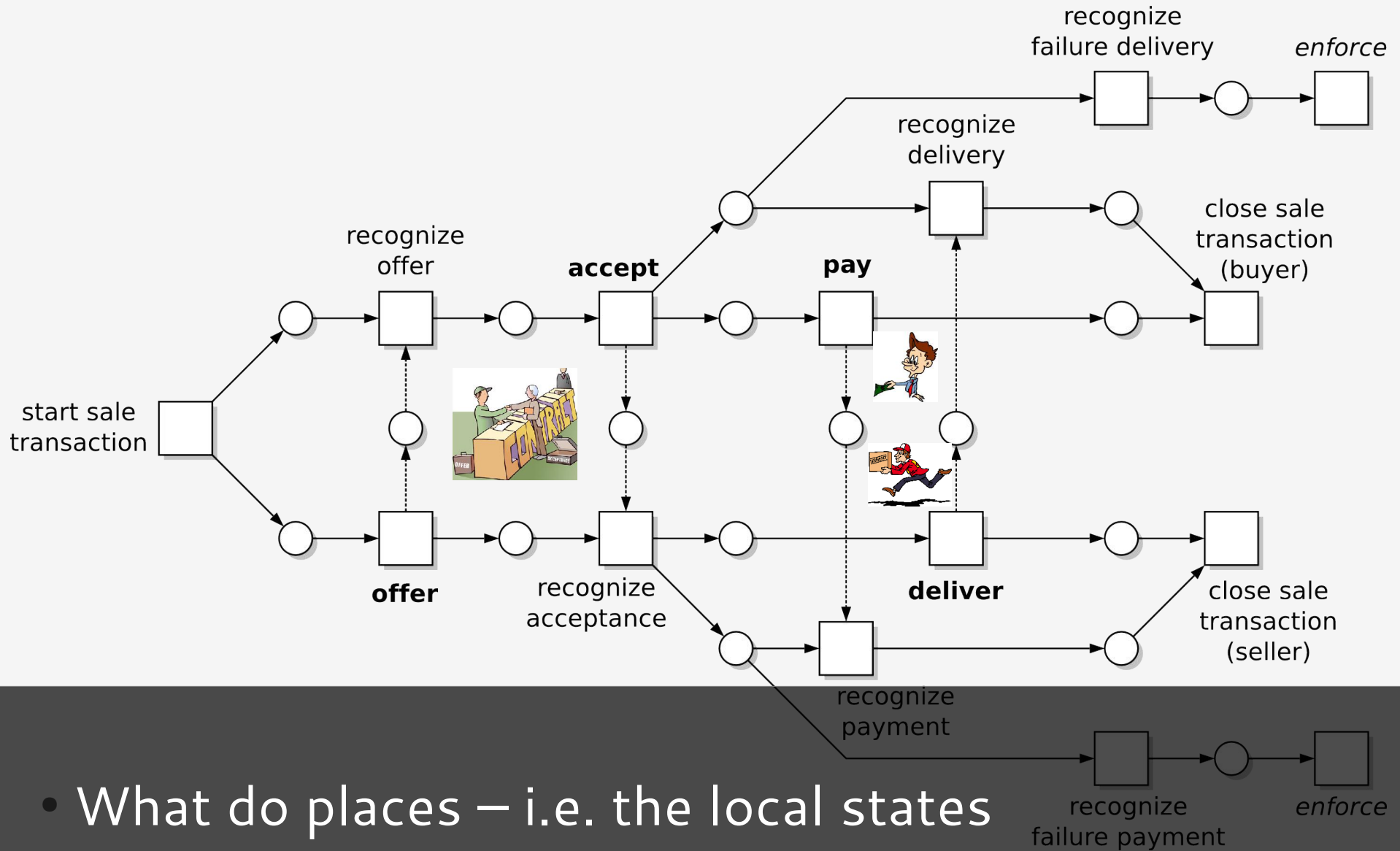


synchronous execution

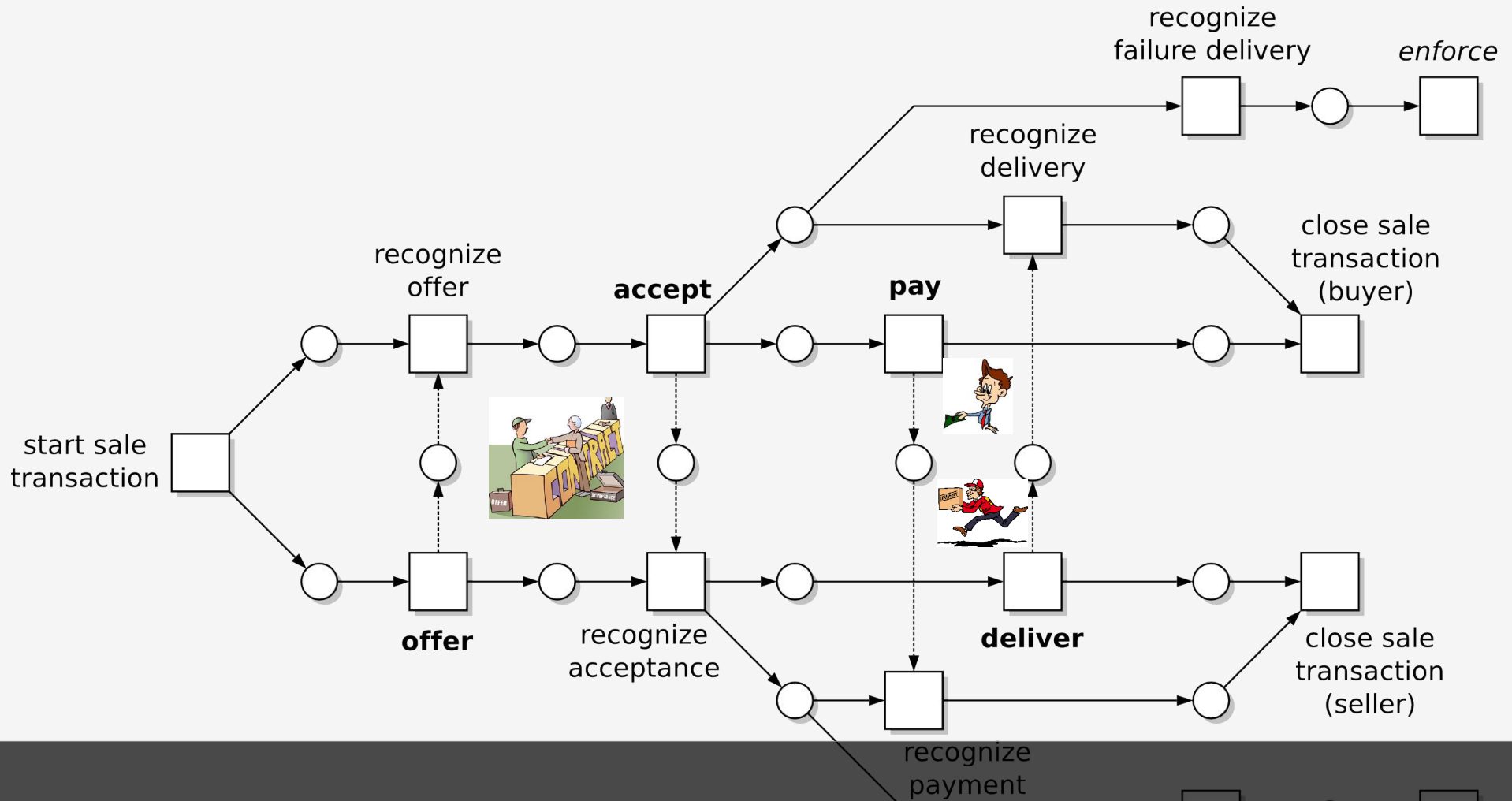


*asynchronous
execution*

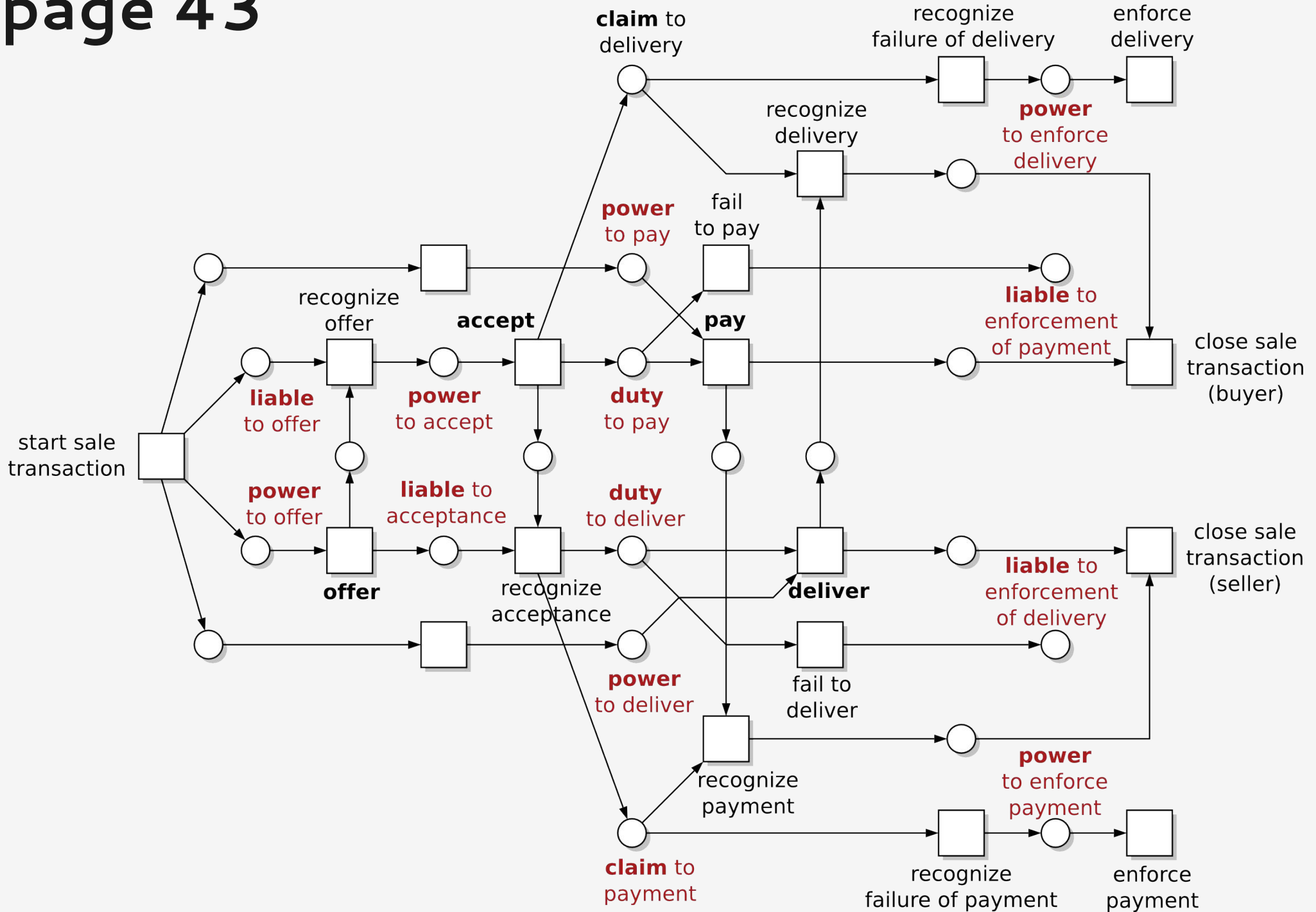


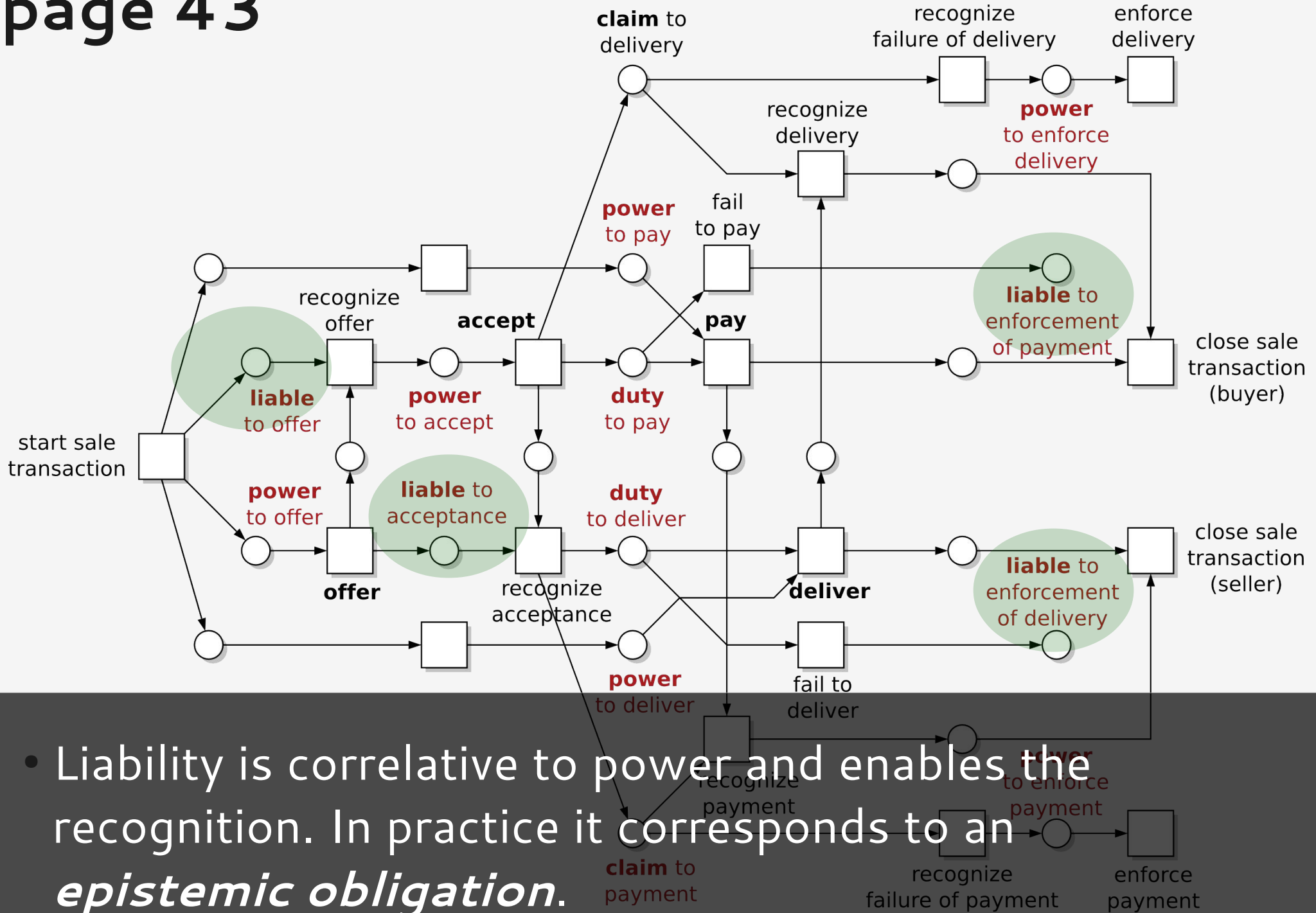


- What do places – i.e. the local states *enabling* the actions – mean in this graph?

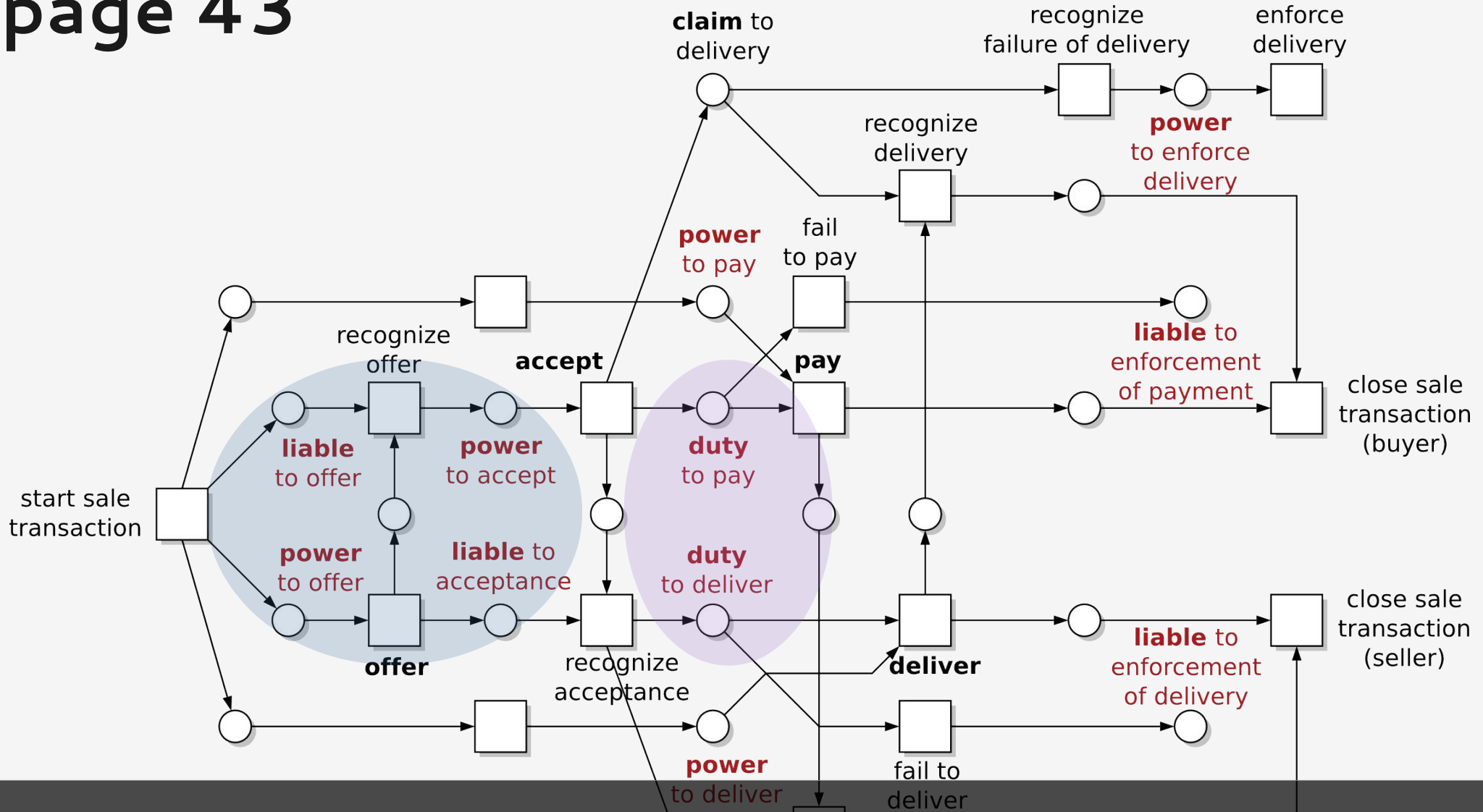


- In order to offer, I need the **power** to offer.
- In order to accept, I need the **power** to accept.
- After the acceptance, the buyer has the **duty** to pay...

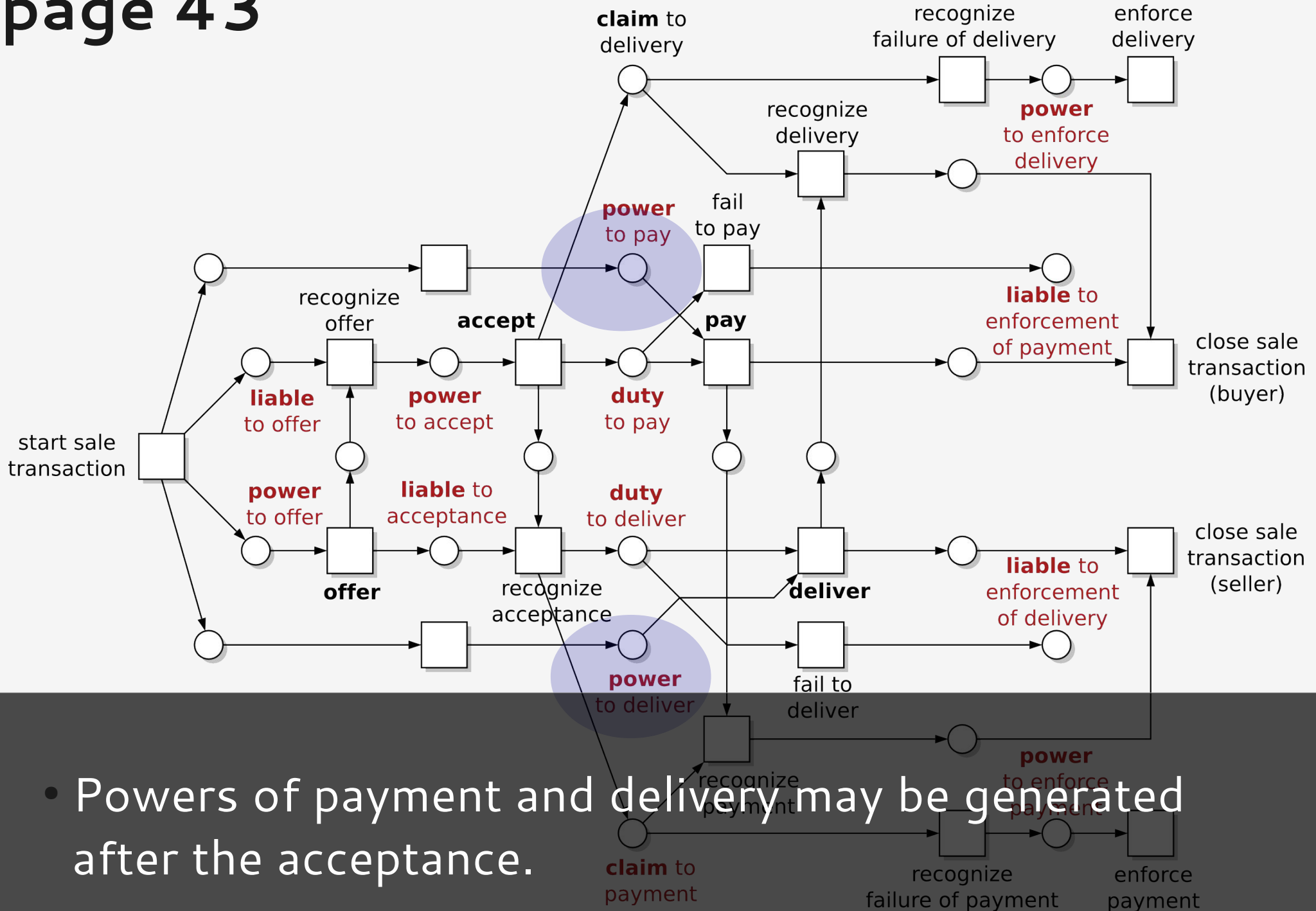




- Liability is correlative to power and enables the recognition. In practice it corresponds to an **epistemic obligation**.



From this interactional perspective, a sale contract can be seen as the creation of a collective intentional entity aiming to the exchange of ownerships.



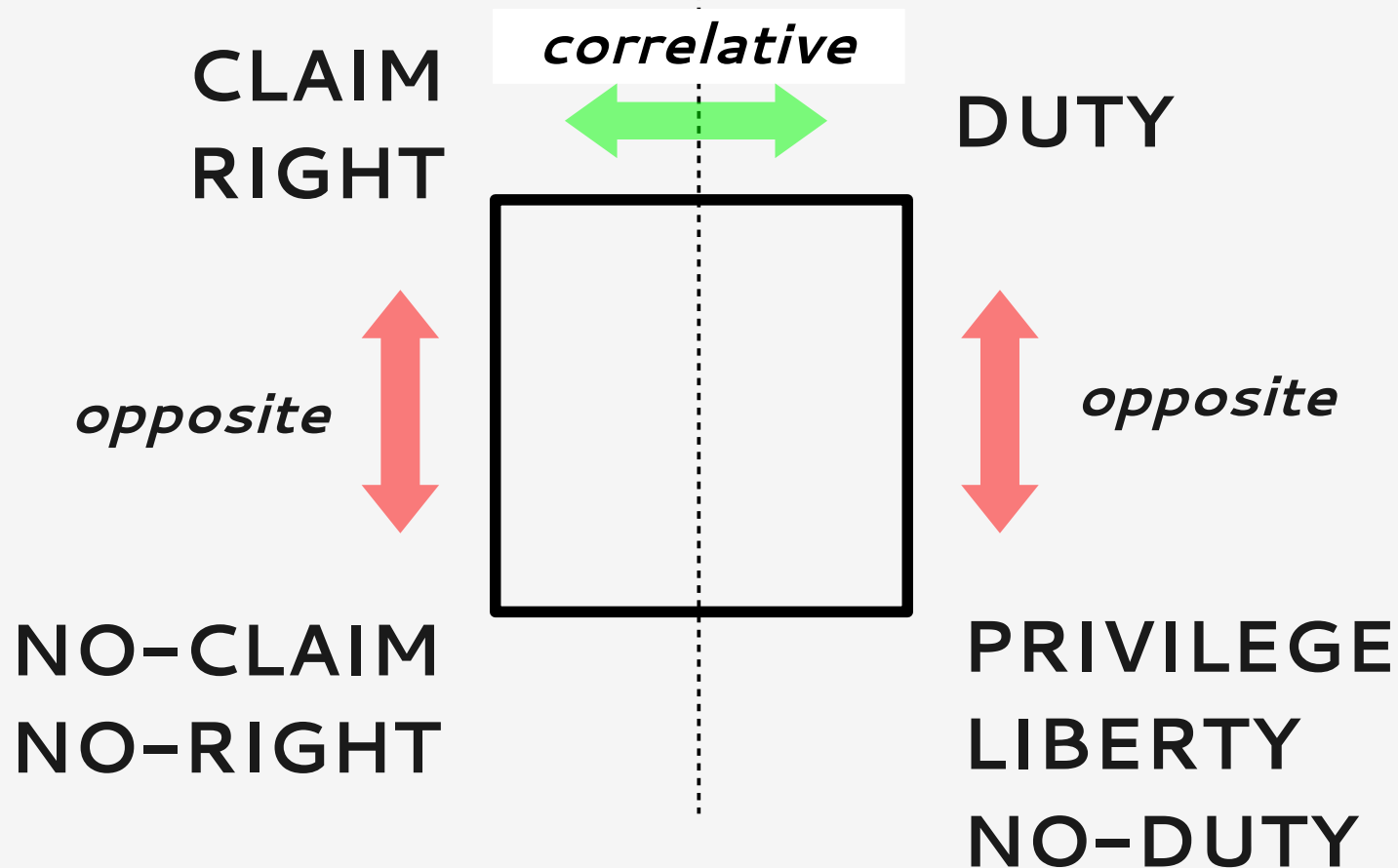
- Powers of payment and delivery may be generated after the acceptance.

Relations between two parties

First Hohfeldian square

beneficiary perspective

addressee perspective



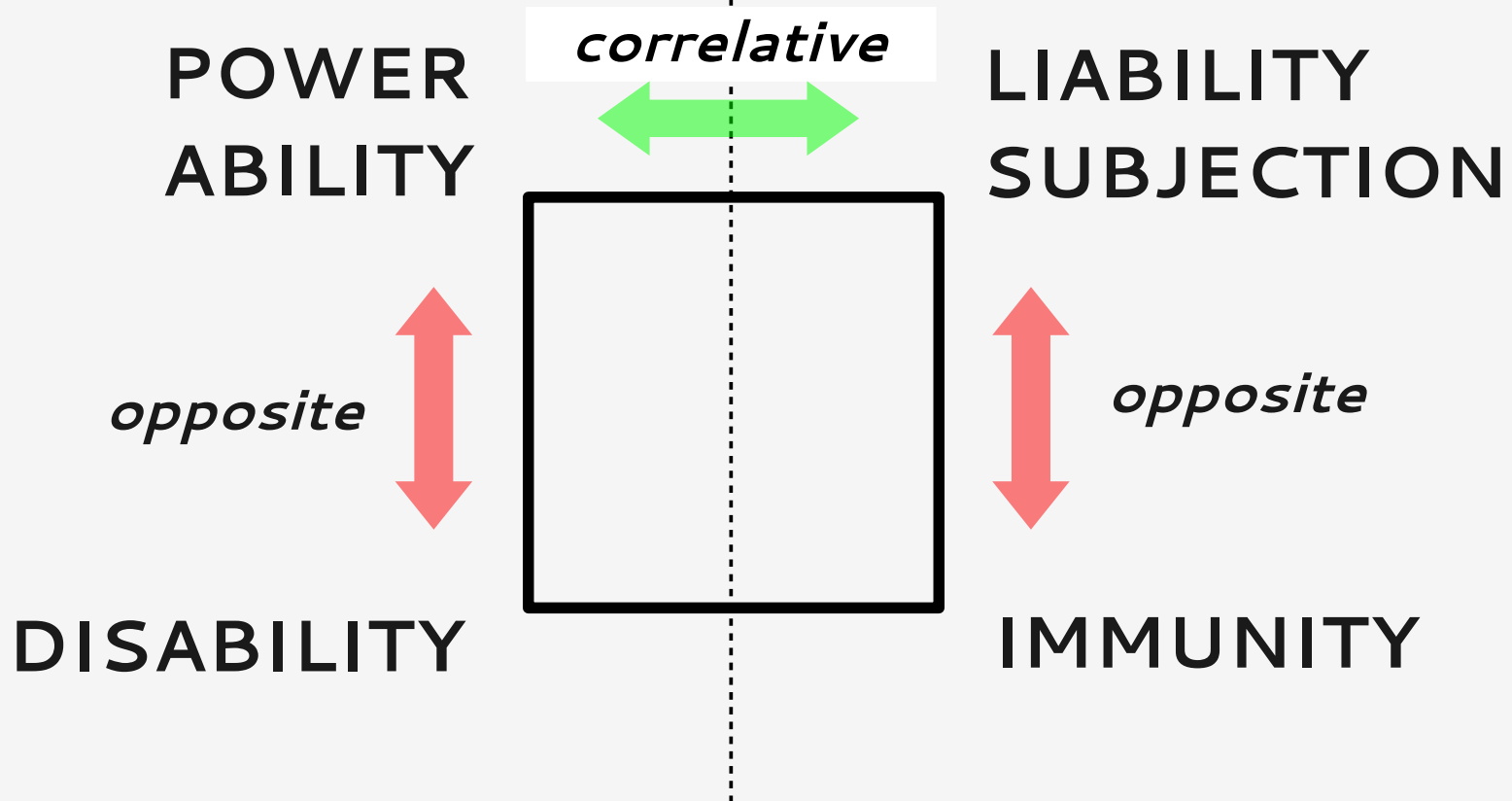
W. N. Hohfeld. Fundamental legal conceptions as applied in judicial reasoning. The Yale Law Journal, 1917.



Second Hohfeldian square

performer perspective

recipient perspective



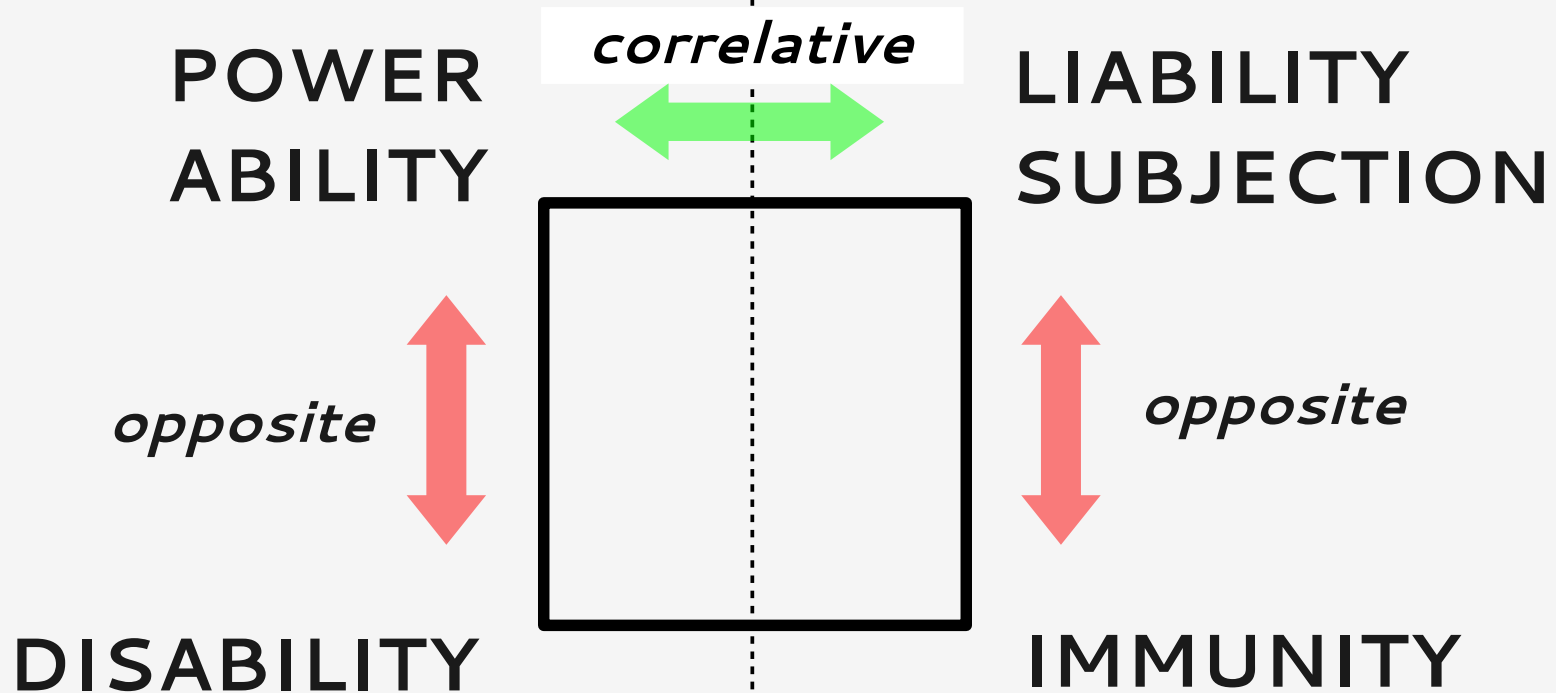
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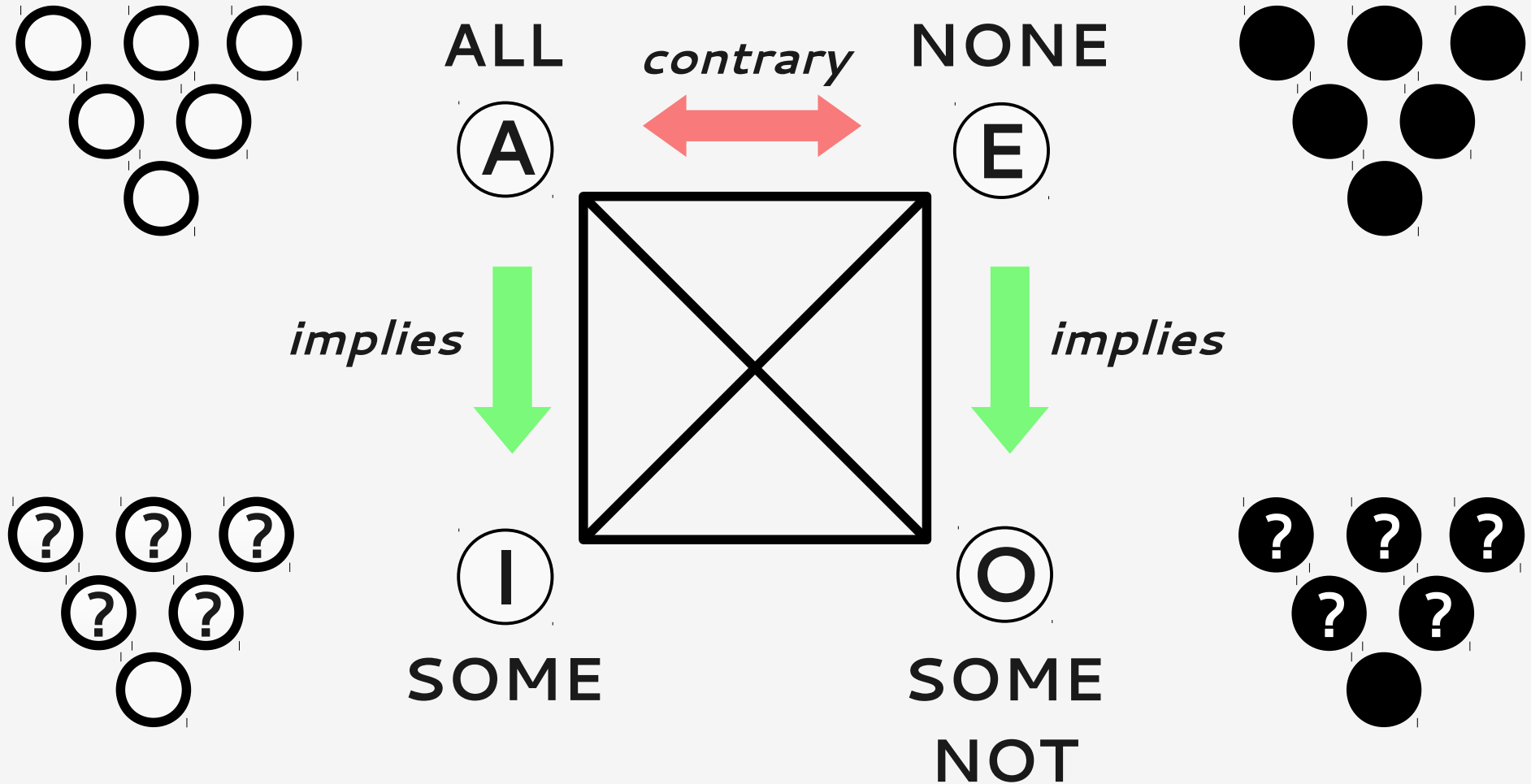
recipient perspective



Lindhal's formal analysis (1977) shows that privilege and immunity relationships are not constructed in the same way

Squares, Triangles and Hexagons

The (existential) Aristotelian Square



“Some”

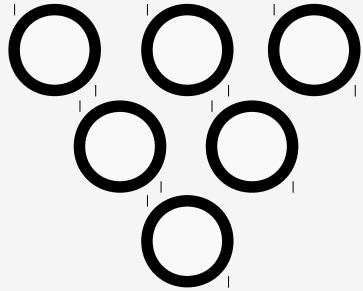
- In the '70s the French logician Blanché, amongst others, observed how, in common usage, “some” does not have the same meaning given in formal logic.



“Some”

- In the '70s the French logician Blanché, amongst others, observed how, in common usage, “some” does not have the same meaning given in formal logic.
- He identified a kind of “degraded position”, correspondent to the third position in the *triangle of contrariety*.

Triangle of contrariety

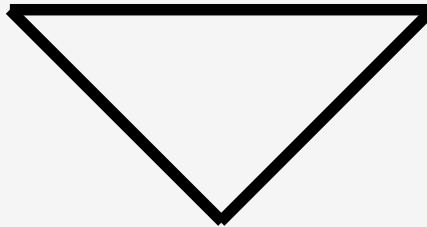
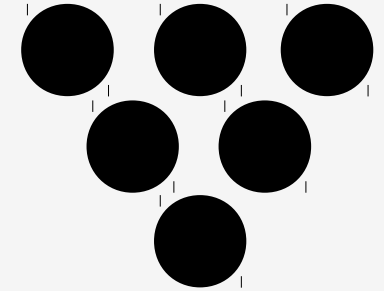


ALL

A

NONE

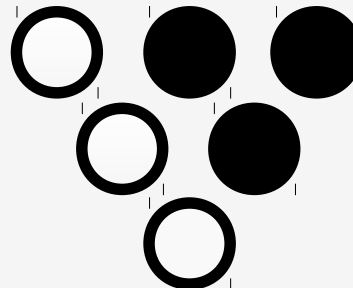
E



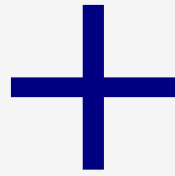
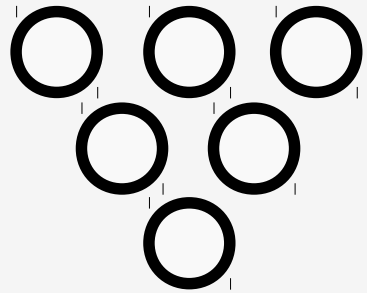
Y

"SOME"

e.g.



positive polarity



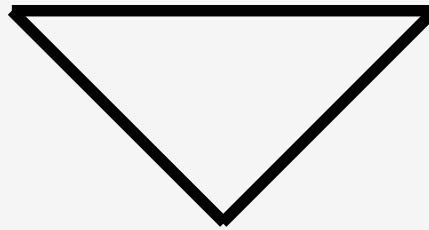
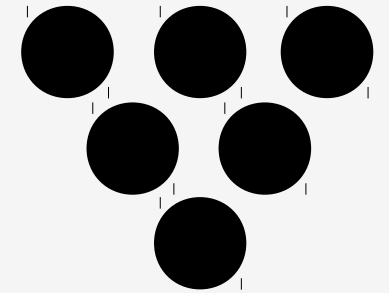
ALL

A

NONE

E

negative polarity



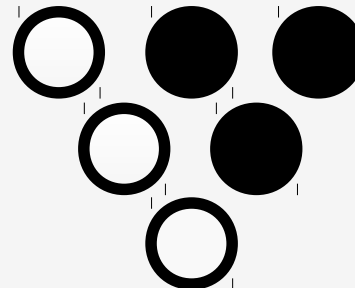
Y

"SOME"

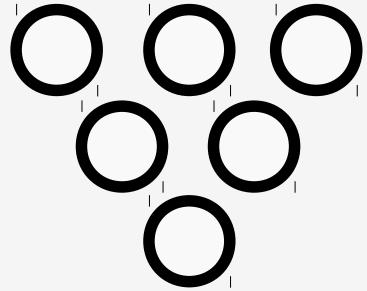
no polarity



e.g.



positive polarity



ALL



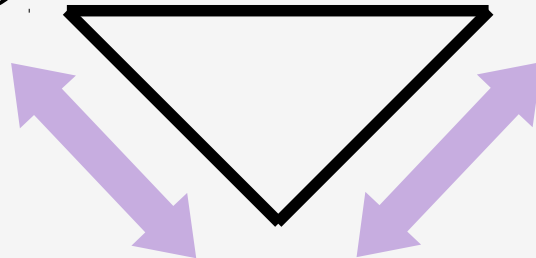
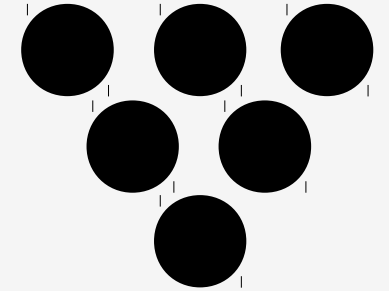
contrary



NONE



negative polarity

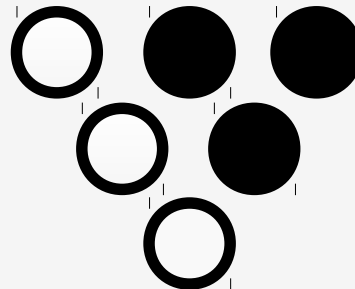


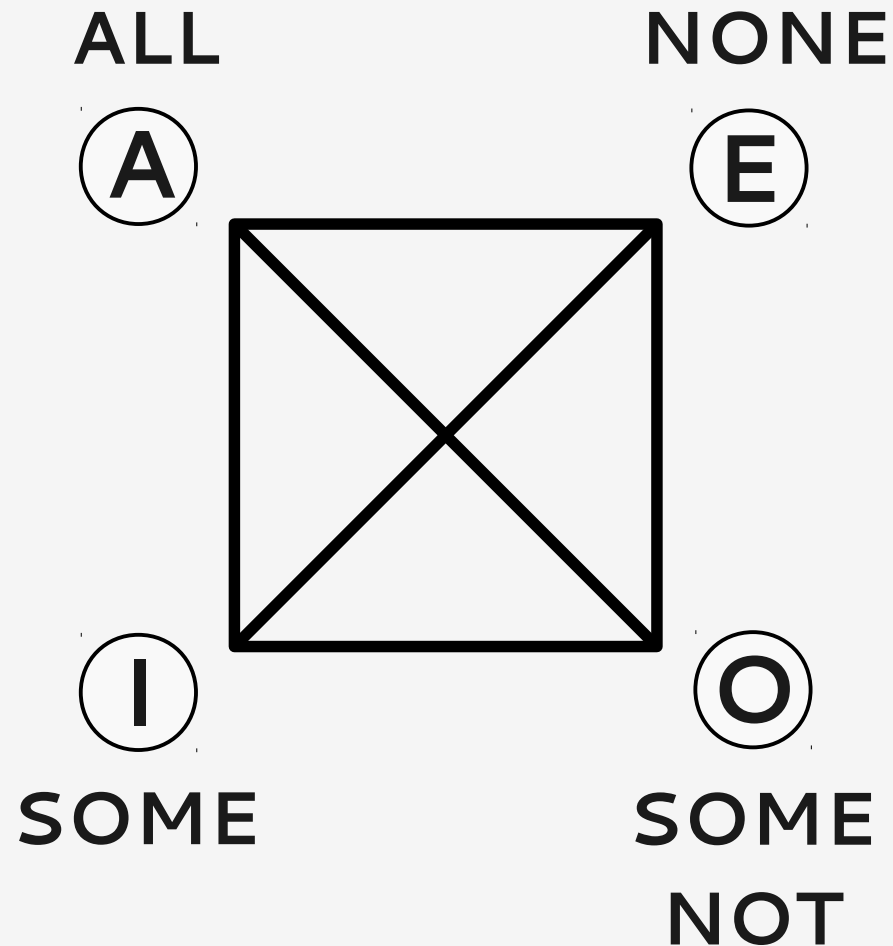
"SOME"

no polarity



e.g.

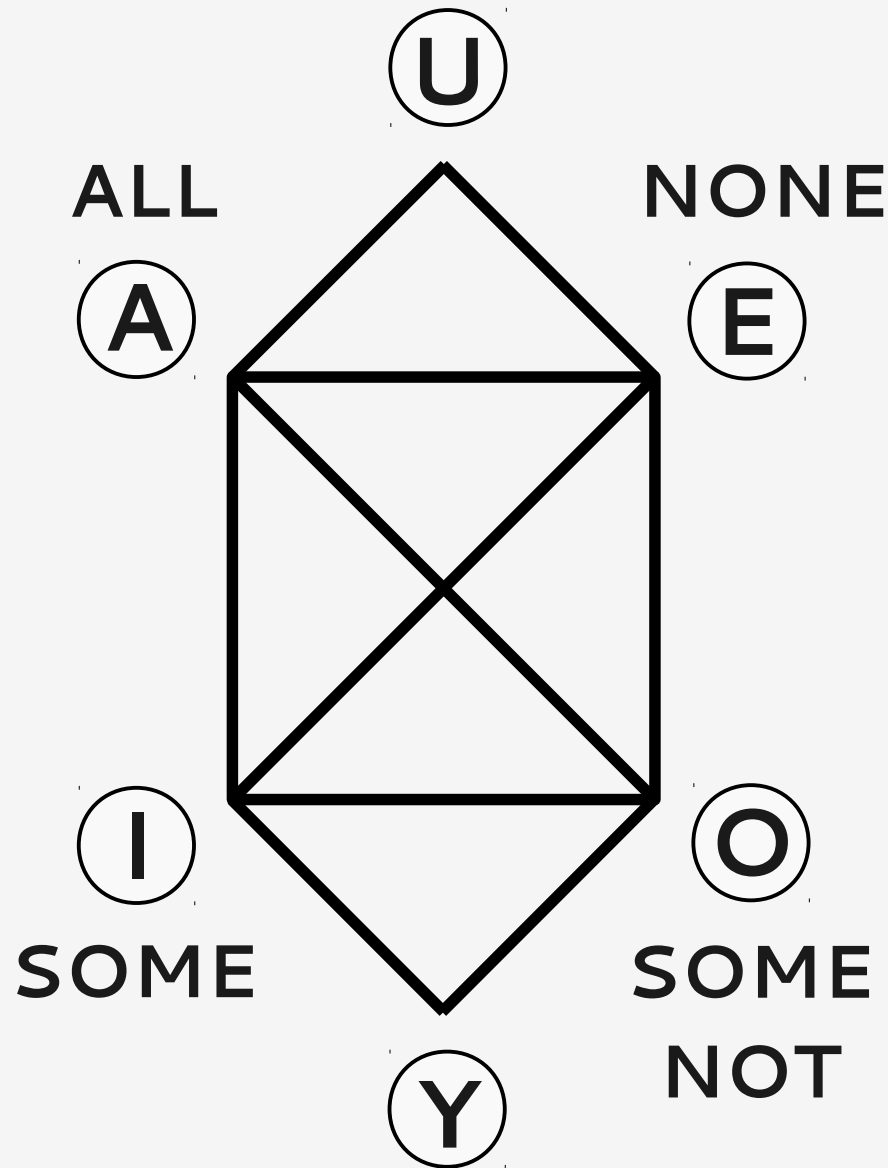




Blanchot proposed to extend the Aristotelian square with two new places:

- the "bipolar" U
- the "complex" Y

ALL or NONE



Blanchot proposed to extend the Aristotelian square with two new places:

- the "bipolar" *U*
- the "complex" *Y*

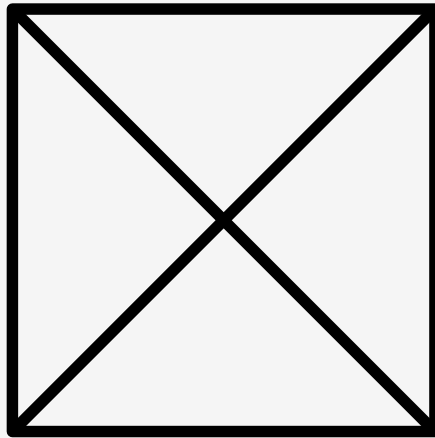
SOME and SOME NOT \equiv "SOME"

obligatory
commanded

A

illicit
prohibited

E



Deontic square

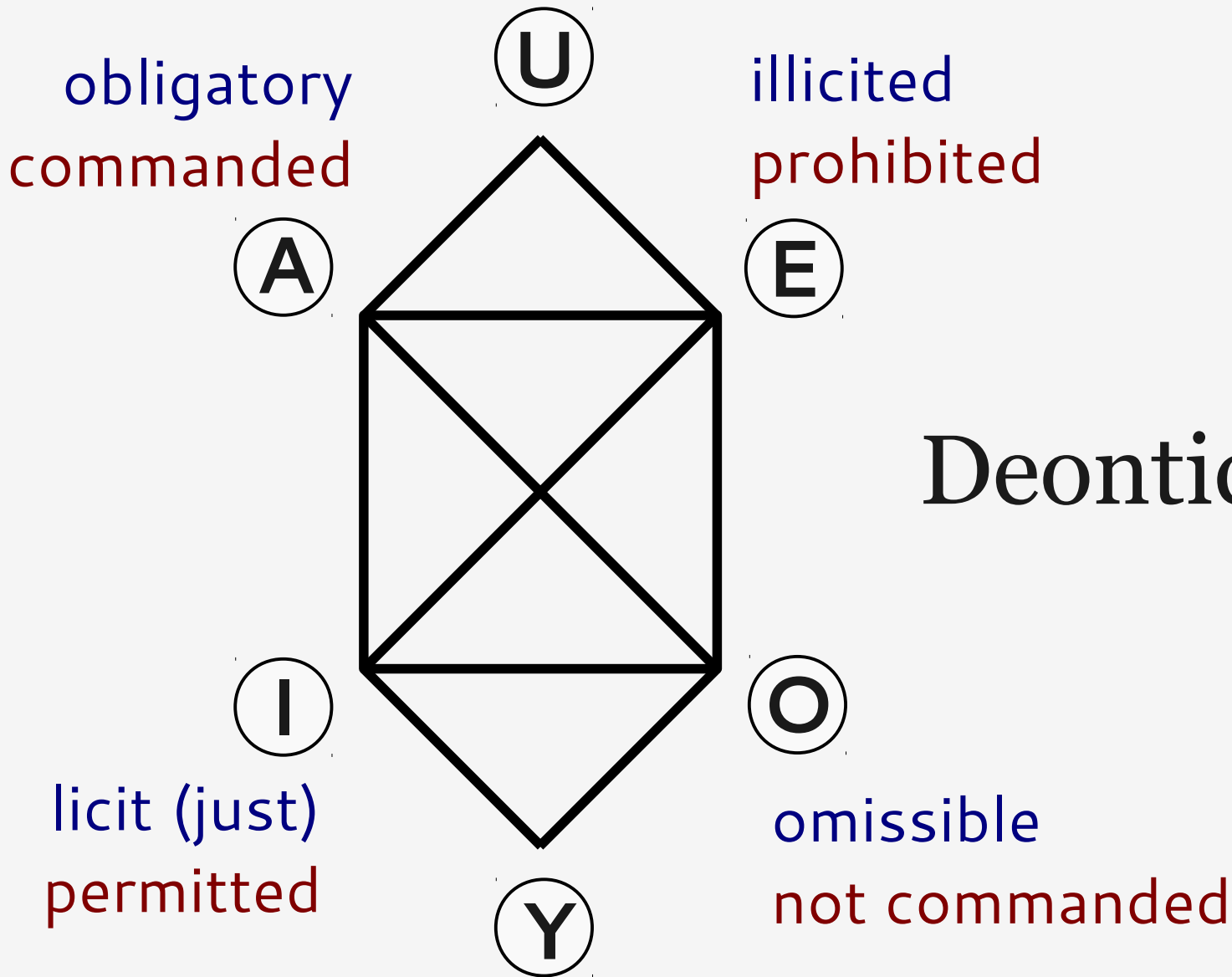
I
licit (just)
permitted

O

omissible
not commanded

Leibniz, Bentham terminologies

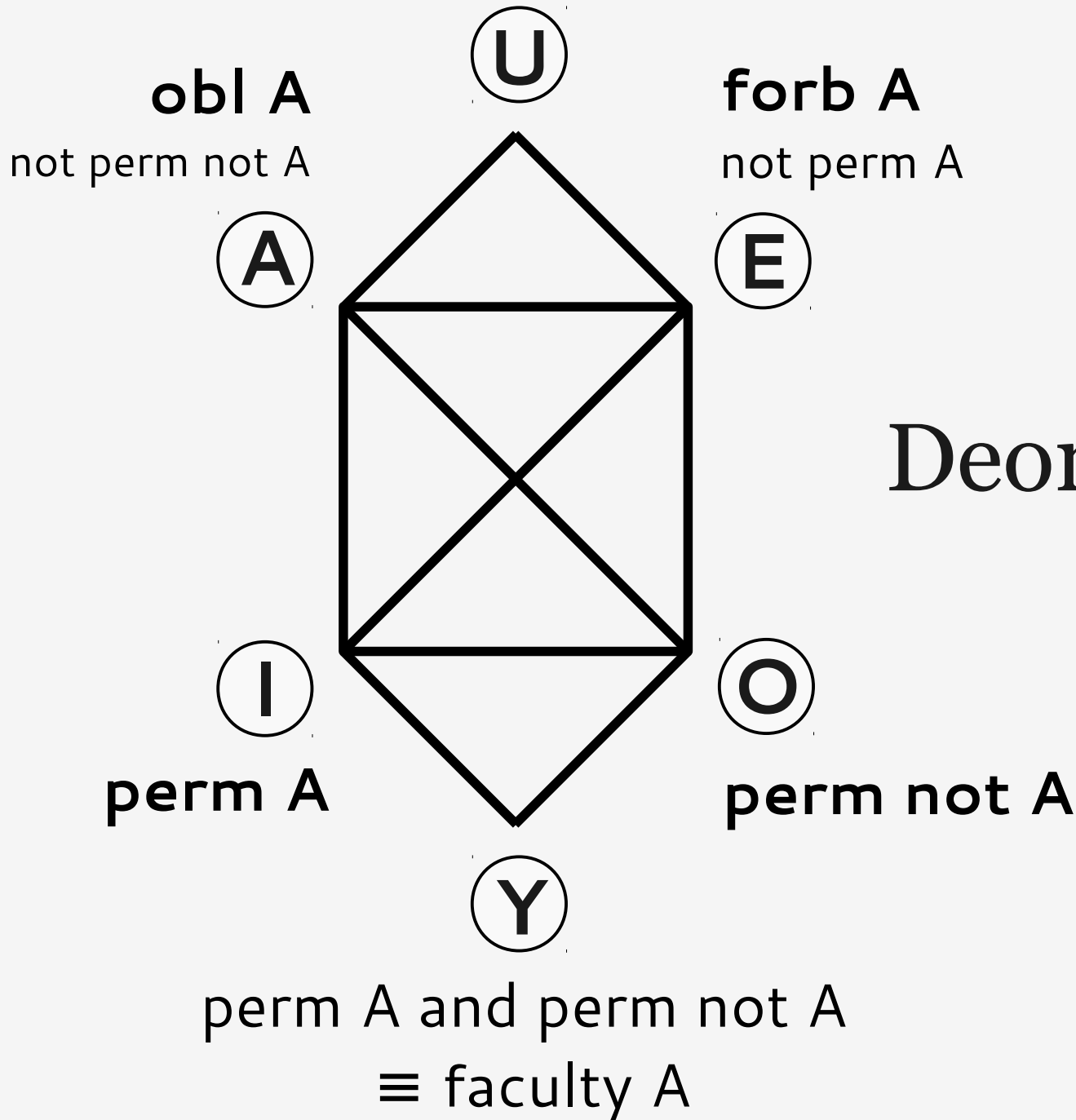
or commanded or prohibited \equiv *imperative*



Deontic hexagon

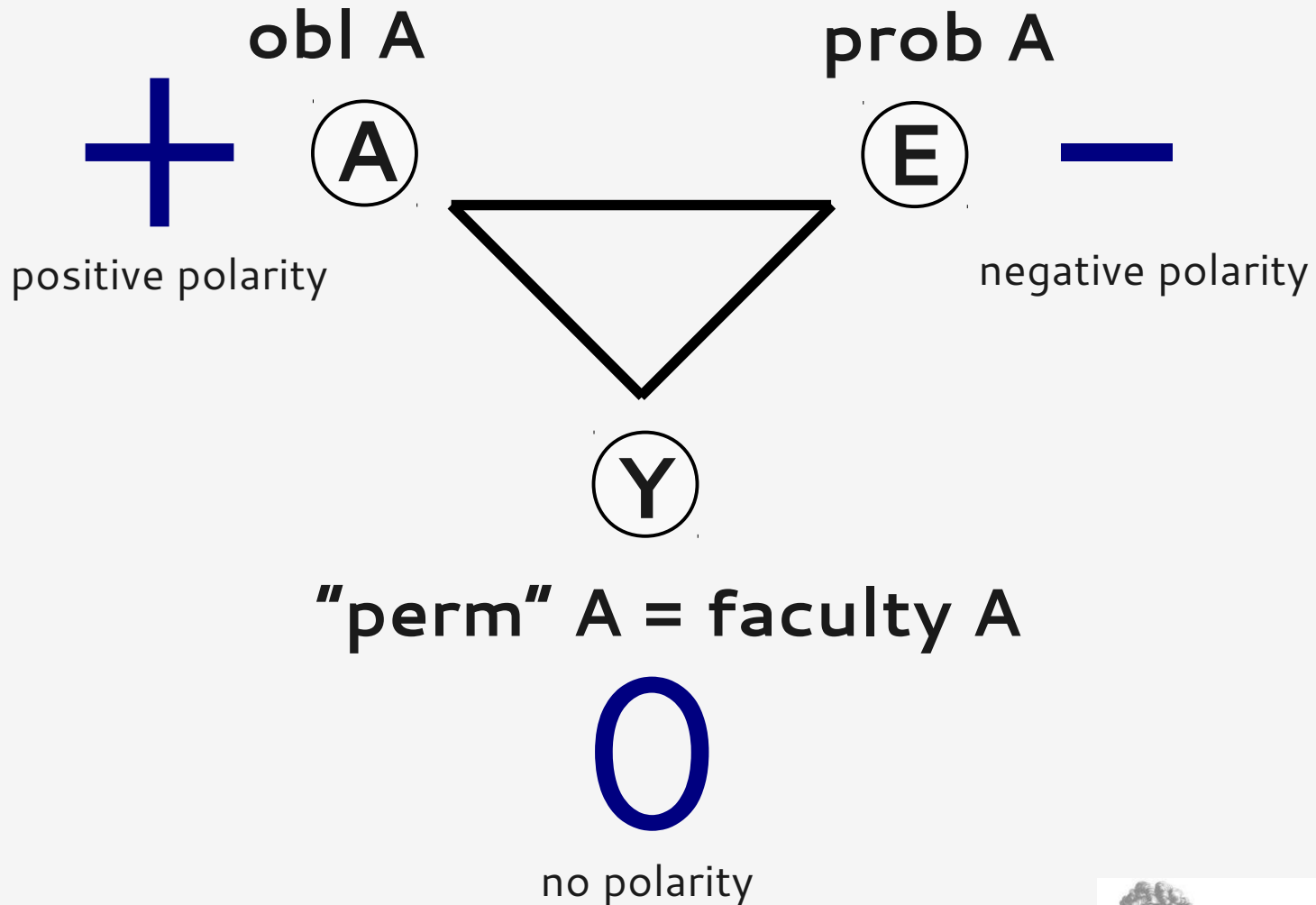
permitted and not commanded
 \equiv *at liberty, optional*

obl A or forb A



Deontic hexagon

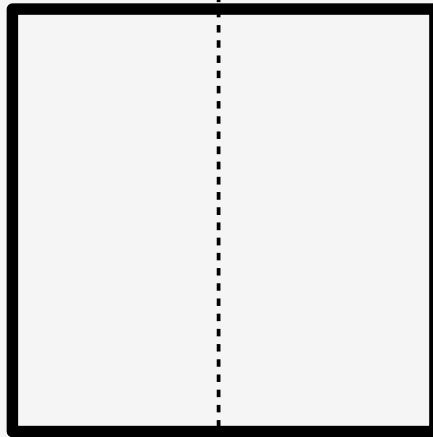
Deontic triangle of contrariety



Constructing prisms

CLAIM

DUTY



NO-CLAIM

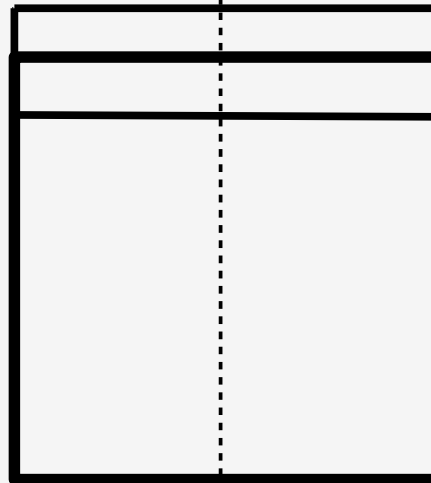
PRIVILEGE

beneficiary perspective

addressee perspective

CLAIM

DUTY

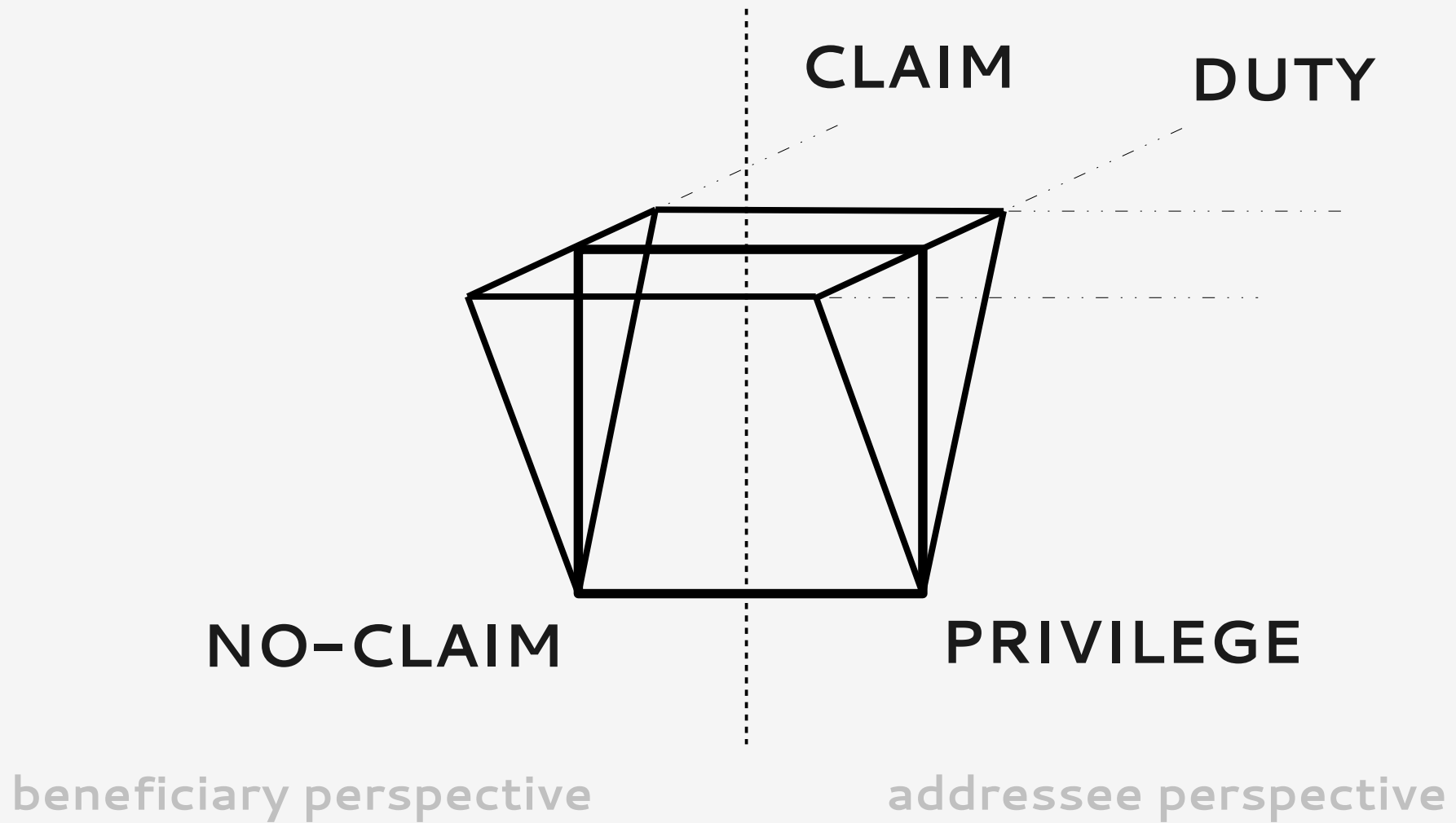


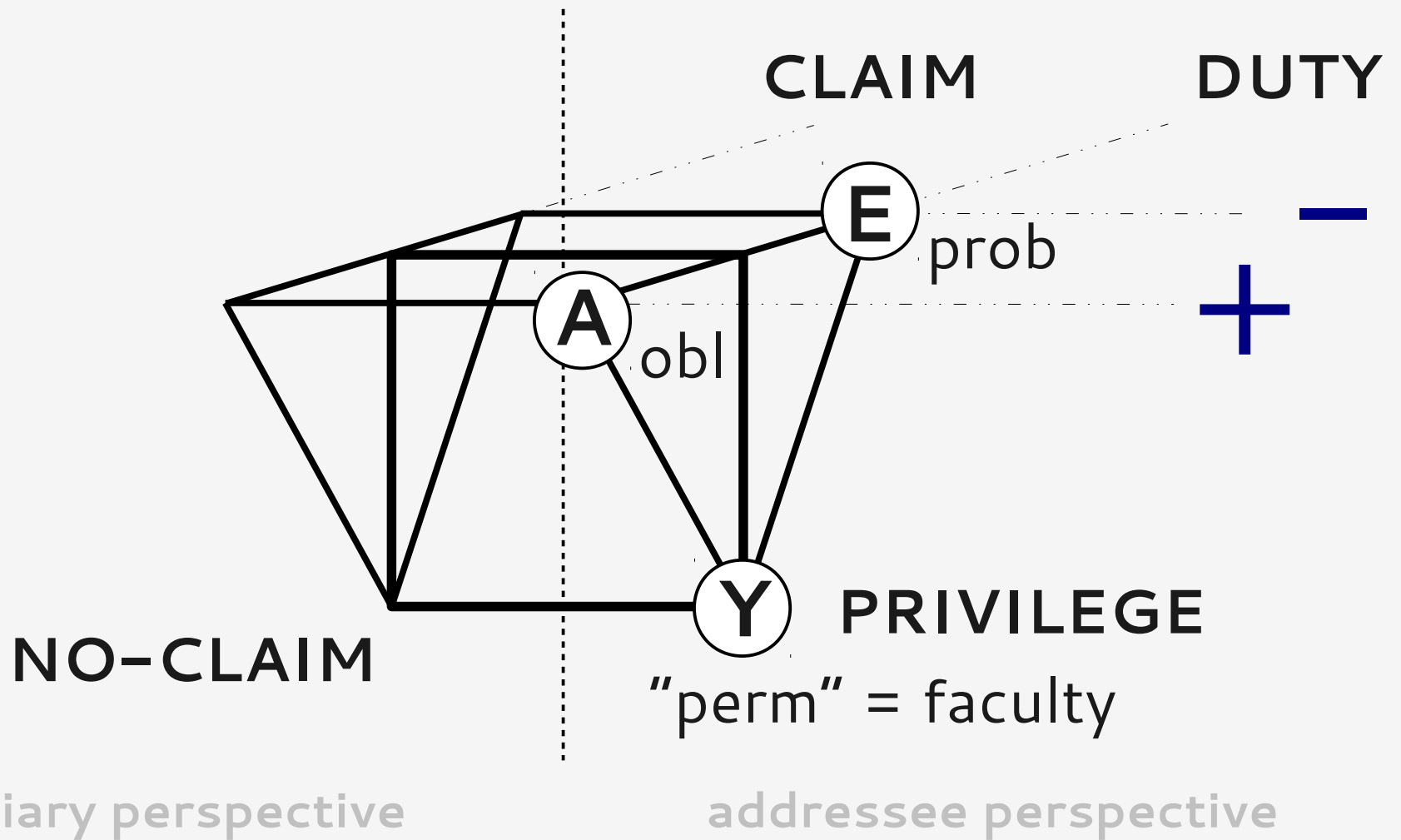
NO-CLAIM

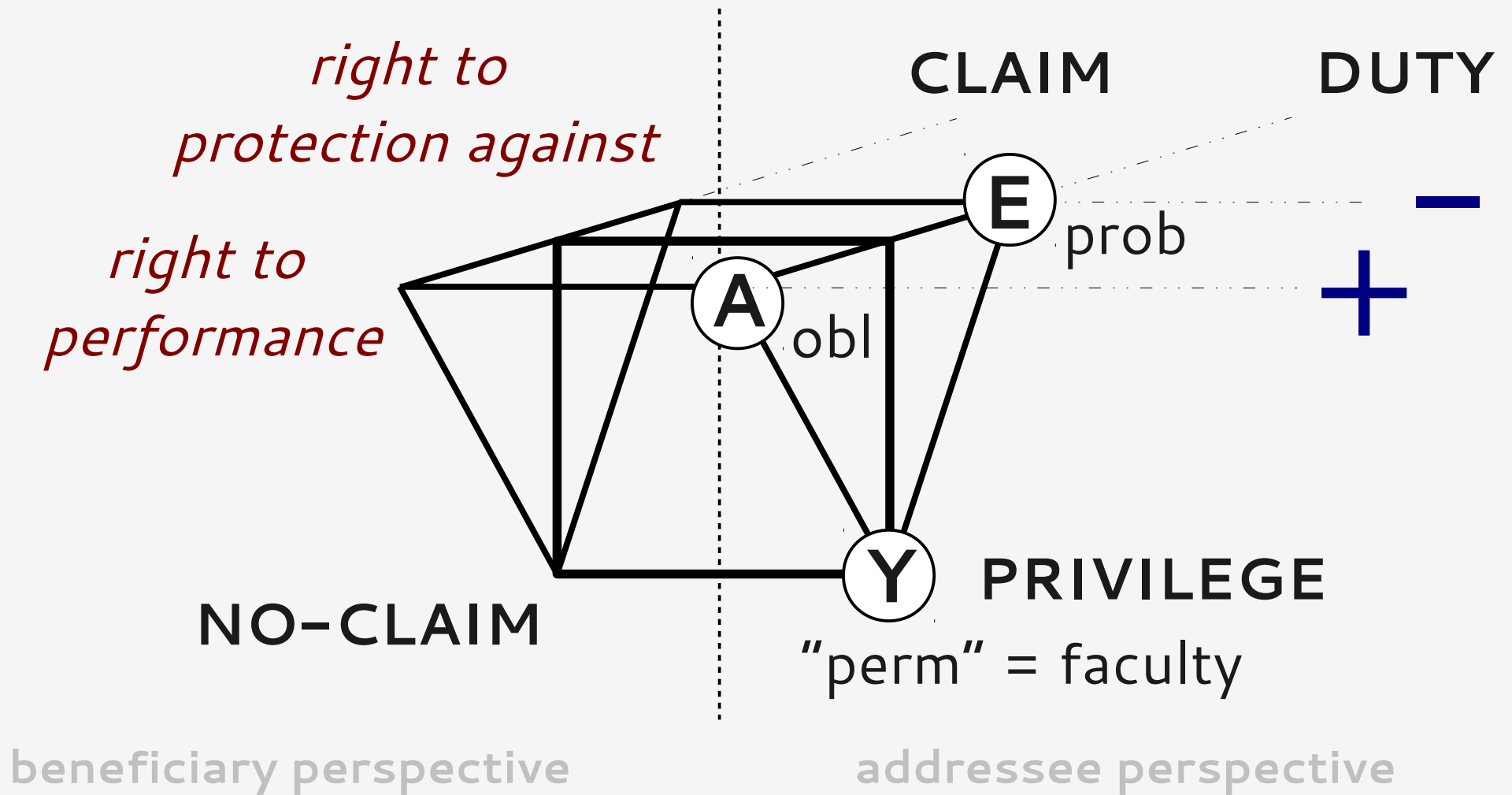
PRIVILEGE

beneficiary perspective

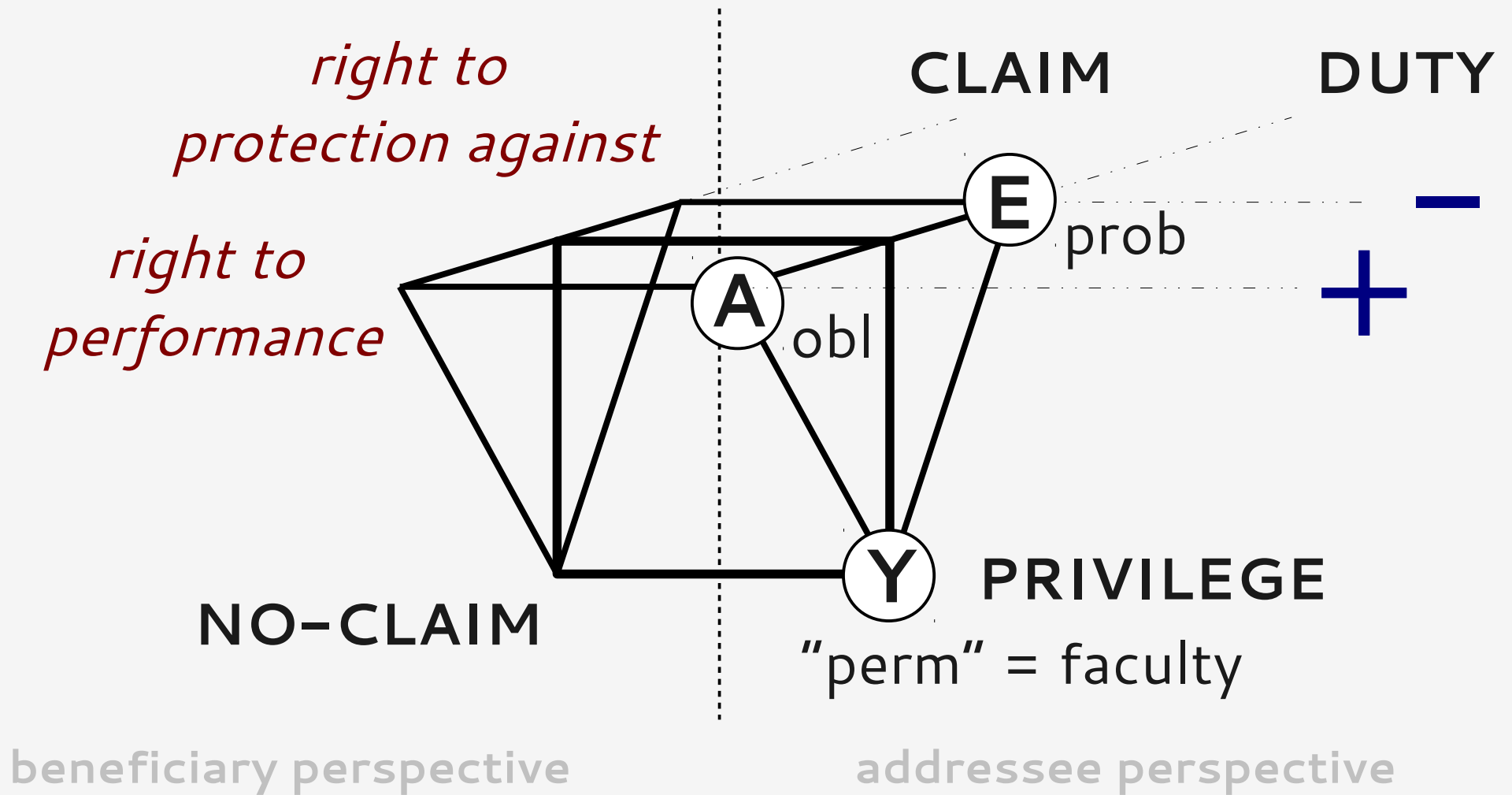
addressee perspective

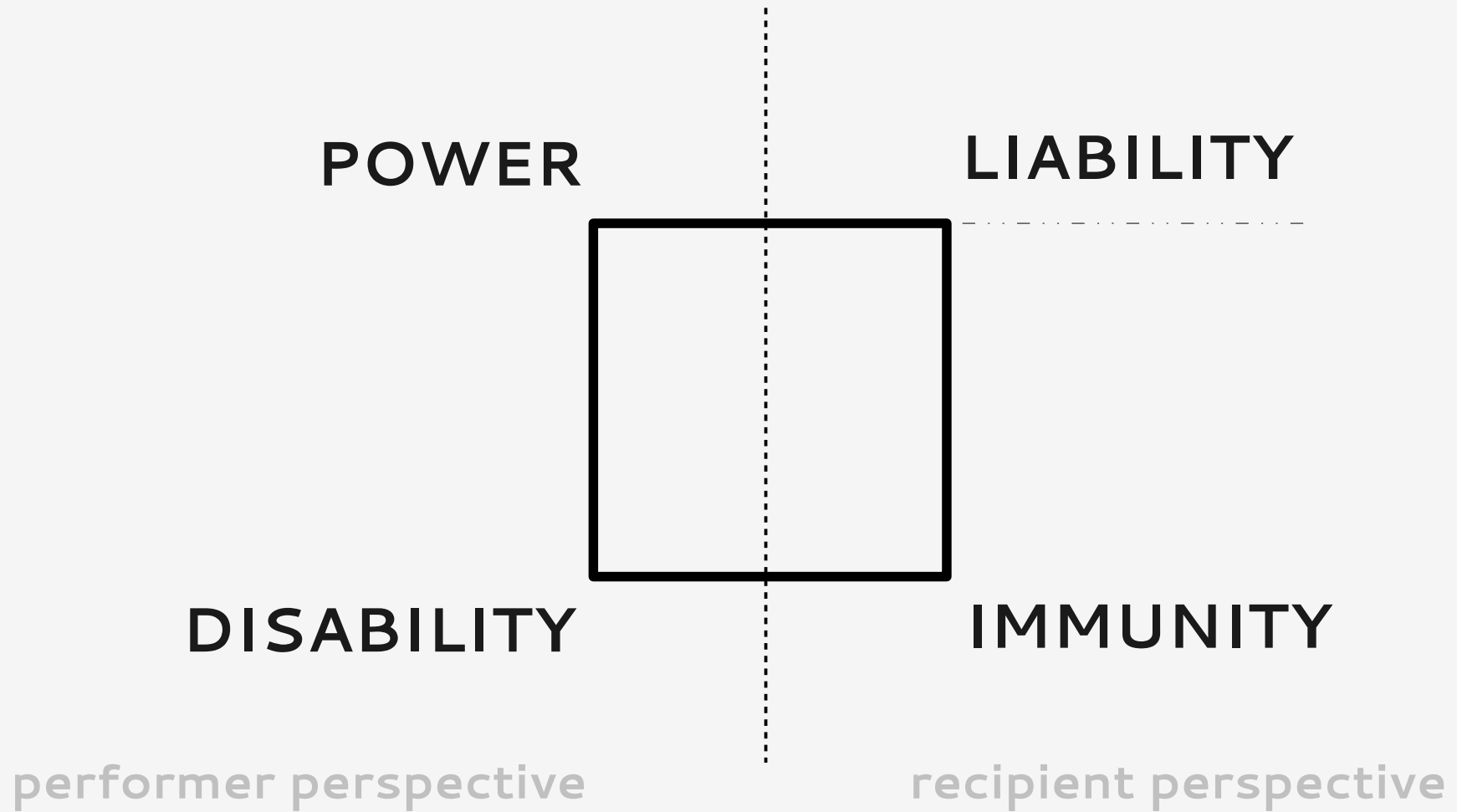


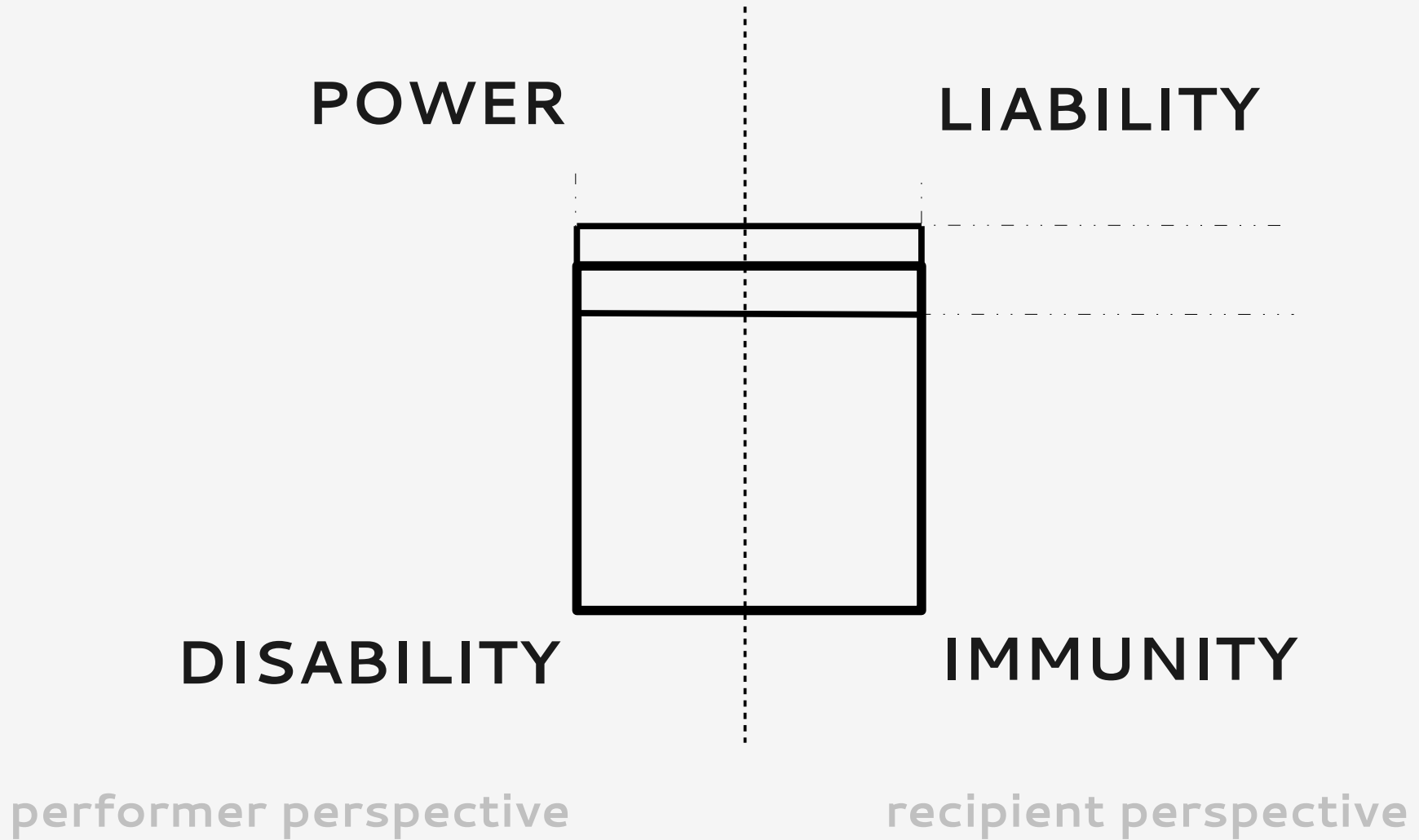


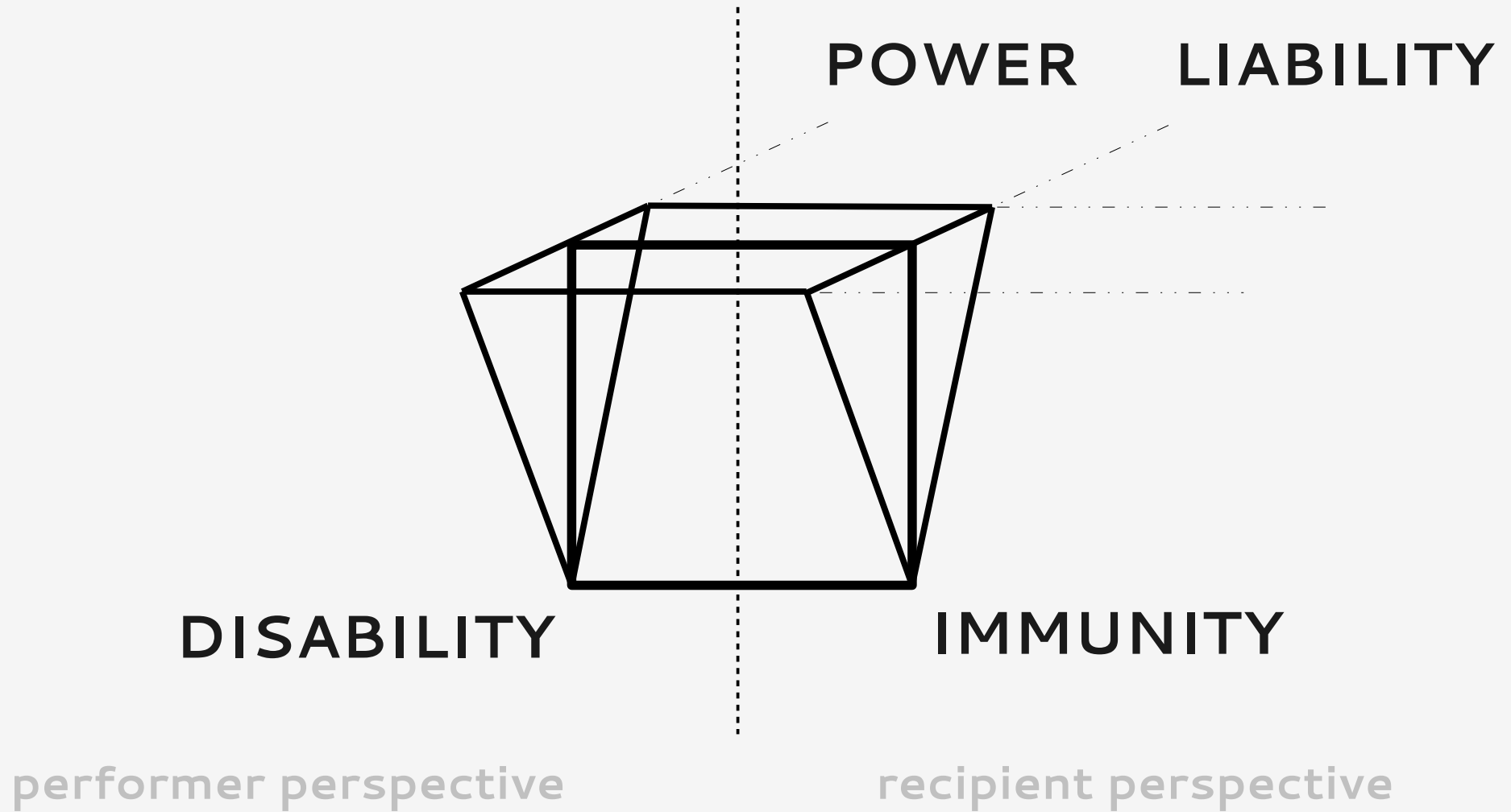


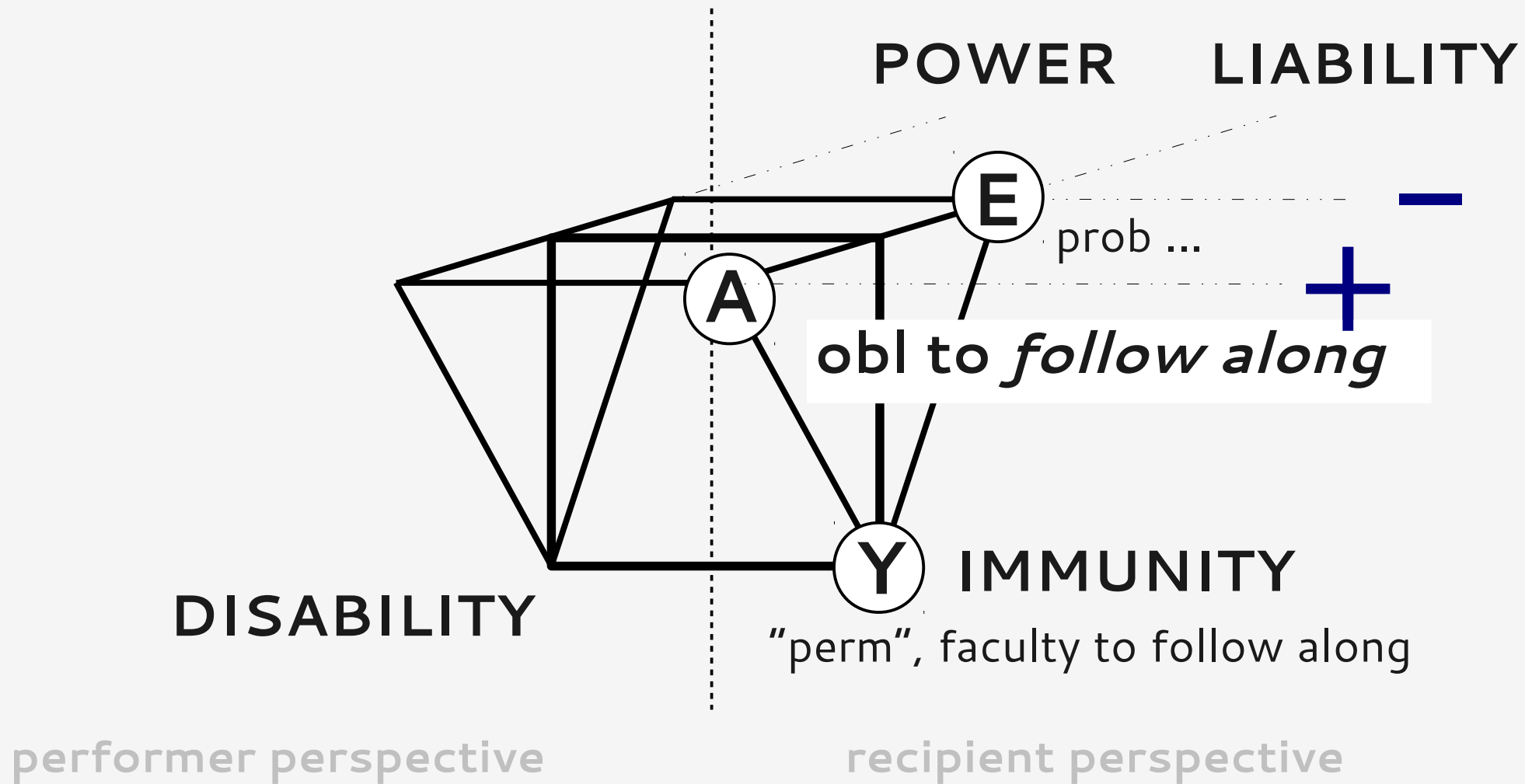
First Hohfeldian prism

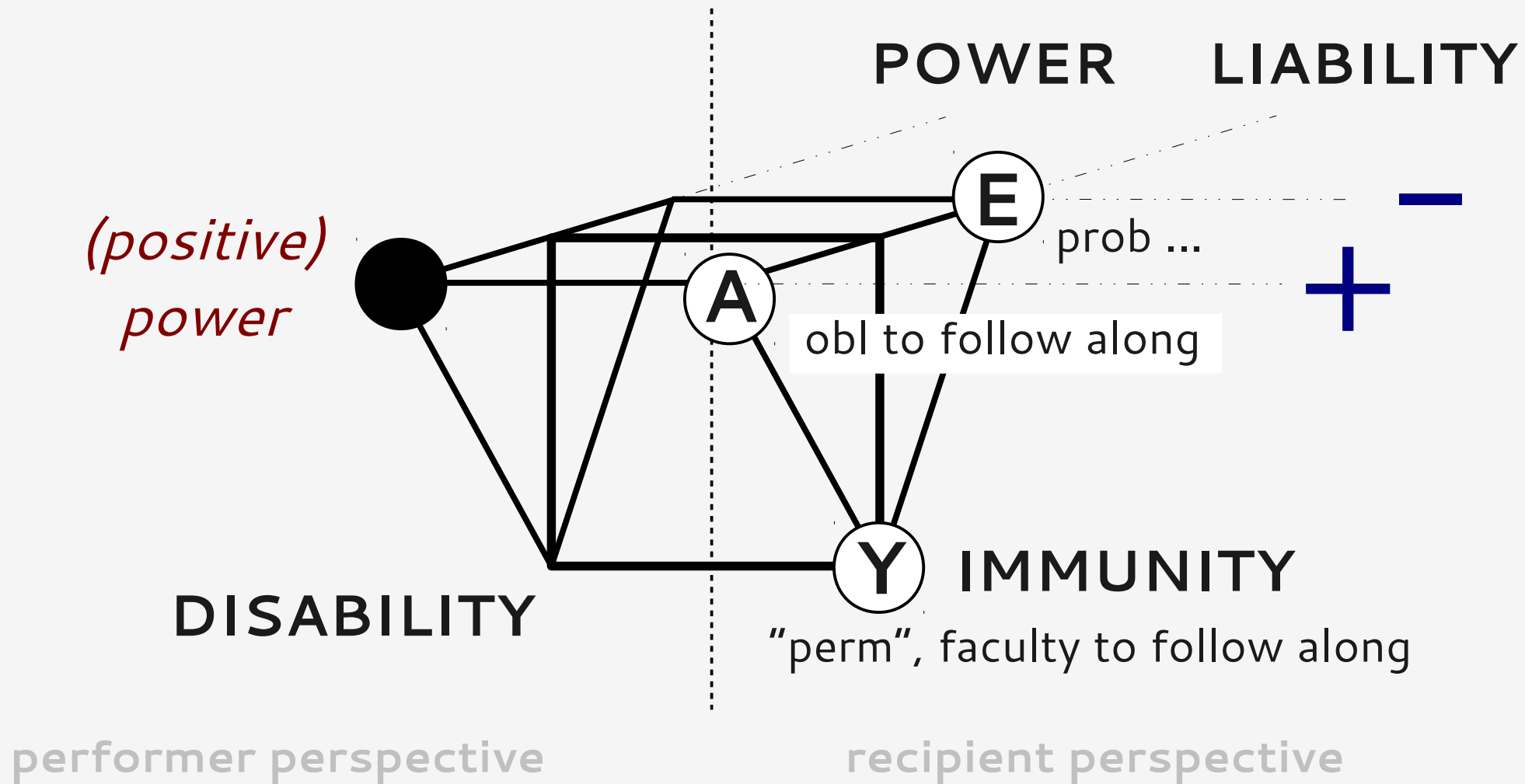


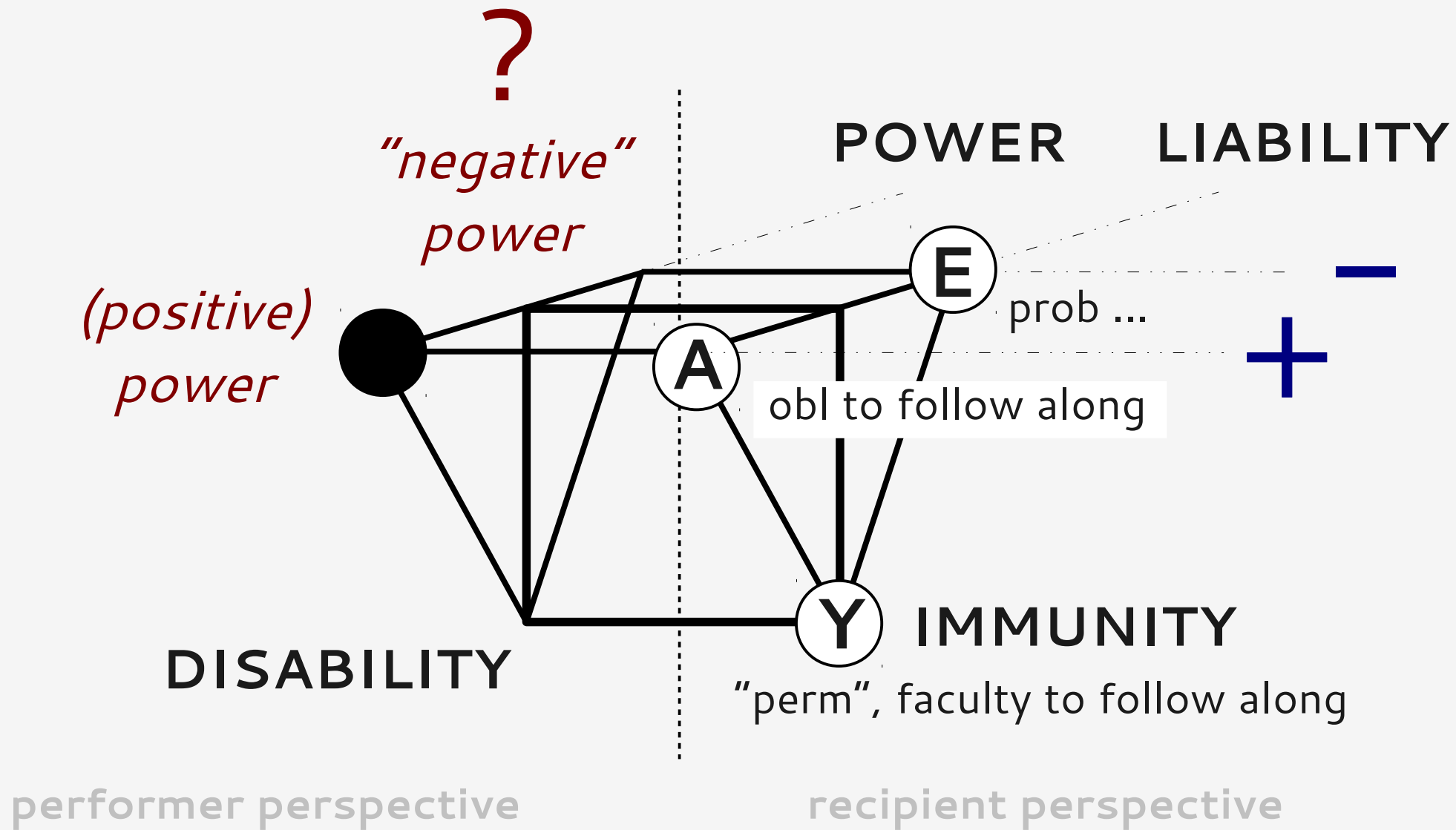












Negative power axis

- The recipient's position of the negative power axis corresponds to the *prohibition of recognizing the consequences* consequent to the use of the power.
- It basically forbids the “integration” of the recipient to the institutional domain where the power originates.

Negative liability

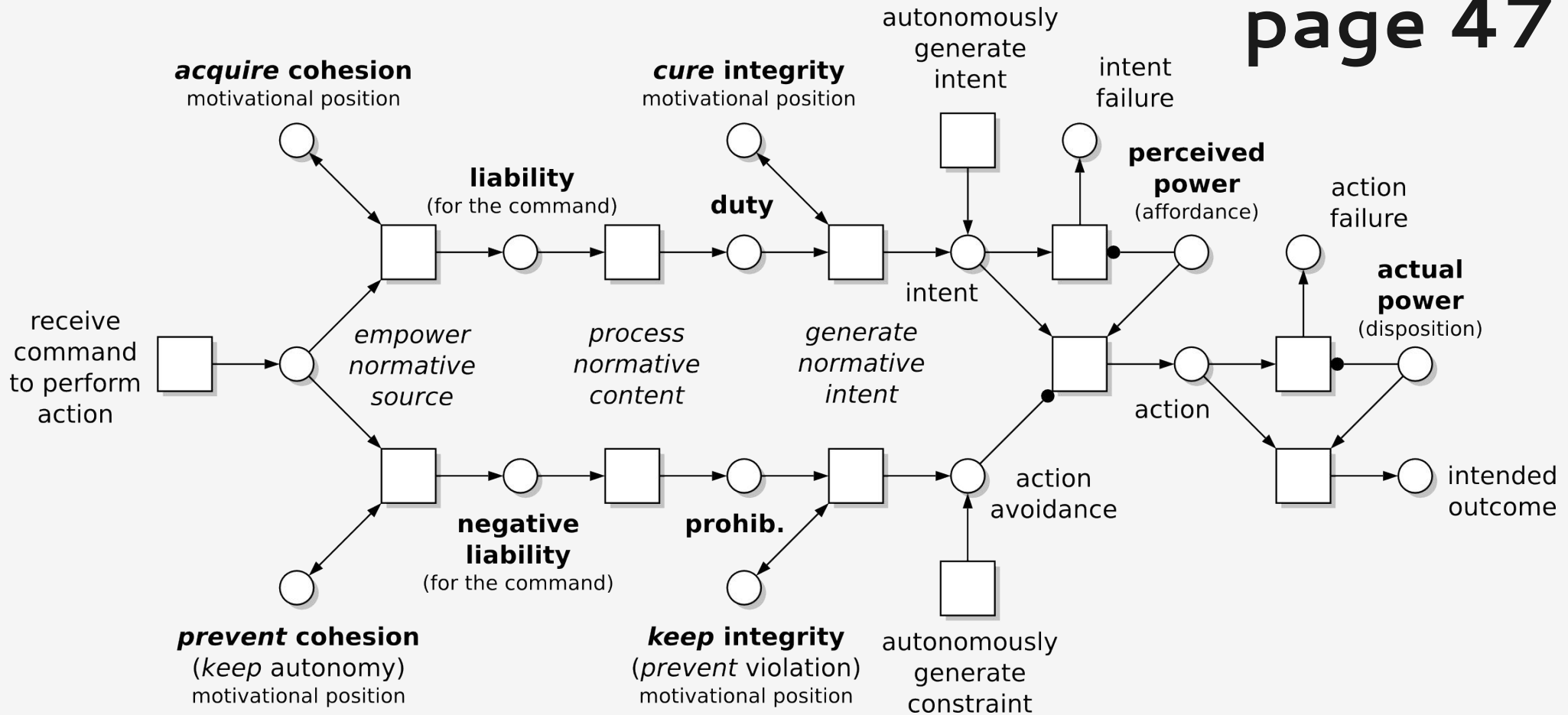
- In practice, this position is used to claim the impossibility of being controlled by a certain normative order (probably previously holding for the recipient).
- Common life examples:
 - teens with parents,
 - smaller siblings with oldest ones, ...
- A legal example?

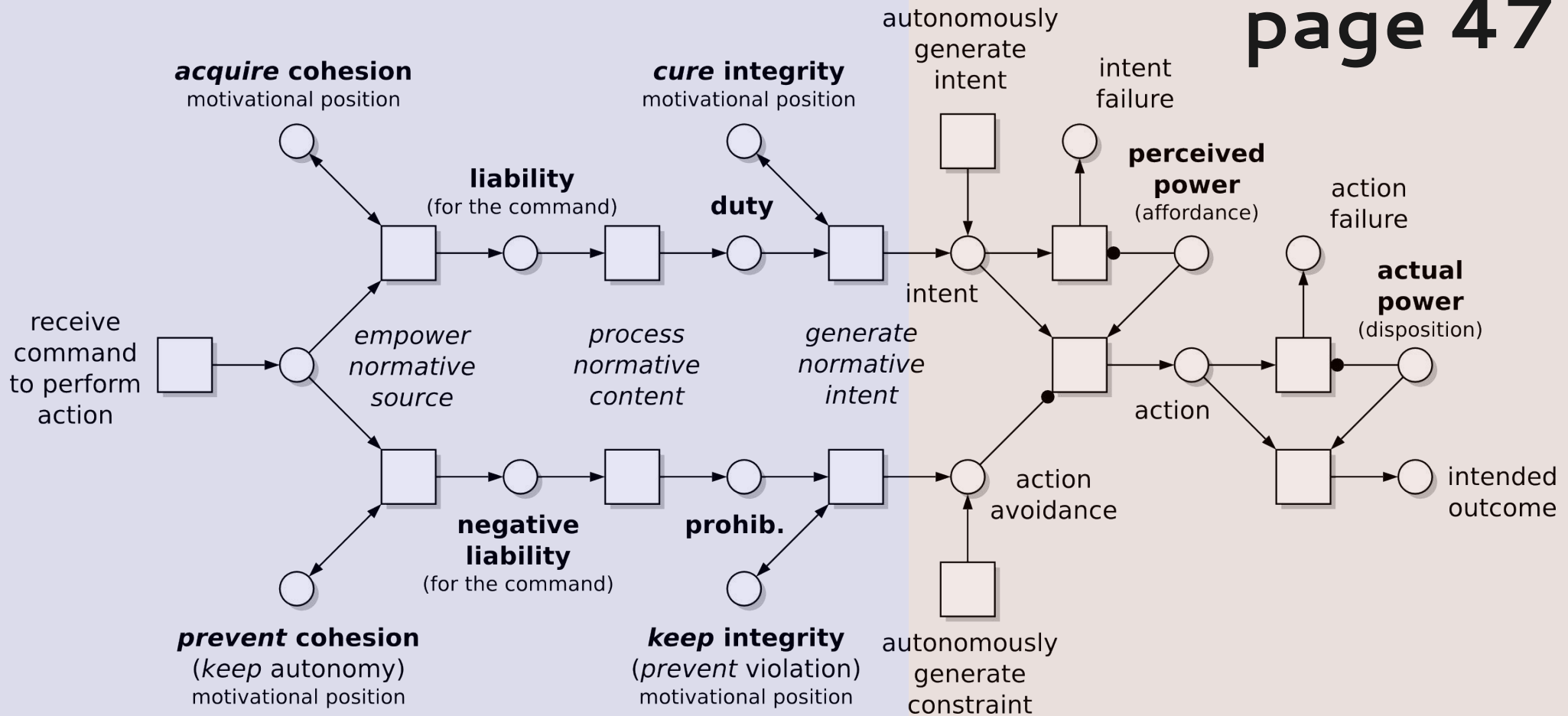
Negative liability

The Dutch Declaration of Independence – Act of Abjuration (1581)

“Know all men by these presents [..] we have unanimously and deliberately declared [..] that the King of Spain has forfeited, ipso jure, all hereditary right to the sovereignty of those countries, and are determined from henceforward not to acknowledge his sovereignty or jurisdiction [..], ***nor suffer others to do it.***”

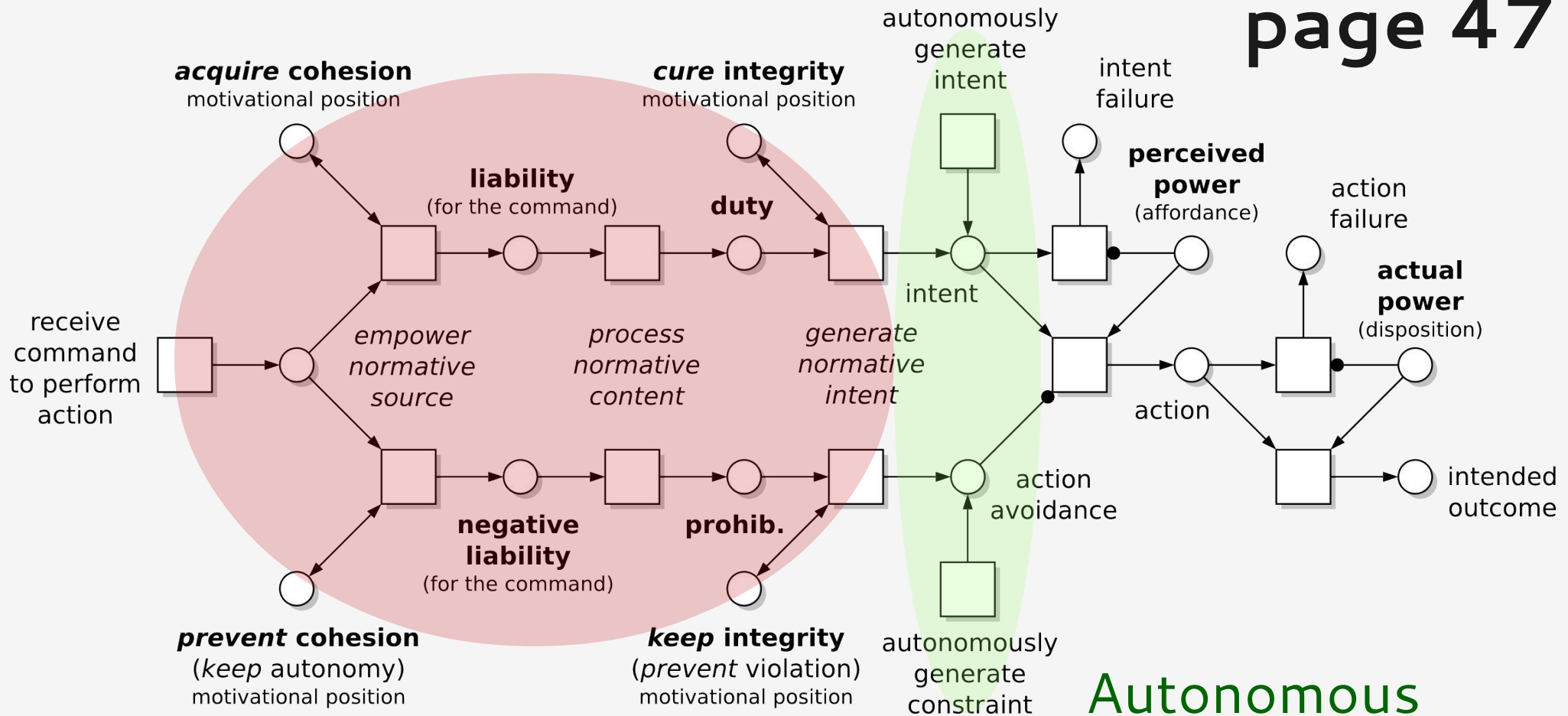
Summing up in practical reasoning





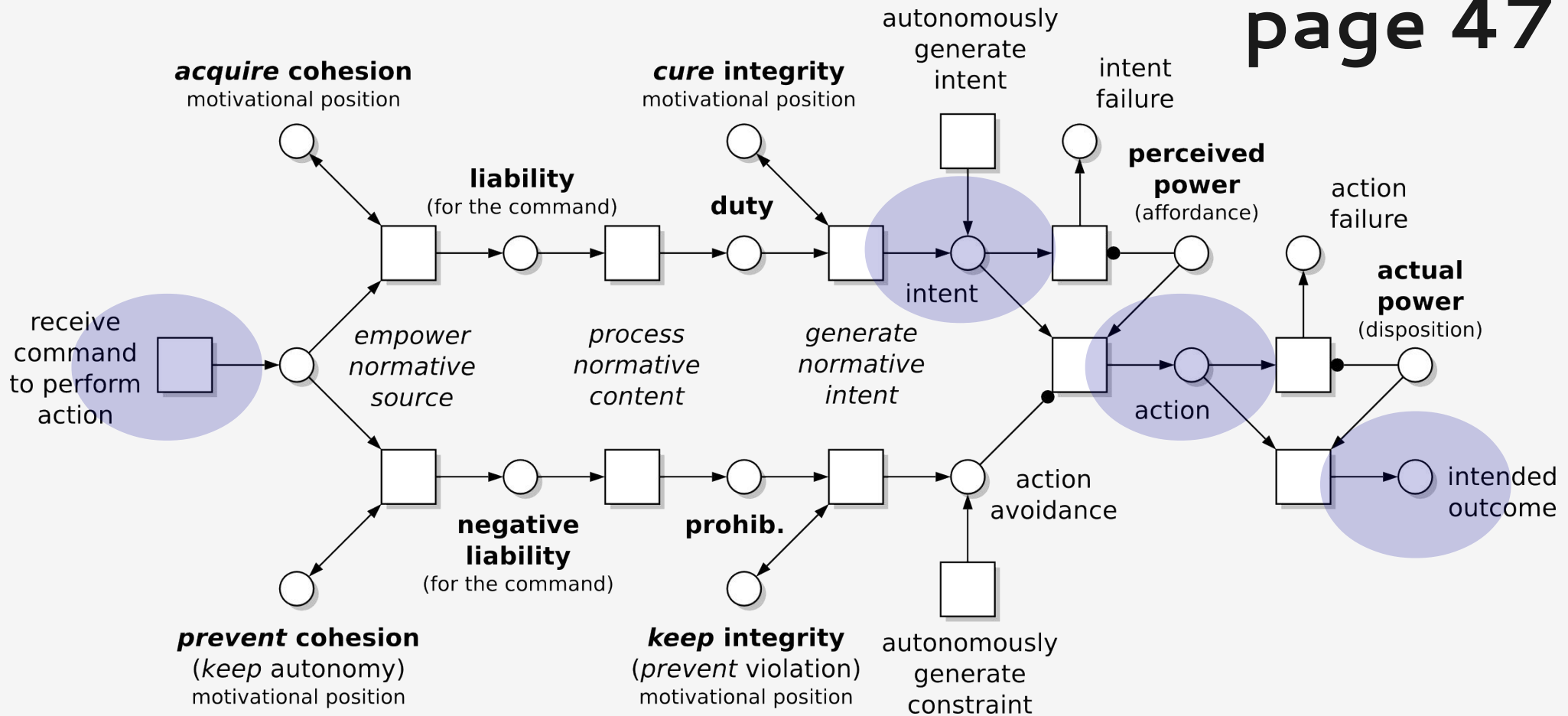
Recipient/Addressee

Performer



**Institutionally derived
commitment**

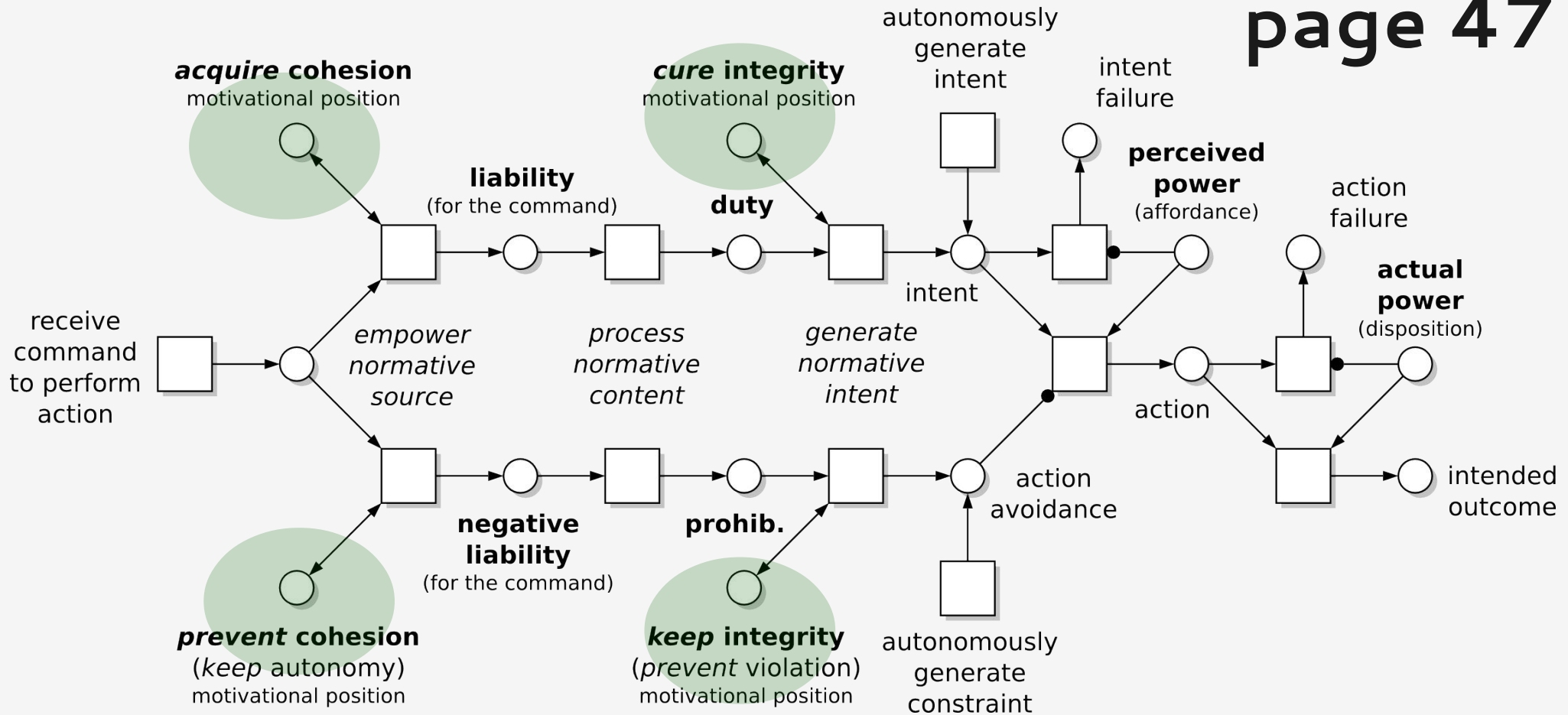
**Autonomous
commitment**



Motive → Intent → Action → Outcome

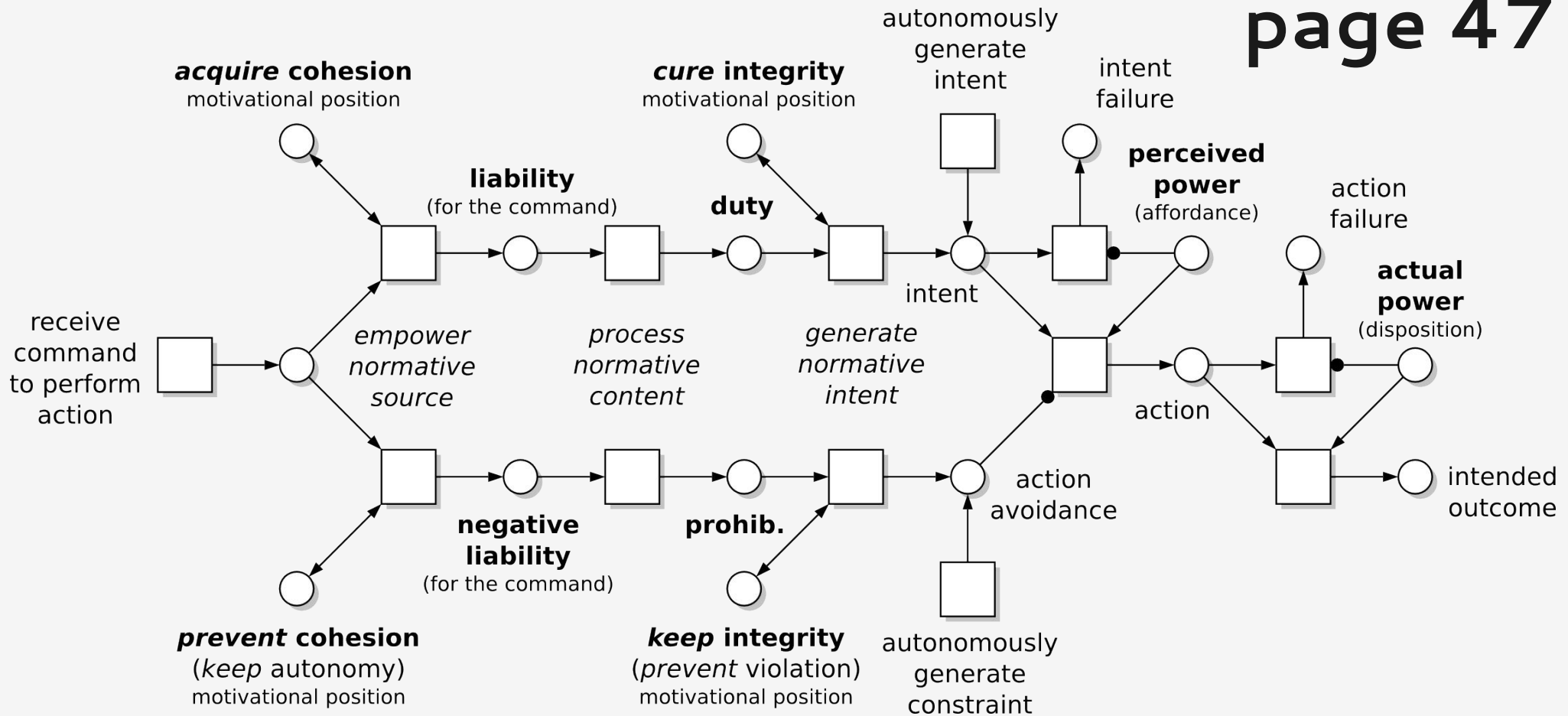
N. Pennington and R. Hastie. Reasoning in explanation-based decision making. 1993.

Floris Bex and Bart Verheij. Solving a Murder Case by Asking Critical Questions: An Approach to Fact-Finding in Terms of Argumentation and Story Schemes. Argumentation, 2011.

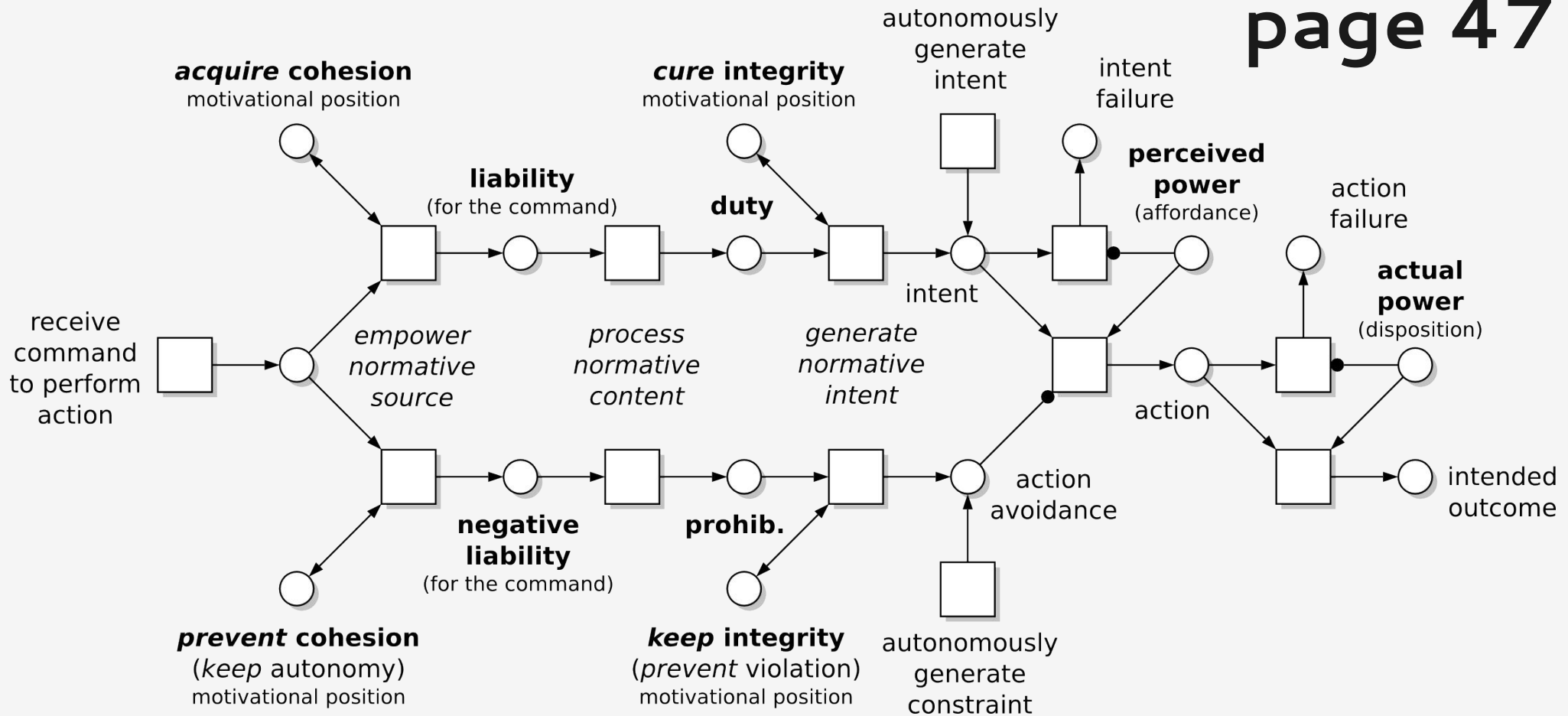


PACK (*prevent acquire cure keep*) framework

D. M. Ogilvie and K. M. Rose. Self-with-other representations and a taxonomy of motives: two approaches to studying persons. *Journal of personality*, 1995.



Permission and immunity are missing in the picture but can be inferred from the absence of tokens from the associated positive/negative normative positions.



This is confirmed in legal practice: explicitly granting **immunity** can be interpreted as putting the recipient out of the influence of power; and **permission** as the removal of a previous constraint (*licere*).

Conclusions

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- Our research hypothesis is that this *legal reverse engineering process* is of critical importance to test the alignment between abstract and contextualized normative sources.

Conclusions

- Considering jural positions as data structures, produced and consumed by social and institutional systems, we need to identify primitive fundamental patterns
→ introduction of the two Hohfeldian prisms.

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- Besides a new visualization, the Hohfeldian prisms
 - harmonize the privilege/immunity positions,

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Conclusions

- Besides a new visualization, the Hohfeldian prisms
 - harmonize the privilege/immunity positions,
 - integrate negative liability/power,
 - provide a simple explanation of the conflation of the word *right* for power (removing "to be followed along")
 - their positions are easily aligned with practical reasoning/motivational models, a promising track to be fully investigated in the future