Semantic maps, for synchronic and diachronic typology

2017

ULg – First ‘Diasema Talk’

Johan van der Auwera
Grammar and Pragmatics
University of Antwerp

Universiteit Antwerpen

vdAJ & Vladimir Plungian (1998) “Modality’s semantic map”, *Linguistic Typology* 2: 79-124.

vdAJ & Vladimir Plungian (1998) “Modality’s semantic map”, *Linguistic Typology* 2: 79-124.

Modality

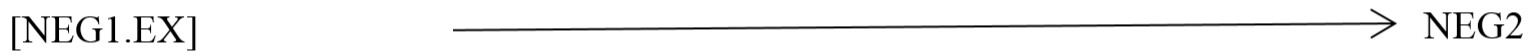
vdAJ & Vladimir Plungian (1998) "Modality's semantic map", *Linguistic Typology* 2: 79-124.

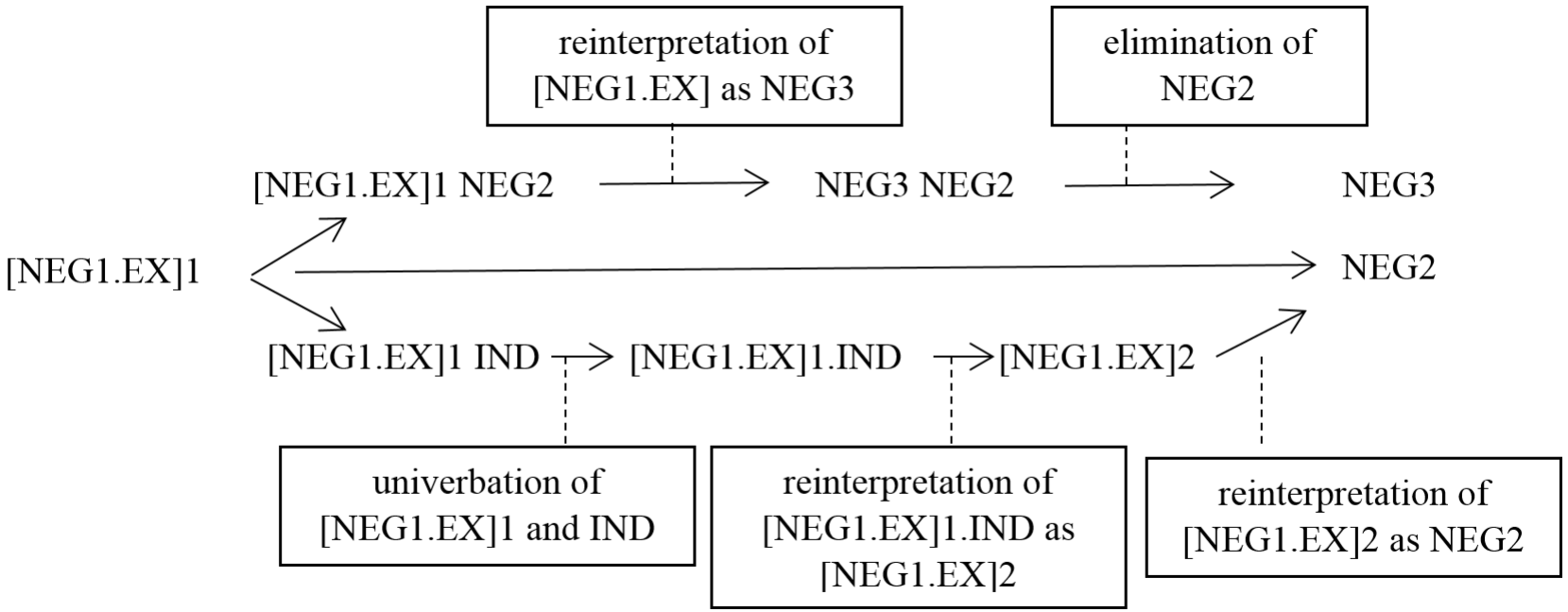
Modality
General, methodological considerations
Mood (imperatives, hortatives)
Adjectives
Scalar additive markers
Impersonals

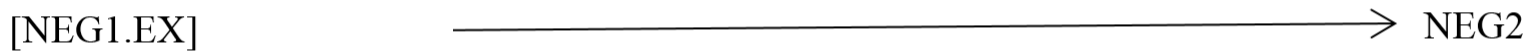
vdAJ & Vladimir Plungian (1998) "Modality's semantic map", *Linguistic Typology* 2: 79-124.

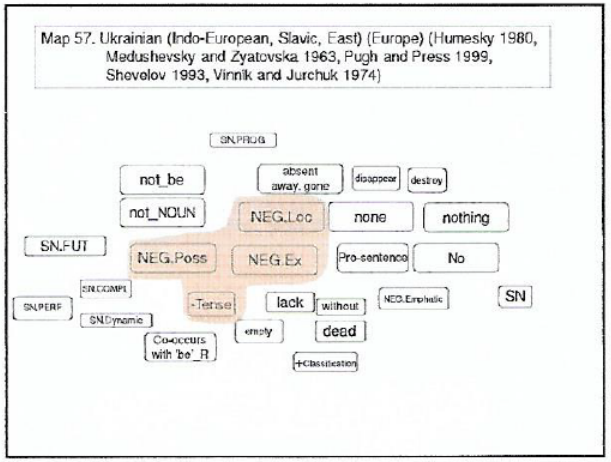
Modality
General, methodological considerations
Mood (imperatives, hortatives)
Adjectives
Scalar additive markers
Impersonals

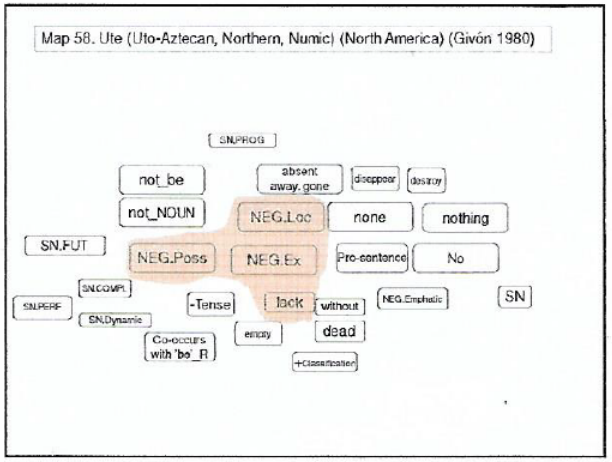
But …. negation

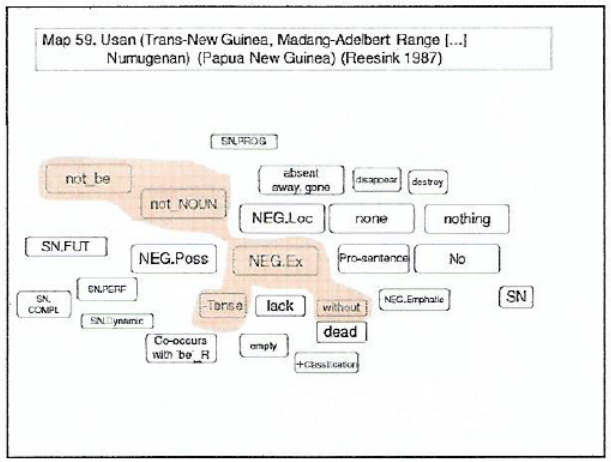

[NEG1.EX]
NEG2

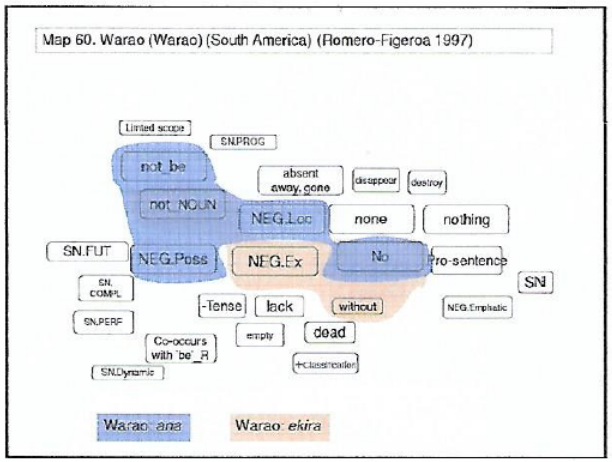

reinterpretation of [NEG1.EX] as NEG3
elimination of NEG2
[NEG1.EX]1 NEG2
NEG3 NEG2
NEG3
[NEG1.EX]1
NEG2
[NEG1.EX]1 IND
[NEG1.EX]1.IND
[NEG1.EX]2
univerbation of [NEG1.EX]1 and IND
reinterpretation of [NEG1.EX]1.IND as [NEG1.EX]2
reinterpretation of [NEG1.EX]2 as NEG2


[NEG1.EX]
NEG2









Veselinova, Ljuba (2013) 'Negative existentials: A cross-linguistic study', *Rivista di Linguistica* 25: 107-145.

1. What are semantic maps?

1. What are semantic maps?

2. Synchronic typology

1. What are semantic maps?

2. Synchronic typology

3. Diachronic typology

1. What are semantic maps?

2. Synchronic typology

3. Diachronic typology

4. These semantic maps can be quite complicated

1. What are semantic maps?

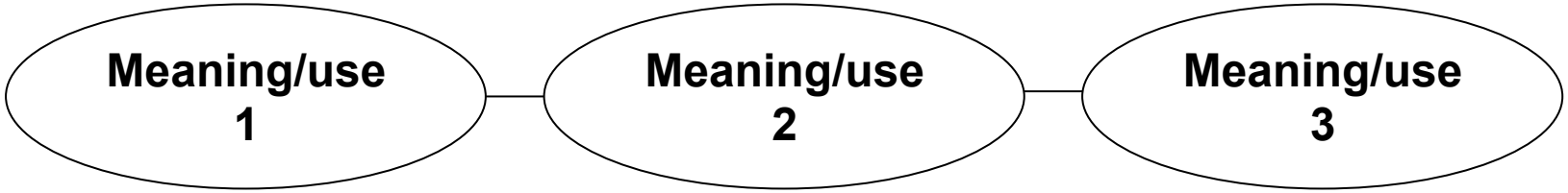
2. Synchronic typology

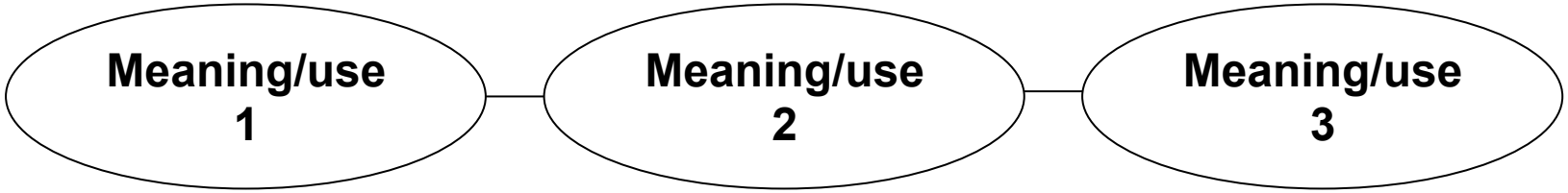
3. Diachronic typology

4. These semantic maps can be quite complicated

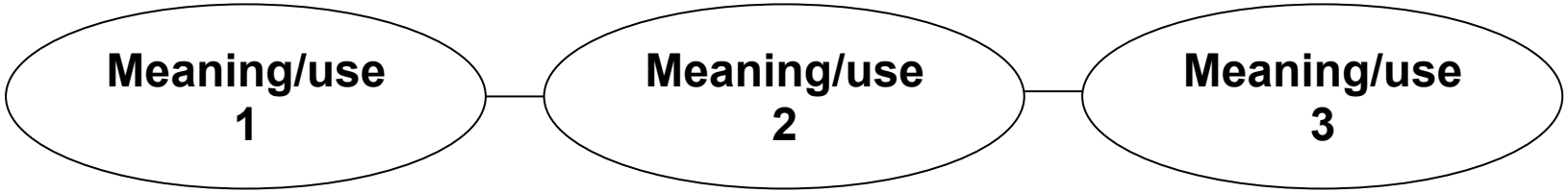
5. The many shapes of adjacency/contiguity

1. What are semantic maps?

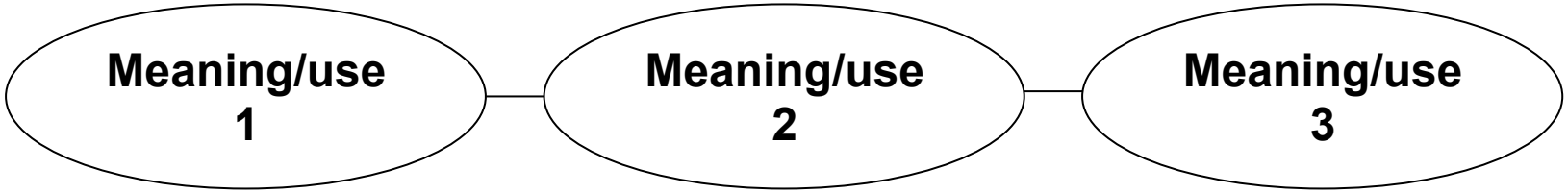

Meaning/use
1
Meaning/use
2
Meaning/use
3



bla

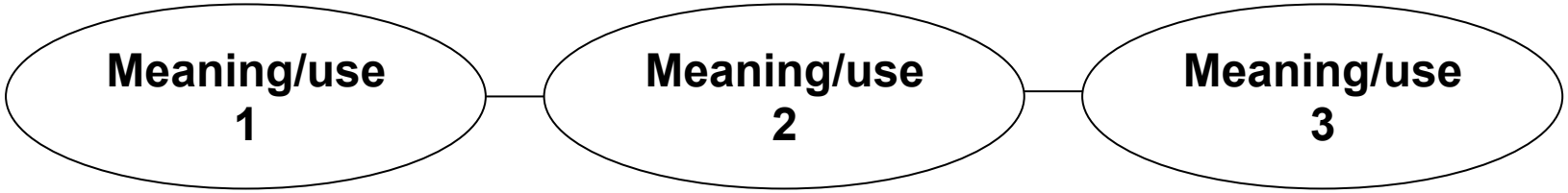


bla ***bla***



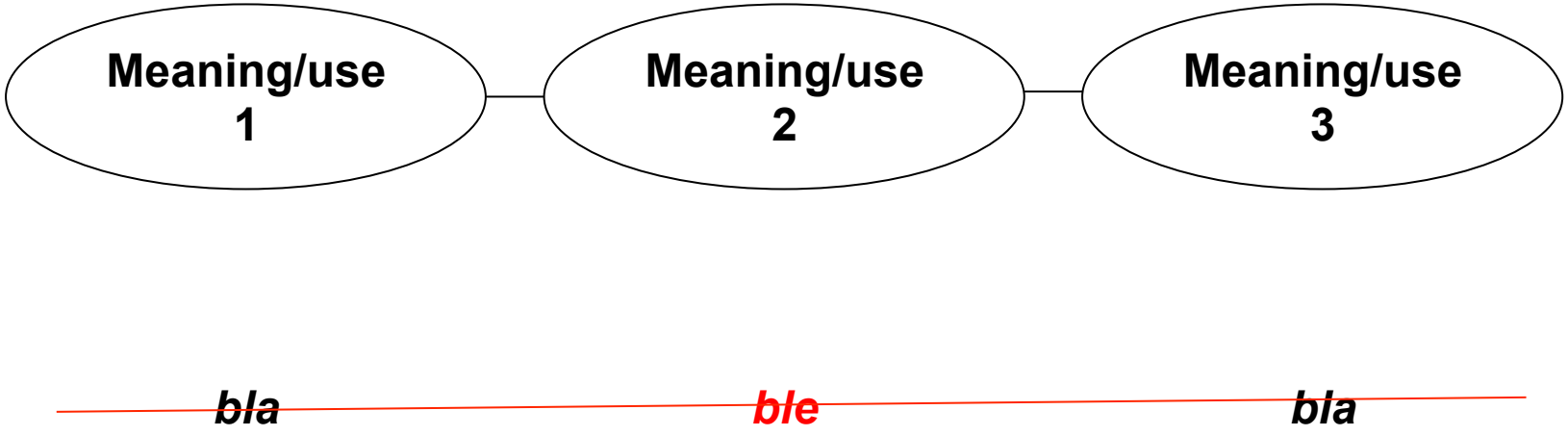
bla ***bla*** ***bla***

Form reflects meaning

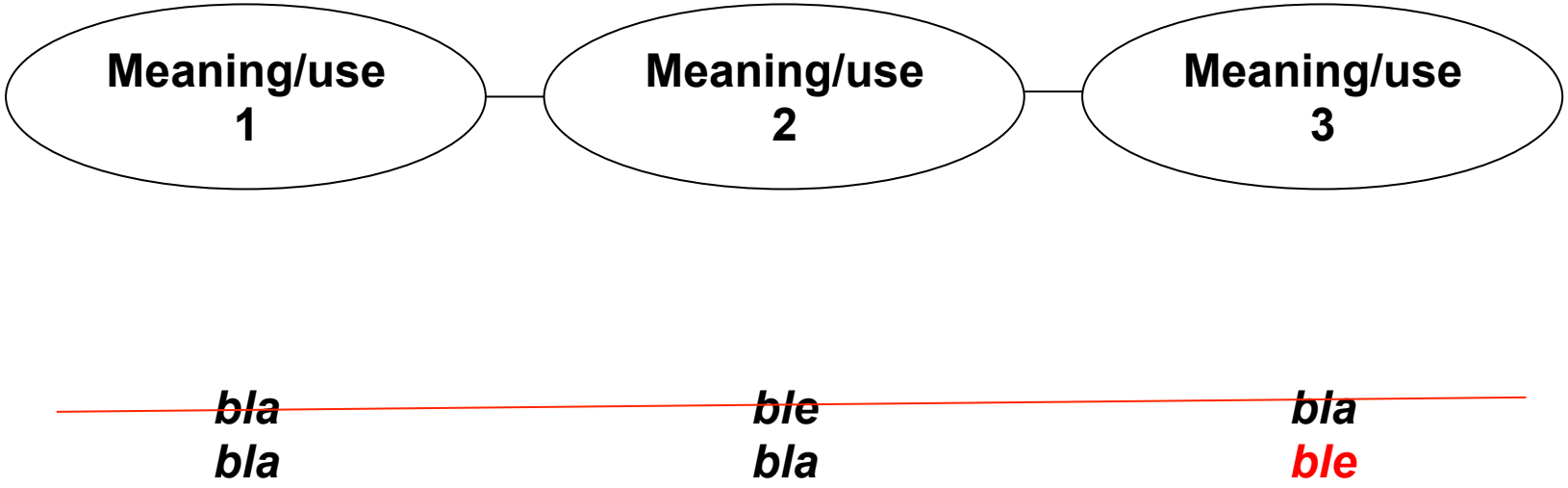


bla ***bla*** ***bla***

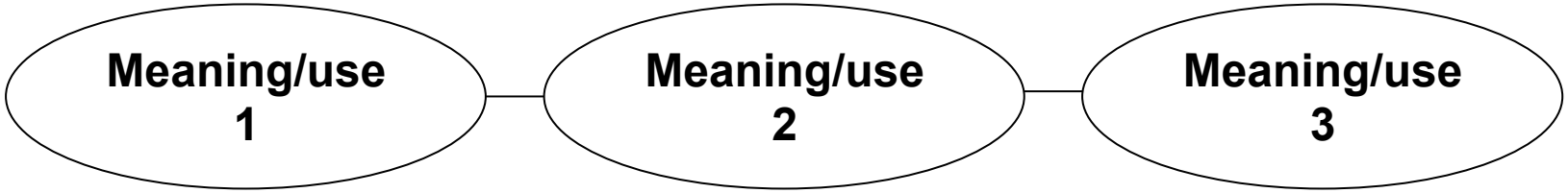
Form reflects meaning



Form reflects meaning

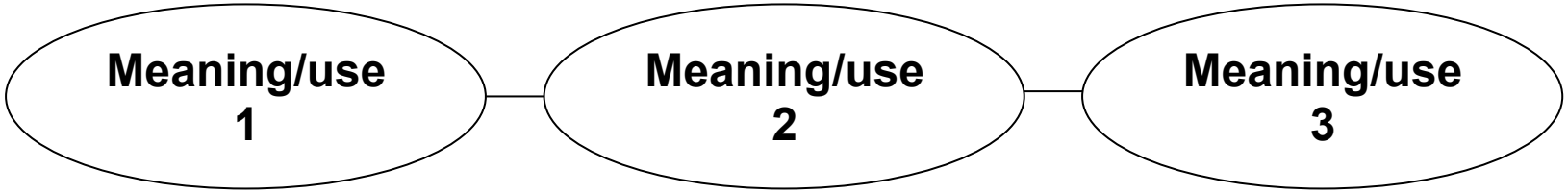


Form reflects meaning



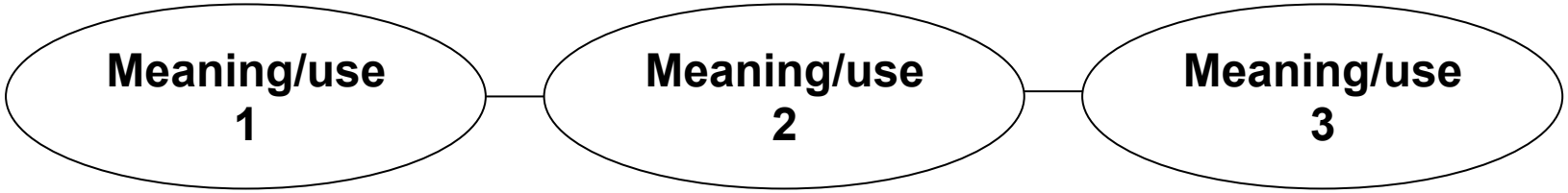
bla	***ble***	***bla***
bla	***bla***	***ble***
ble	***bla***	***bla***

Form reflects meaning

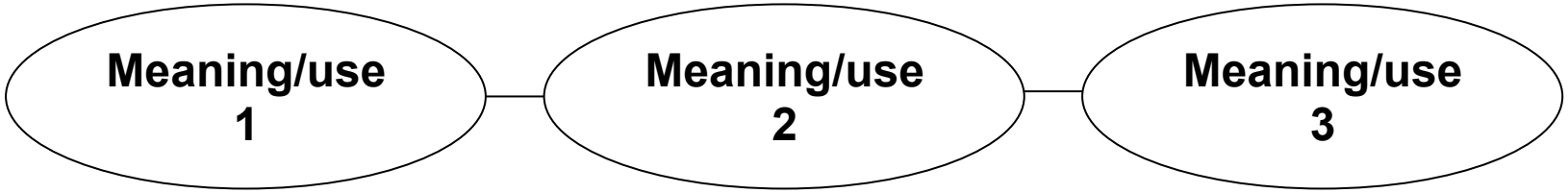


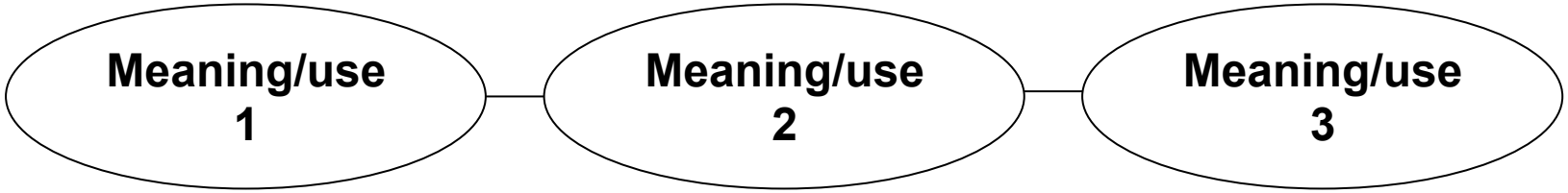
bla	***ble***	***bla***
bla	***bla***	***ble***
ble	***bla***	***bla***
ble	***bla***	***bli***

Form reflects meaning

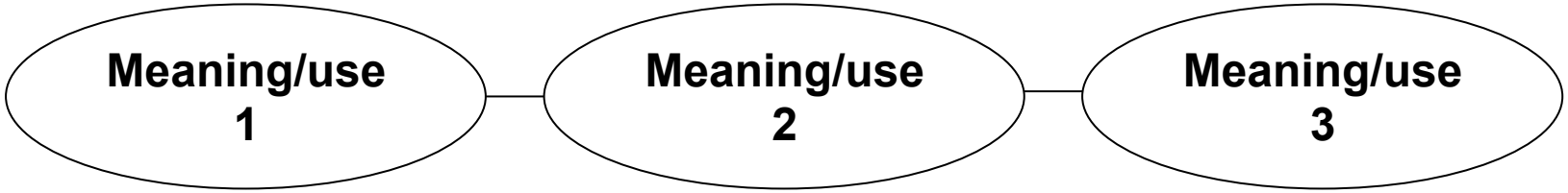


bla	*ble*	*bla*
bla	*bla*	*ble*
ble	*bla*	*bla*
ble	*bla*	*bli*
bla	*bla*	*bla*


Meaning/use
1
Meaning/use
2
Meaning/use
3

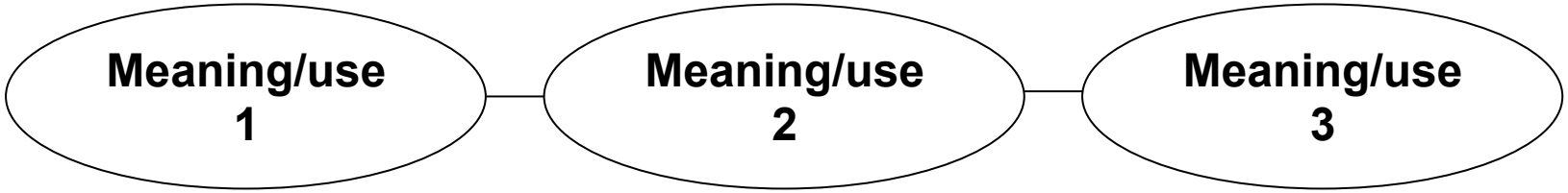


When he was young, he could speak Chinese.



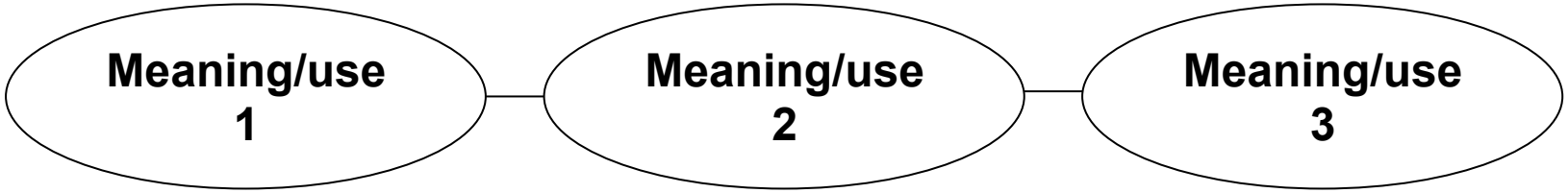
When he was young, he could speak Chinese.

Ability



When he was young, he could speak Chinese.

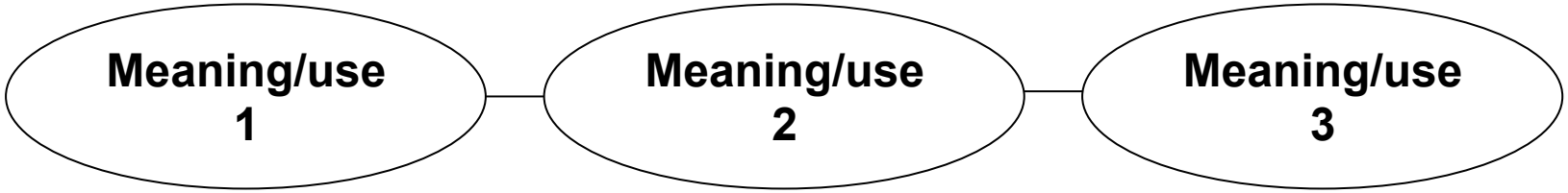
Ability



When he was young, he could speak Chinese.

He could leave any time he wanted.

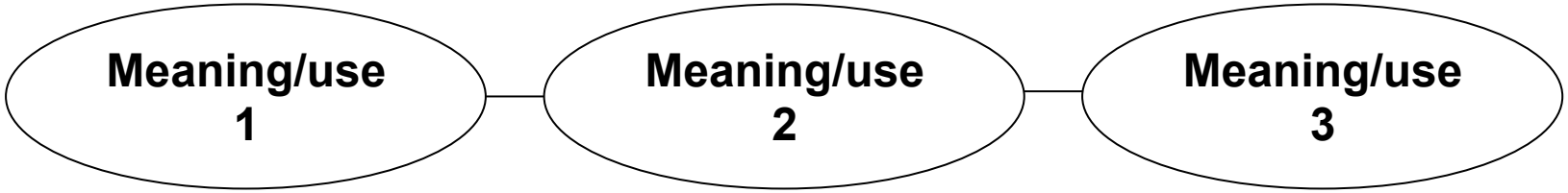
Ability **Permission**



When he was young, he could speak Chinese.

He could leave any time he wanted.

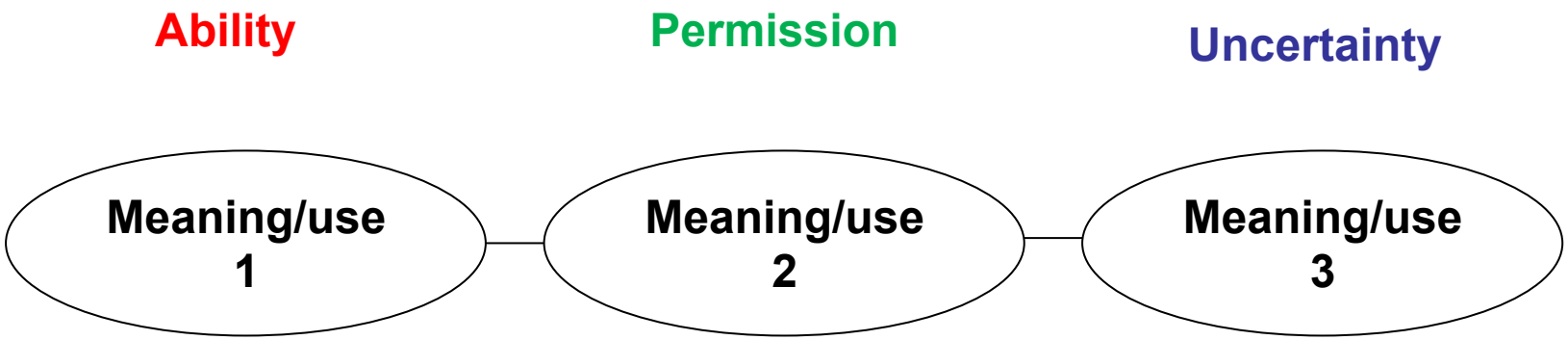
Ability **Permission**



When he was young, he could speak Chinese.

He could leave any time he wanted.

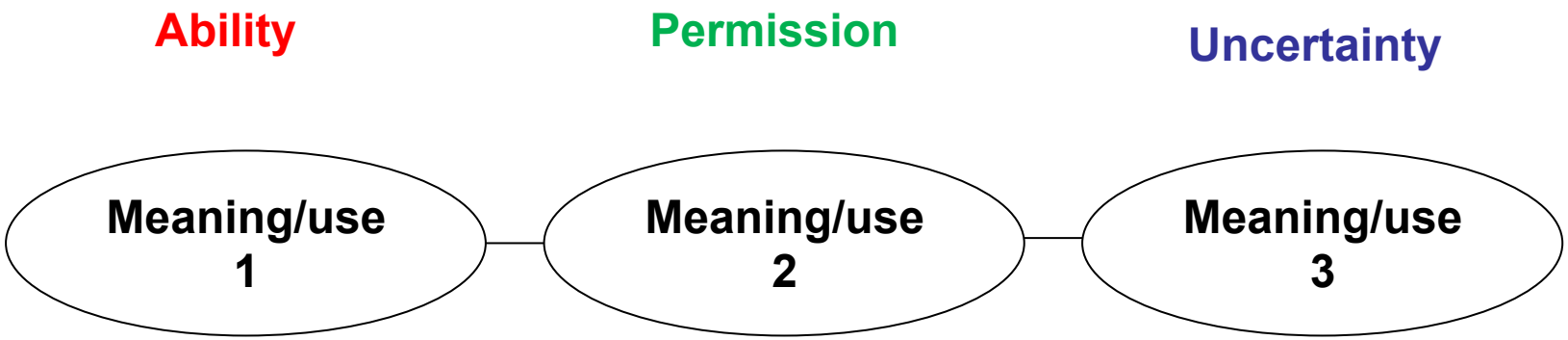
He could be home now.



When he was young, he could speak Chinese.

He could leave any time he wanted.

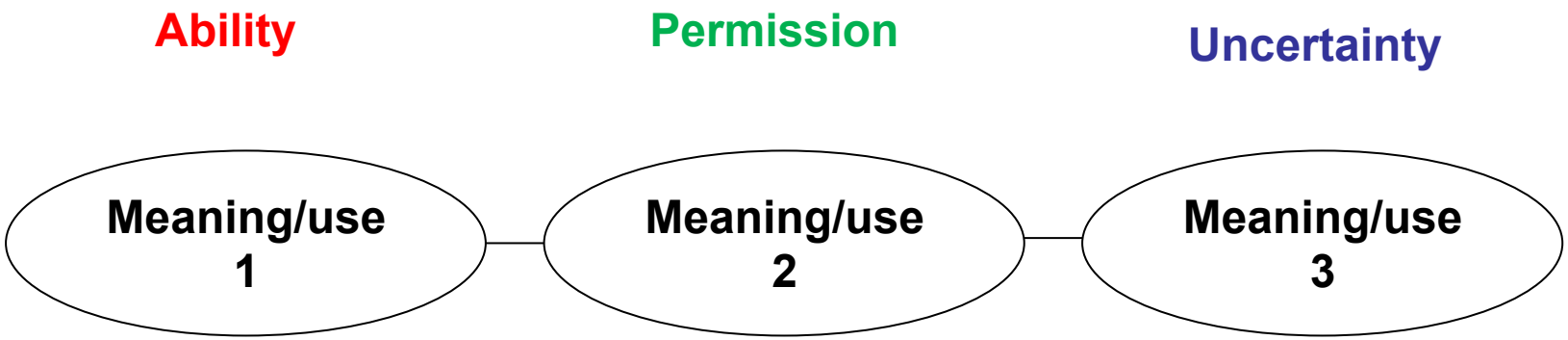
He could be home now.



I can speak Chinese.

You can speak Chinese here.

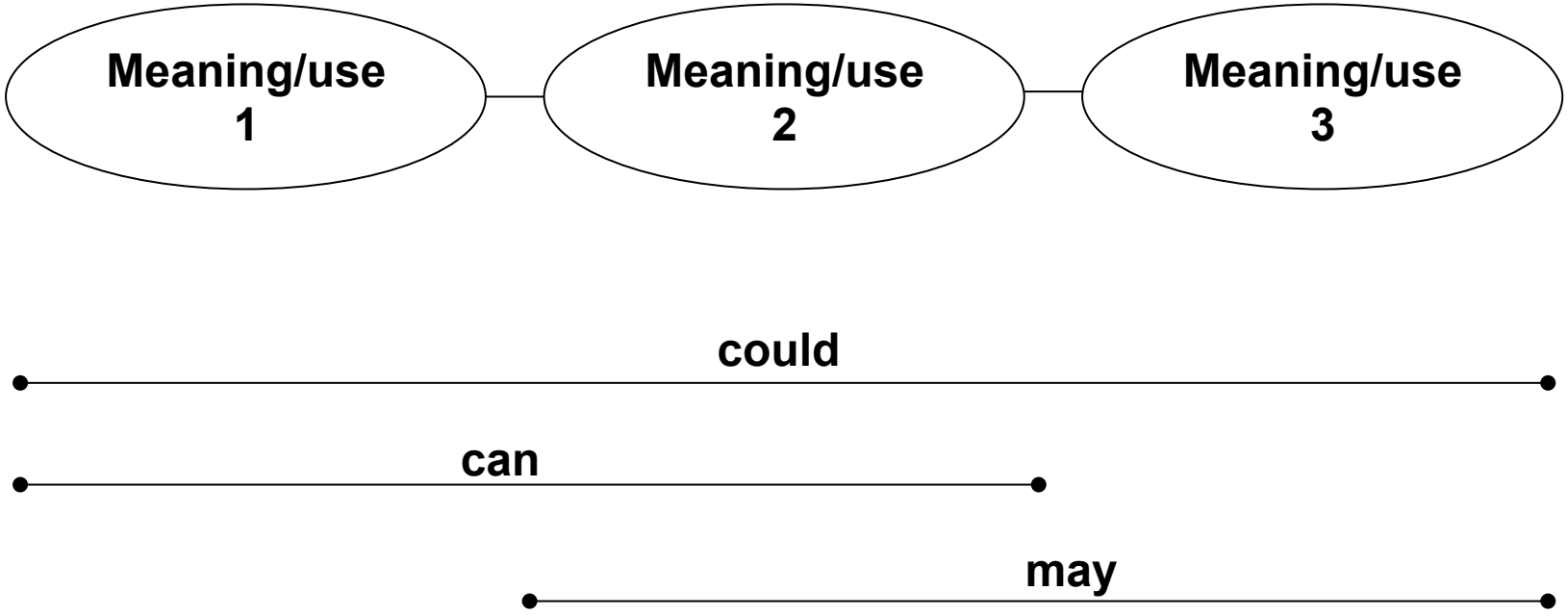
*He can speak Chinese.



*I may speak Chinese.

You may speak Chinese here.

He may speak Chinese.


Meaning/use 1
Meaning/use 2
Meaning/use 3
could
can
may

Is the idea new?

Is the idea new?

No … various ancestors
Fries, Hjelmslew, Cognitive Grammar

Is the idea new?

No … various ancestors
Fries, Hjelmslew, Cognitive Grammar

Still, recent prominence in linguistic typology

Anderson, L. B. (1982). ‘The ‘perfect’ as a universal and as a language-particular category’ In Hopper P. J. (ed.) *Tense-aspect: Between semantics & pragmatics*. Amsterdam: Benjamins. 227-264.

Anderson, L. B. (1982). 'The 'perfect' as a universal and as a language-particular category' In Hopper P. J. (ed.) *Tense-aspect: Between semantics & pragmatics*. Amsterdam: Benjamins. 227-264.

Haspelmath, M. (1997) *Indefinite Pronouns*. Oxford: Oxford University Press.

--- (2003) 'The geometry of grammatical meaning: semantic maps and cross-linguistic comparison', In Tomasello, M.(ed.) *The New Psychology of Language*, vol. 2. New York: Lawrence Erlbaum Associates Publishers, 211-43.

Anderson, L. B. (1982). 'The 'perfect' as a universal and as a language-particular category' In Hopper P. J. (ed.) *Tense-aspect: Between semantics & pragmatics*. Amsterdam: Benjamins. 227-264.

Haspelmath, M. (1997) *Indefinite Pronouns*. Oxford: Oxford University Press.

--- (2003) 'The geometry of grammatical meaning: semantic maps and cross-linguistic comparison', In Tomasello, M.(ed.) *The New Psychology of Language*, vol. 2. New York: Lawrence Erlbaum Associates Publishers, 211-43.

van der Auwera, J. (2008) 'In defense of classical semantic maps', *Theoretical Linguistics* 34, 39-46.

--- & Plungian, V. A. (1998) ''Modality's semantic map', *Linguistic Typology* 2/1, 125-139.

Anderson, L. B. (1982). 'The 'perfect' as a universal and as a language-particular category' In Hopper P. J. (ed.) *Tense-aspect: Between semantics & pragmatics*. Amsterdam: Benjamins. 227-264.

Haspelmath, M. (1997) *Indefinite Pronouns*. Oxford: Oxford University Press.

--- (2003) 'The geometry of grammatical meaning: semantic maps and cross-linguistic comparison', In Tomasello, M.(ed.) *The New Psychology of Language*, vol. 2. New York: Lawrence Erlbaum Associates Publishers, 211-43.

van der Auwera, J. (2008) 'In defense of classical semantic maps', *Theoretical Linguistics* 34, 39-46.

--- & Plungian, V. A. (1998) ''Modality's semantic map', *Linguistic Typology* 2/1, 125-139.

Croft, W. (2001). *Radical construction grammar: Syntactic theory in typological perspective*. Oxford: Oxford University Press.

Anderson, L. B. (1982). 'The 'perfect' as a universal and as a language-particular category' In Hopper P. J. (ed.) *Tense-aspect: Between semantics & pragmatics*. Amsterdam: Benjamins. 227-264.

Haspelmath, M. (1997) *Indefinite Pronouns*. Oxford: Oxford University Press.

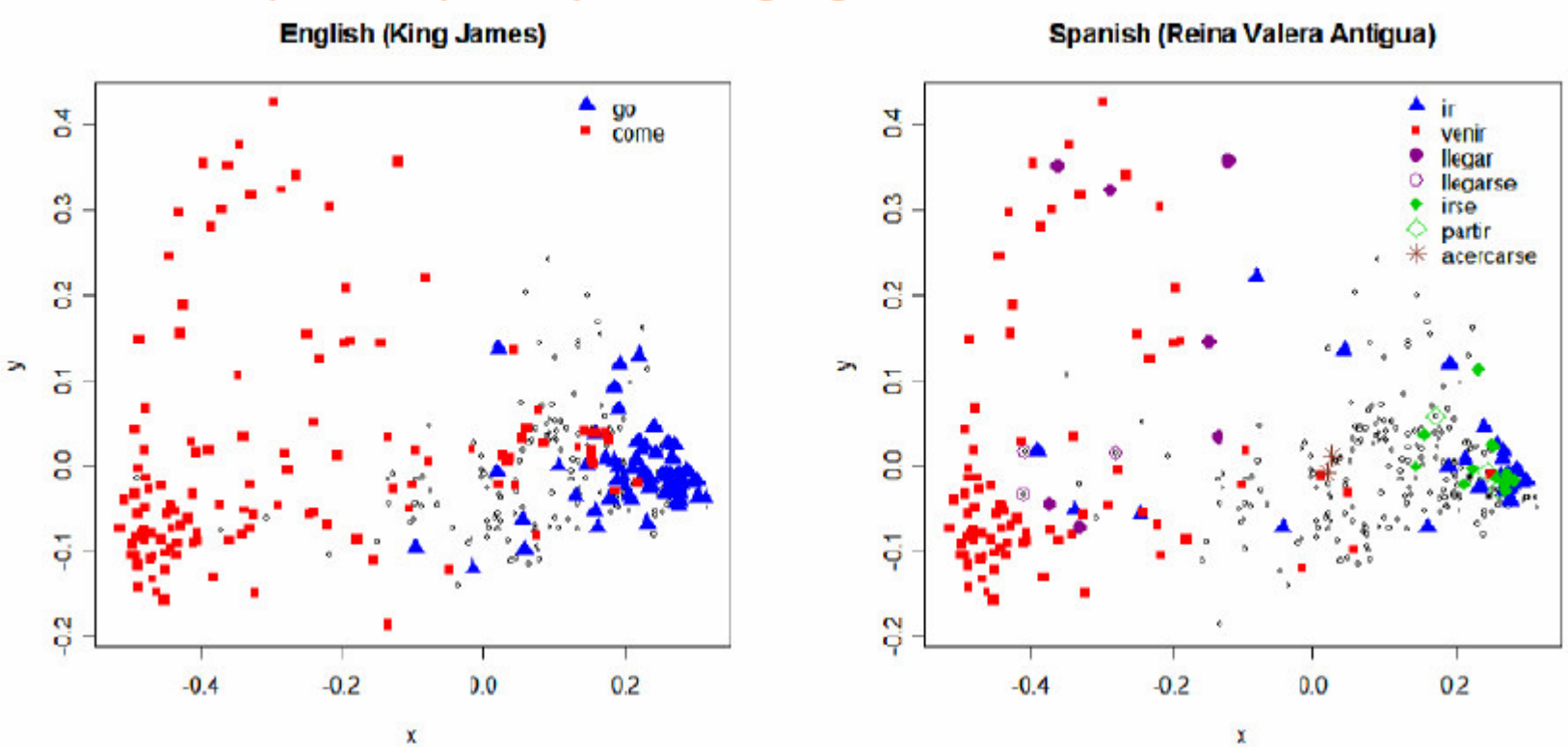
--- (2003) 'The geometry of grammatical meaning: semantic maps and cross-linguistic comparison', In Tomasello, M.(ed.) *The New Psychology of Language*, vol. 2. New York: Lawrence Erlbaum Associates Publishers, 211-43.

van der Auwera, J. (2008) 'In defense of classical semantic maps', *Theoretical Linguistics* 34, 39-46.

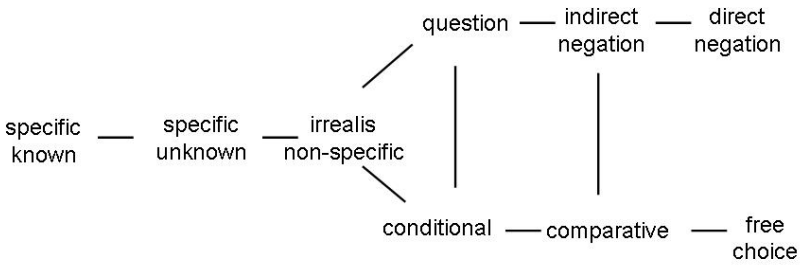
--- & Plungian, V. A. (1998) ''Modality's semantic map', *Linguistic Typology* 2/1, 125-139.

Croft, W. (2001). *Radical construction grammar: Syntactic theory in typological perspective*. Oxford: Oxford University Press.

Wälchli & Cysouw 2000: Verbs of movement

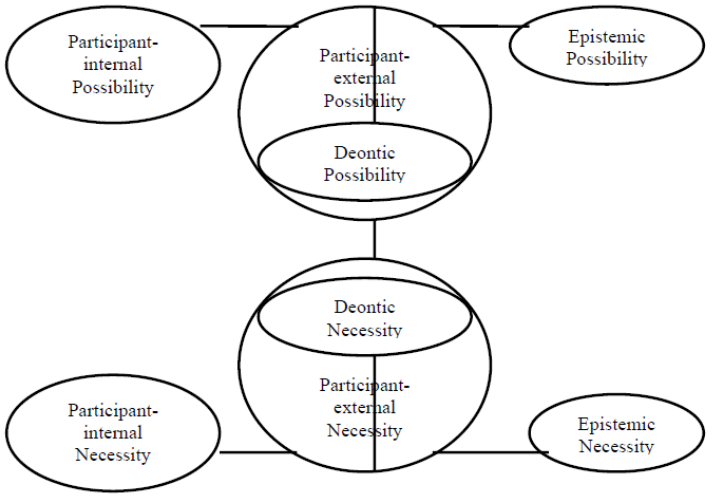


Haspelmath, M. (1997)

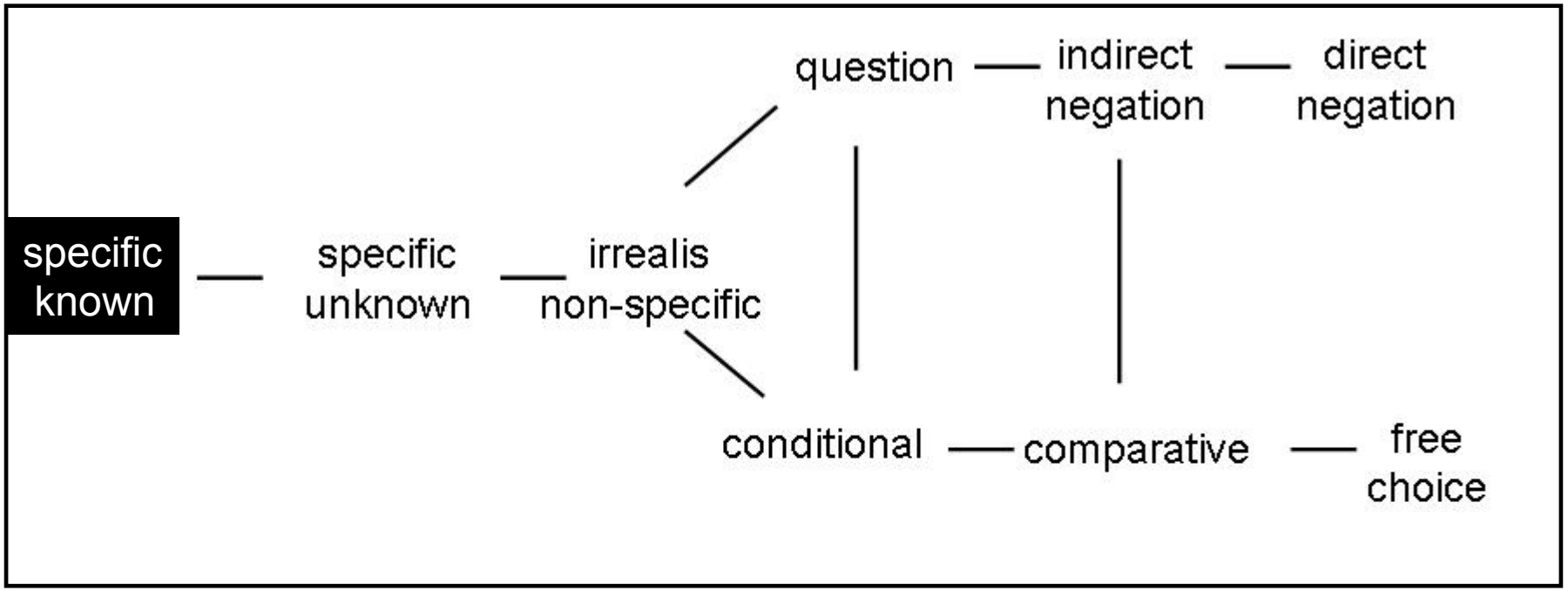


The semantic map for indefinites

van der Auwera, J. & V. A. Plungian (1998)

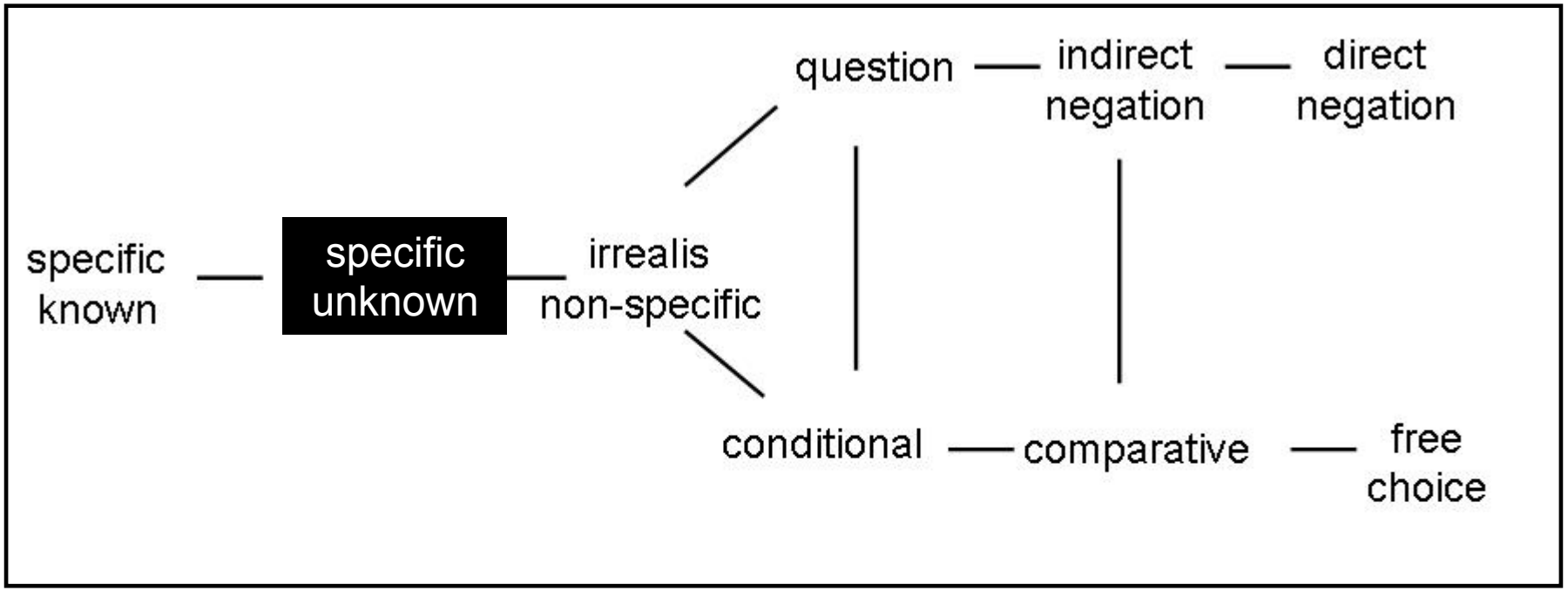


2. Synchronic typology



The semantic map for indefinites

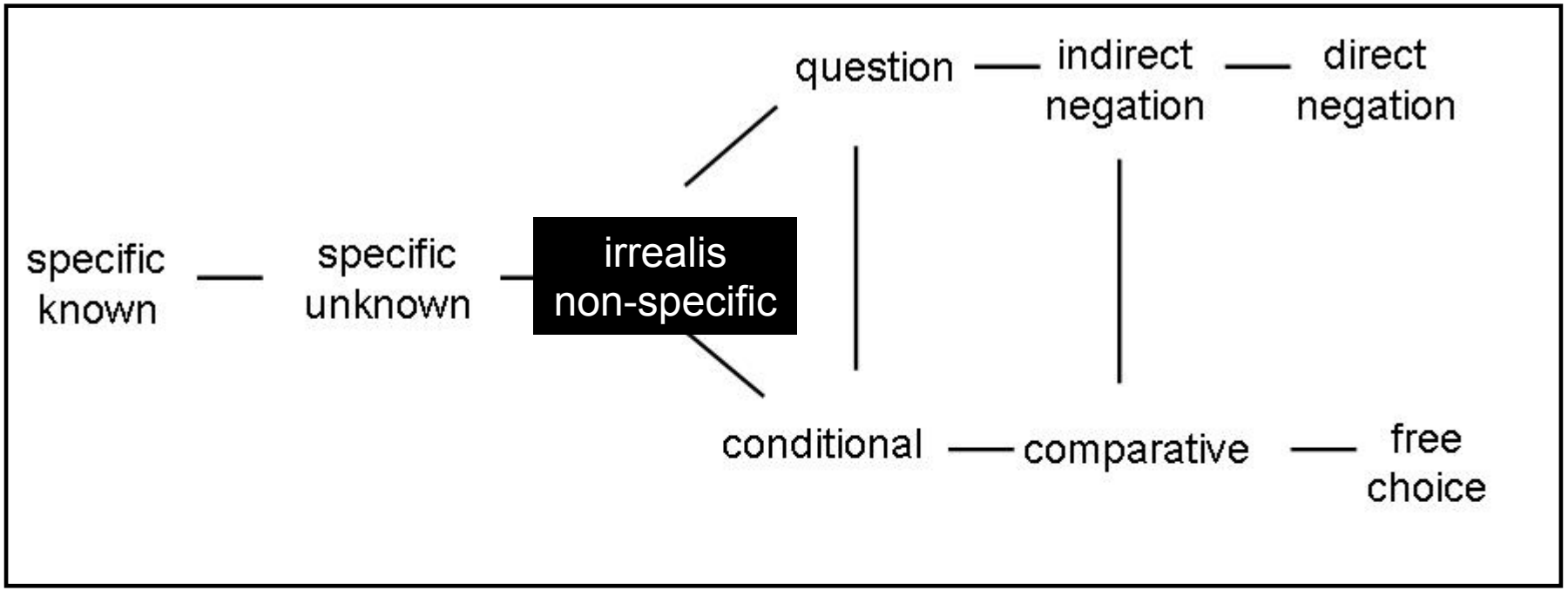
Somebody called you, guess who?



The semantic map for indefinites

Somebody called you, guess who?

Somebody called you, but I don't know who.

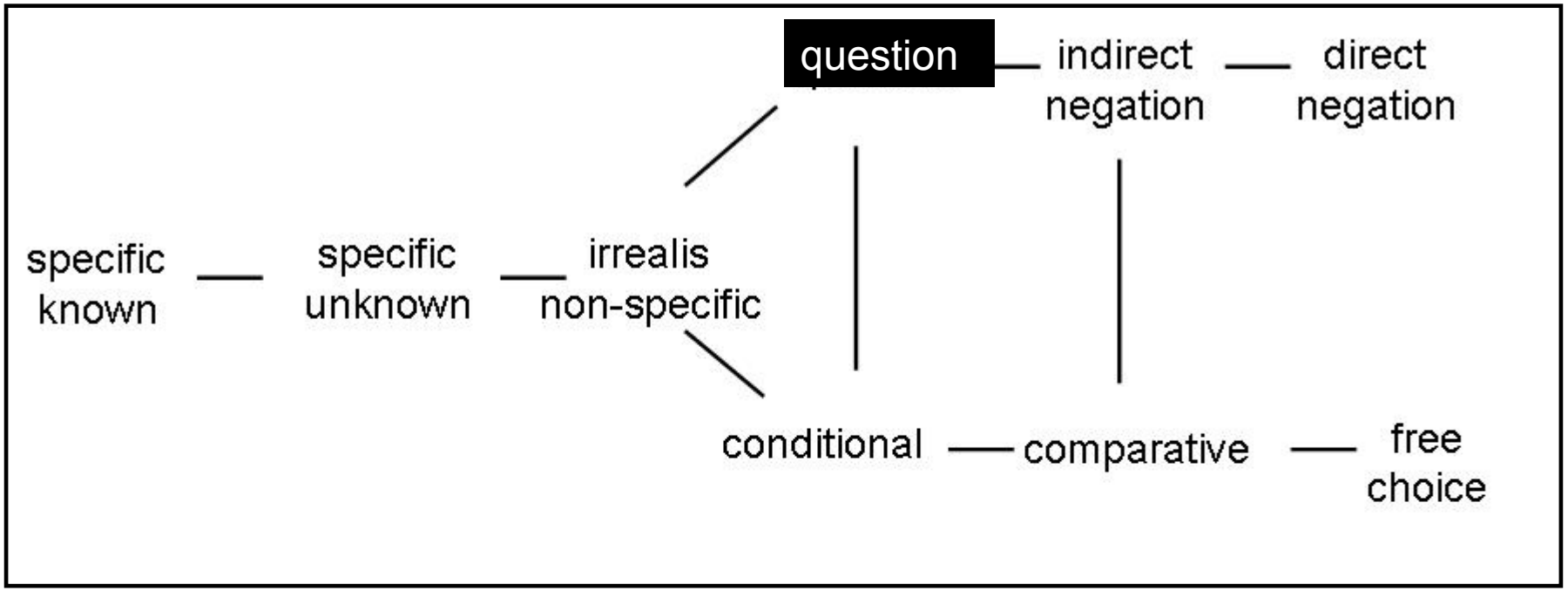


The semantic map for indefinites

Somebody called you, guess who?

Somebody called you, but I don't know who.

Just give it to somebody!



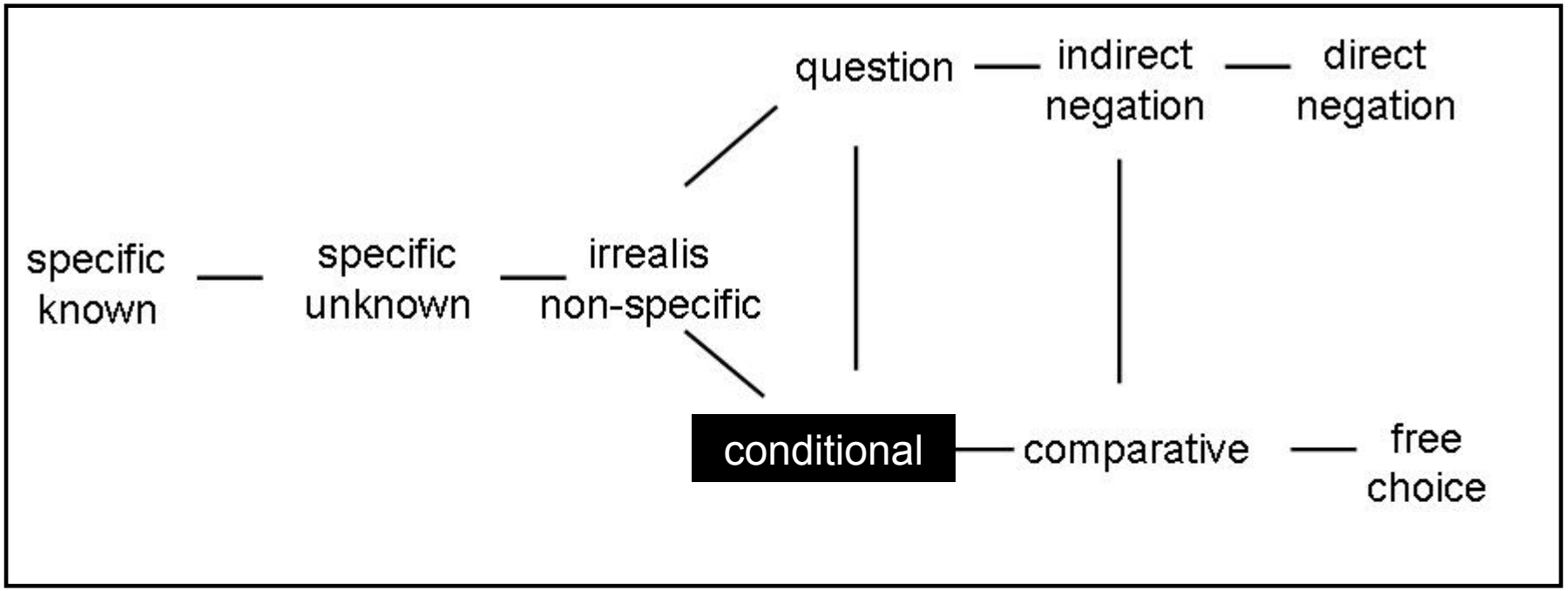
The semantic map for indefinites

Did somebody call?

Somebody called you, guess who?

Somebody called you, but I don't know who.

Just give it to somebody!



The semantic map for indefinites

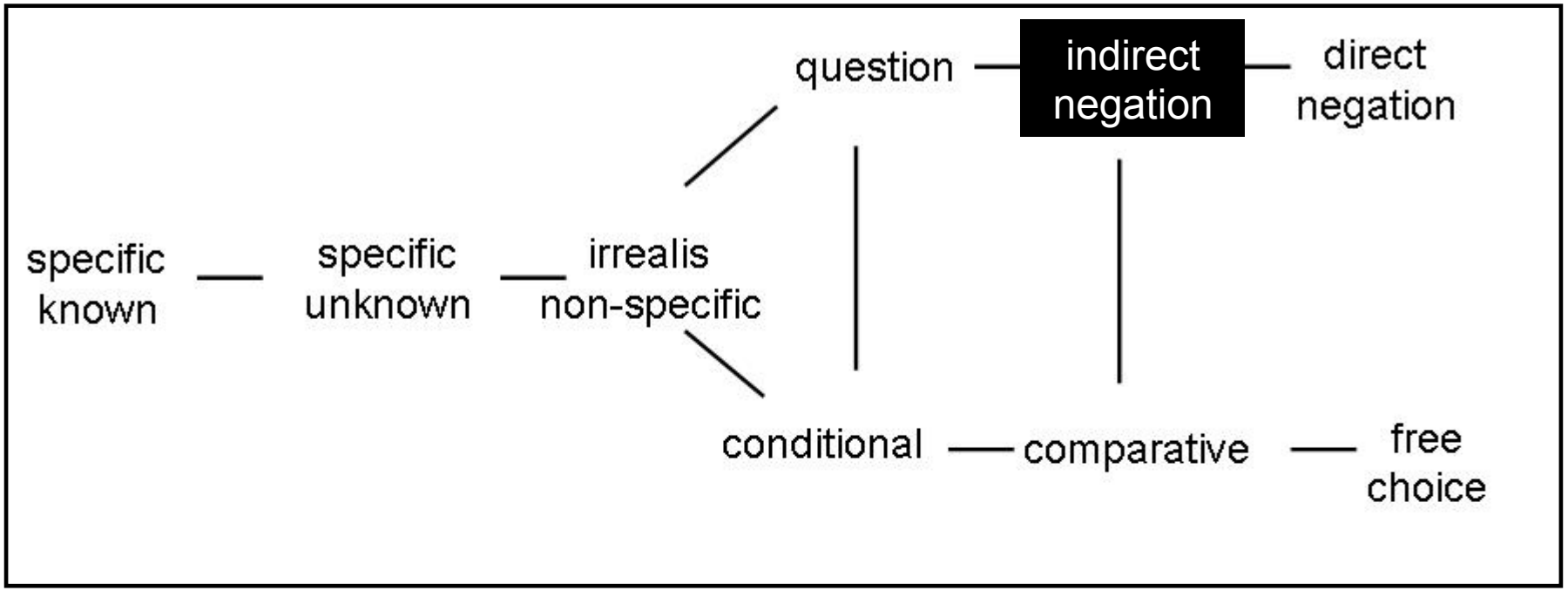
Did somebody call?

Somebody called you, guess who?

Somebody called you, but I don't know who.

Just give it to somebody!

If somebody calls, then tell him this.



The semantic map for indefinites

Did somebody call?

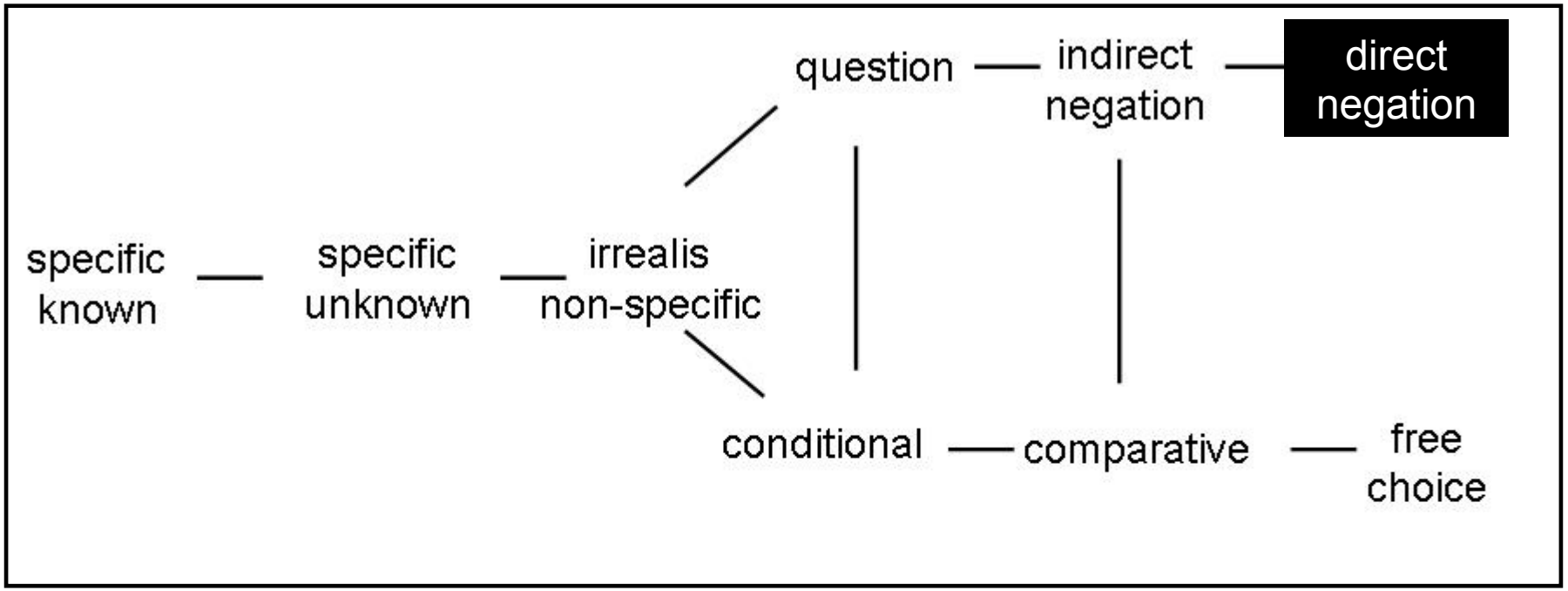
Somebody called you, guess who?

I don't think that anybody called.

Somebody called you, but I don't know who.

Just give it to somebody!

If somebody calls, then tell him this.



The semantic map for indefinites

Did somebody call?

Nobody called.

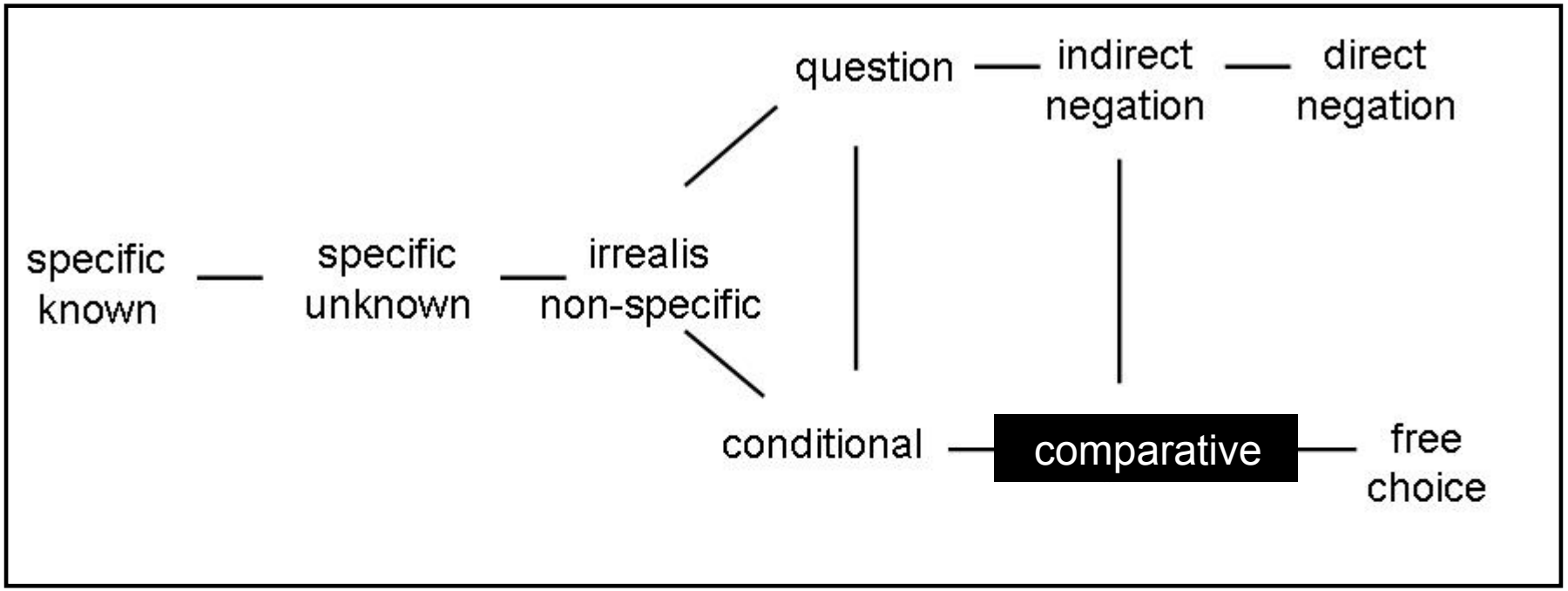
Somebody called you, guess who?

I don't think that anybody called.

Somebody called you, but I don't know who.

Just give it to somebody!

If somebody calls, then tell him this.



The semantic map for indefinites

Did somebody call? *Nobody called.*

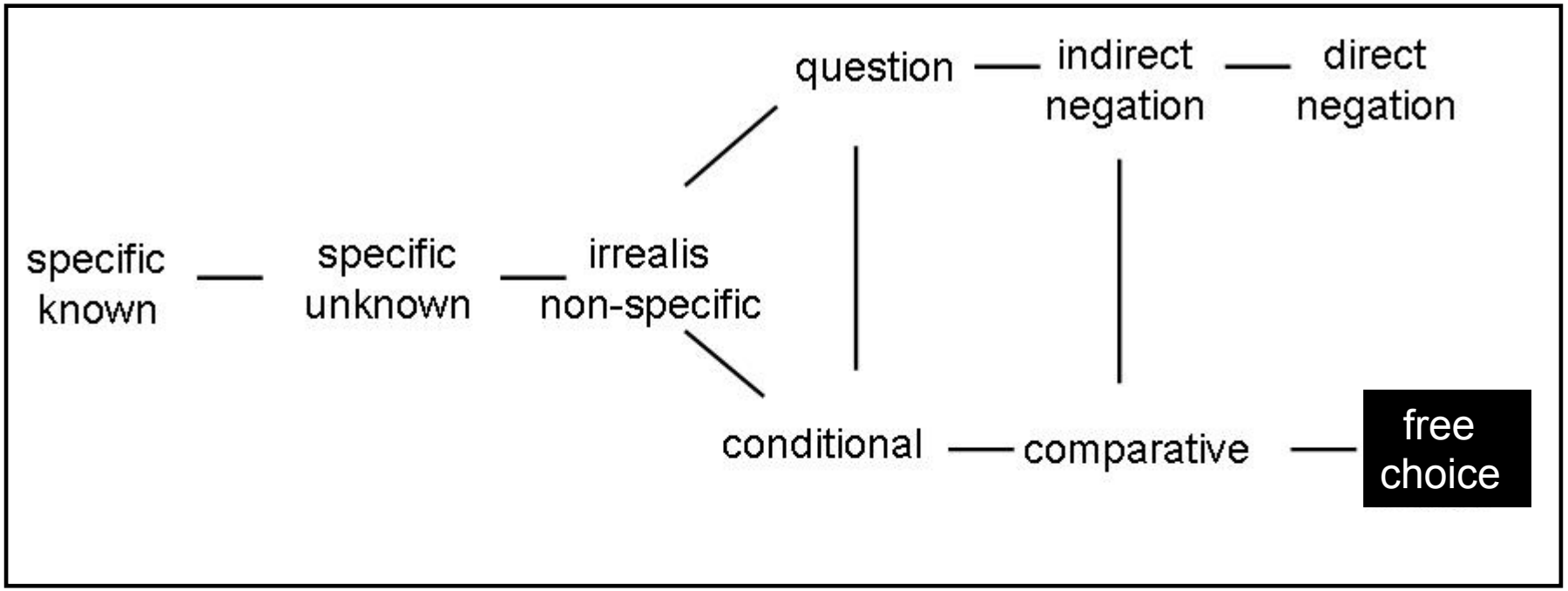
Somebody called you, guess who? *I don't think that anybody called.*

Somebody called you, but I don't know who.

He calls more often than anybody I know.

Just give it to somebody!

If somebody calls, then tell him this.



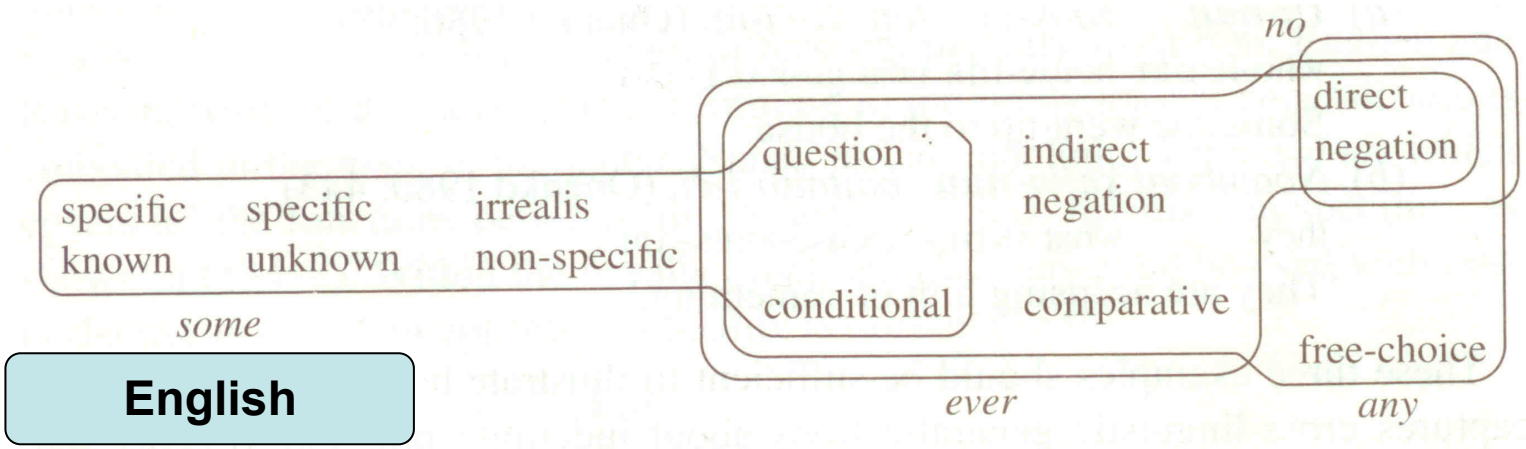
The semantic map for indefinites

Did somebody call? *Nobody called.*

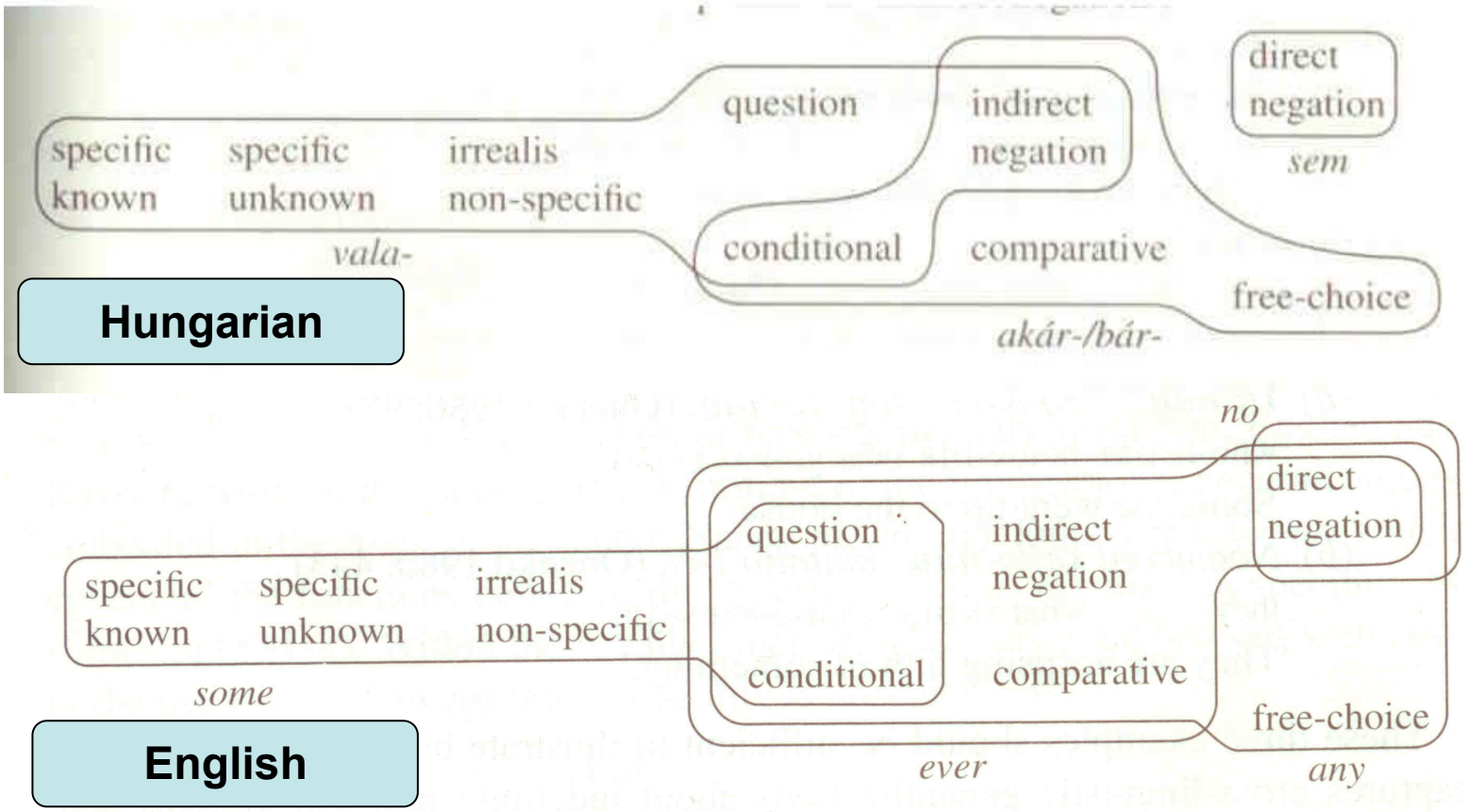
Somebody called you, guess who? *I don't think that anybody called.*

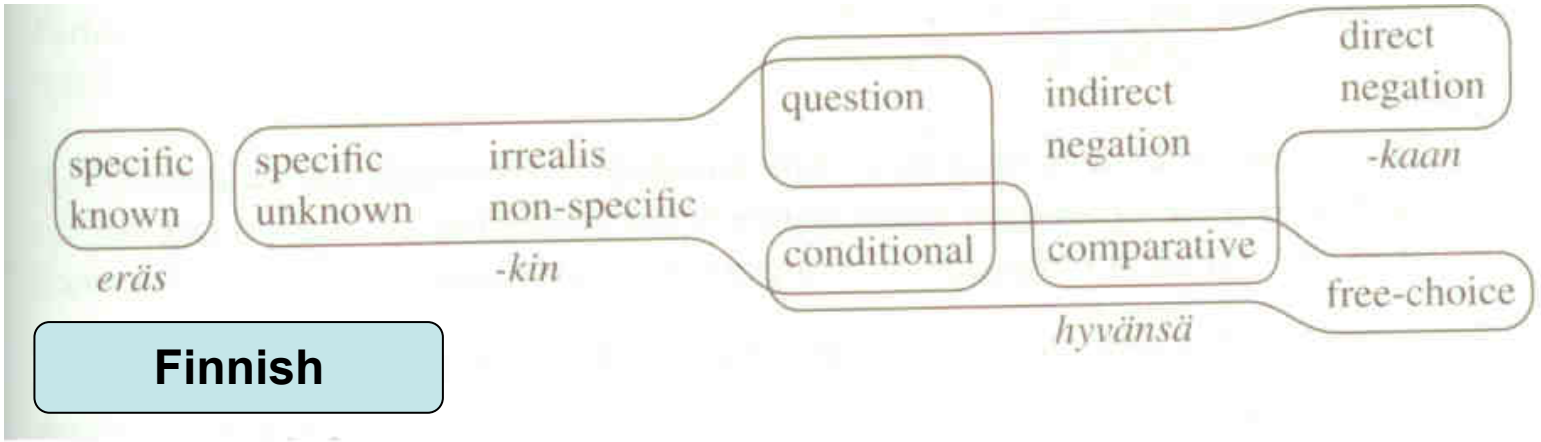
Somebody called you, but I don't know who. *He calls more often than anybody I know.*

Just give it to somebody! *If somebody calls, then tell him this.* ***Anybody could call.***

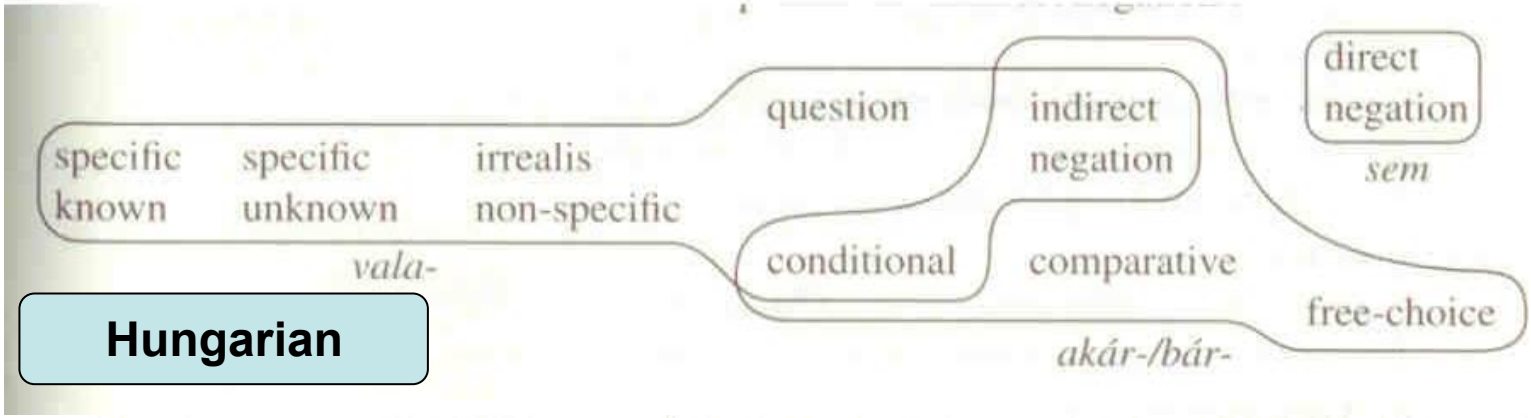

no
direct
negation
question
indirect
negation
specific
known
specific
unknown
irrealis
non-specific
conditional
comparative
free-choice
some
ever
any

English

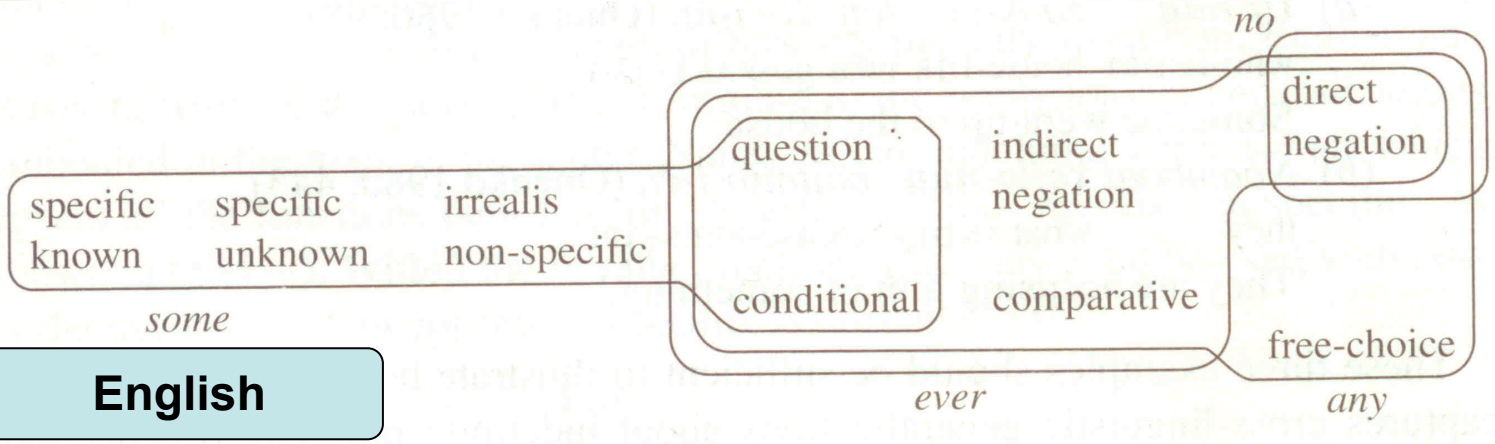

specific known
specific unknown
irrealis non-specific
question
indirect negation
direct negation
sem
vala-
conditional
comparative
free-choice
akár-/bár-
Hungarian
no
specific known
specific unknown
irrealis non-specific
question
indirect negation
direct negation
some
conditional
comparative
free-choice
ever
any
English



Finnish

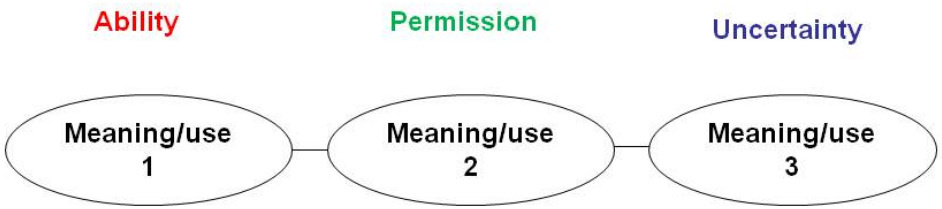


Hungarian



English

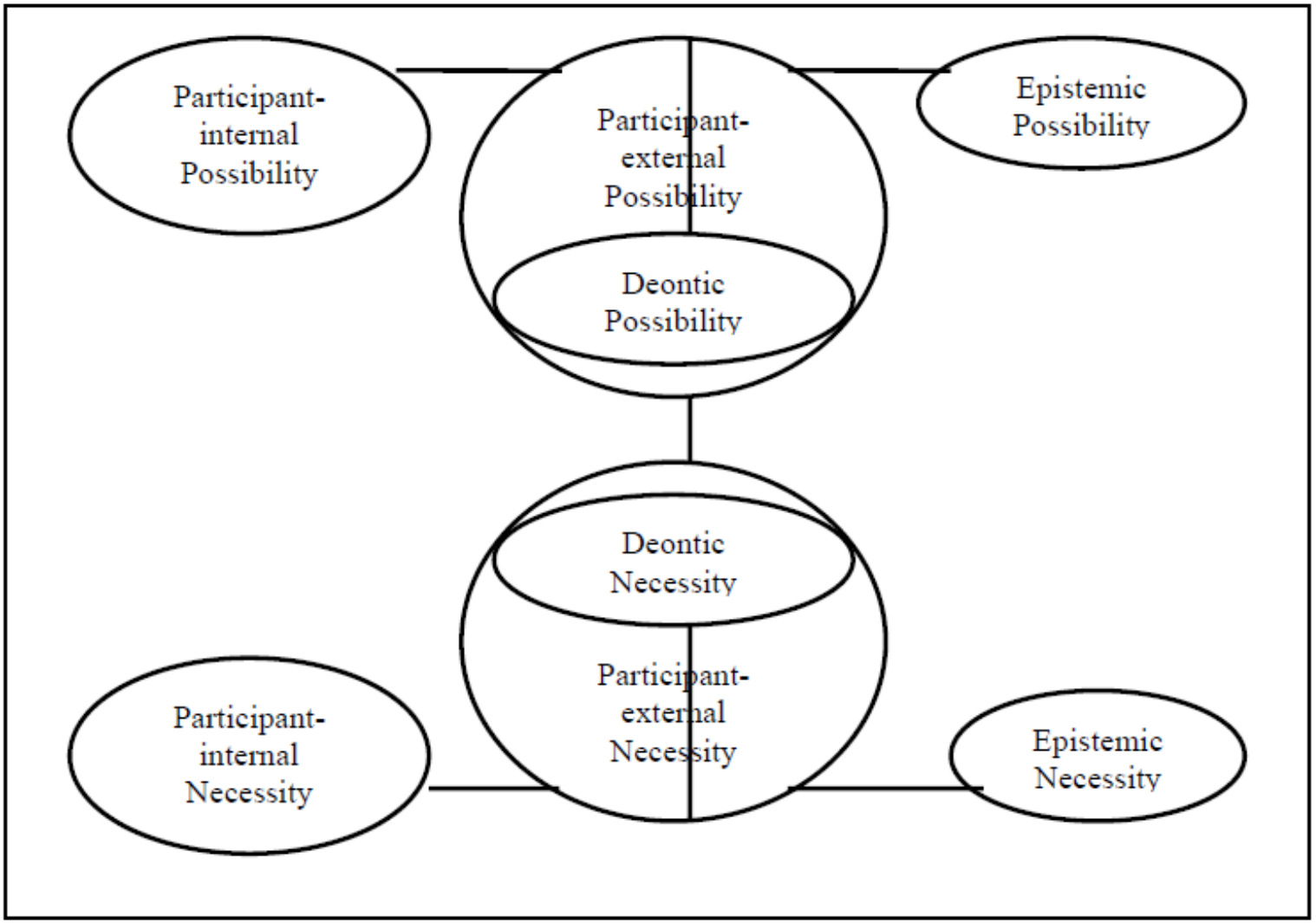
3. Diachronic typology

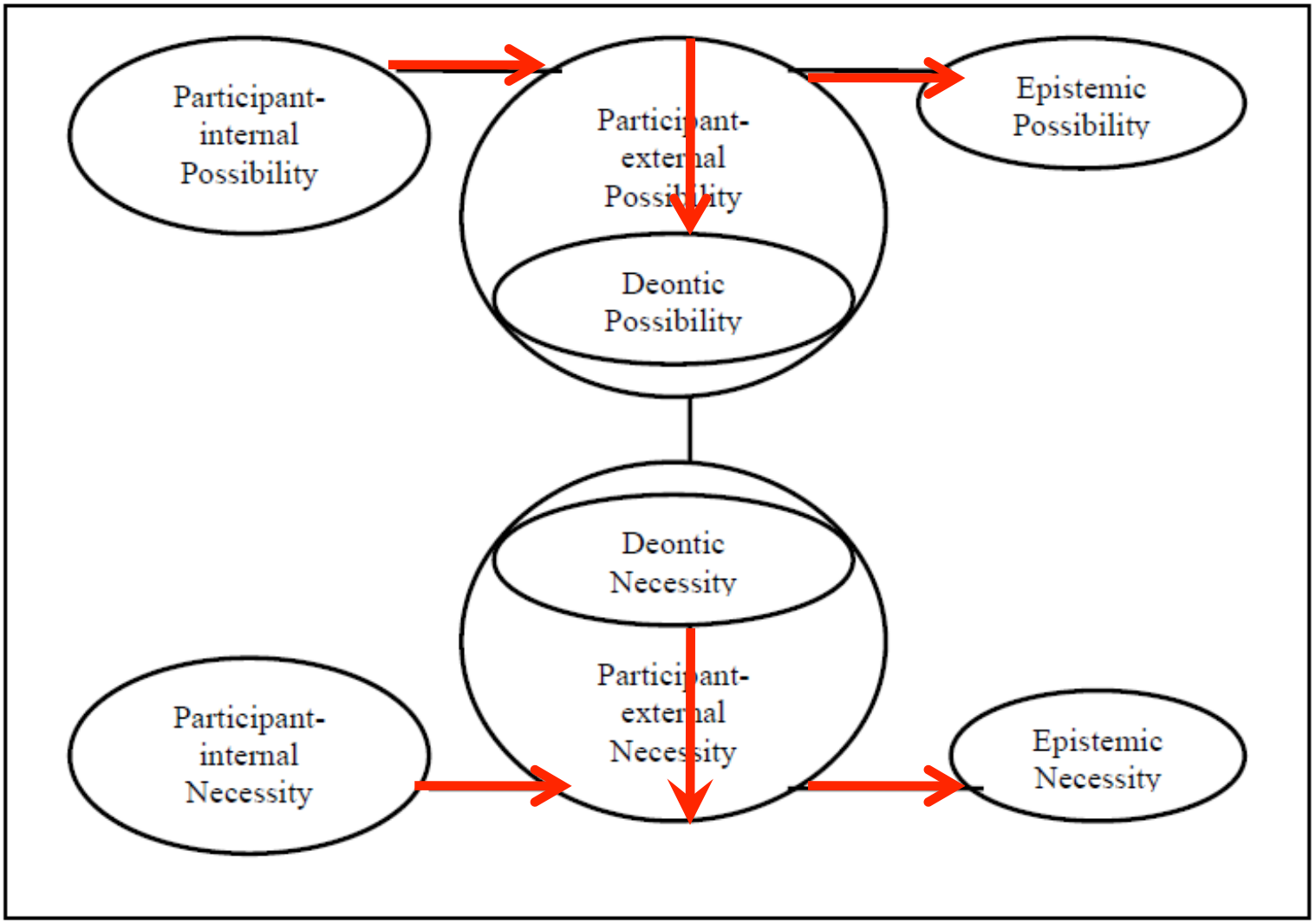


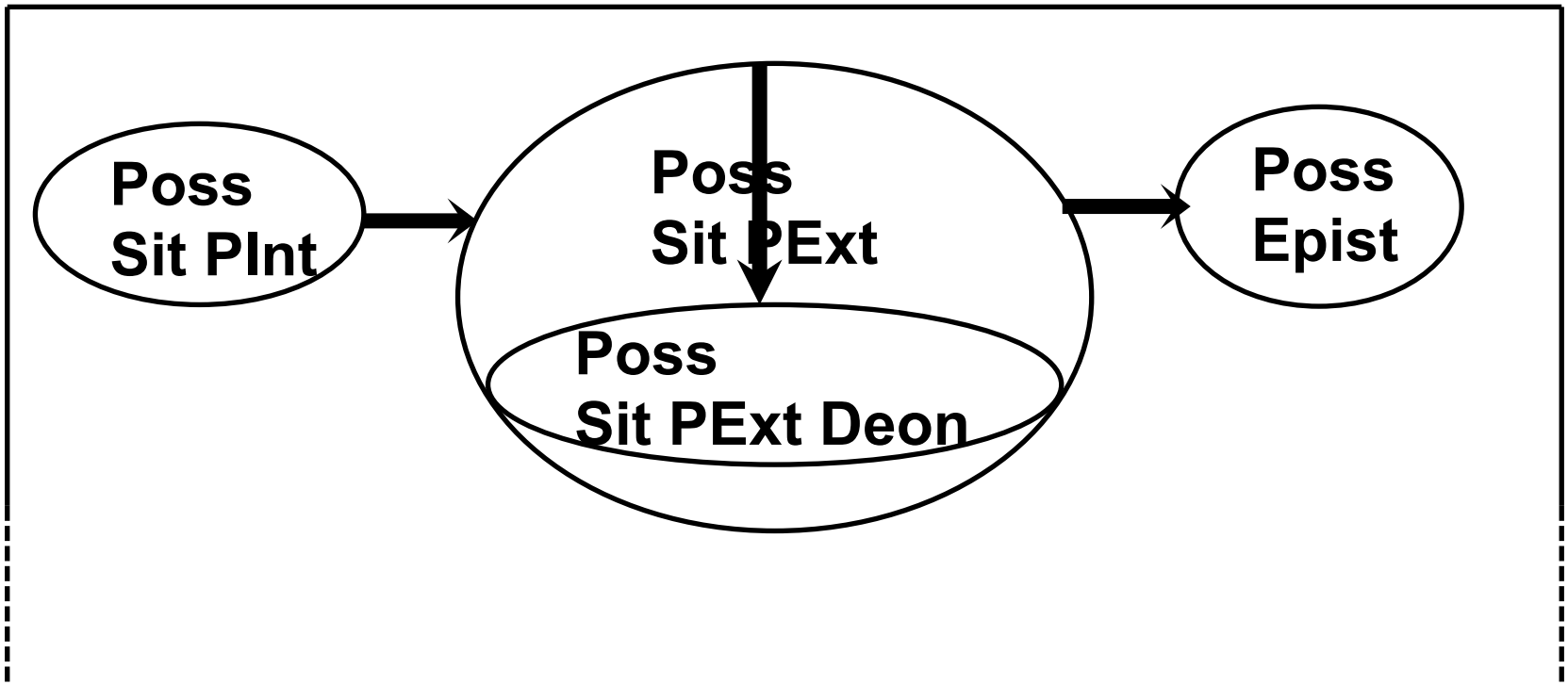
When he was young, he could speak Chinese.

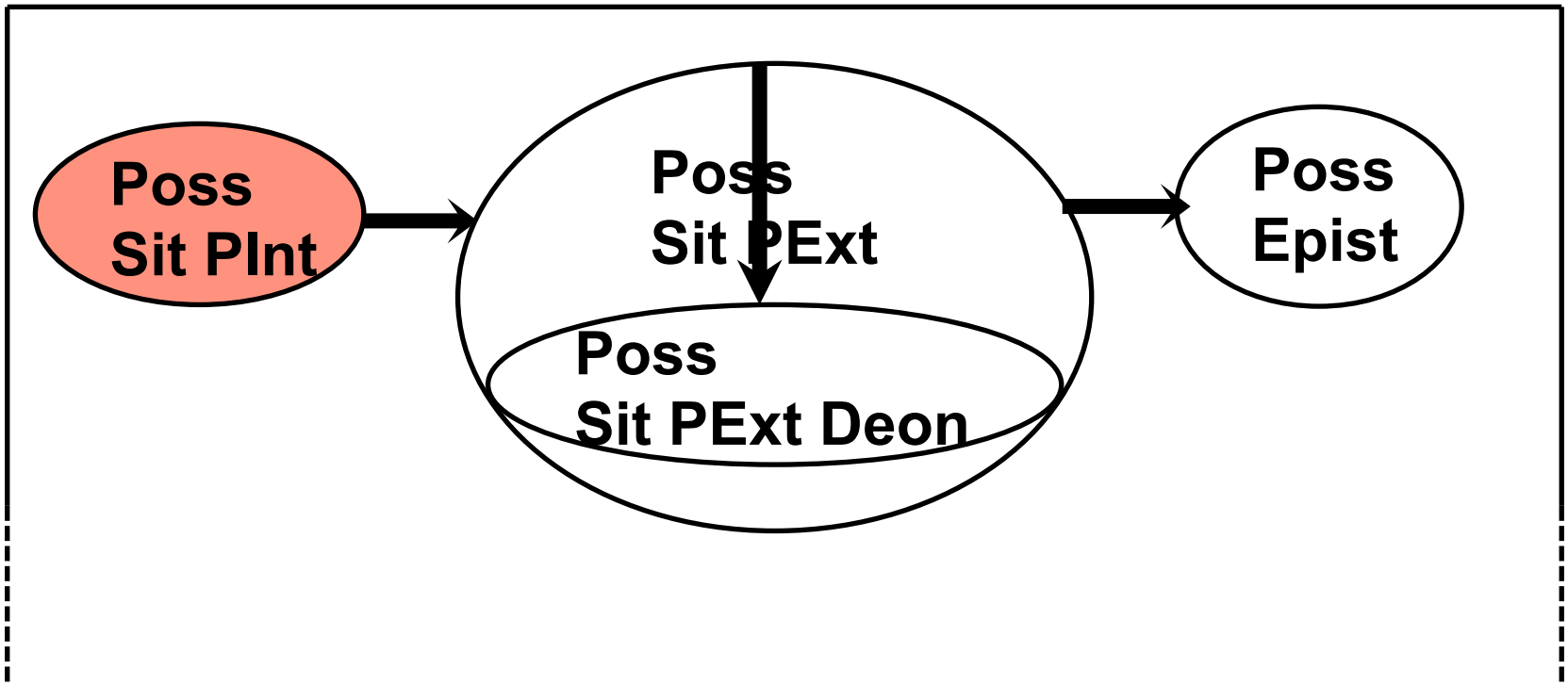
He could leave any time he wanted.

He could be home now.

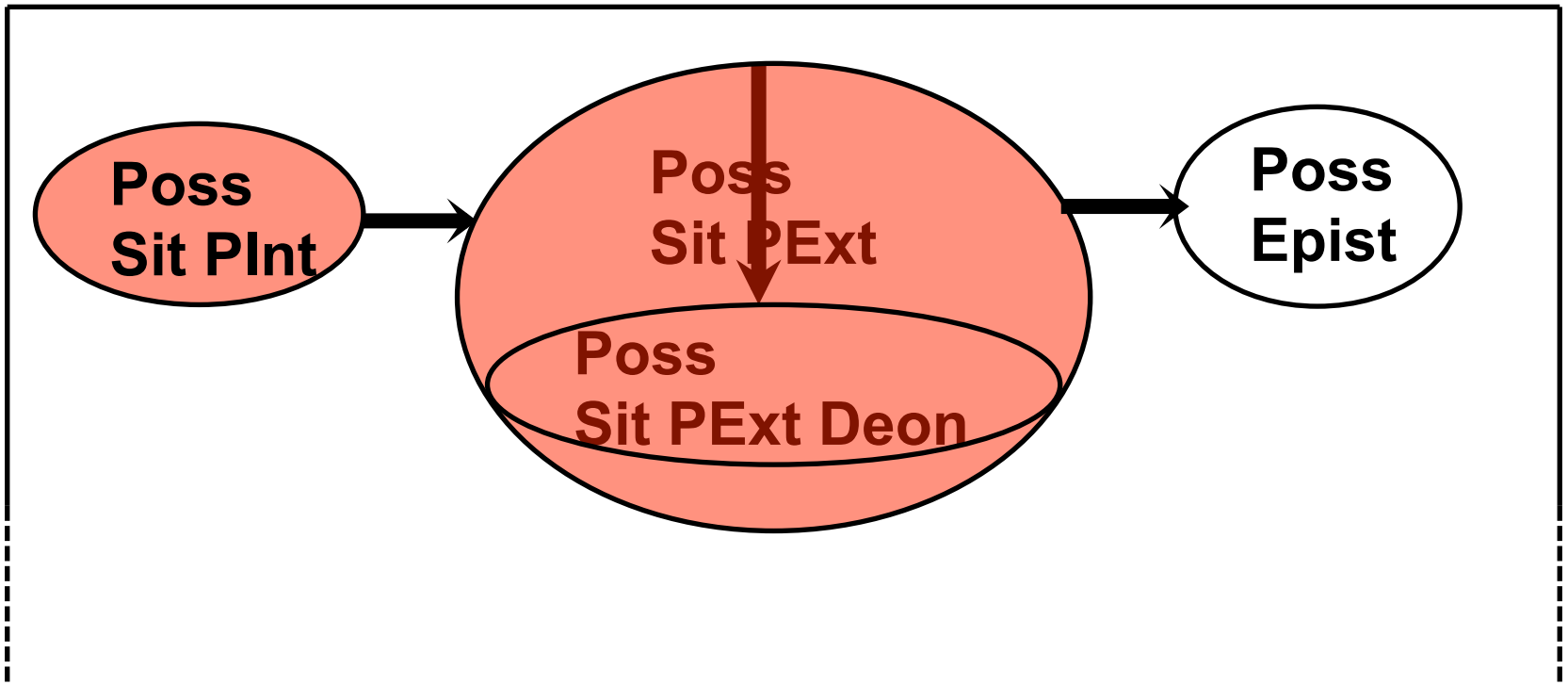

Participant-internal Possibility
Participant-external Possibility
Epistemic Possibility
Deontic Possibility
Deontic Necessity
Participant-external Necessity
Participant-internal Necessity
Epistemic Necessity


Participant-internal Possibility
Participant-external Possibility
Epistemic Possibility
Deontic Possibility
Deontic Necessity
Participant-external Necessity
Participant-internal Necessity
Epistemic Necessity

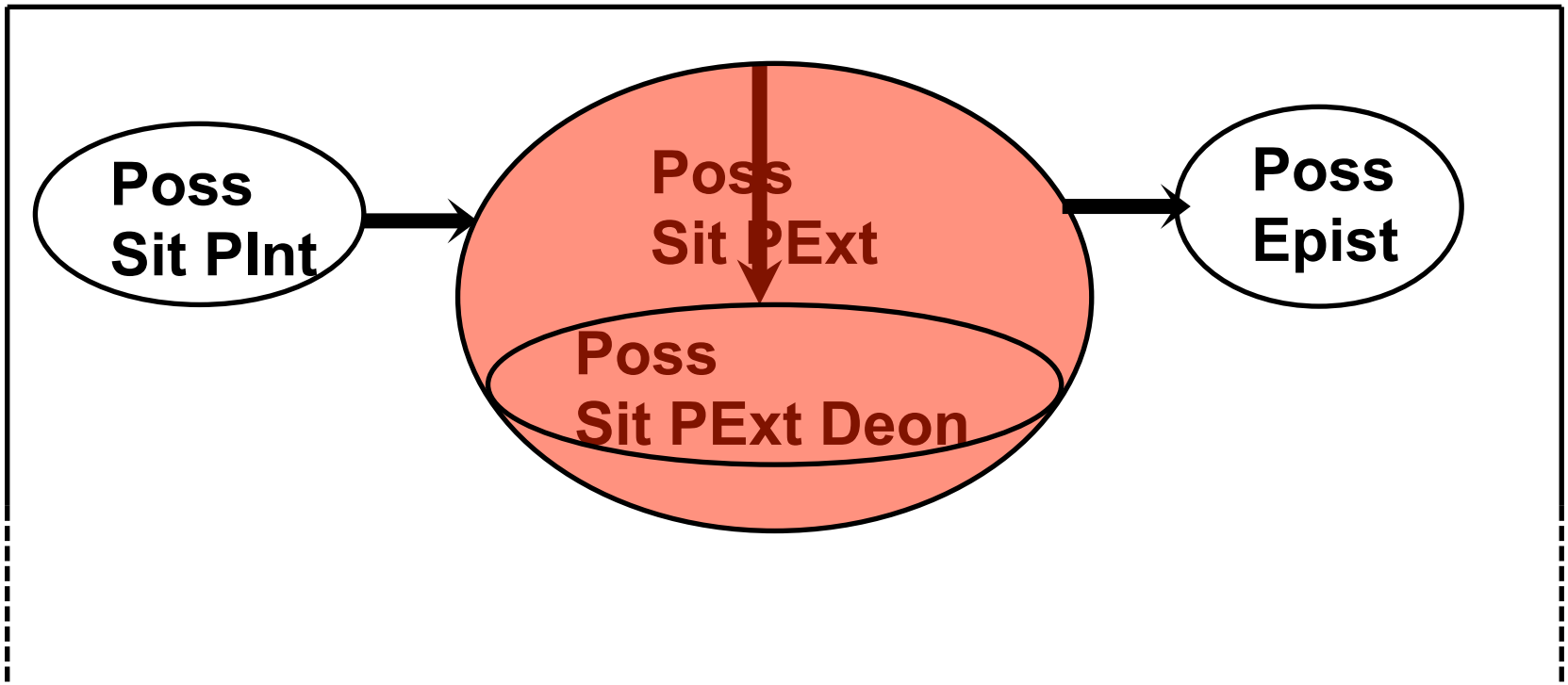

Poss
Sit PInt
Poss
Sit PExt
Poss
Epist
Poss
Sit PExt Deon



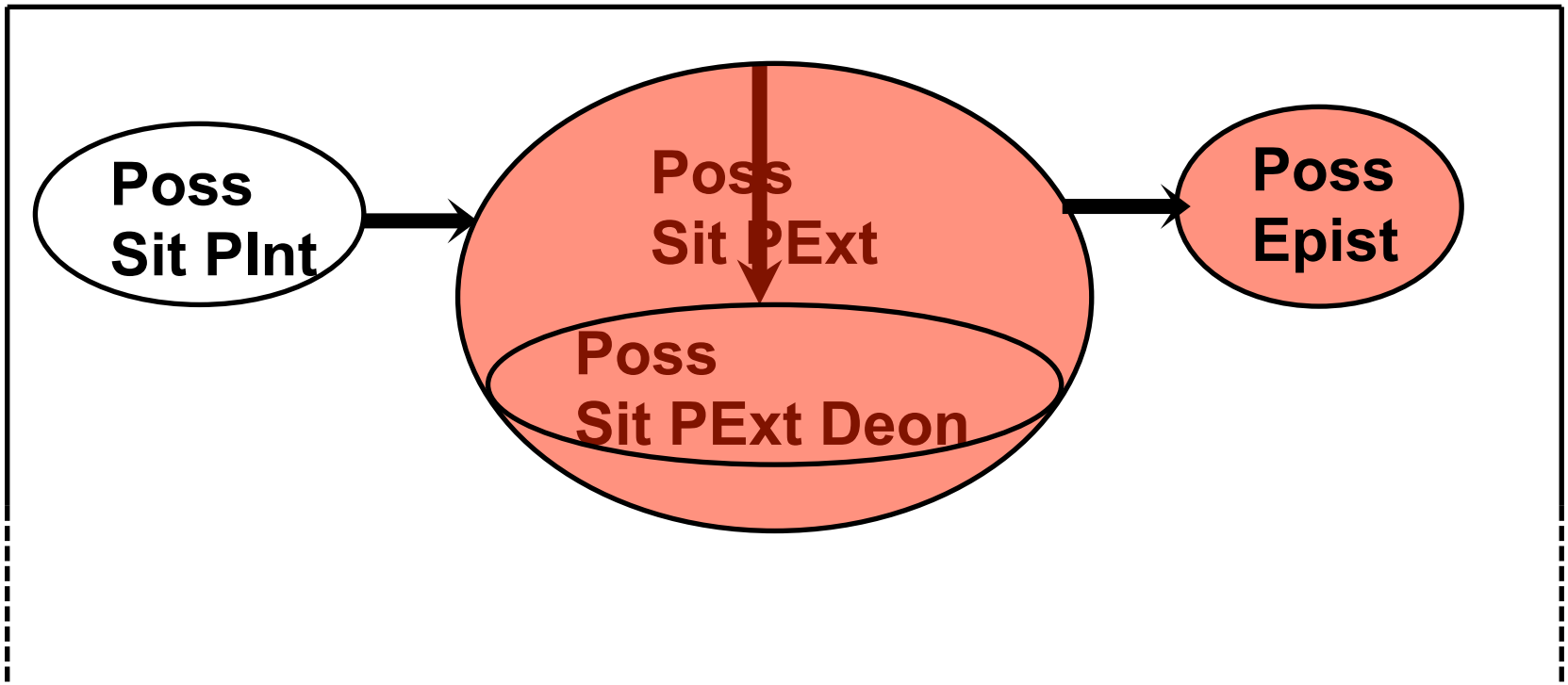
may



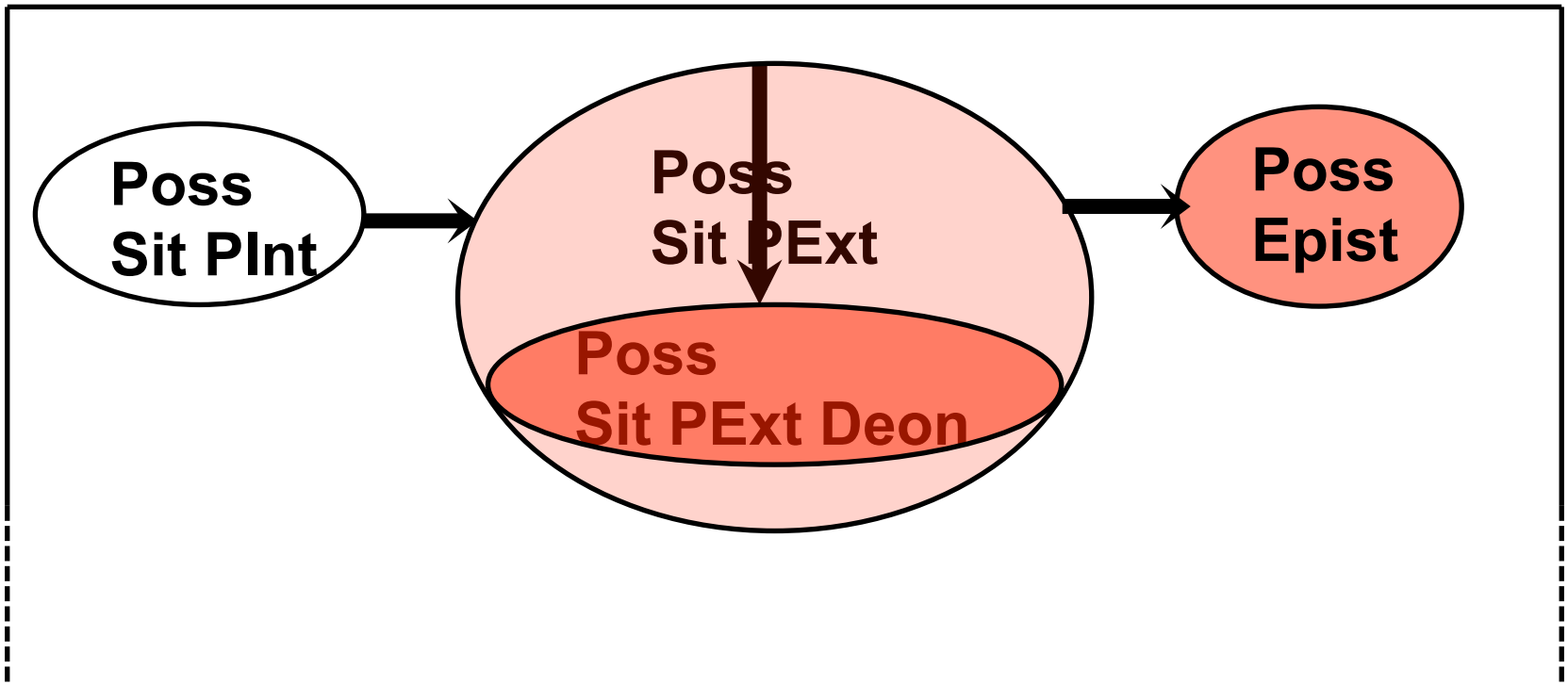
may



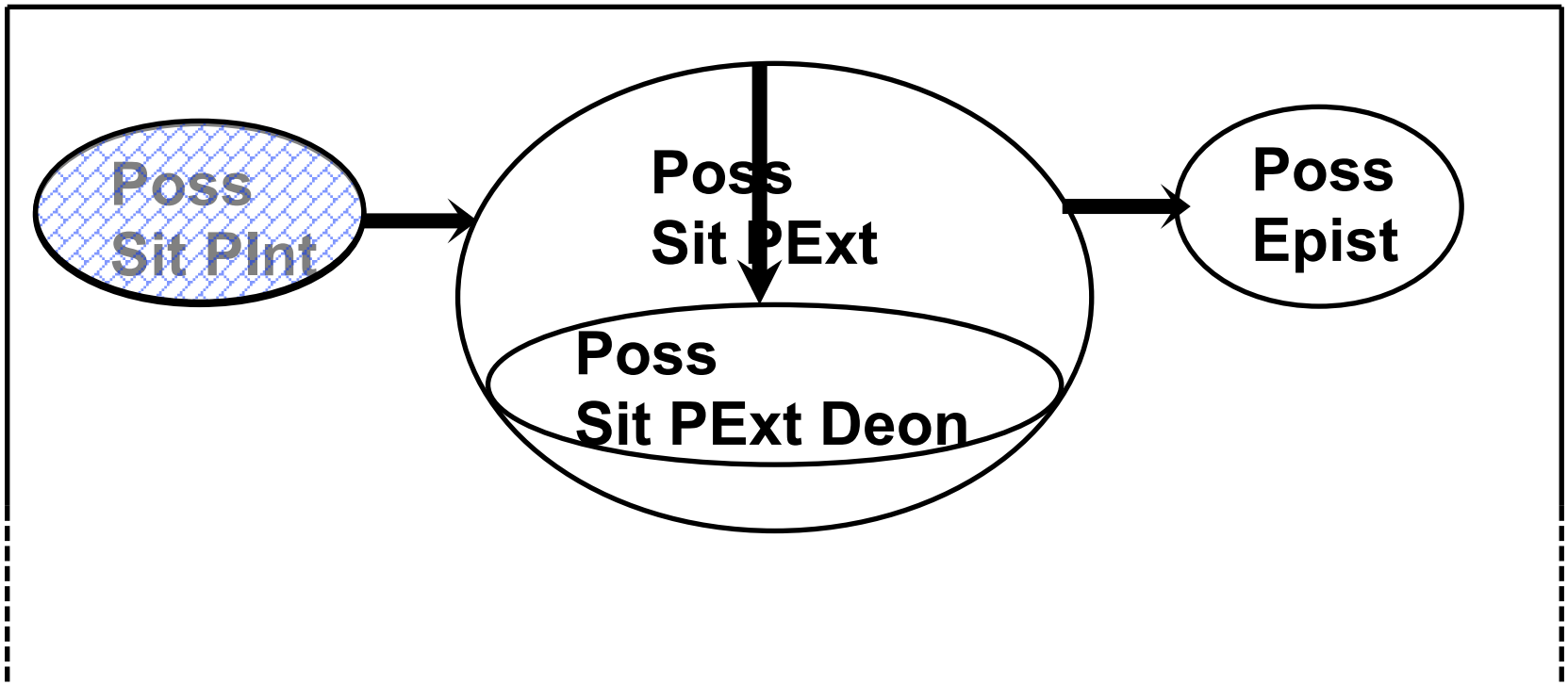
may



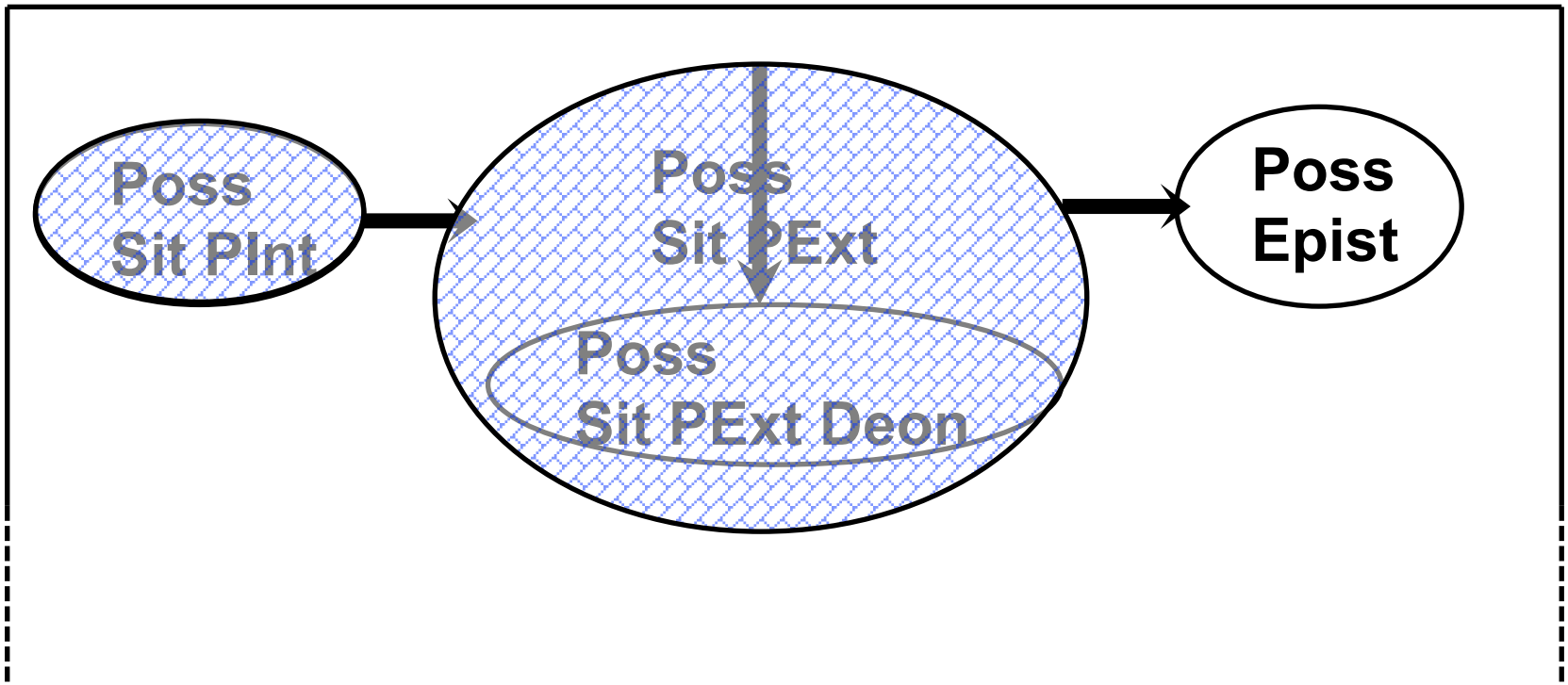
may



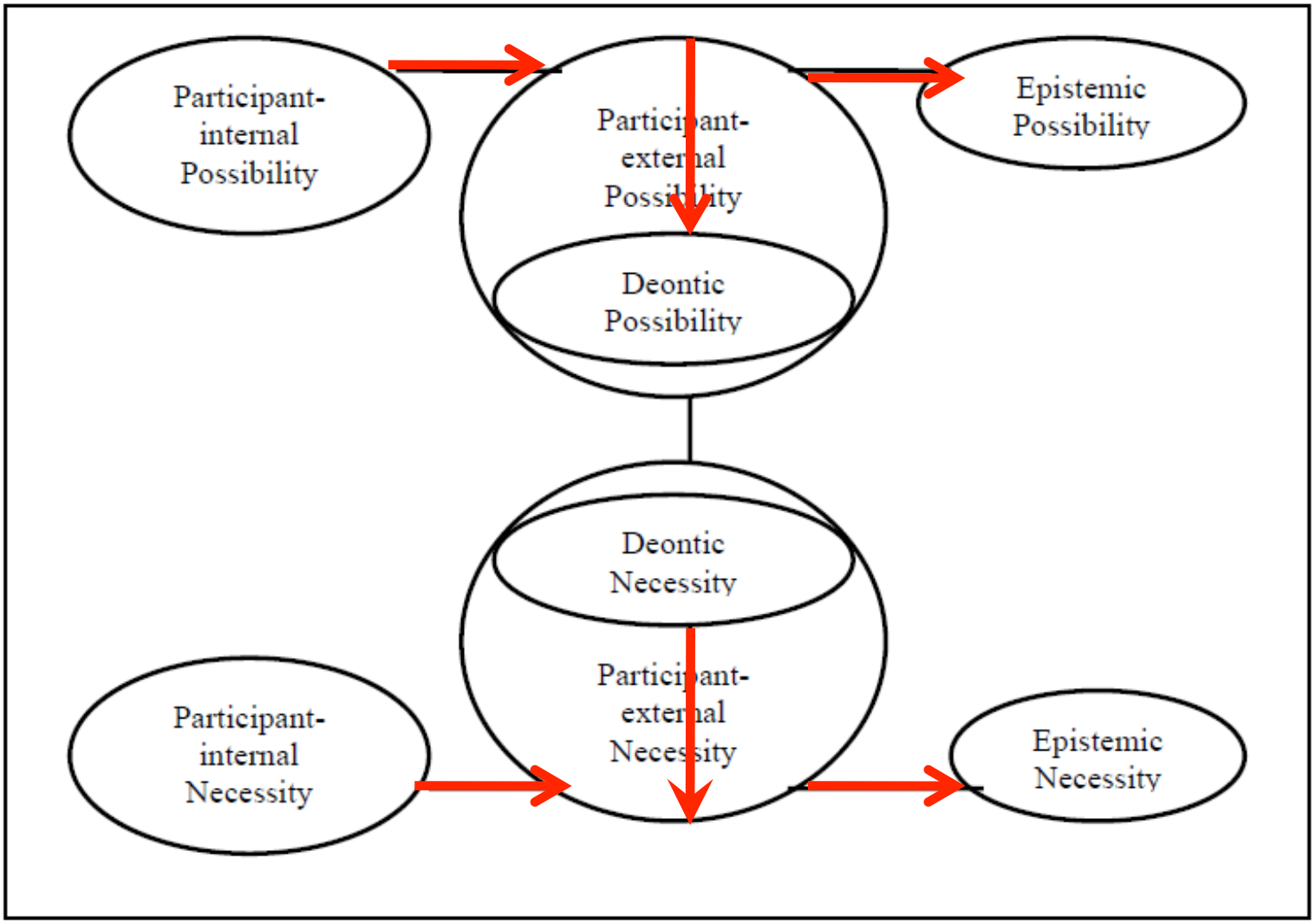
may

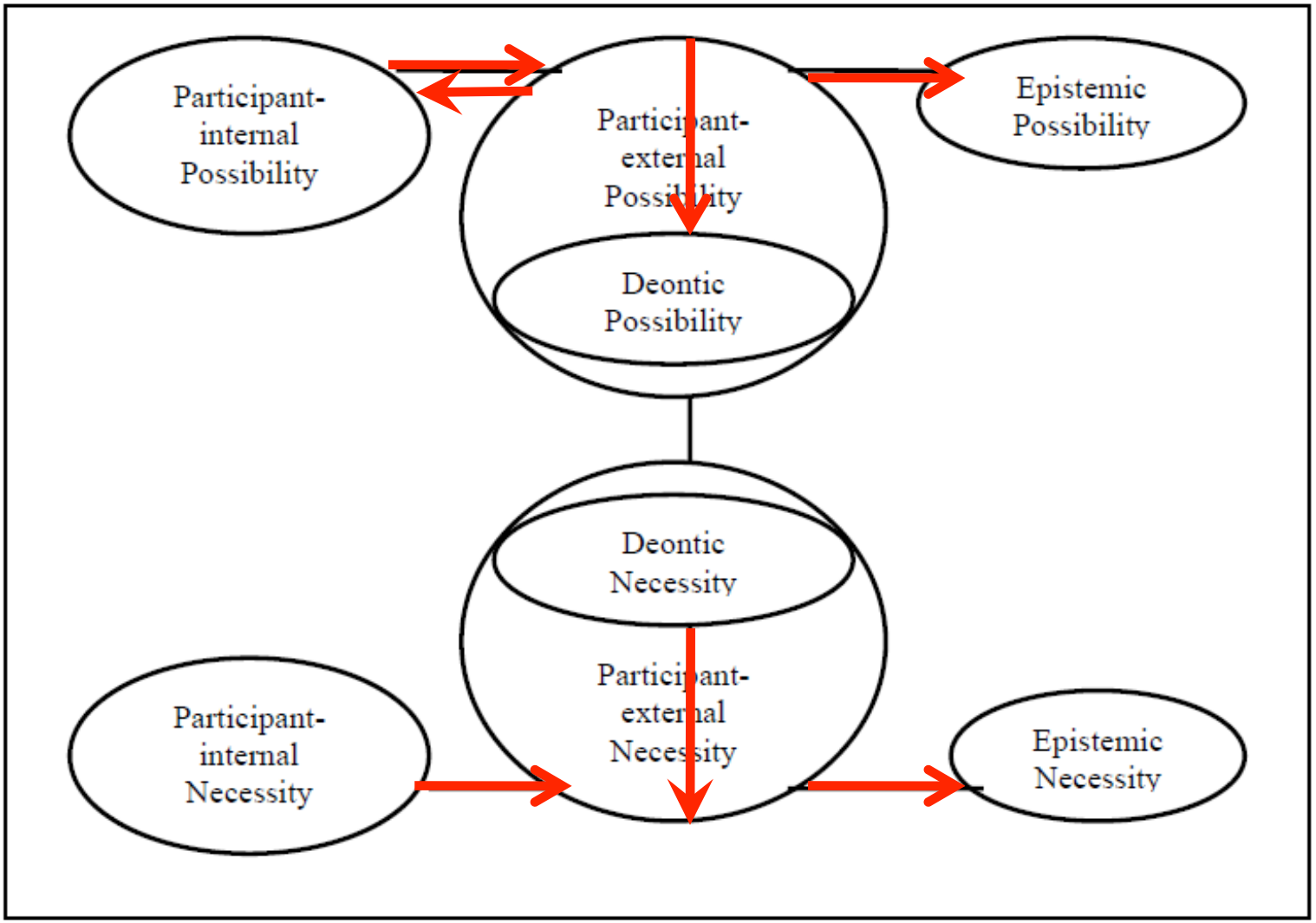


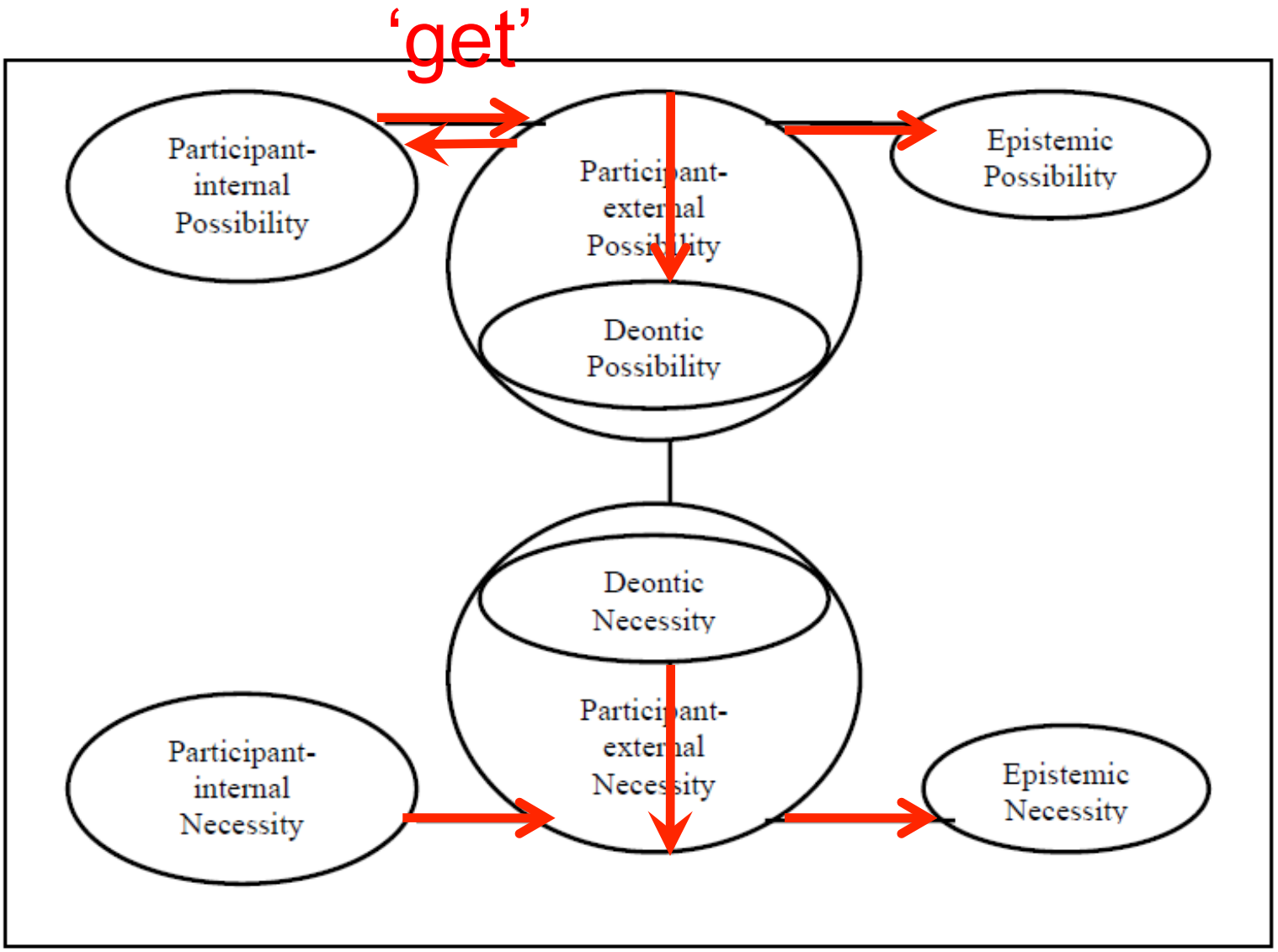
can

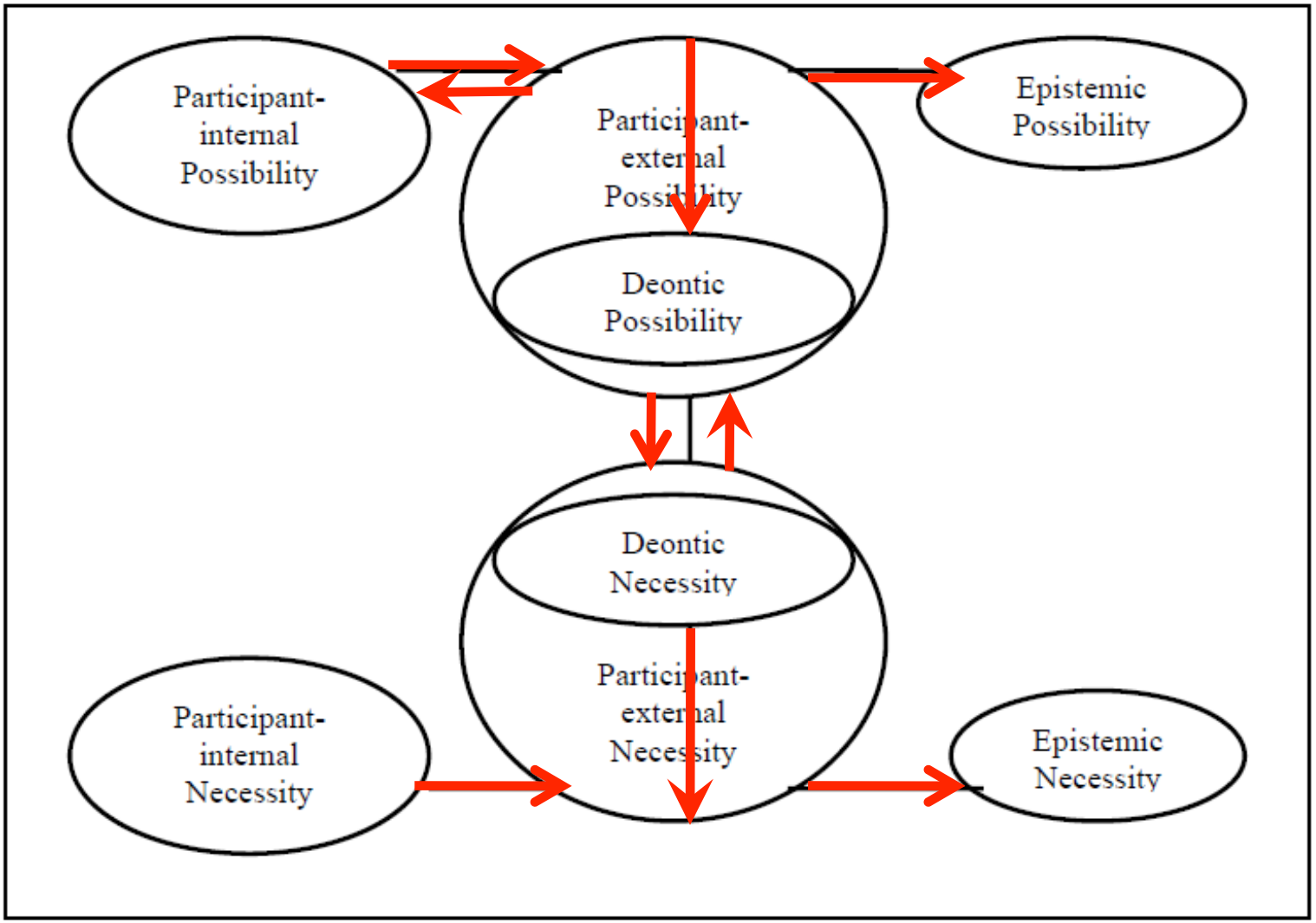


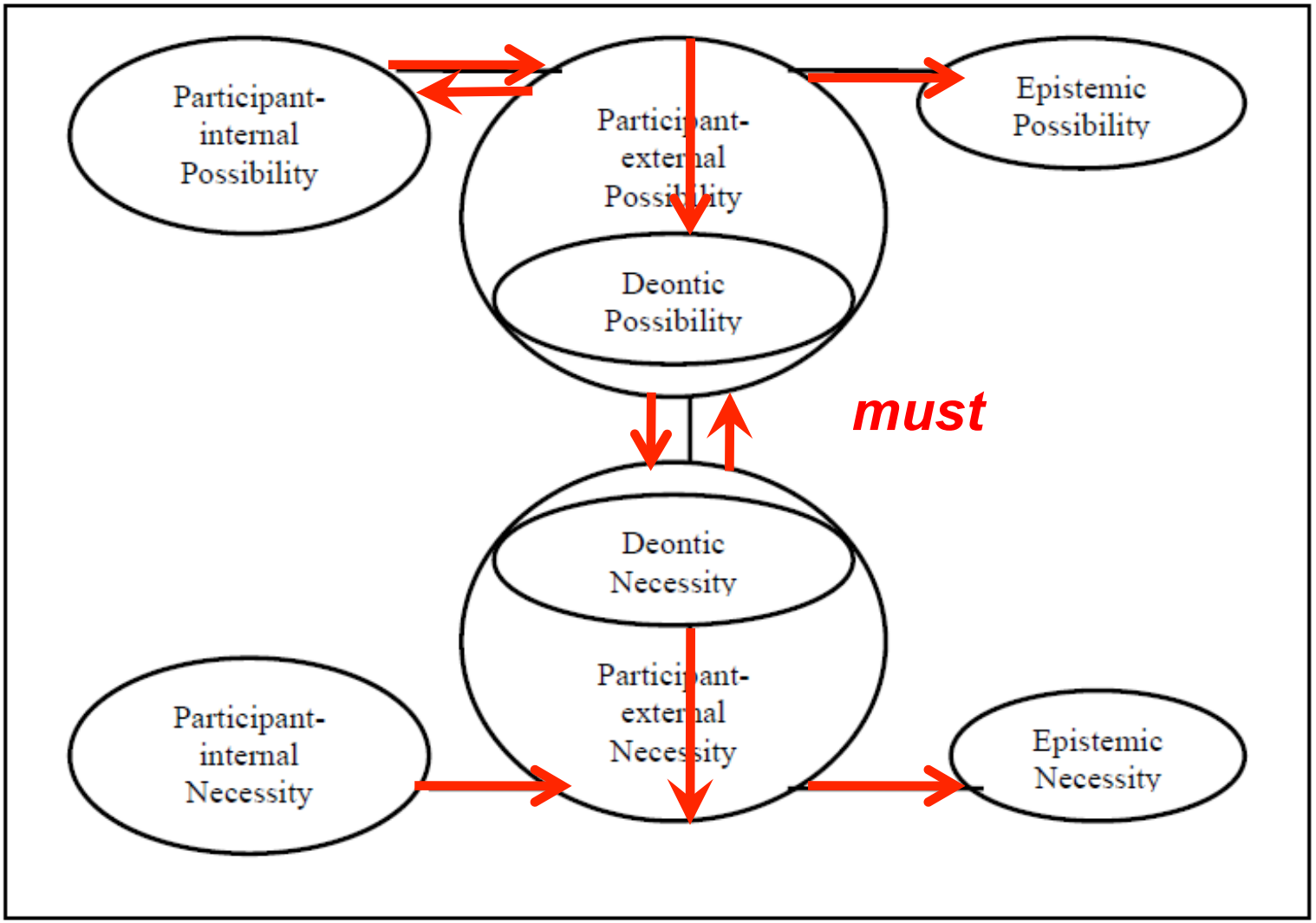
can

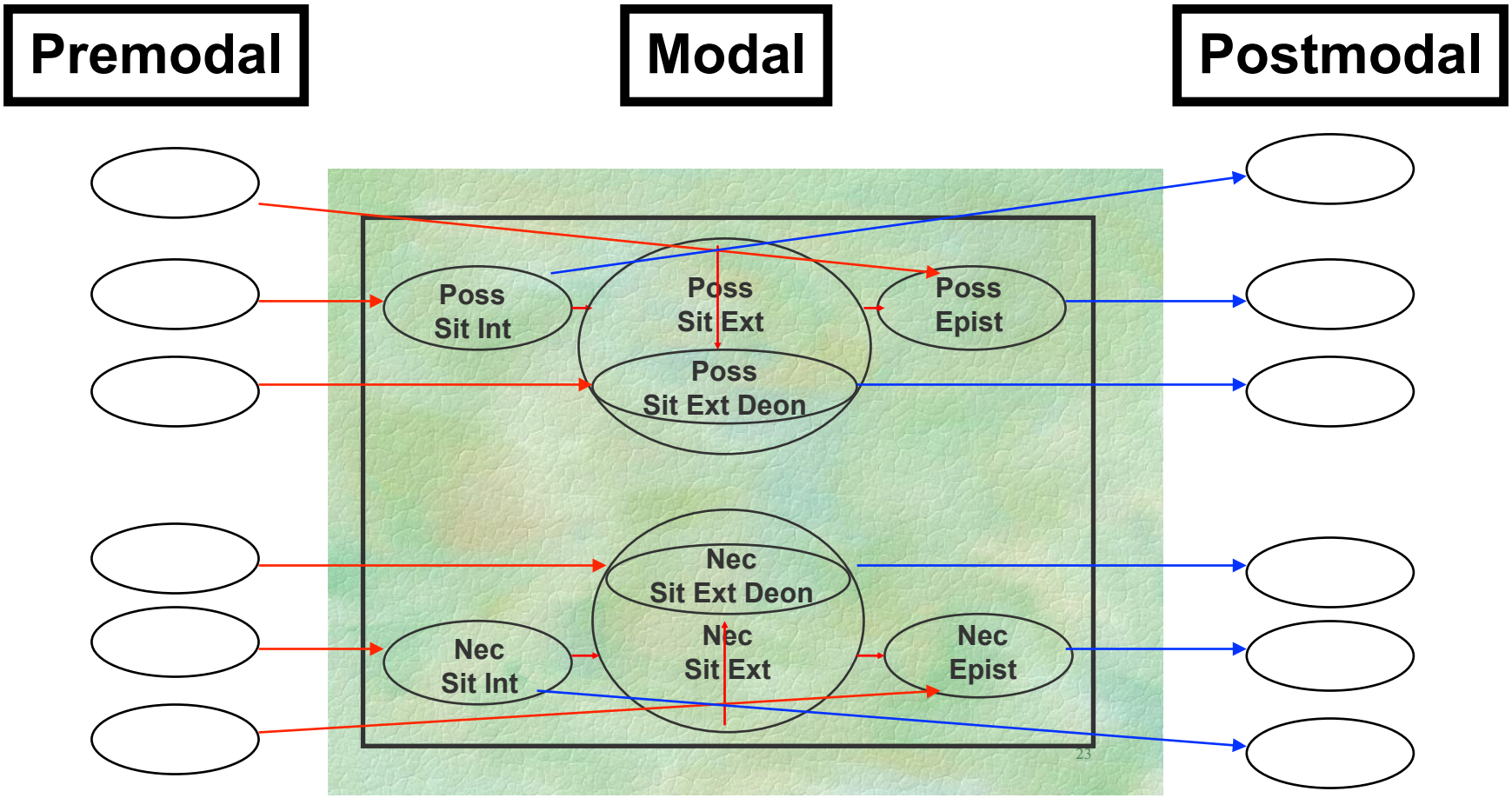

Participant-internal Possibility
Participant-external Possibility
Epistemic Possibility
Deontic Possibility
Deontic Necessity
Participant-external Necessity
Participant-internal Necessity
Epistemic Necessity


Participant-internal Possibility
Participant-external Possibility
Epistemic Possibility
Deontic Possibility
Deontic Necessity
Participant-external Necessity
Participant-internal Necessity
Epistemic Necessity


'get'
Participant-internal Possibility
Participant-external Possibility
Epistemic Possibility
Deontic Possibility
Deontic Necessity
Participant-external Necessity
Participant-internal Necessity
Epistemic Necessity

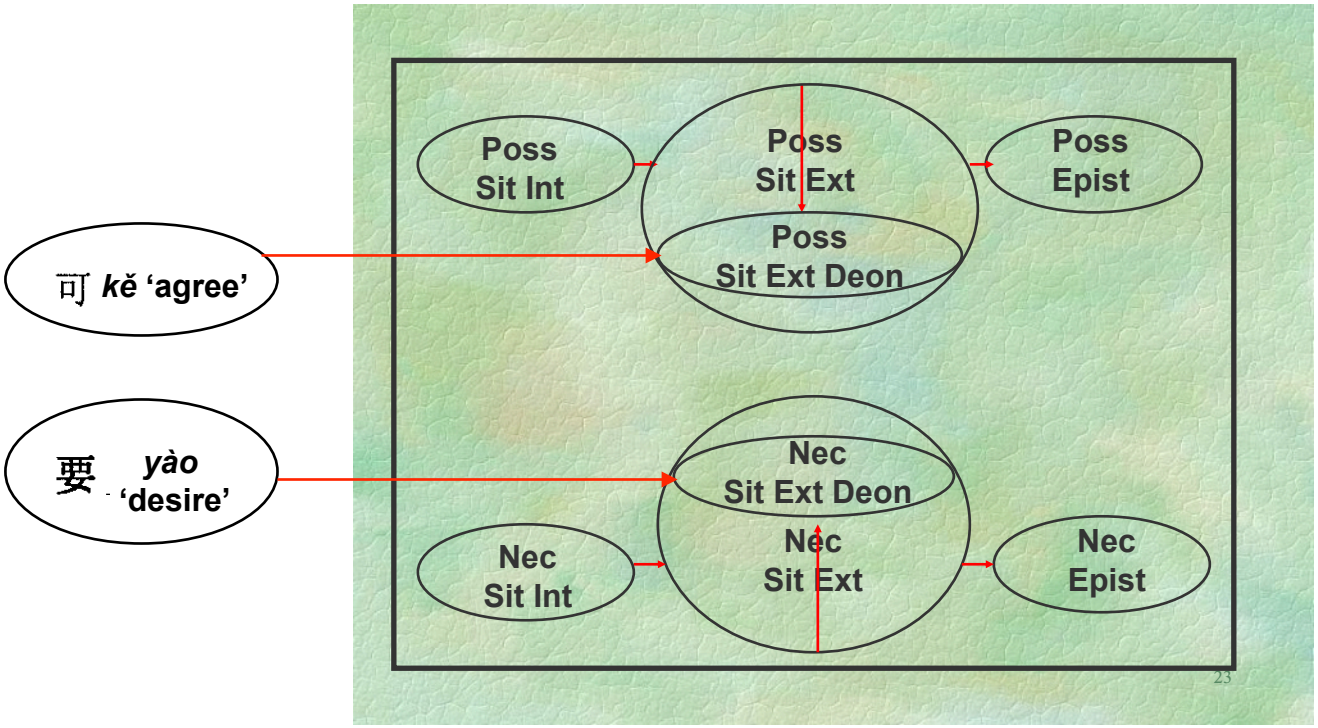

Participant-internal Possibility
Participant-external Possibility
Epistemic Possibility
Deontic Possibility
Deontic Necessity
Participant-external Necessity
Participant-internal Necessity
Epistemic Necessity


Participant-internal Possibility
Participant-external Possibility
Epistemic Possibility
Deontic Possibility
must
Deontic Necessity
Participant-external Necessity
Participant-internal Necessity
Epistemic Necessity


Premodal
Modal
Postmodal
Poss
Sit Int
Poss
Sit Ext
Poss
Epist
Poss
Sit Ext Deon
Nec
Sit Ext Deon
Nec
Sit Int
Nec
Sit Ext
Nec
Epist
23

Premodal

Modal

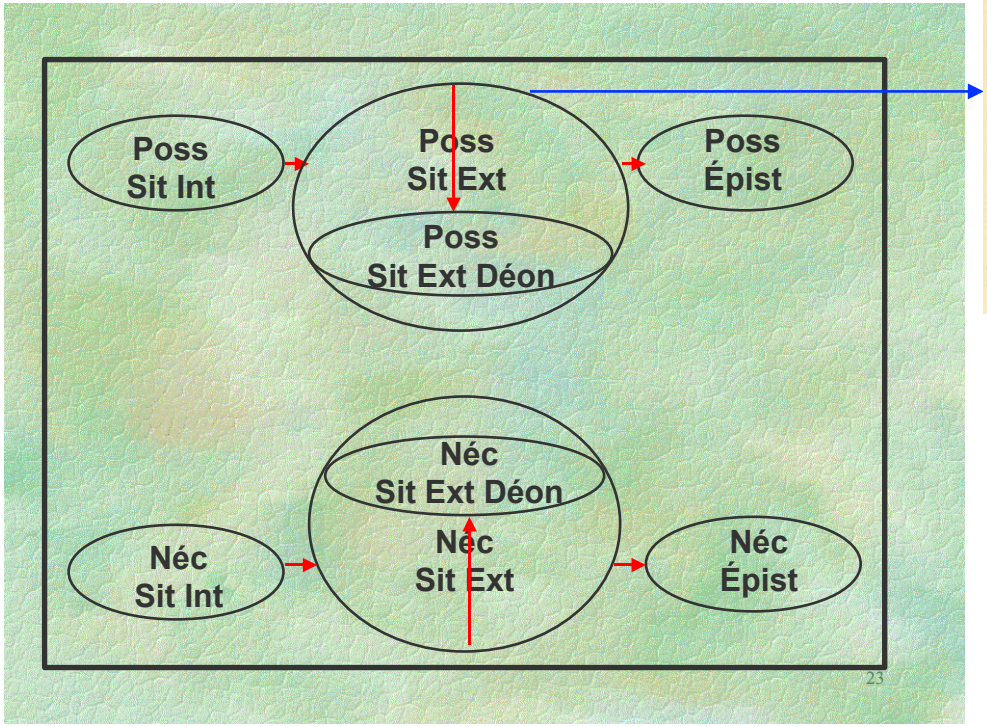


May he live a hundred years!

Premodal

Modal

Postmodal



I mog di.

Ich mag dich.

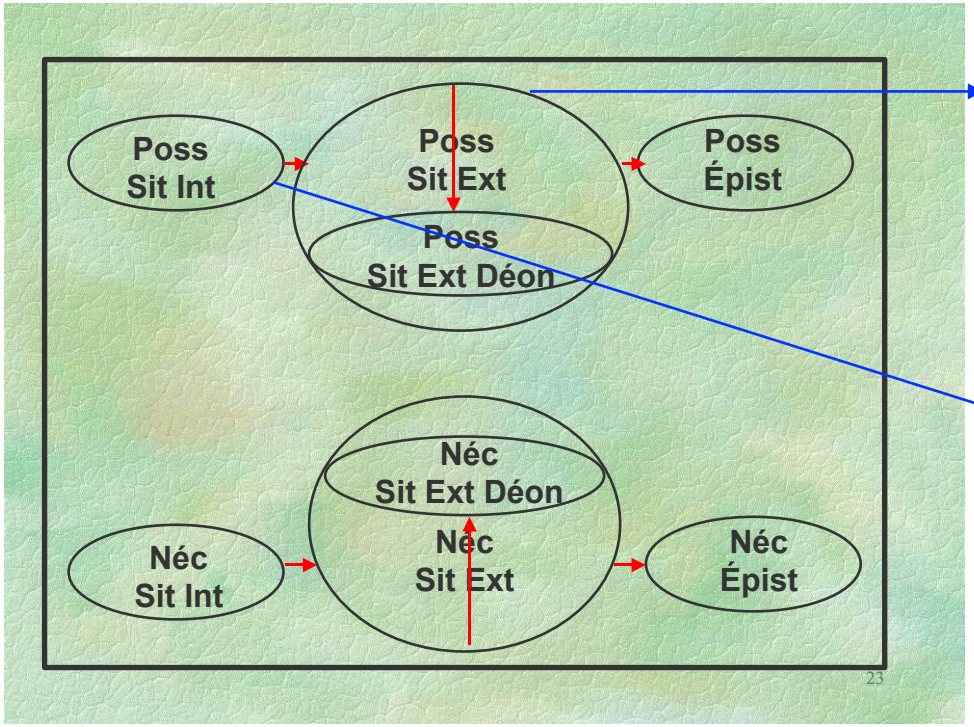
I may you.

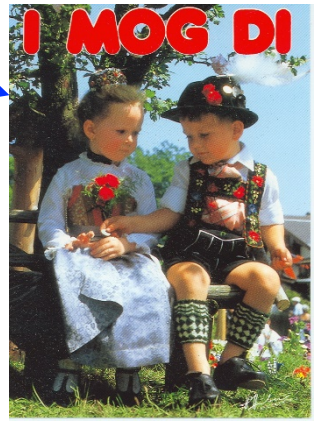
‘I like you.’

Premodal

Modal

Postmodal





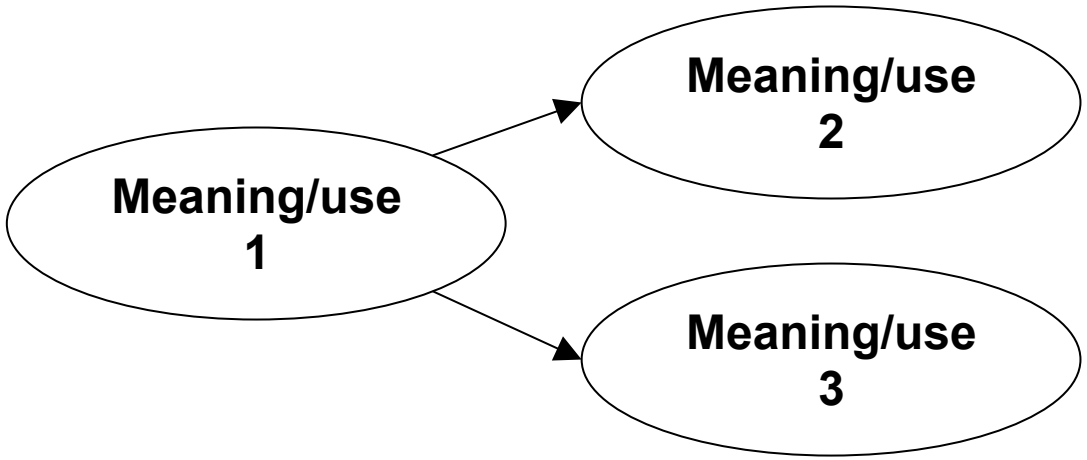
Three important remarks

1. A more refined version of the contiguity/adjacency requirement

Three important remarks

1. A more refined version of the contiguity/adjacency requirement

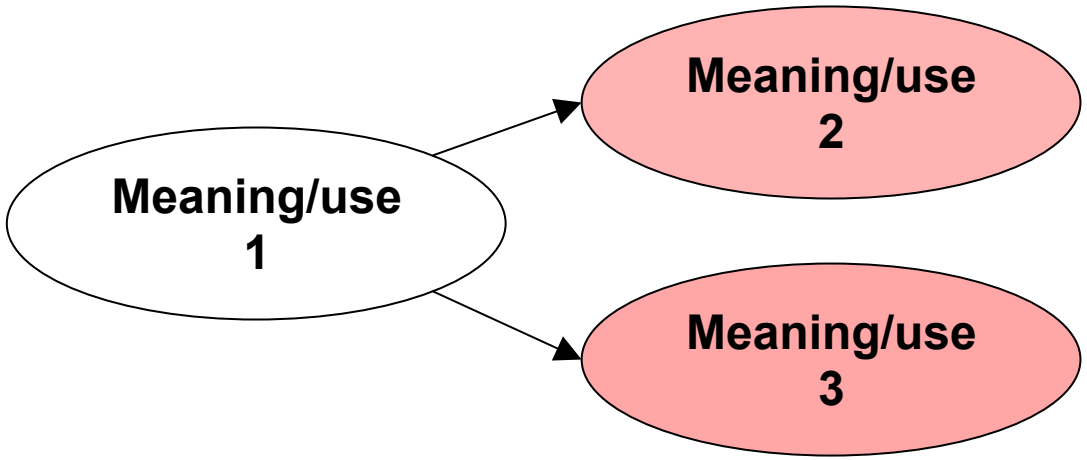
Lack of contiguity allowed if common ancestor



Three important remarks

1. A more refined version of the contiguity/adjacency requirement

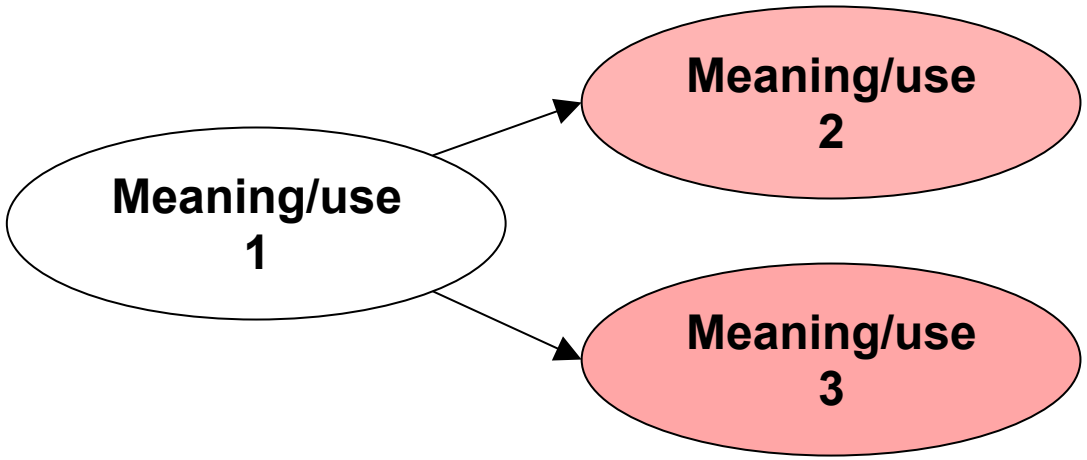
Lack of contiguity allowed if common ancestor



Three important remarks

1. A more refined version of the contiguity/adjacency requirement

Lack of contiguity allowed if common ancestor



May he live a hundred years! ***He may be English, but he is not brave.***

Three important remarks

2. Next to polysemy, there is homonymy

Three important remarks

2. Next to polysemy, there is homonymy

I gotta watch TV tonight.

I got to watch TV last night.

Three important remarks

2. Next to polysemy, there is homonymy

I gotta watch TV tonight.

< *have got*

***I got to watch TV last night*.**

Simple past to *get to*

Three important remarks

2. Next to polysemy, there is homonymy

I gotta watch TV tonight. **Necessity Present**

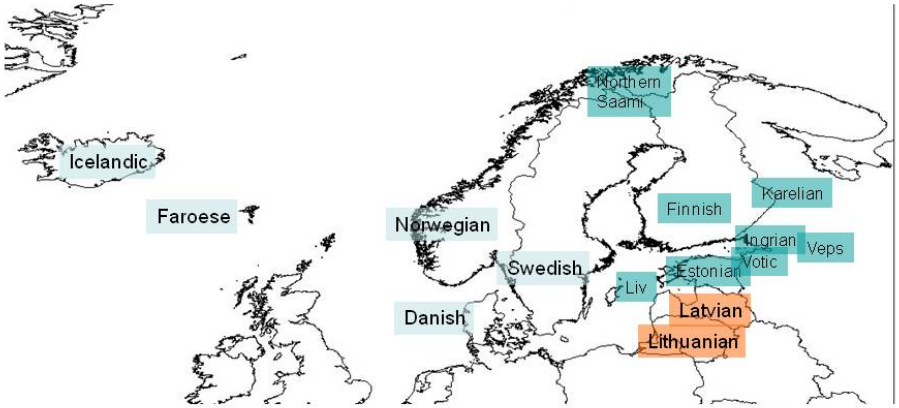
< *have got*

***I got to watch TV last night*.** **Possibility Past**

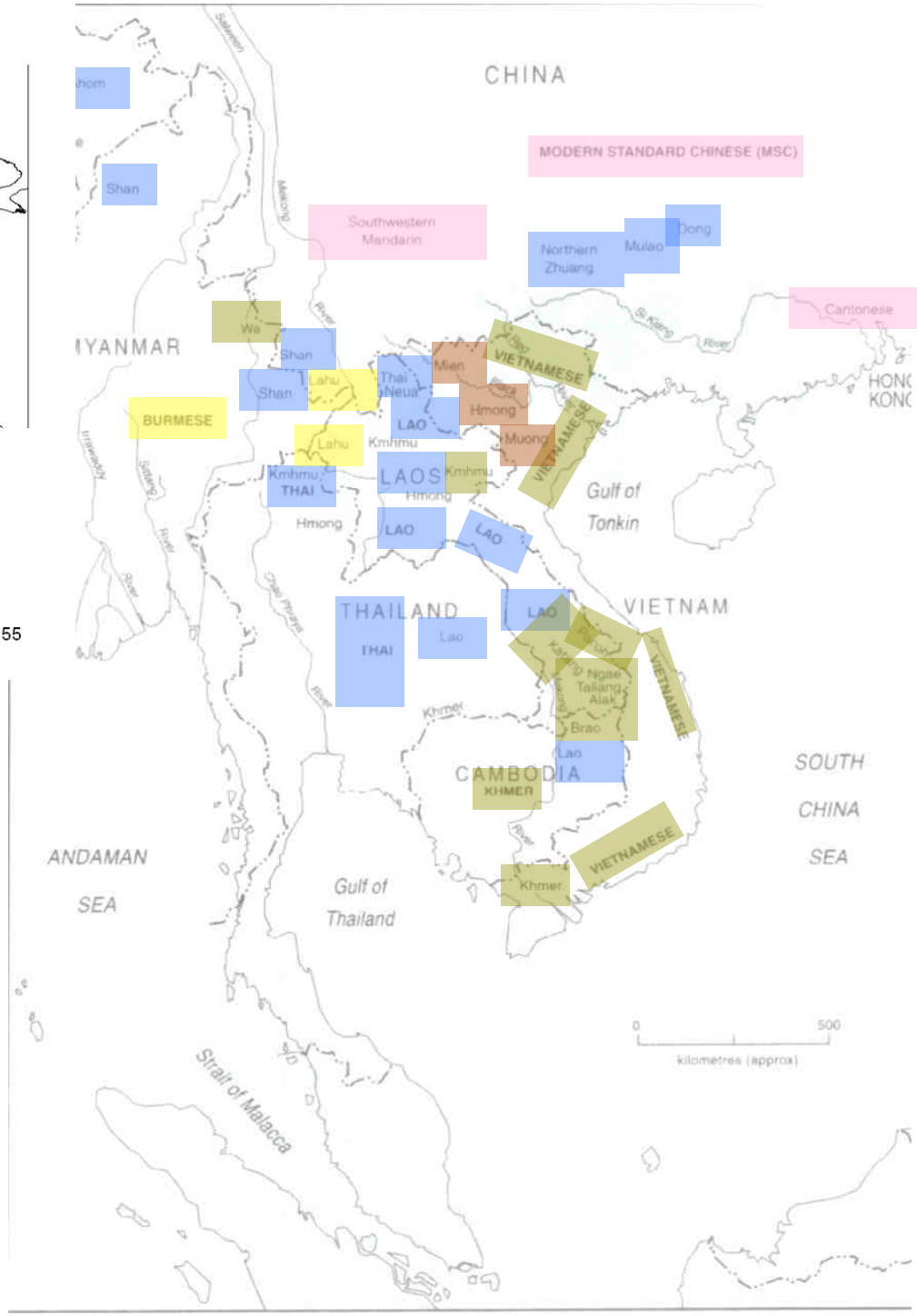
Simple past to *get to*

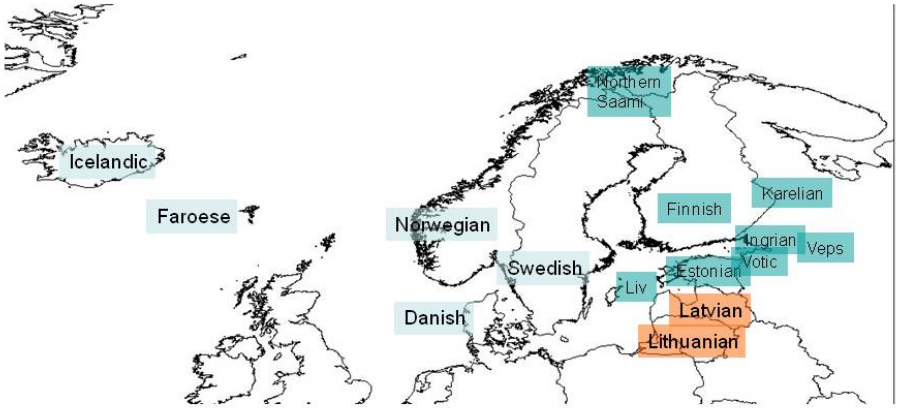
Three important remarks

3. Language contact


Northern Saami
Icelandic
Faroese
Norwegian
Finnish
Karelian
Ingrian
Veps
Votic
Swedish
Estonian
Liv
Danish
Latvian
Lithuanian

‘get’

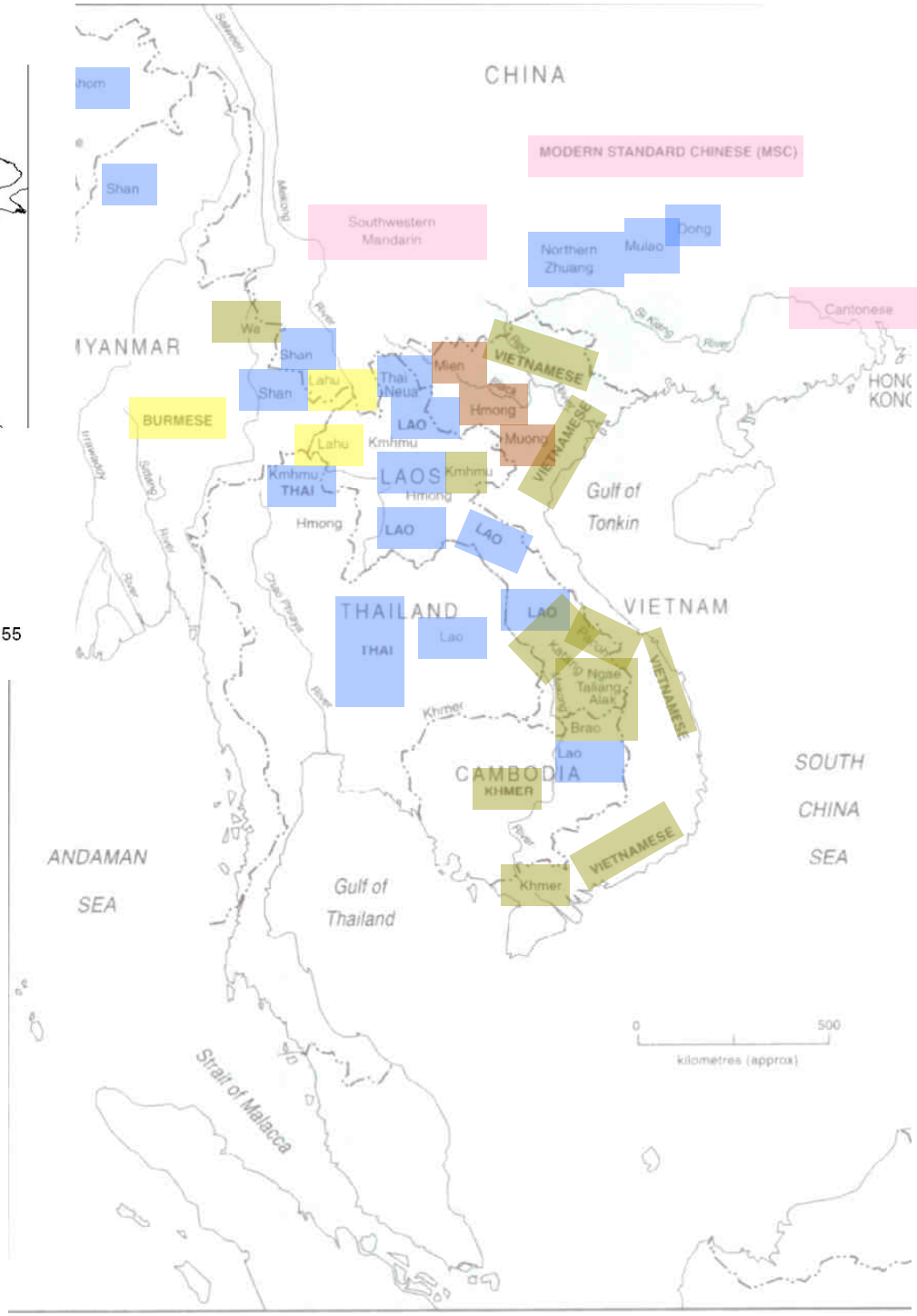

CHINA
MODERN STANDARD CHINESE (MSC)
Shan
Southwestern Mandarin
Northern Zhuang
Mulao
Dong
Cantonese
MYANMAR
Wa
Shan
Lahu
Thai Neua
Mien
VIETNAMESE
Hmong
LAO
Muong
BURMESE
Kmhmu
LAOS
THAI
Gulf of Tonkin
VIETNAM
THAILAND
Lao
Ngae Taliang Alak
Brao
CAMBODIA
KHMER
SOUTH CHINA SEA
ANDAMAN SEA
Gulf of Thailand
Khmer
Strait of Malacca
0
500
kilometres (approx)



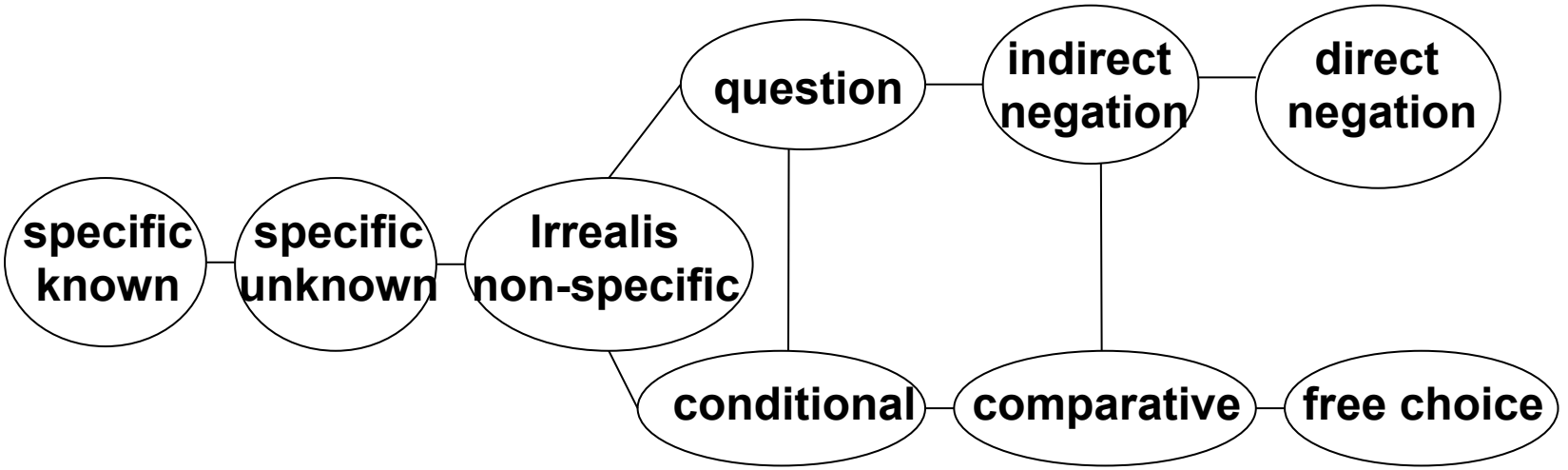
‘get’
Acquisitive modality

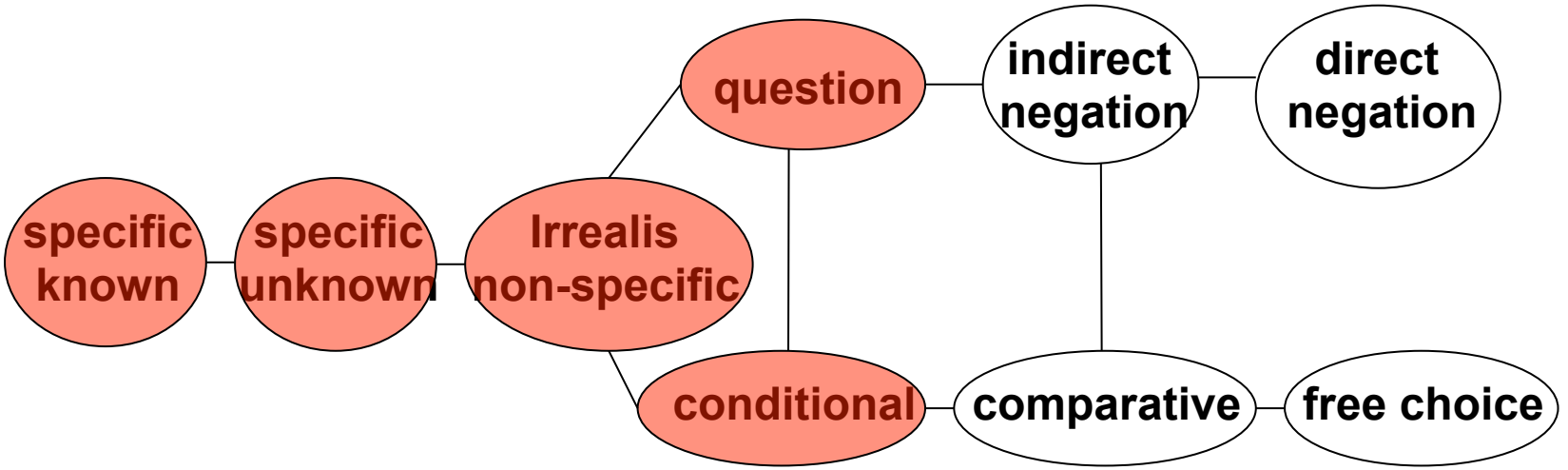
vdA, J., P. Kehayov & A.Vittrant (2009)

Enfield (2003)

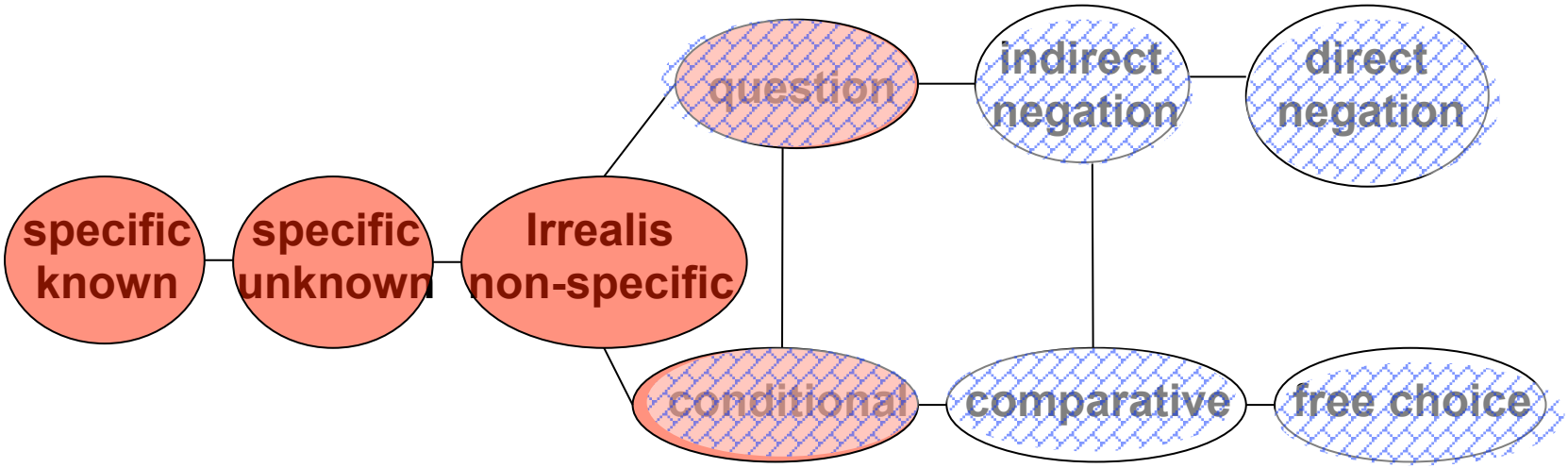


4. These semantic maps can be quite complicated

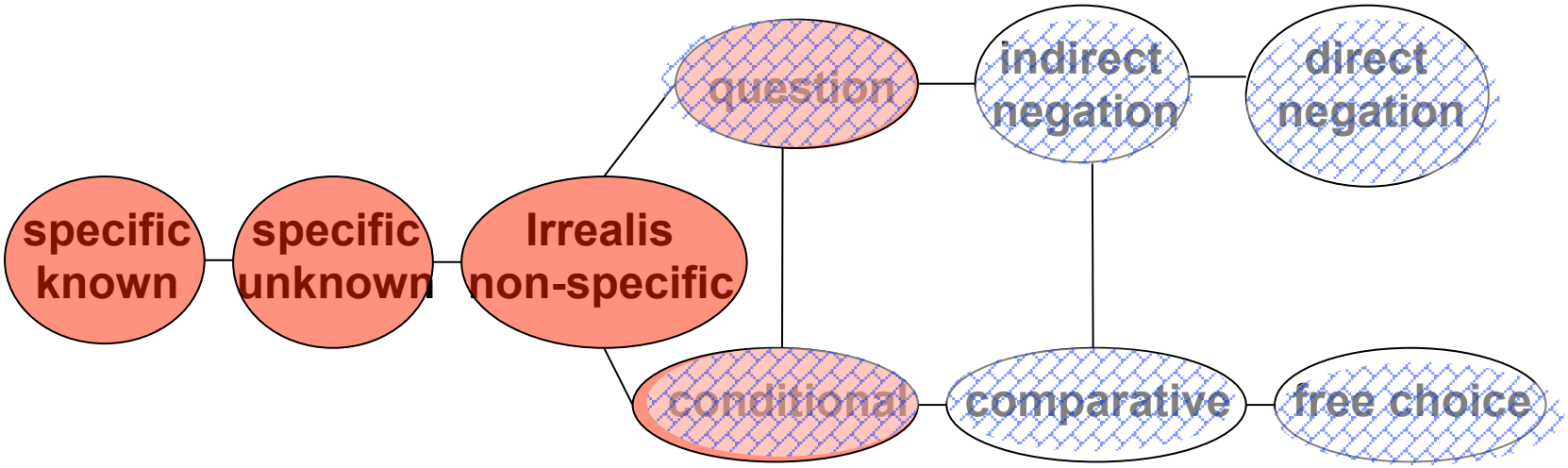

specific known
specific unknown
Irrealis non-specific
question
indirect negation
direct negation
conditional
comparative
free choice


specific known
specific unknown
Irrealis non-specific
question
indirect negation
direct negation
conditional
comparative
free choice

some


specific known
specific unknown
Irrealis non-specific
question
conditional
indirect negation
direct negation
comparative
free choice

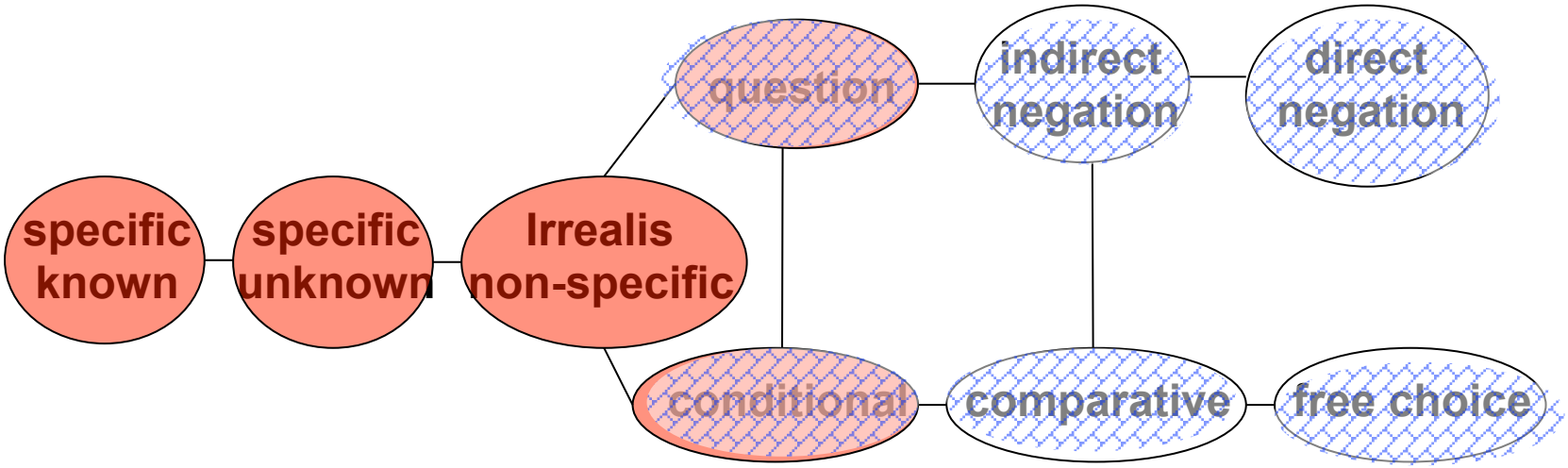
some ***any***



some ***any***

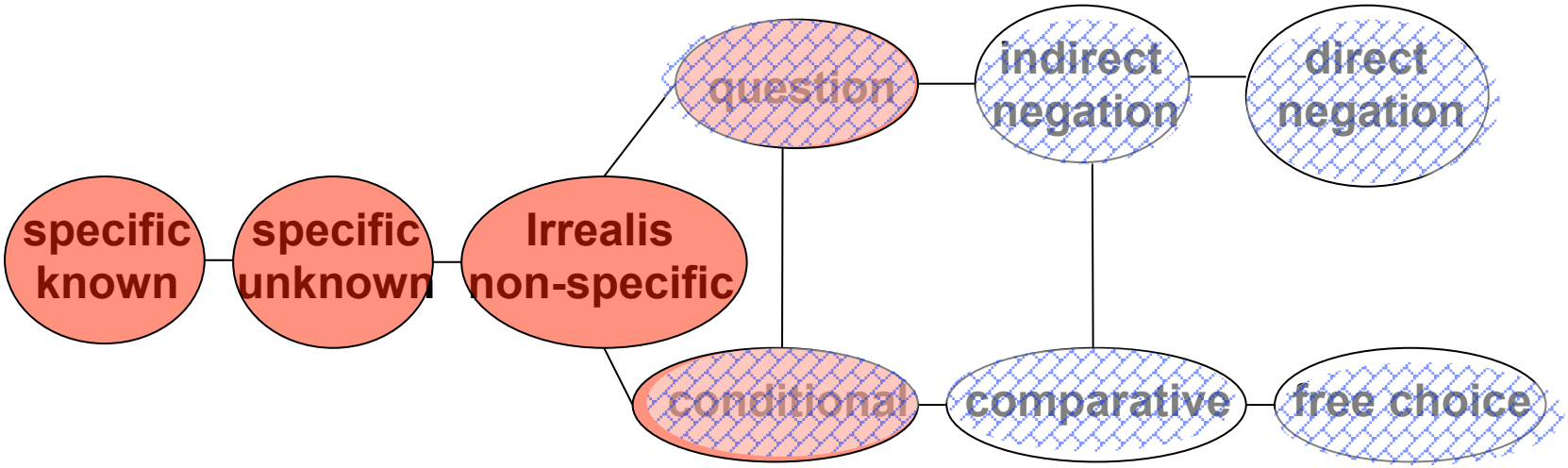
Dutch and German *any*

enig ***einig***



some ***any***

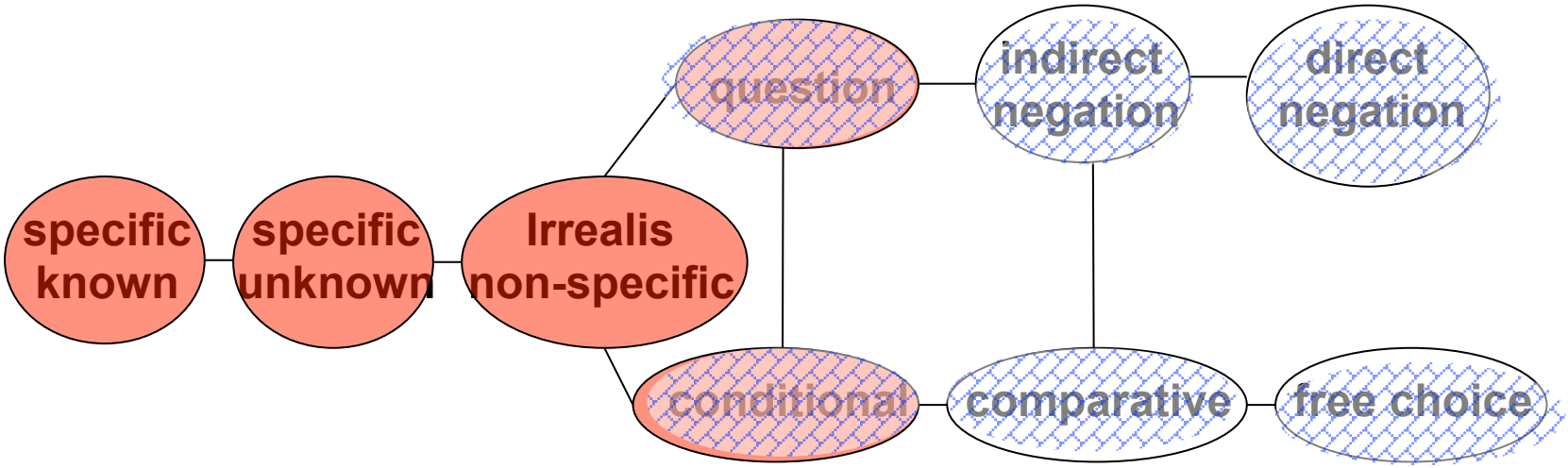
Dutch and German *any* ‘any, some’
enig ***einig***



Hij heeft enige boeken geschreven.
he has any books written
'He has written some books.'

some ***any***

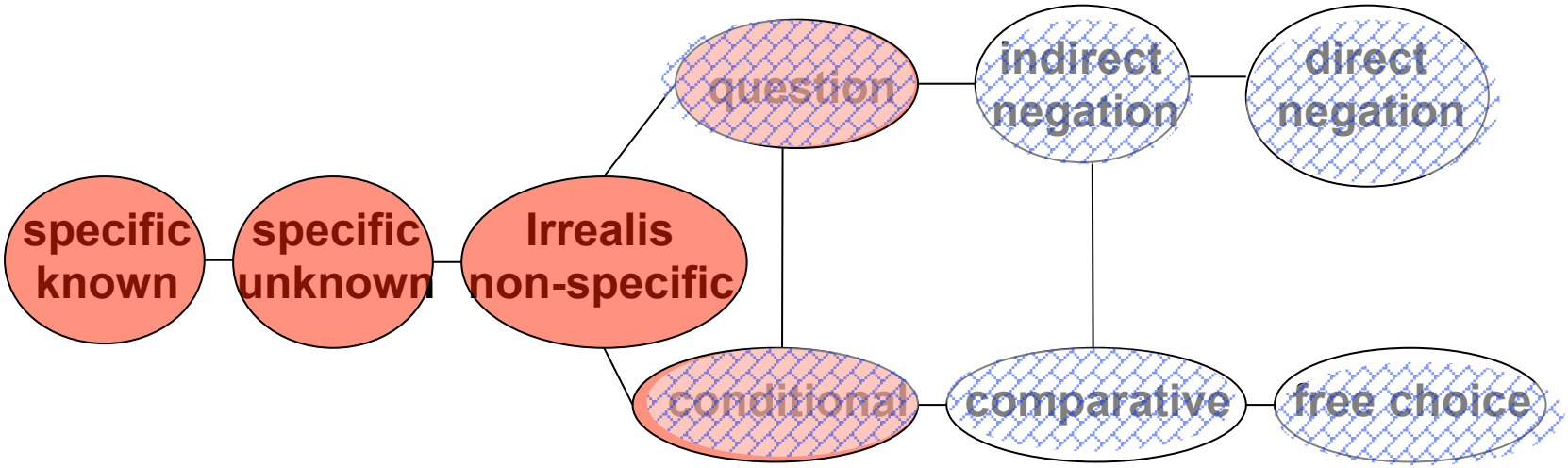
Dutch and German *any* 'any, some'
enig ***einig***



Hij heeft enige boeken geschreven.
he has any books written
'He has written some books.'

some ***any***

Dutch and German *any* 'any, some'
enig ***einig***



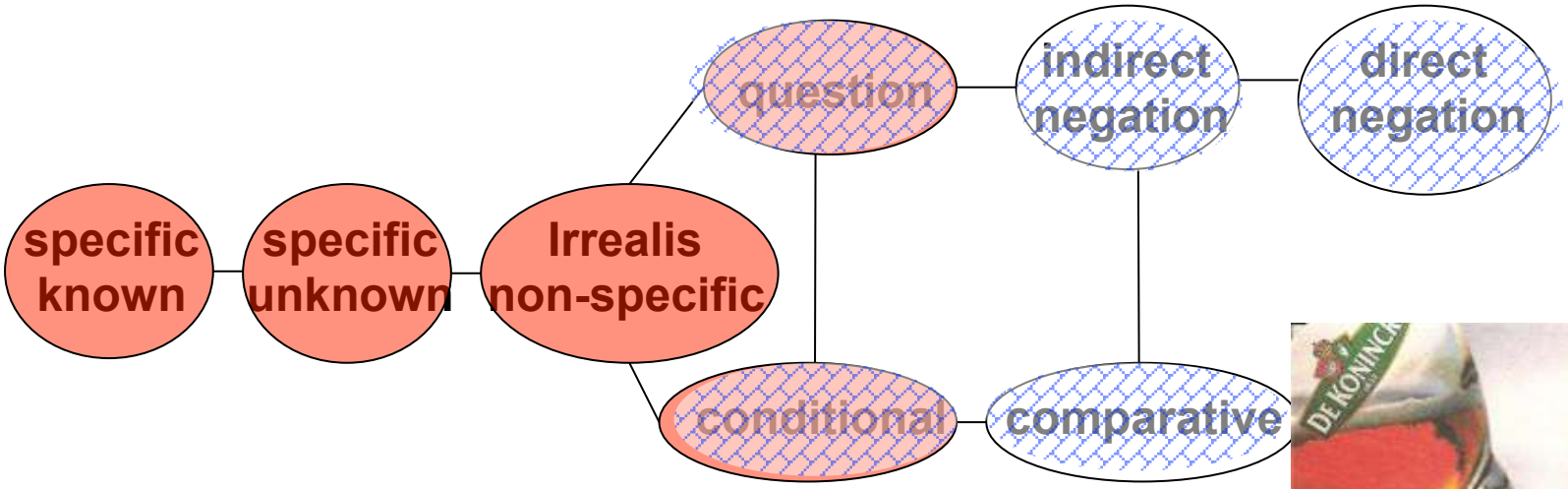
‘only’, ‘single’

‘wonderful’

‘in agreement’

some *any*

Dutch and German *any* ‘any, some’
enig *einig*



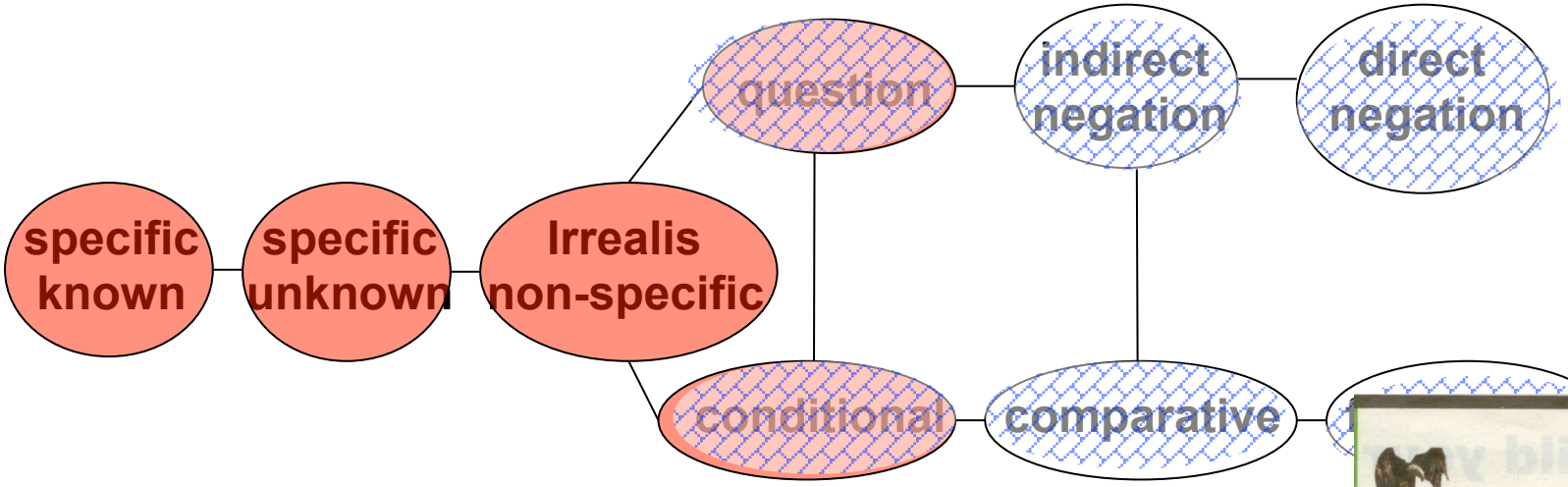
‘only’, ‘single’

‘wonderful’

‘in agreement’

some ***any***

Dutch and German ***any*** ‘any, some’
enig ***einig***



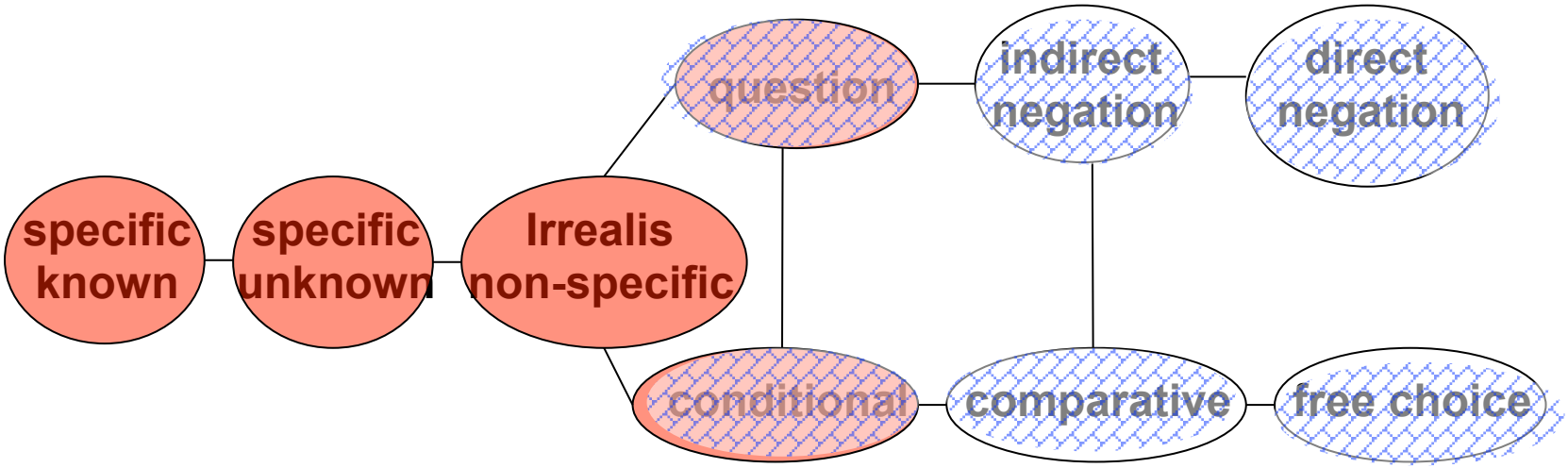
‘only’, ‘single’

‘wonderful’

‘in agreement’

some ***any***

Dutch and German ***any*** ‘any’
enig ***einig***



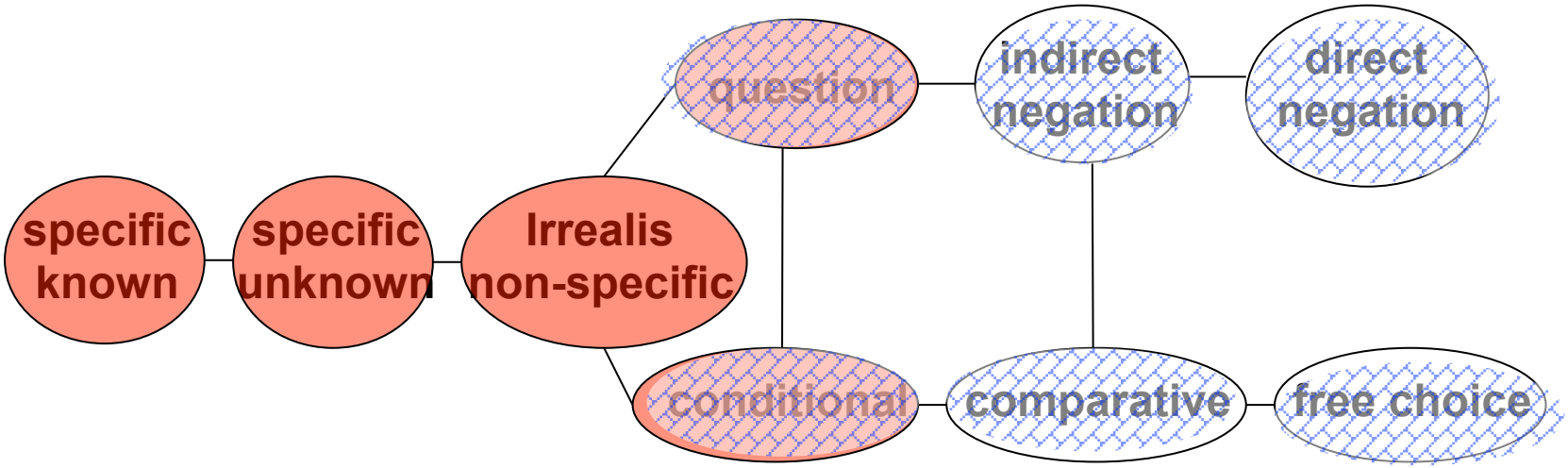
‘only’, ‘single’

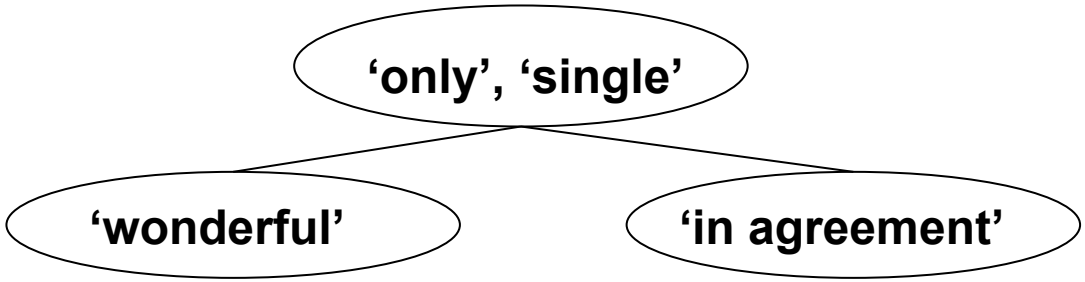
‘wonderful’

‘in agreement’

some *any*

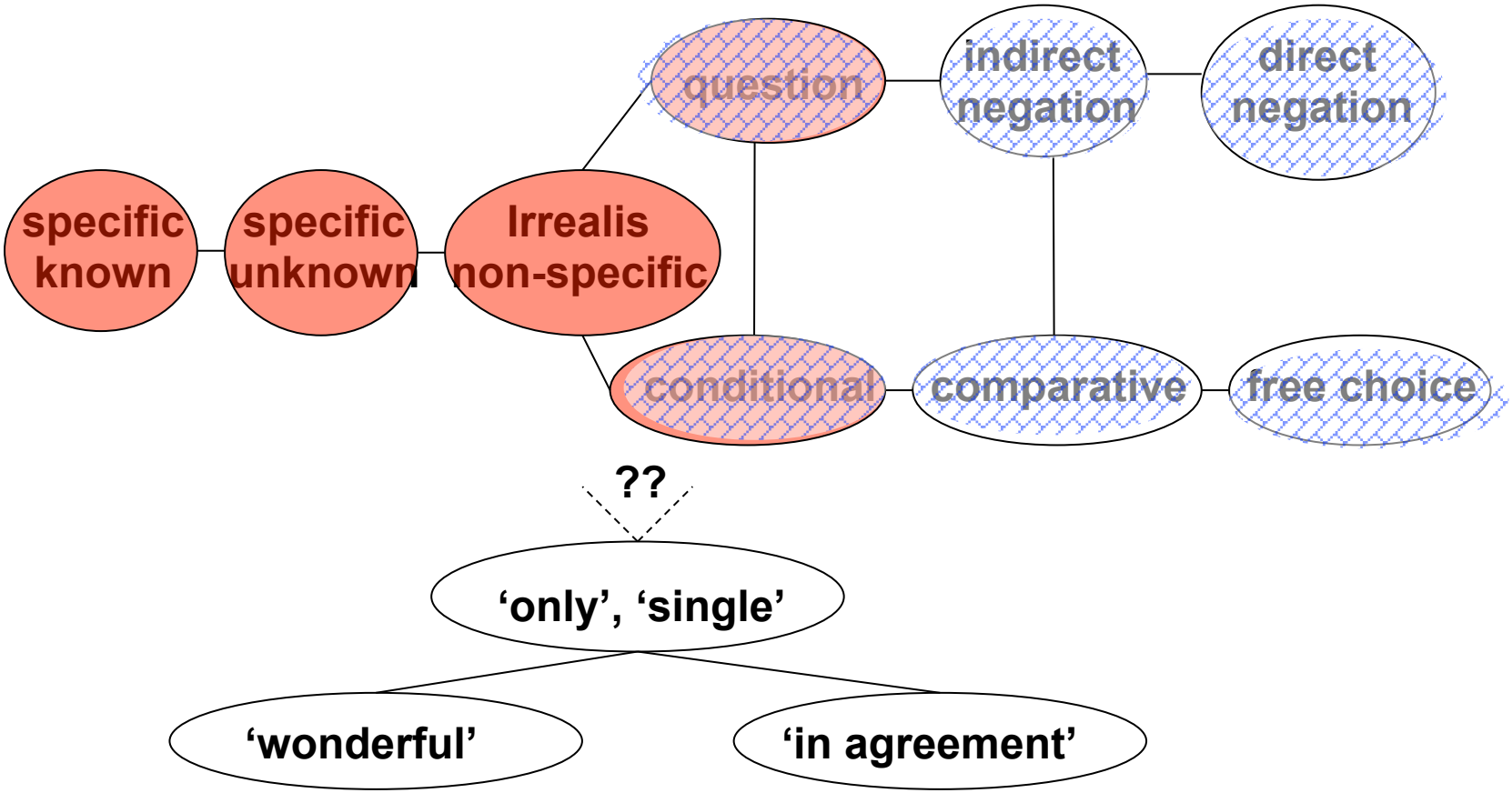
Dutch and German *any* ‘any, some’
enig *einig*





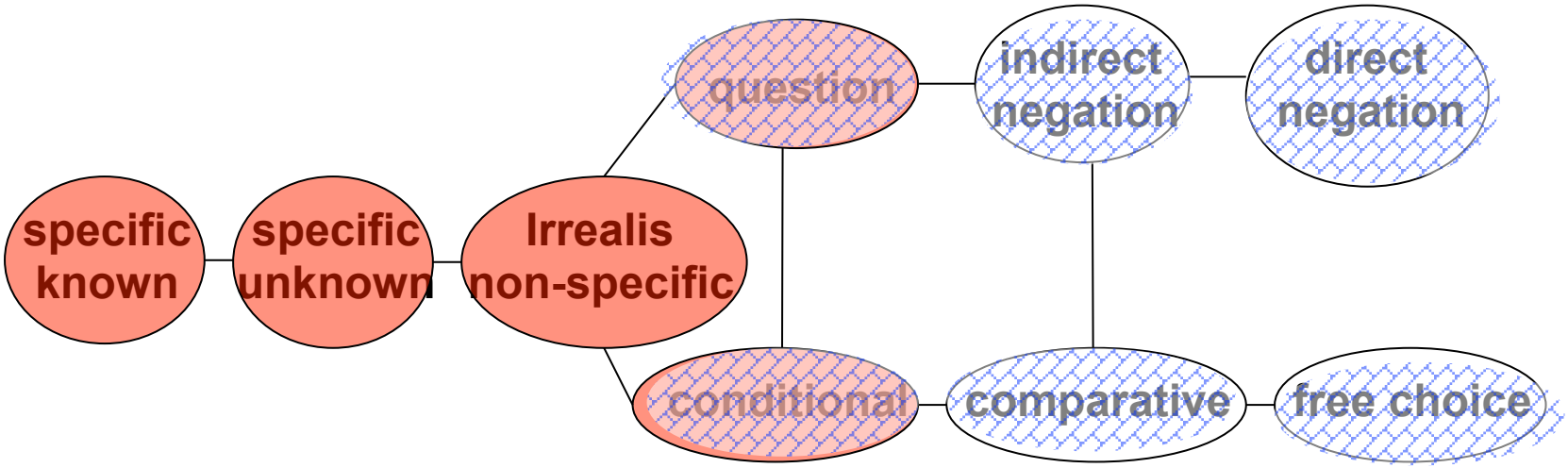
some ***any***

Dutch and German *any* **‘any, some’**
enig ***einig***

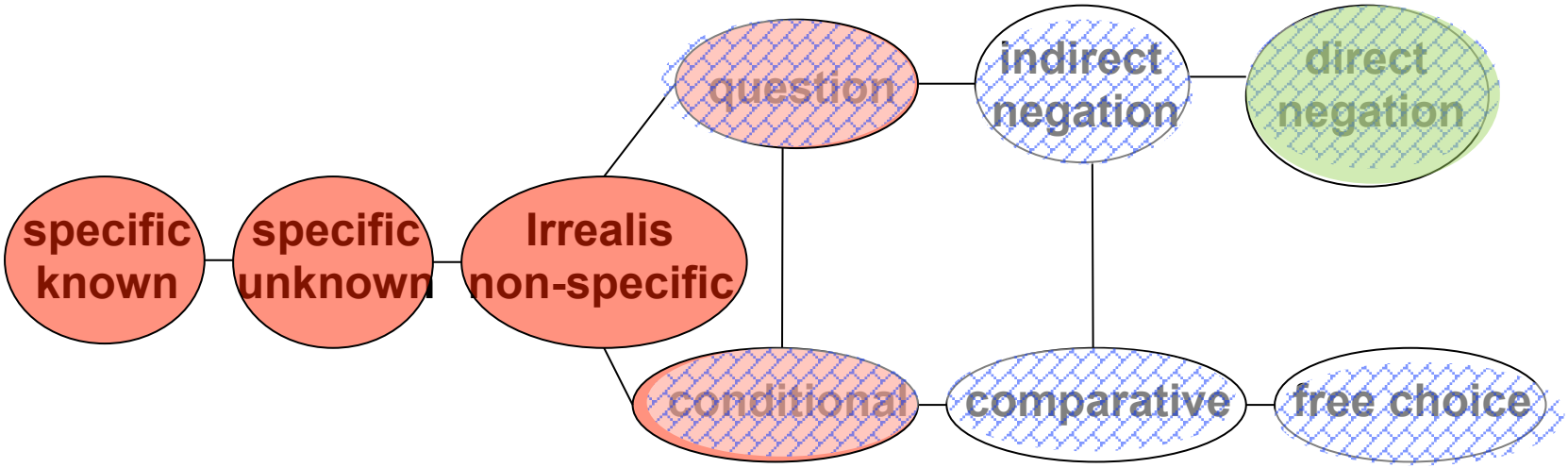


some *any*

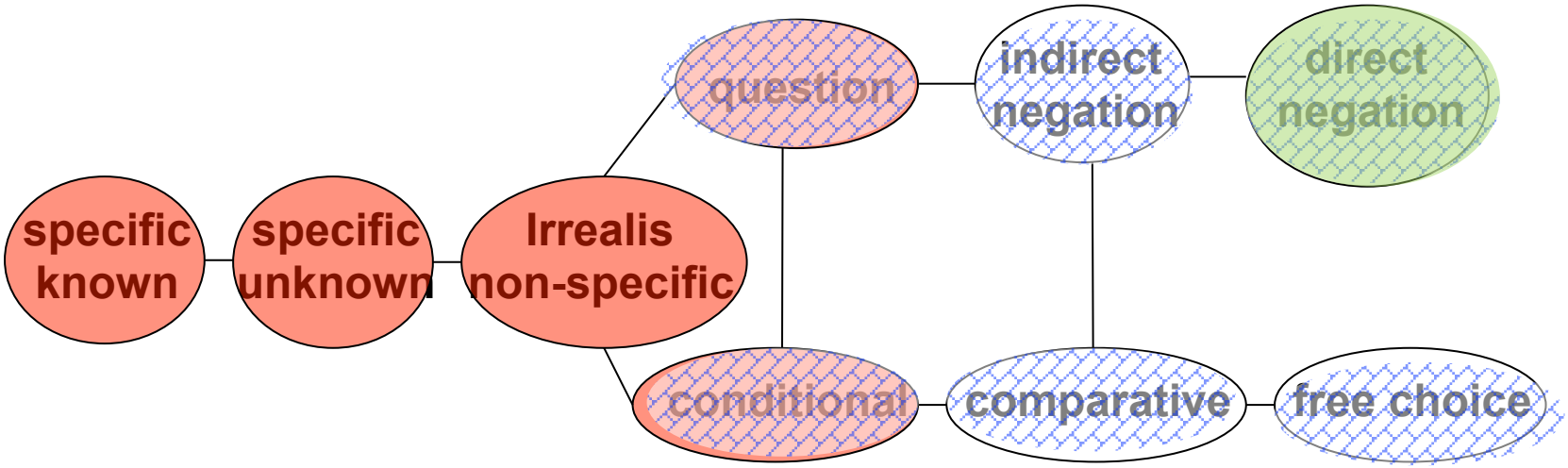
Dutch and German *any* ‘any, some’
enig *einig*


specific known
specific unknown
Irrealis non-specific
question
conditional
indirect negation
direct negation
comparative
free choice

some ***any***

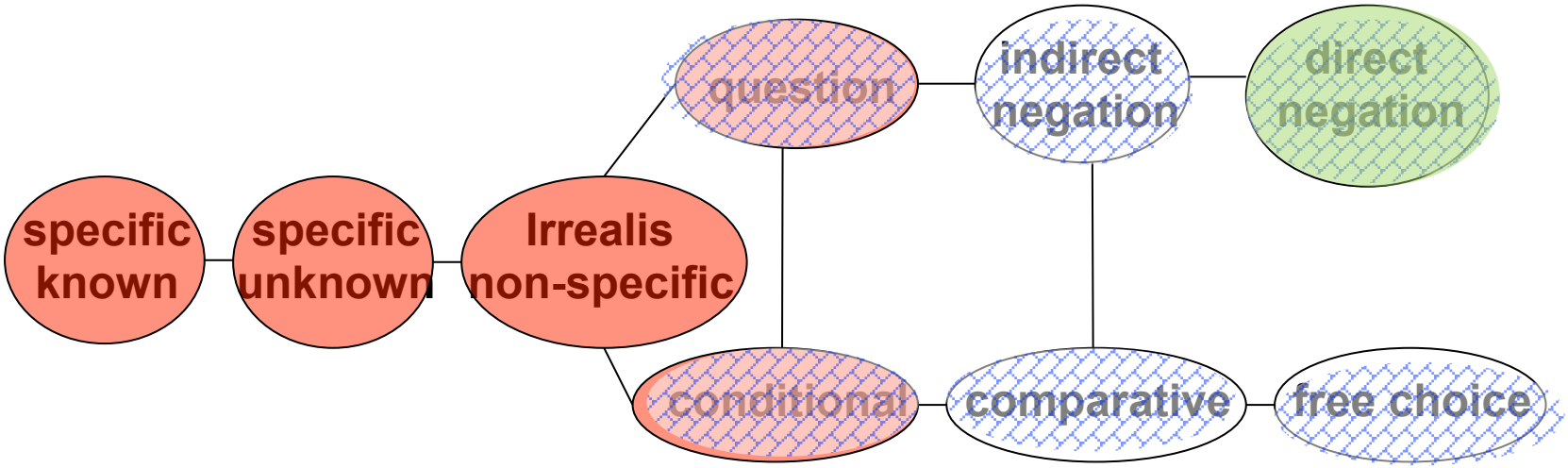

specific known
specific unknown
Irrealis non-specific
question
indirect negation
direct negation
conditional
comparative
free choice

some *any* *no*



I don't talk to any philosopher.

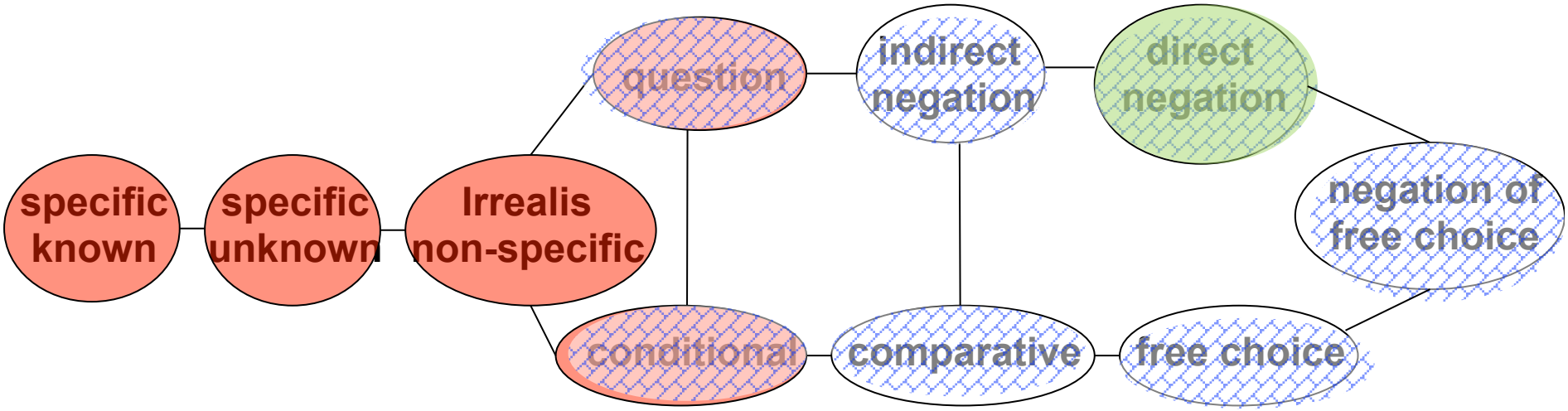
some ***any*** ***no***



I don't talk to any philosopher.

1.I talk to no philosopher.
2.I don't just talk to any old philosopher.

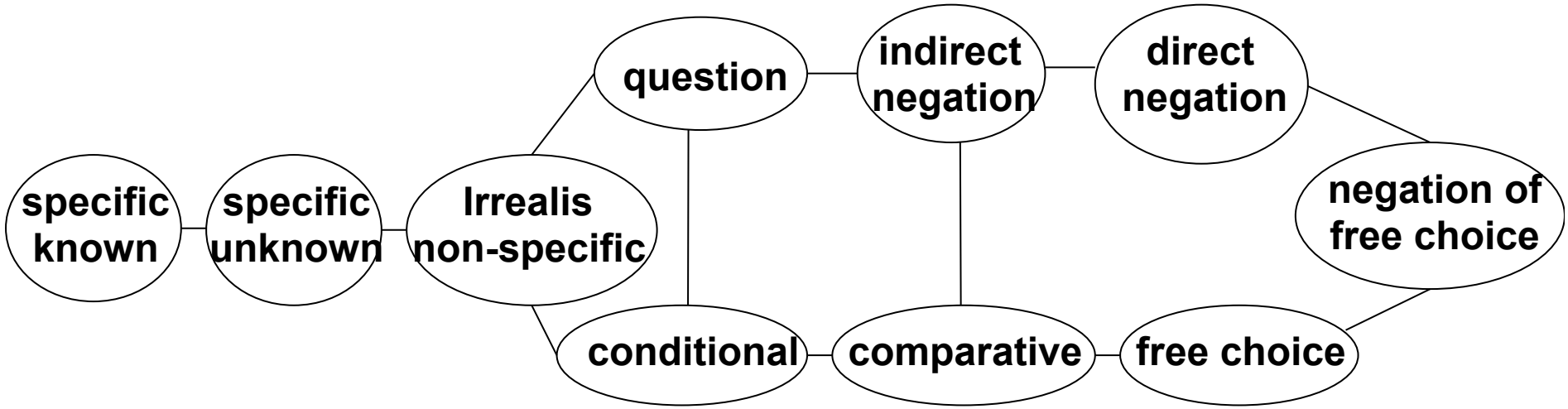
some ***any*** ***no***



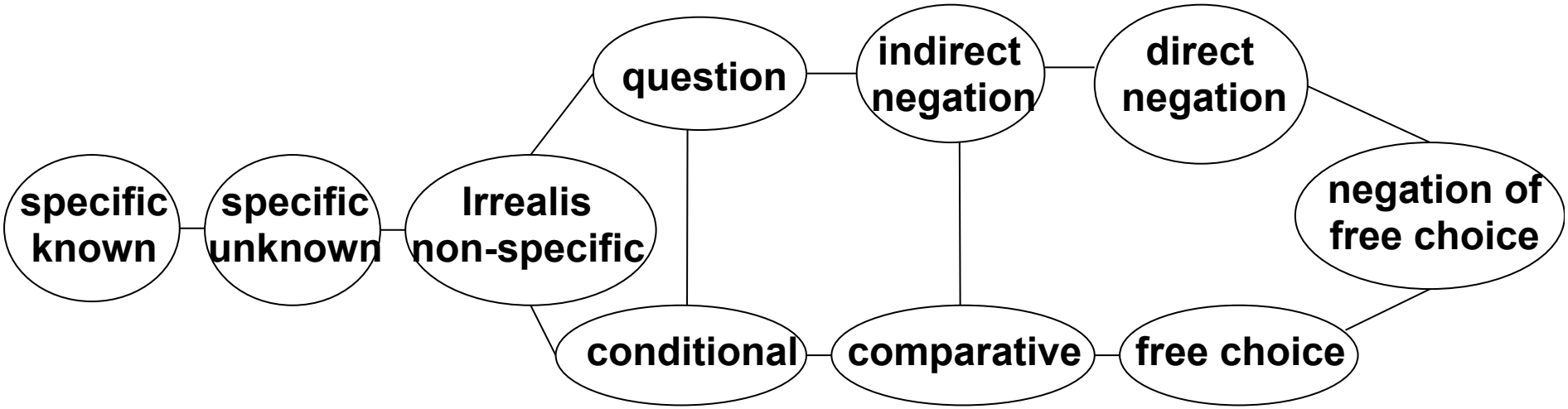
I don't talk to any philosopher.

1.I talk to no philosopher.
2.I don't just talk to any old philosopher.

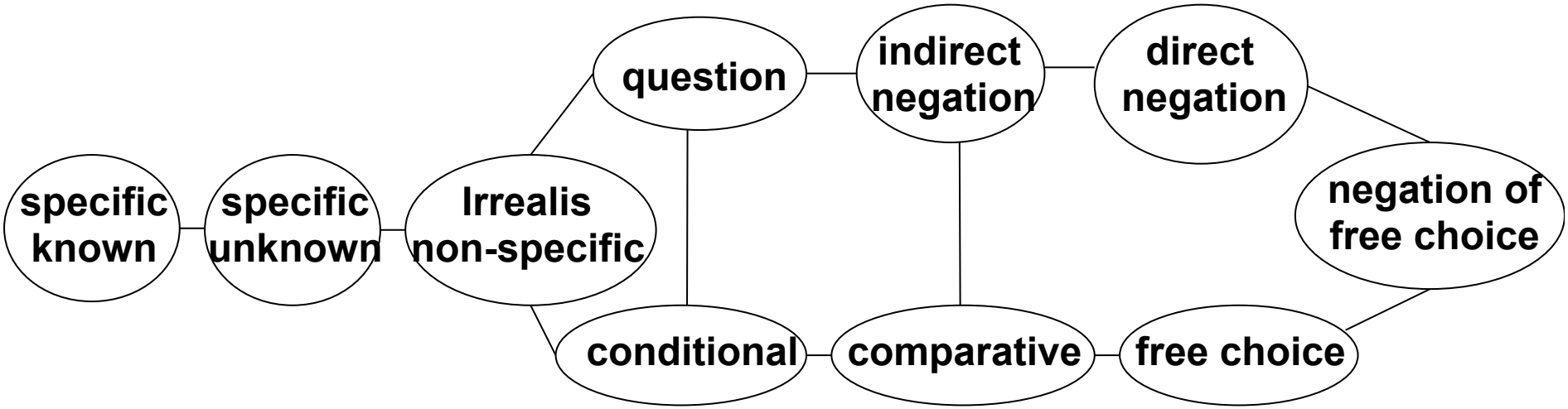
some ***any*** ***no***



someone *anyone* *no one*

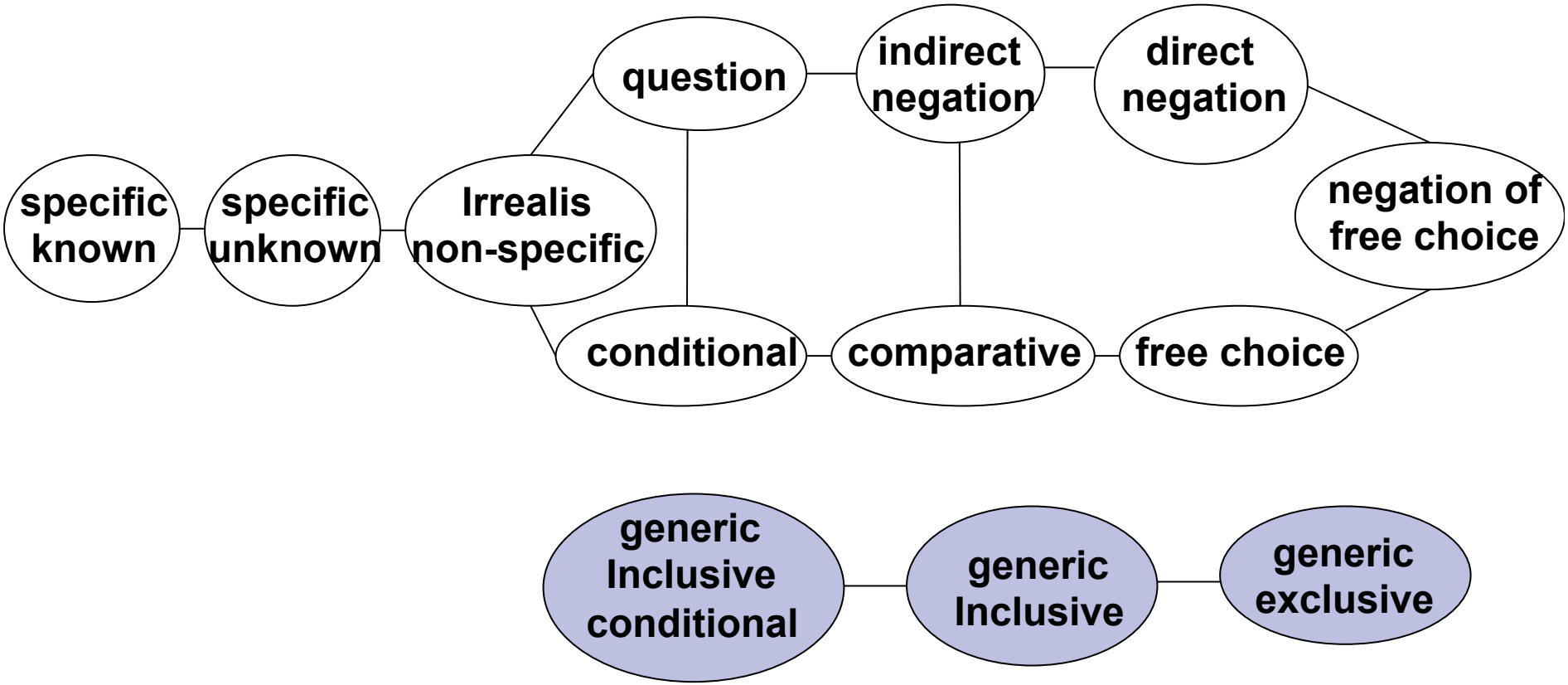


someone *anyone* *no one* *one*



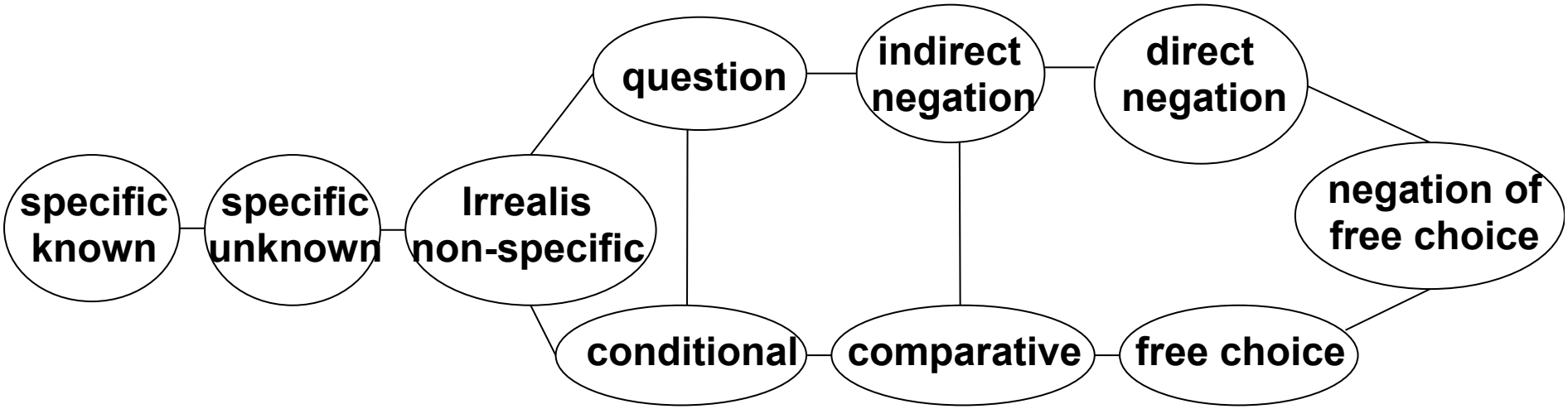
When one travels, then …
One should always carry an umbrella.
In Spain one eats late.

someone ***anyone*** ***no one*** ***one***



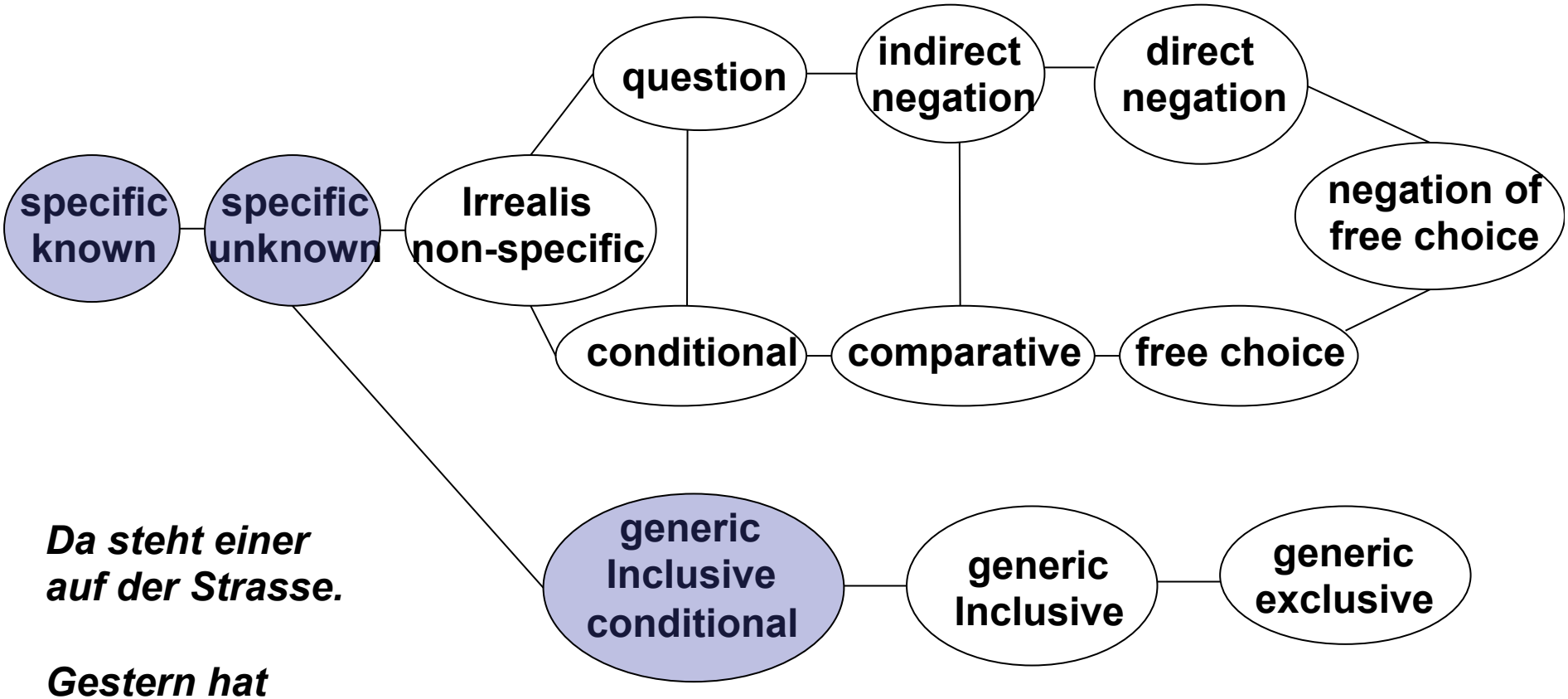
When one travels, then …
One should always carry an umbrella.
In Spain one eats late.

someone *anyone* *no one* *one*



Wenn einer eine Reise macht, dann …
****Einer soll einen Regenschirm dabei haben.***
****In Spanien isst einer spät.***

someone ***anyone*** ***no one*** ***one*** ***einer***

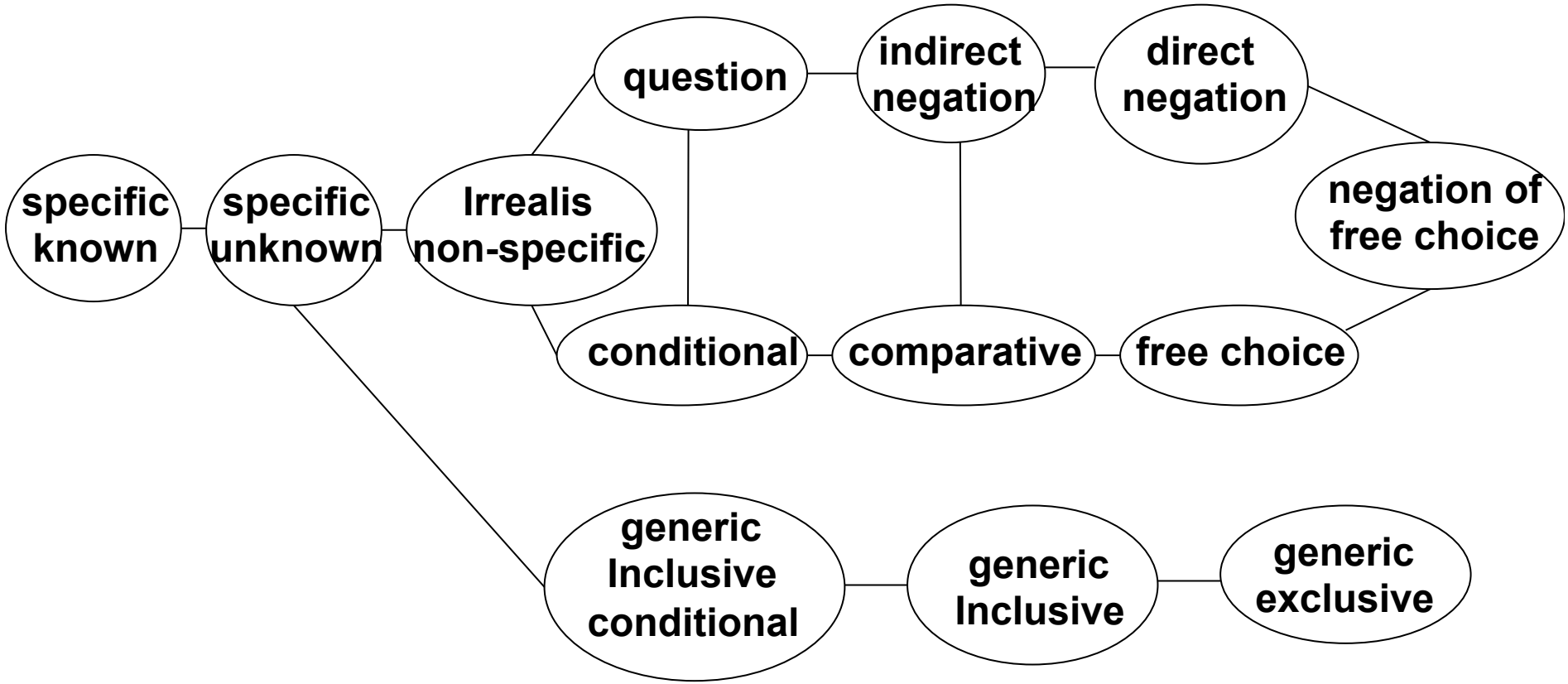


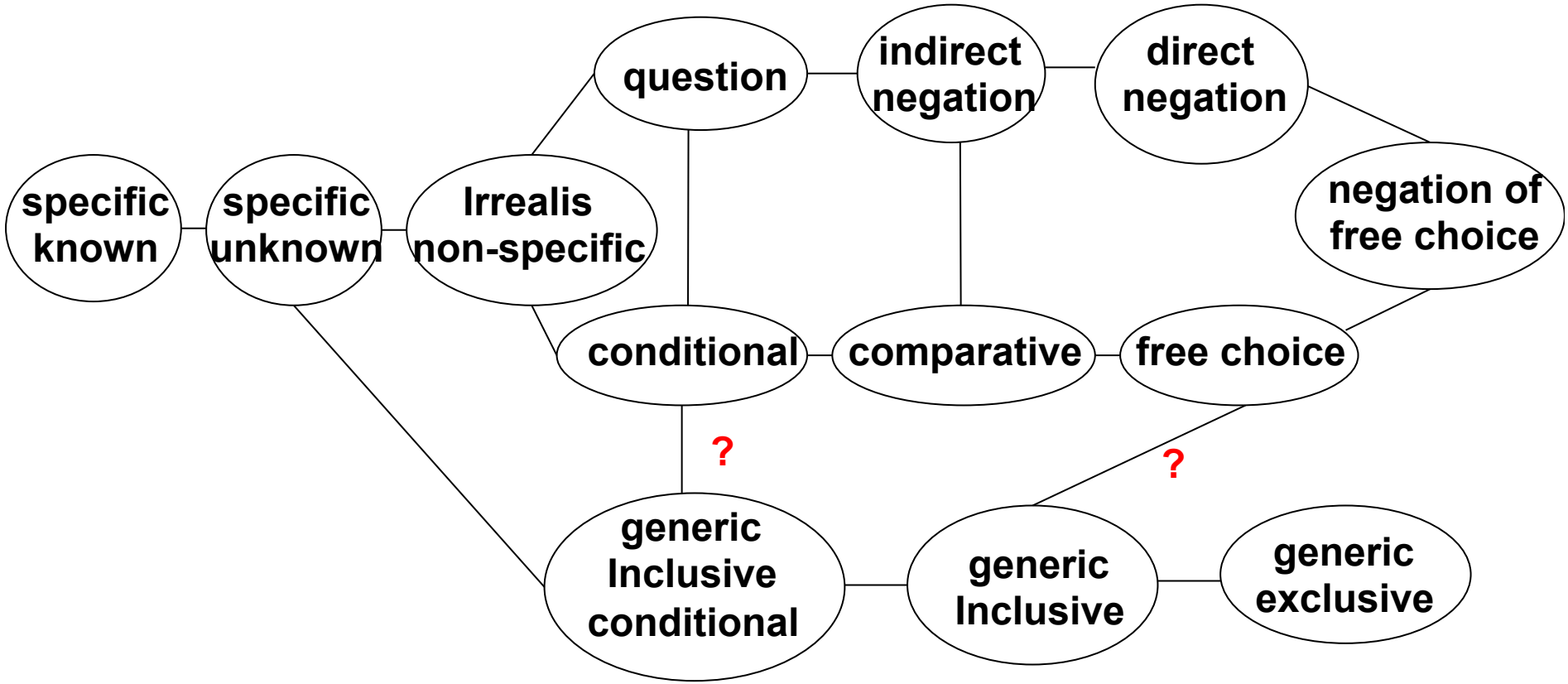
Da steht einer auf der Strasse.

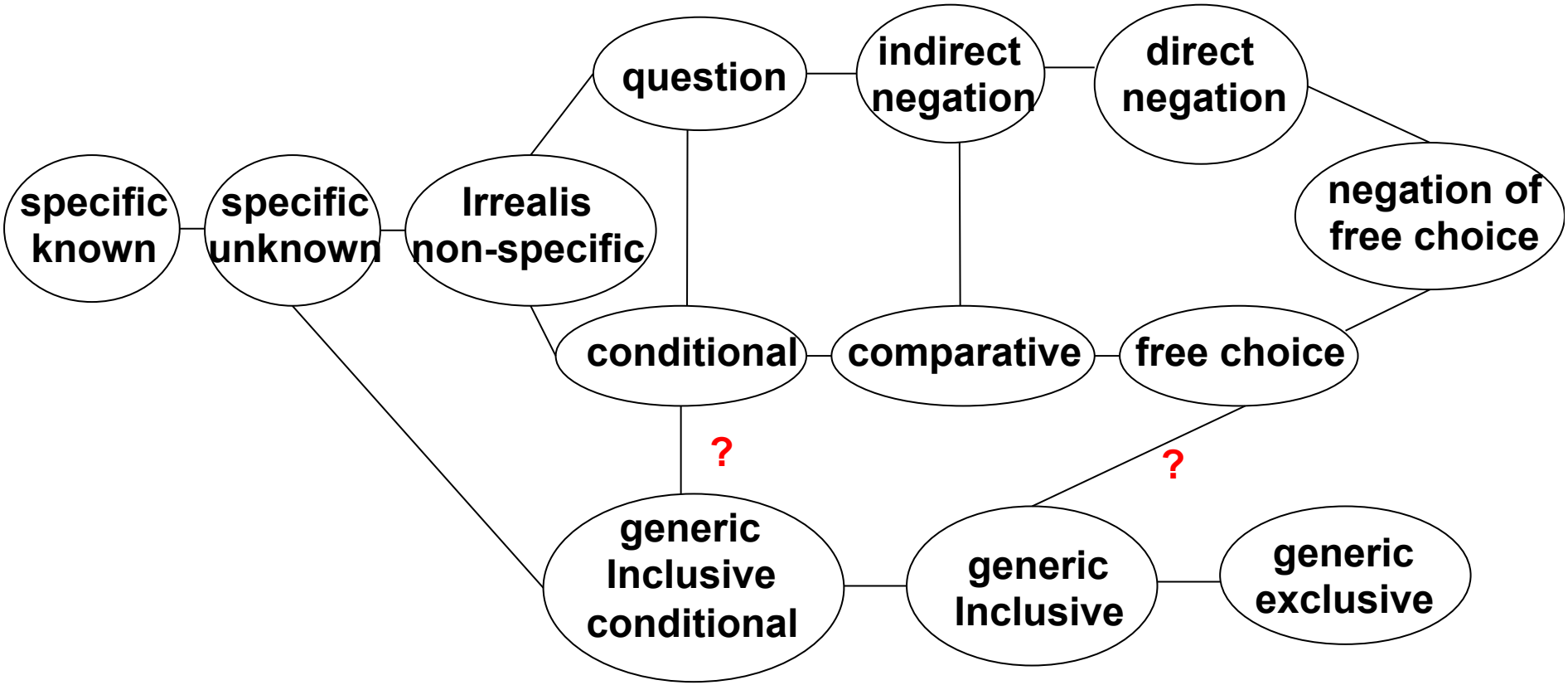
Gestern hat einer mein Auto gestohlen.

Wenn einer eine Reise macht, dann …
****Einer soll einen Regenschirm dabei haben.***
****In Spanien isst einer spät.***

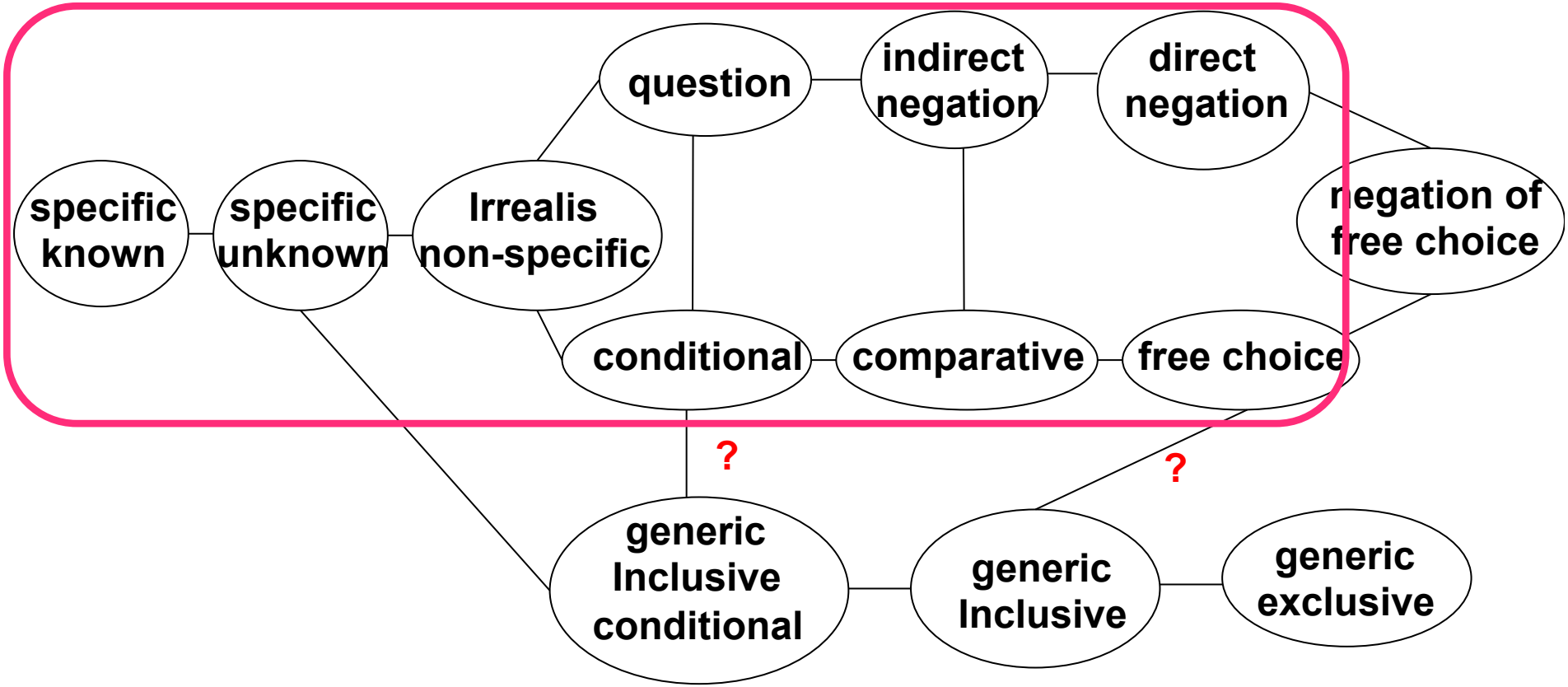
someone ***anyone*** ***no one*** ***one*** ***einer***

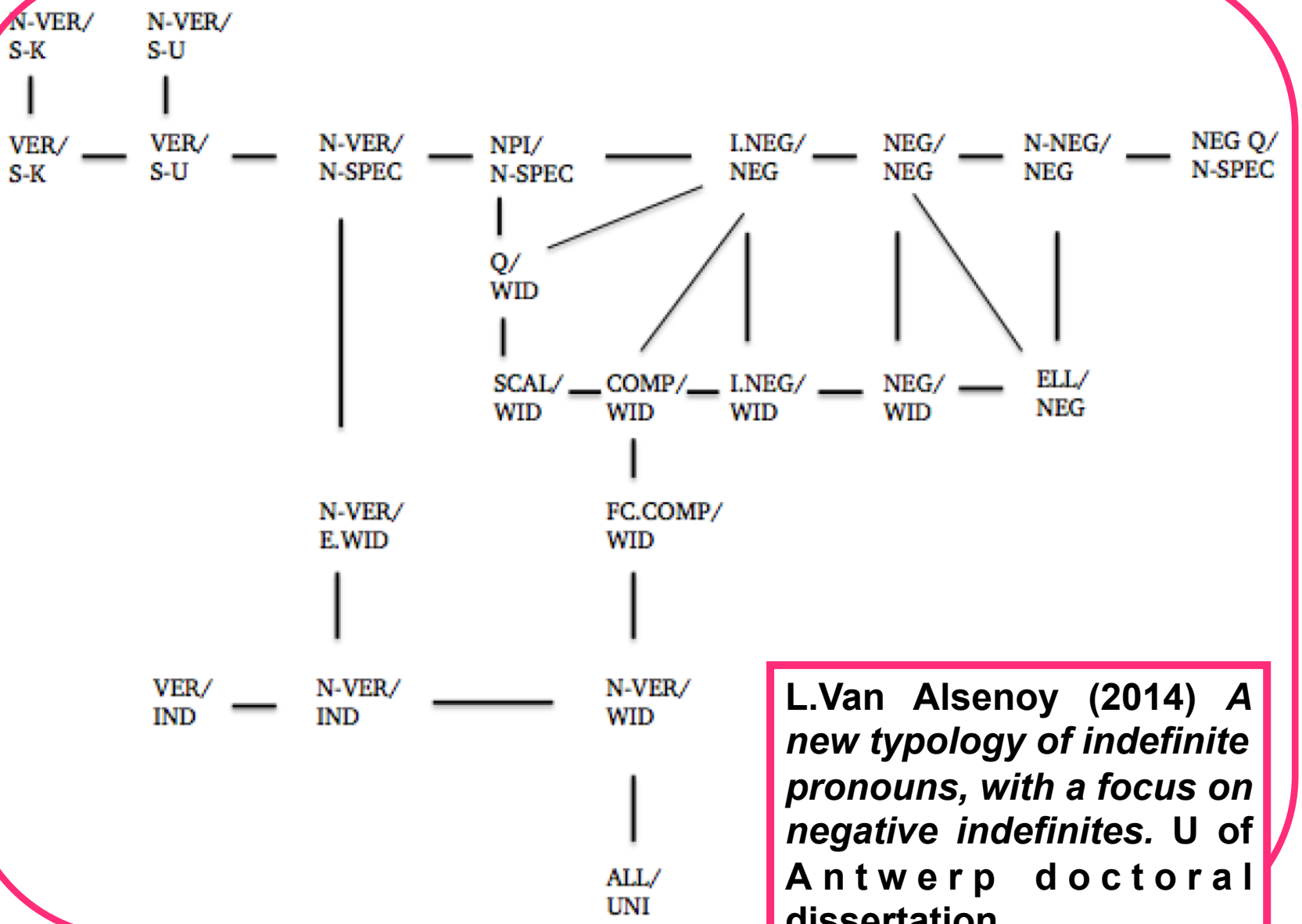

specific known
specific unknown
Irrealis non-specific
question
indirect negation
direct negation
negation of free choice
conditional
comparative
free choice
generic Inclusive conditional
generic Inclusive
generic exclusive


specific known
specific unknown
Irrealis non-specific
question
indirect negation
direct negation
negation of free choice
conditional
comparative
free choice
?
?
generic Inclusive conditional
generic Inclusive
generic exclusive



Gast, V. & J. van der Auwera (2013) "Towards a distributional typology of human impersonal pronouns, based on data from European languages", *Languages across Boundaries: Studies in the Memory of Anna Siewierska.* ed. by D. Bakker & M. Haspelmath. Berlin: De Gruyter Mouton, 119-158.

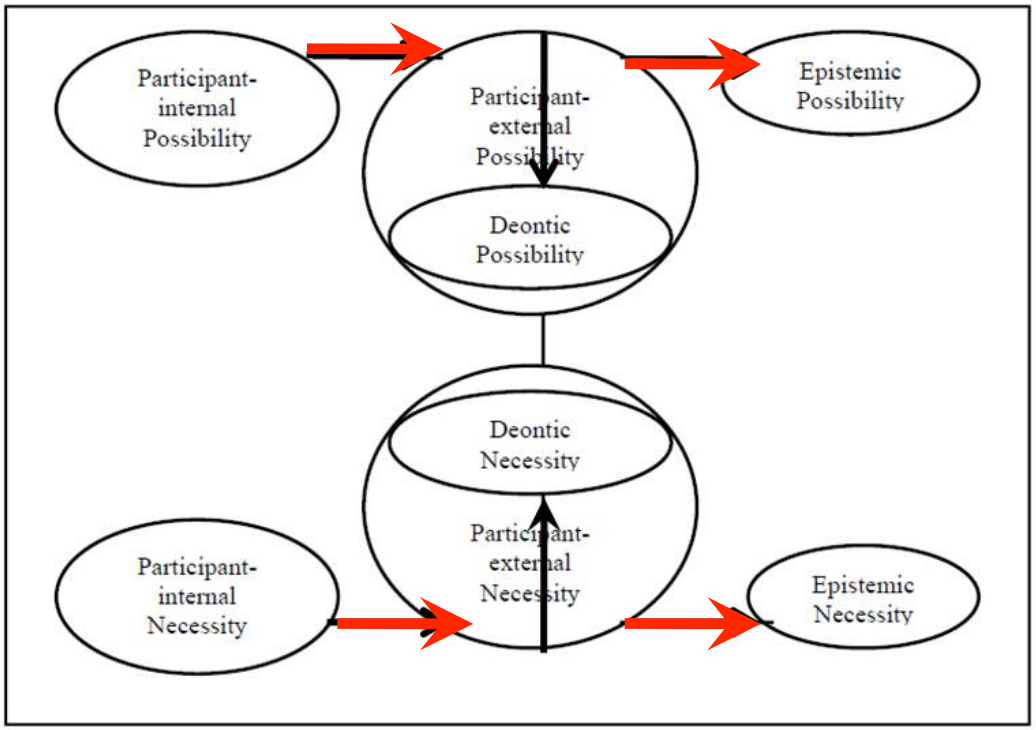

question
indirect negation
direct negation
specific known
specific unknown
Irrealis non-specific
negation of free choice
conditional
comparative
free choice
?
?
generic Inclusive conditional
generic Inclusive
generic exclusive



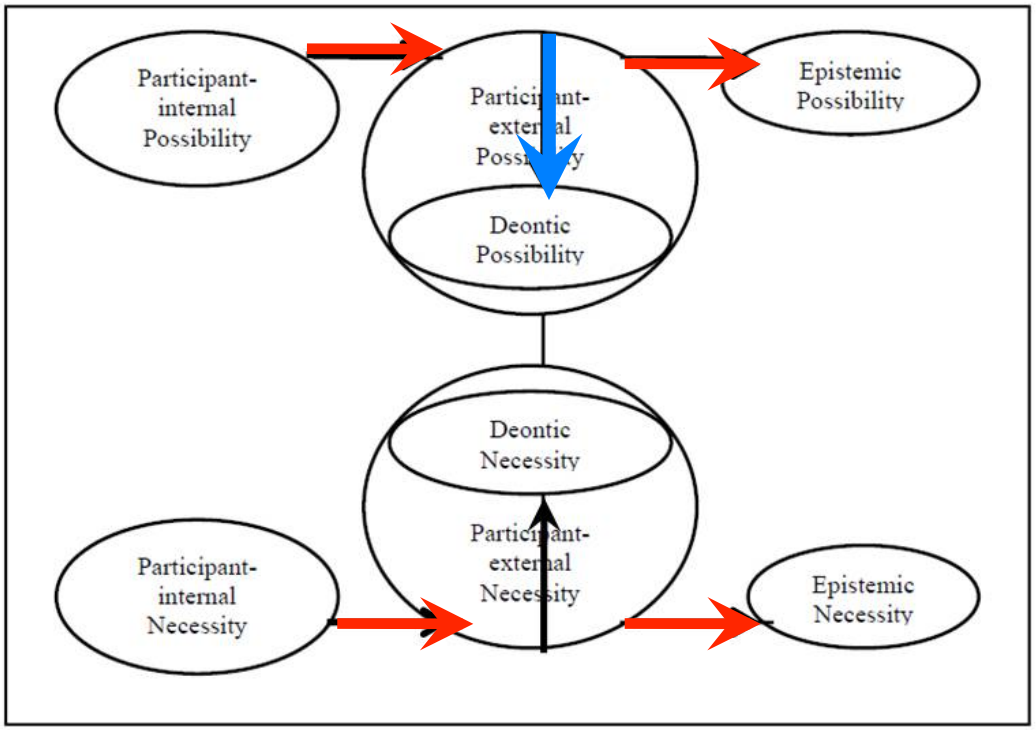
L.Van Alsenoy (2014) ***A new typology of indefinite pronouns, with a focus on negative indefinites.*** **U of Antwerp doctoral dissertation.**

5. The many shapes of contiguity/adjaceny

Extension by metonymy or metaphor

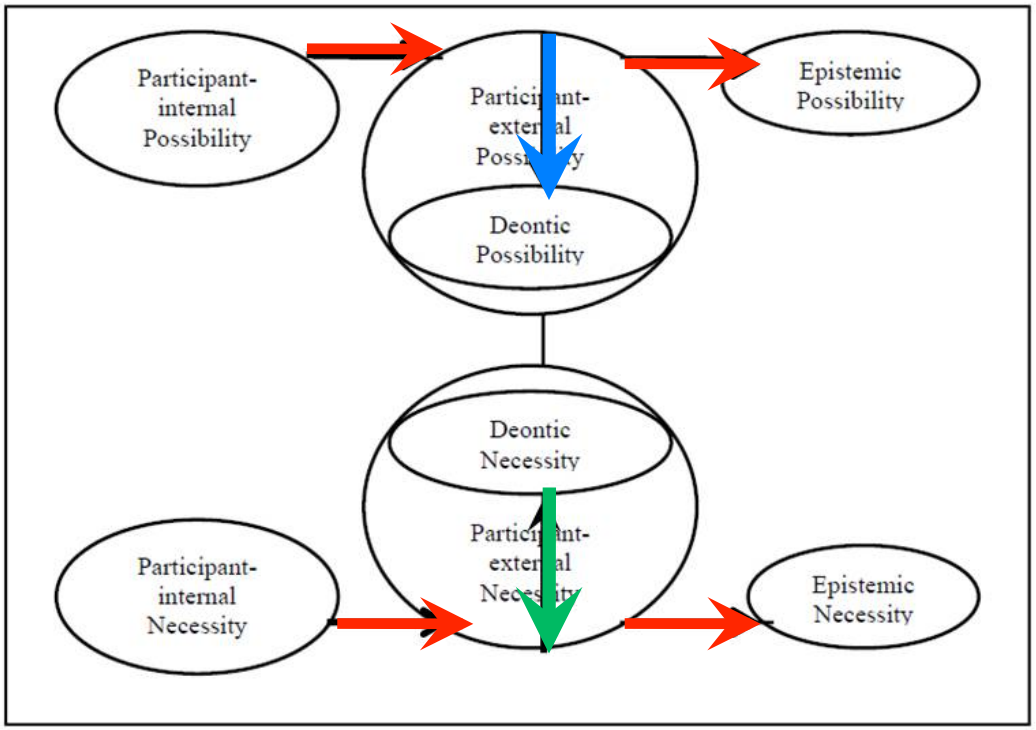


Extension by metonymy or metaphor



Specialization

Extension by metonymy or metaphor



Specialization **Generalization**

English

Who is this? He commands even the winds and the water, and they obey him.

Spanish

¿Quién es éste, que manda aun los vientos y al agua, y le obedecen?

German

Was ist das für ein Mensch, dass sogar die Winde und das Wasser seinem Befehl gehorchen?

Gast, V. & J. van der Auwera (2010) Vers une typologie des opérateurs additifs scalaires, *Approches de la scalarité.* ed. by P. Hadermann & O. Inkova. Genève: Droz, 285-311.
--- (2011) "Scalar additive operators in the languages of Europe", *Language* 87: 2-54.

English

Who is this? He commands even the winds and the water, and they obey him.

German

Was ist das für ein Mensch, dass sogar die Winde und das Wasser seinem Befehl gehorchen.

English

Who is this? He commands even the winds and the water, and they obey him.

Not even his dogs obey him.

German

Was ist das für ein Mensch, dass sogar die Winde und das Wasser seinem Befehl gehorchen.

English

Who is this? He commands even the winds and the water, and they obey him.

Not even his dogs obey him.

German

Was ist das für ein Mensch, dass sogar die Winde und das Wasser seinem Befehl gehorchen.

Nicht einmal seine Hunde gehorchen ihm.

English

Who is this? He commands even the winds and the water, and they obey him.

Not even his dogs obey him.

If you even look at her, you'll get into trouble.

German

Was ist das für ein Mensch, dass sogar die Winde und das Wasser seinem Befehl gehorchen.

Nicht einmal seine Hunde gehorchen ihm.

English

Who is this? He commands even the winds and the water, and they obey him.

Not even his dogs obey him.

If you even look at her, you'll get into trouble.

German

Was ist das für ein Mensch, dass sogar die Winde und das Wasser seinem Befehl gehorchen.

Nicht einmal seine Hunde gehorchen ihm.

Wenn du sie auch nur ansiehst, bekommst du Ärger.

Basque

a.	*Gure*	*ikasleak*	*ere,*	*joan*	*dira.*
	our	students	also/even,	go	AUX

'Also/even our students went.'

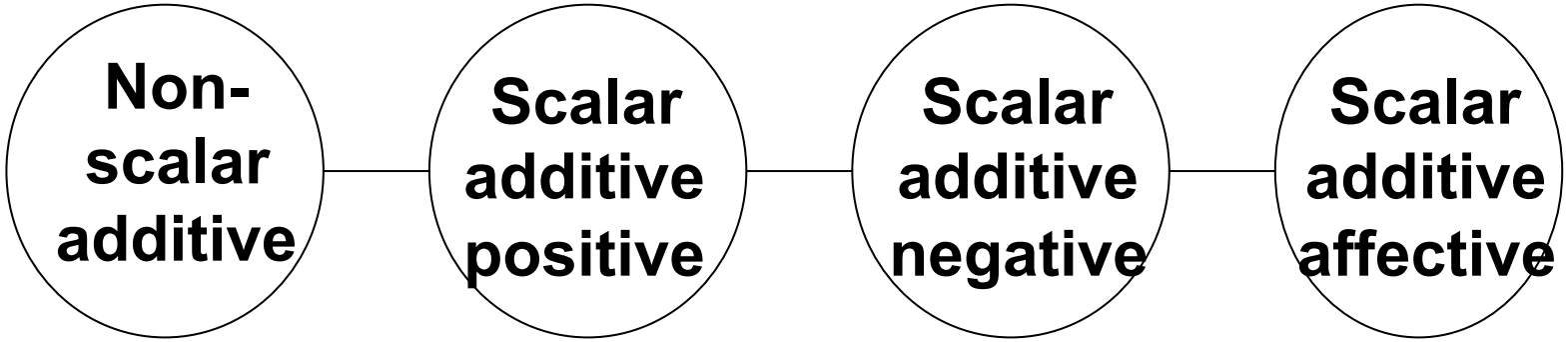
b.	*Ez*	*da*	*matrikulatu*	*ere*	*(egin).*
	not	AUX	register	even	do

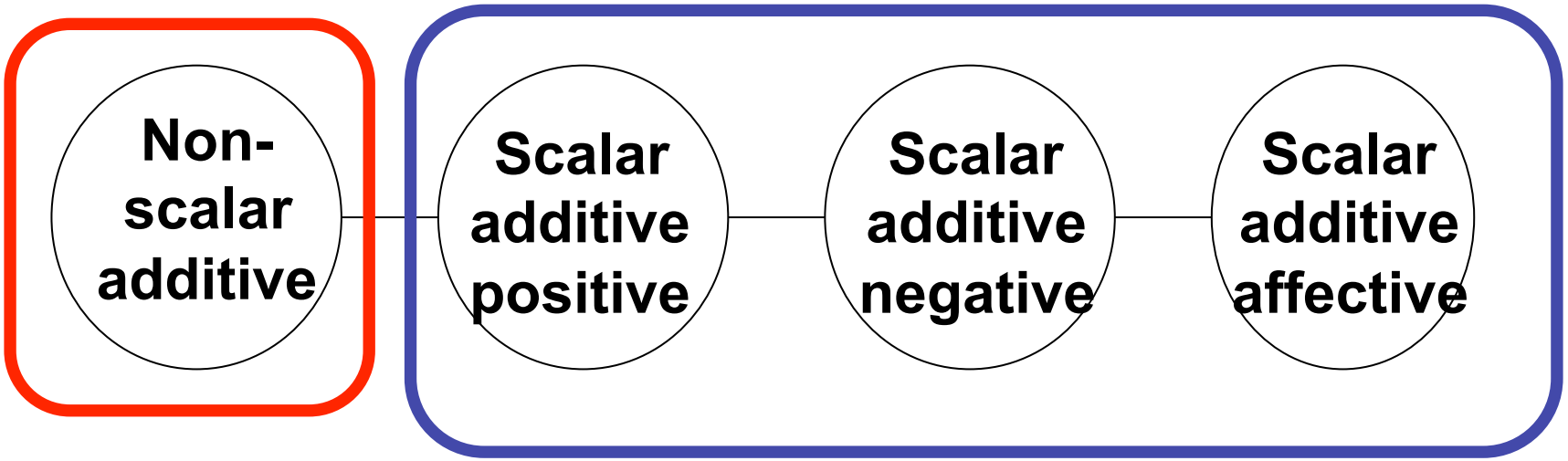
'He didn't even register.'

c.Hitz	*bat*	*ere*	*egiten*	*badu,*	*akabatuko*	*dut.*
word	one	even	do.IMPF	if.AUX	kill.FUT	AUX

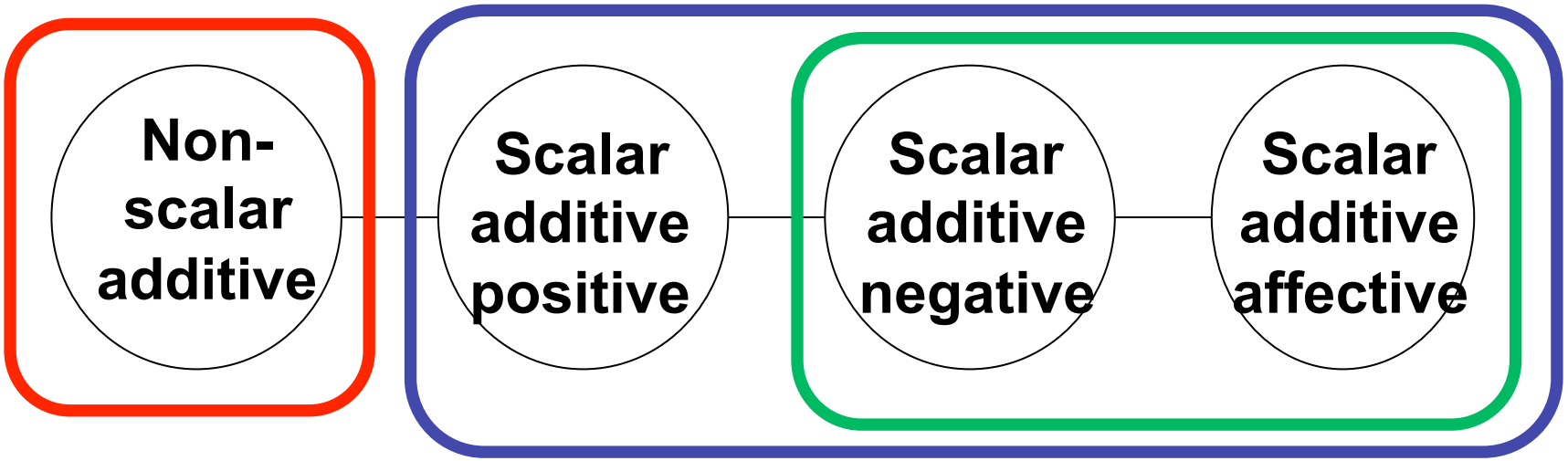
'If he says even one word, I'll kill him.'

(Hualde & Ortiz de Urbina 2003: 556)


Non-scalar additive
Scalar additive positive
Scalar additive negative
Scalar additive affective


Non-scalar additive
Scalar additive positive
Scalar additive negative
Scalar additive affective

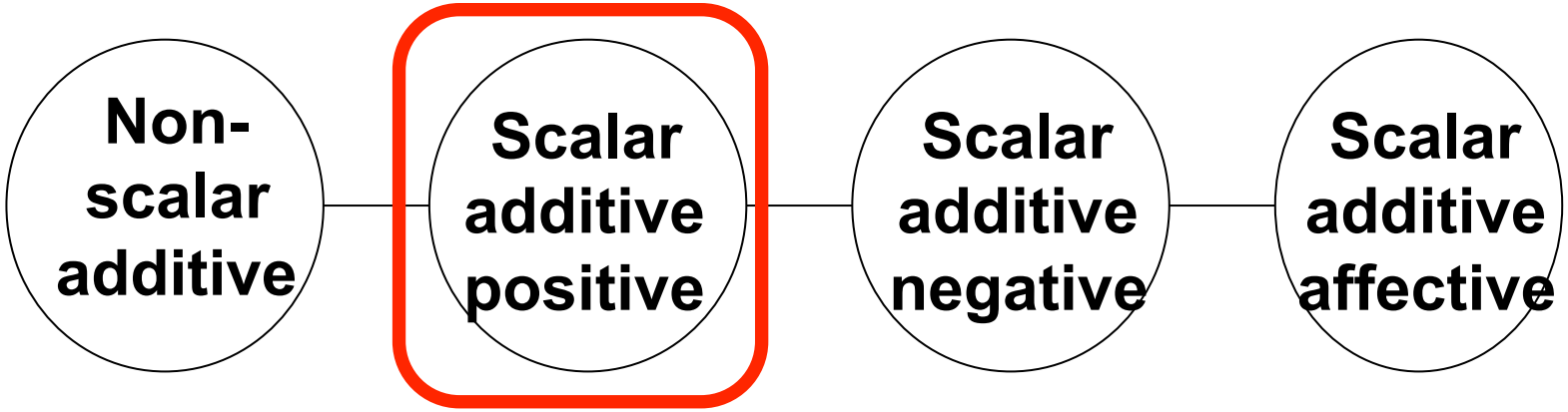
also *even*



also ***even*** ***so much as***

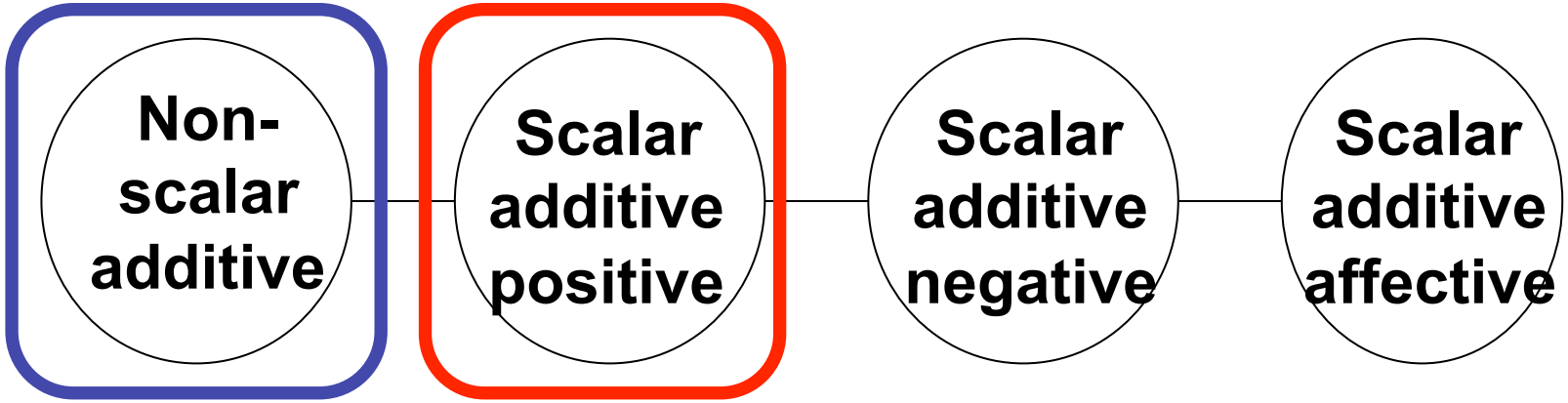
If you utter so much as one syllable, I'll hunt you down.

He doesn't so much as say hello to me.



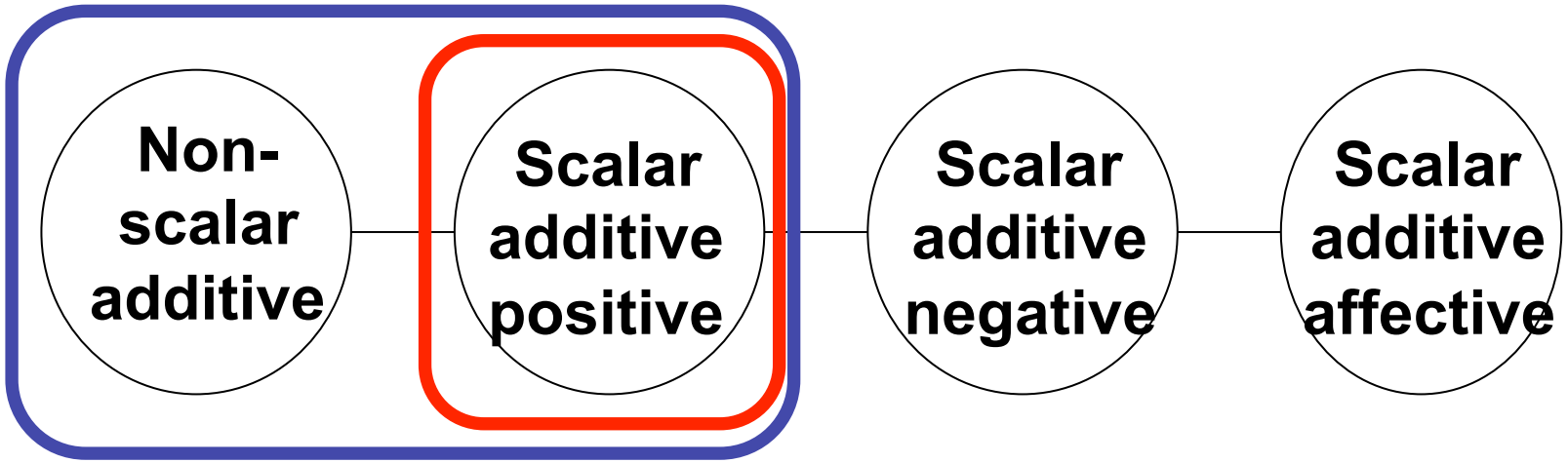
sogar

Was ist das für ein Mensch, dass sogar die Winde und das Wasser seinem Befehl gehorchen?



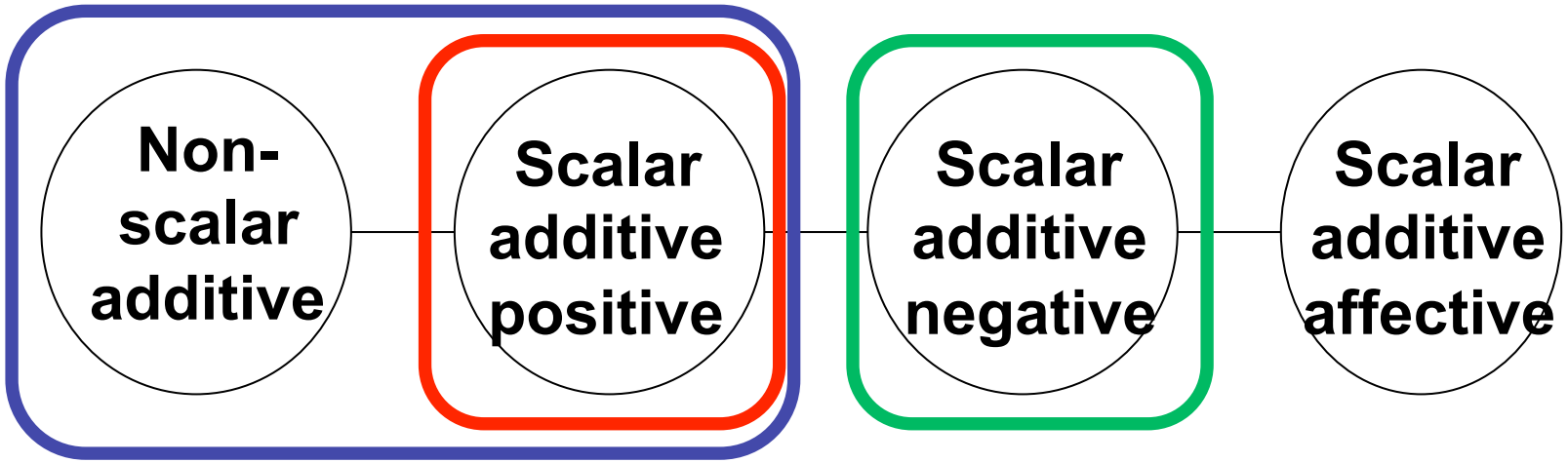
auch *sogar*

Was ist das für ein Mensch, dass auch / sogar die Winde und das Wasser seinem Befehl gehorchen?



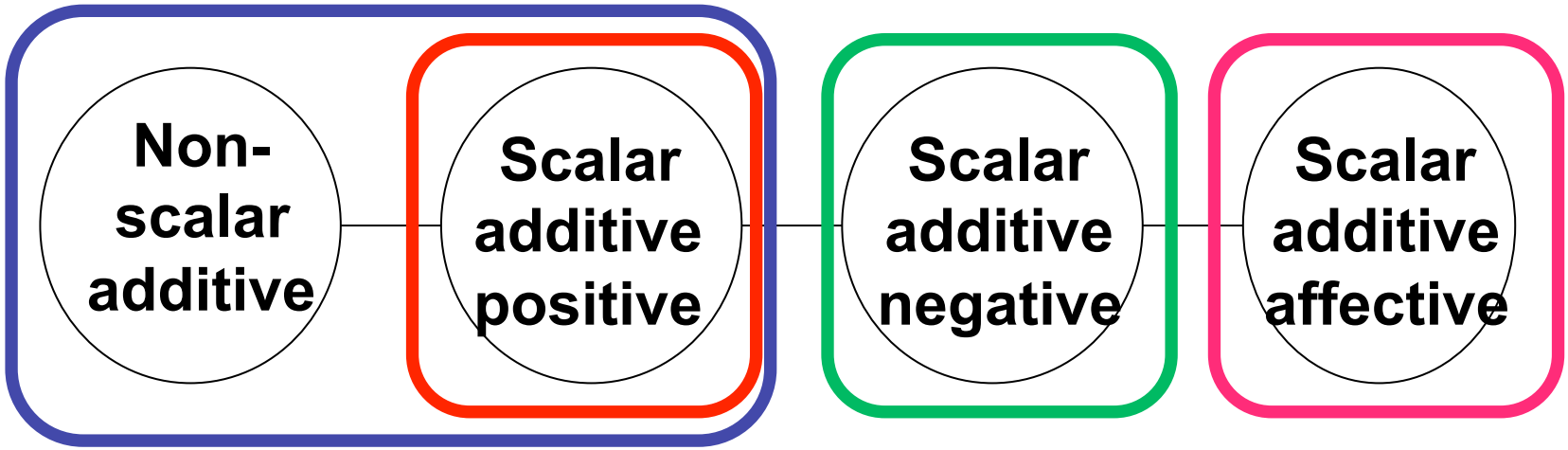
auch *sogar*

***Auch** der Dümmste kann das verstehen.*



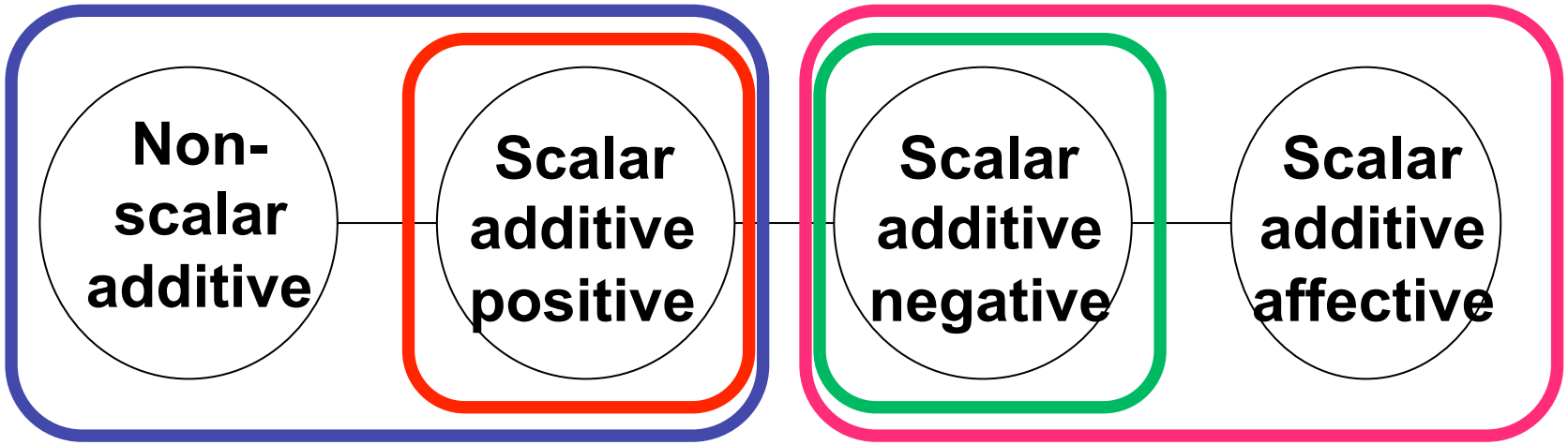
auch *sogar* *einmal*

Nicht einmal seine Hunde gehorchen ihm.



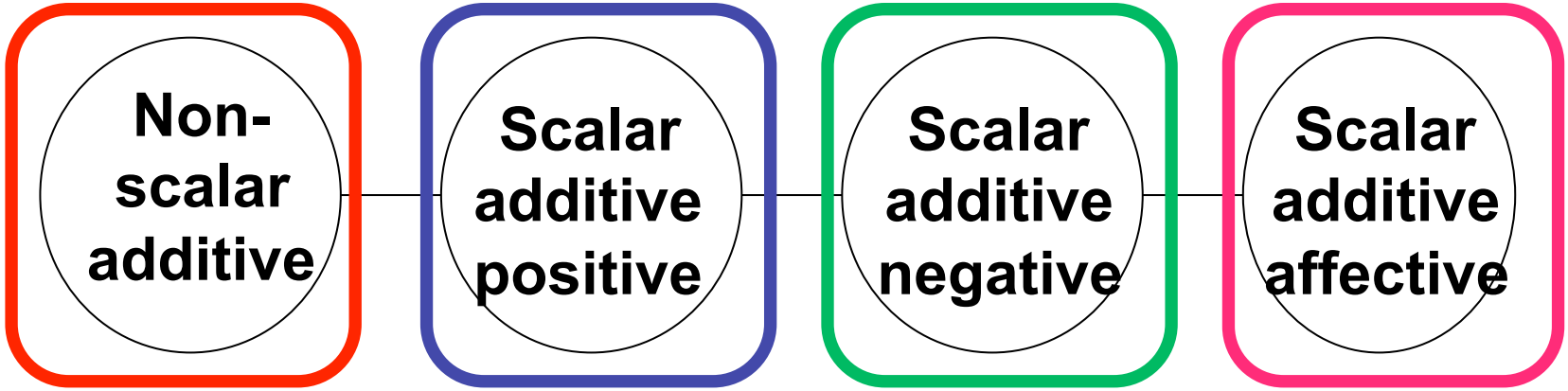
auch *sogar* *einmal* *auch nur*

Wenn du sie auch nur ansiehst, bekommst du Ärger.

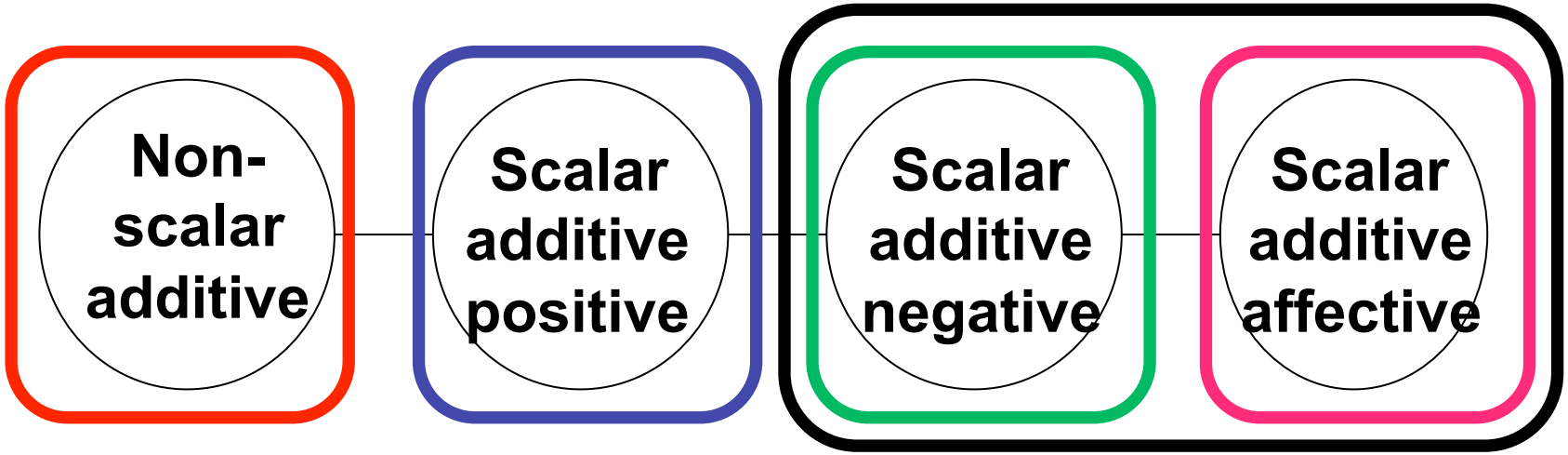


auch *sogar* *einmal* *auch nur*

Nie haben auch nur seine Hunde ihm gehorcht.

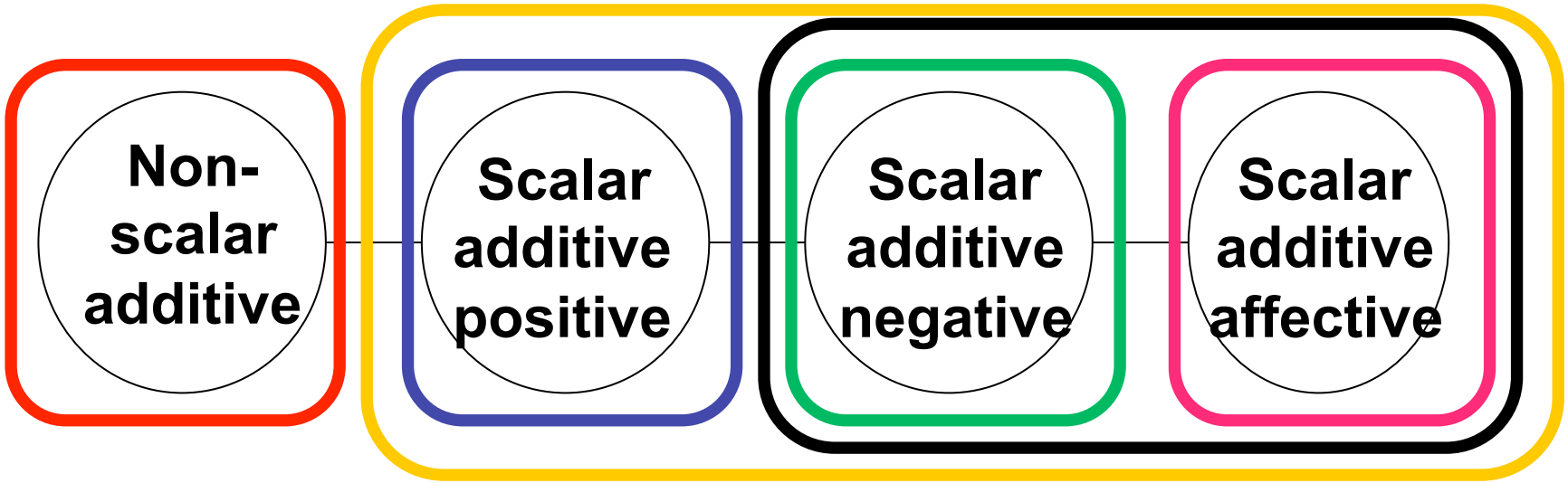


tambien *hasta* *ni* *aunque sea*



tambien *hasta* *ni* *aunque sea*

siquira



tambien

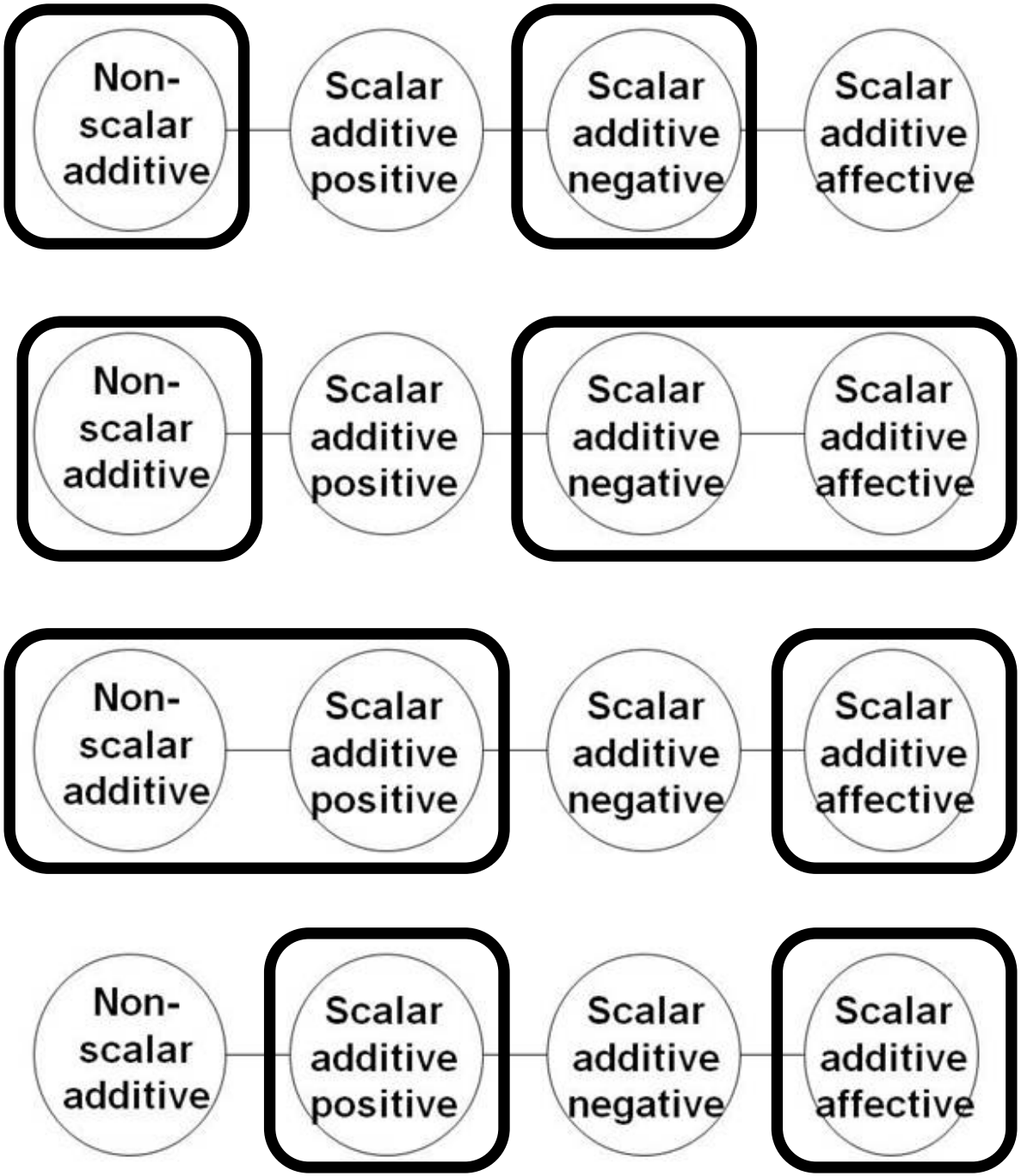
hasta

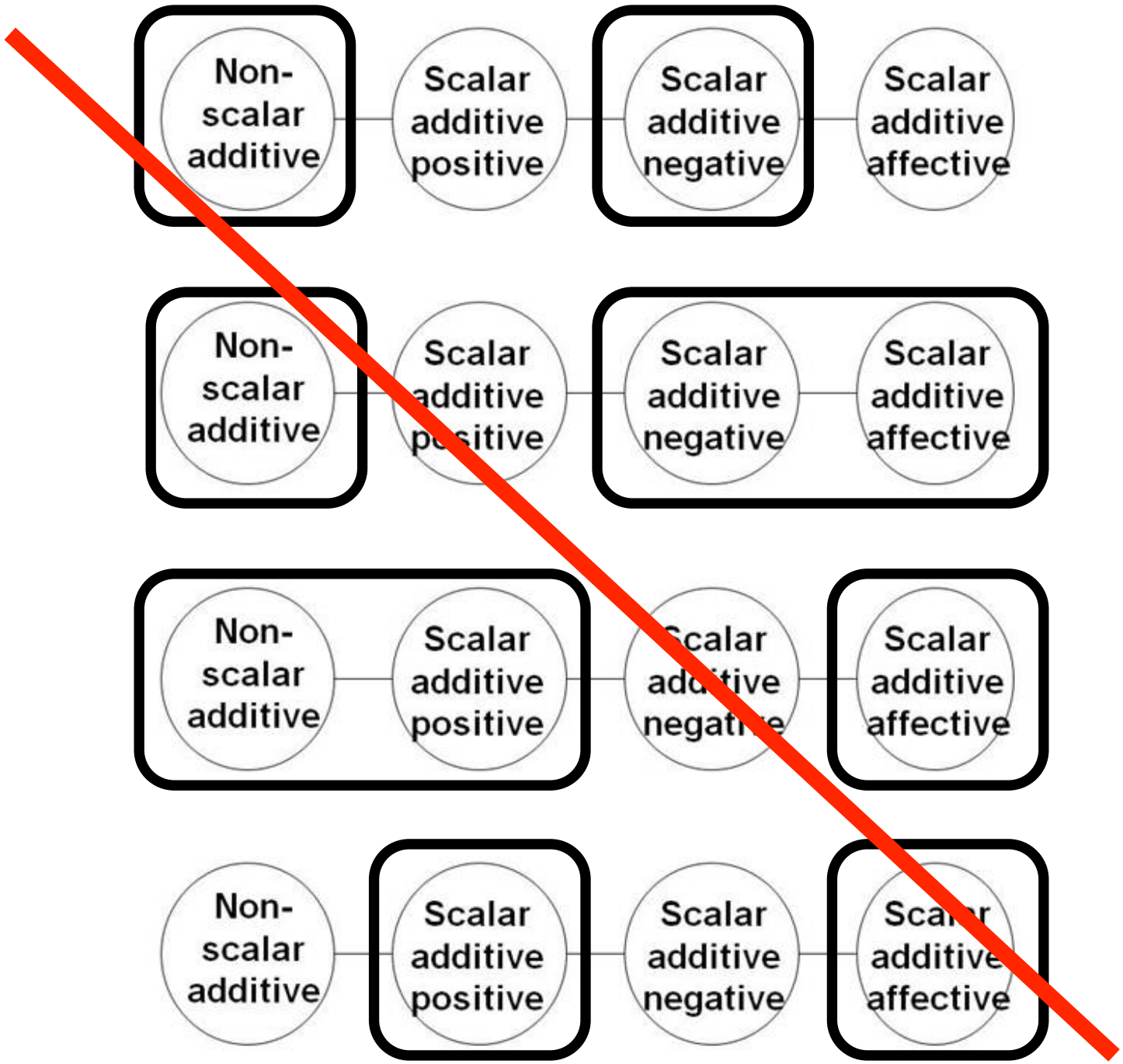
ni

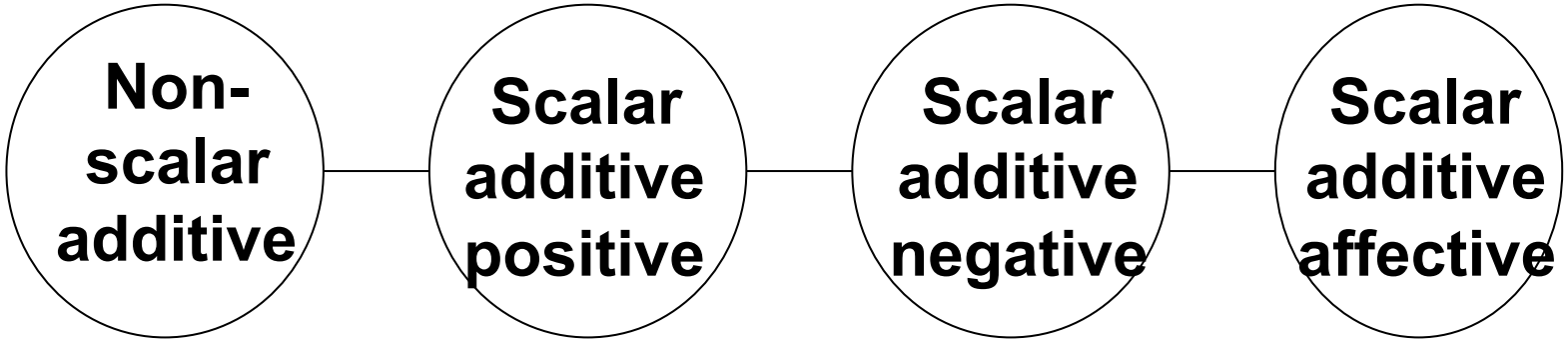
aunque sea

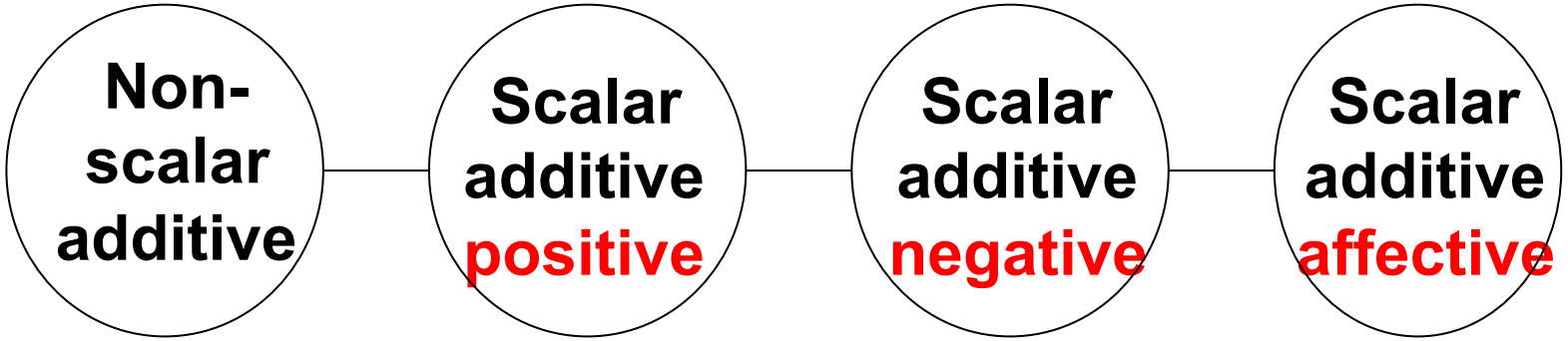
siquira

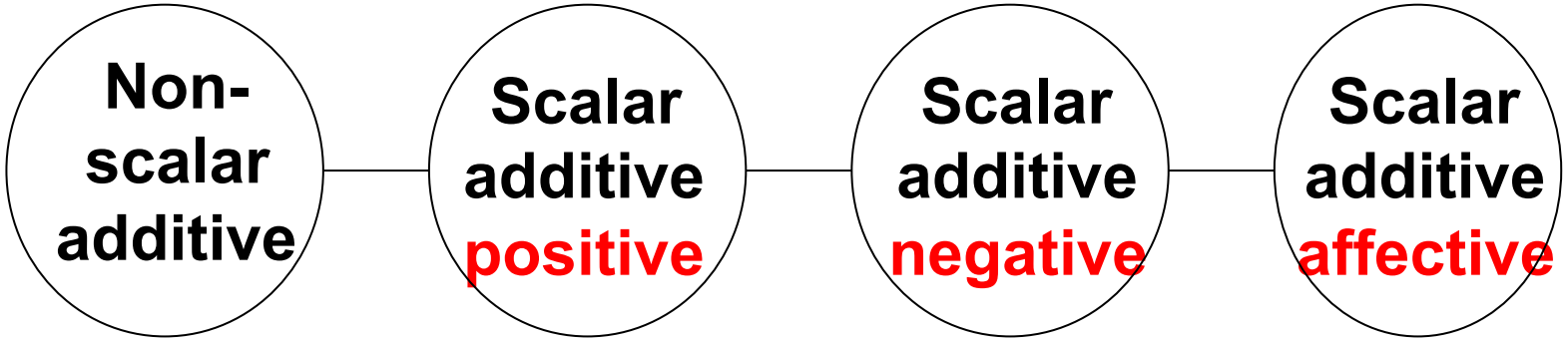
aun


Non-scalar additive
Scalar additive positive
Scalar additive negative
Scalar additive affective
Non-scalar additive
Scalar additive positive
Scalar additive negative
Scalar additive affective
Non-scalar additive
Scalar additive positive
Scalar additive negative
Scalar additive affective
Non-scalar additive
Scalar additive positive
Scalar additive negative
Scalar additive affective

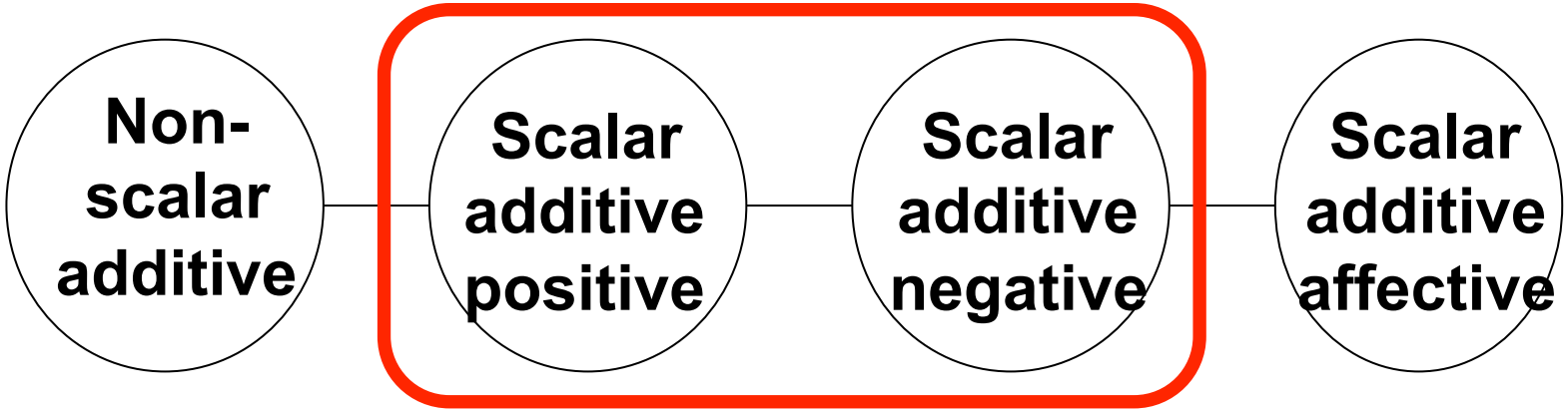

Non-scalar additive
Scalar additive positive
Scalar additive negative
Scalar additive affective
Non-scalar additive
Scalar additive positive
Scalar additive negative
Scalar additive affective
Non-scalar additive
Scalar additive positive
Scalar additive negative
Scalar additive affective
Non-scalar additive
Scalar additive positive
Scalar additive negative
Scalar additive affective


Non-scalar additive
Scalar additive positive
Scalar additive negative
Scalar additive affective


Non-
scalar
additive
Scalar
additive
positive
Scalar
additive
negative
Scalar
additive
affective

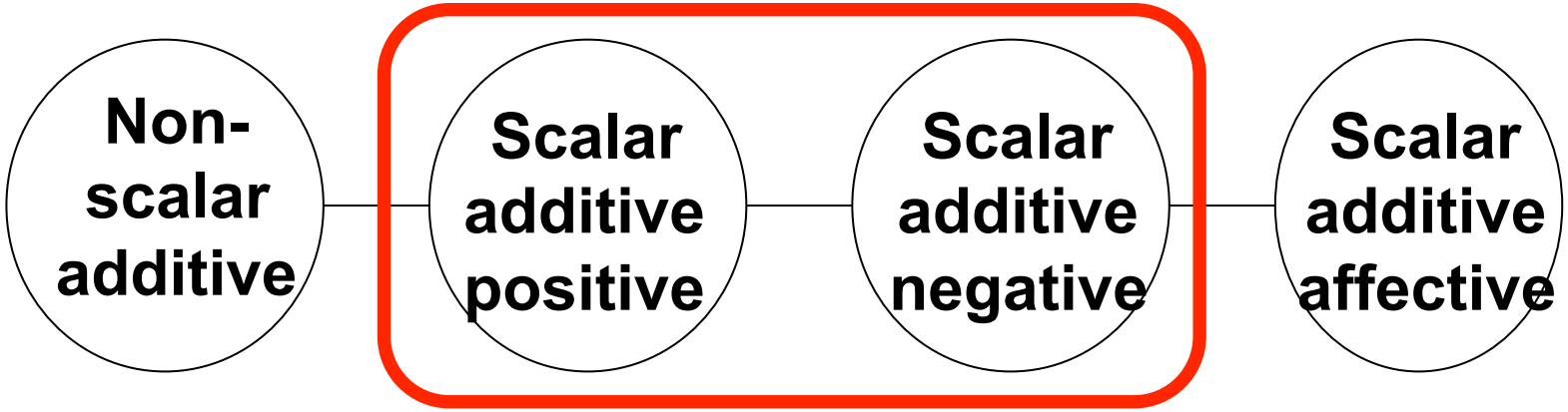


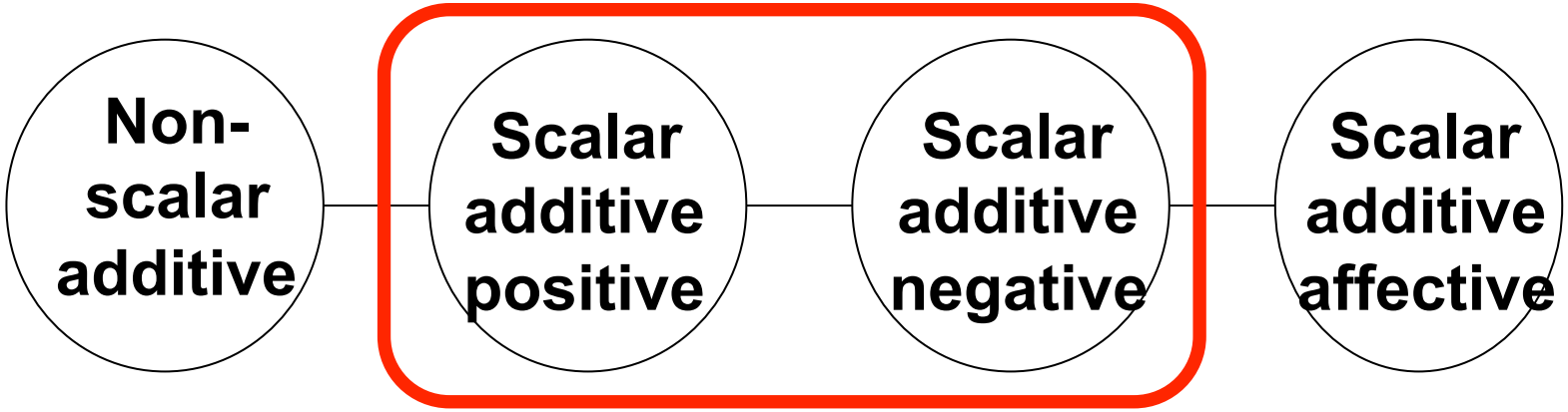
Haspelmath 1997: 296



Czech *dokonce*
Slovak *dokonca*
Bosnian/Croatian/Serbian *čak*
Romanian *chiar şi*

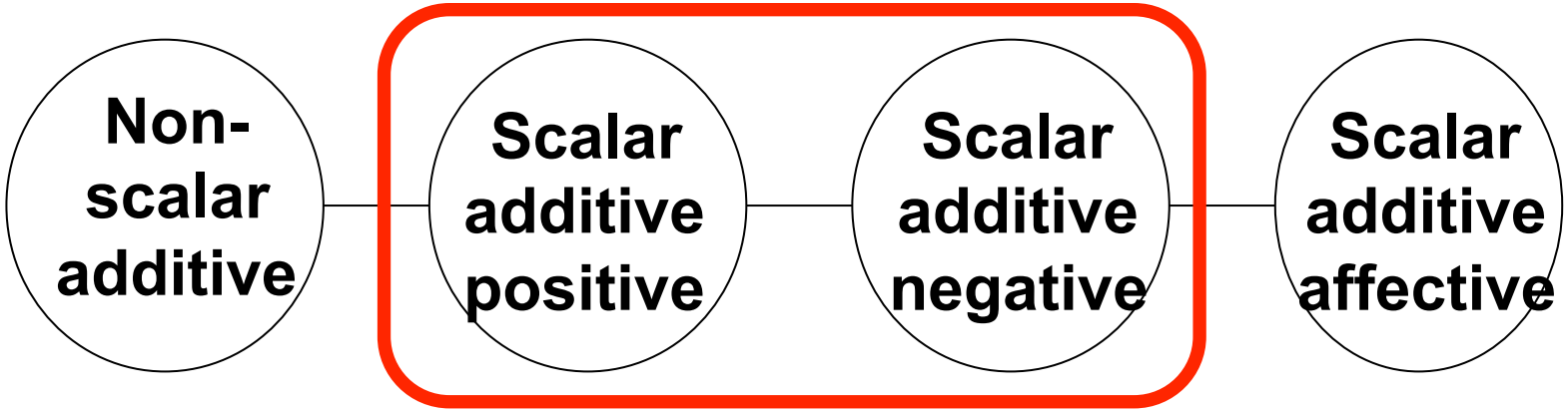
Japanese *-demo*


Non-scalar additive
Scalar additive positive
Scalar additive negative
Scalar additive affective



Pseudo-English

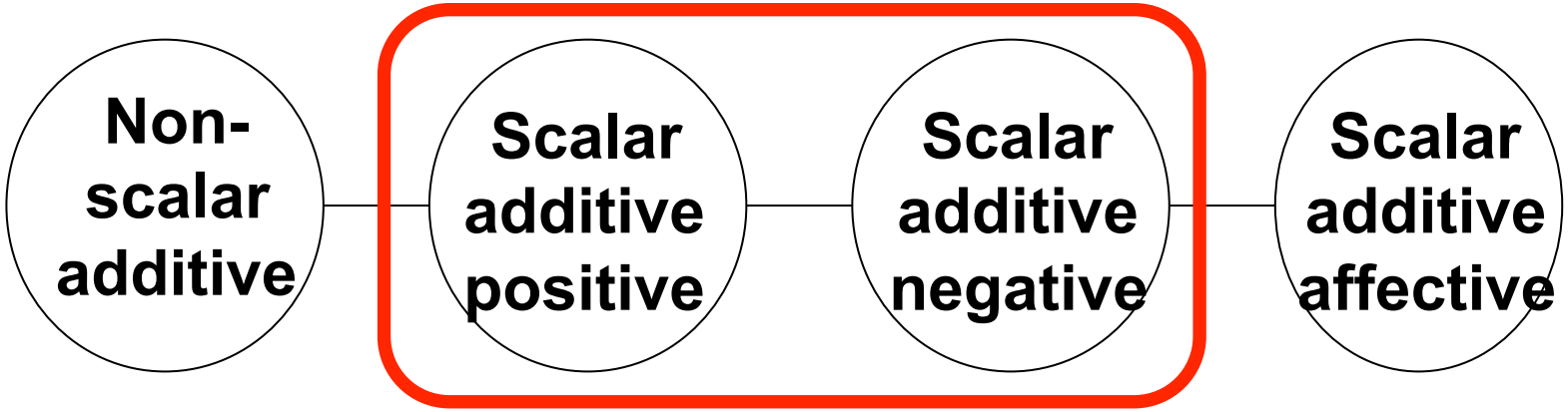
***even** **even** **even** ***even**



Pseudo-English

*even	even	even	*even

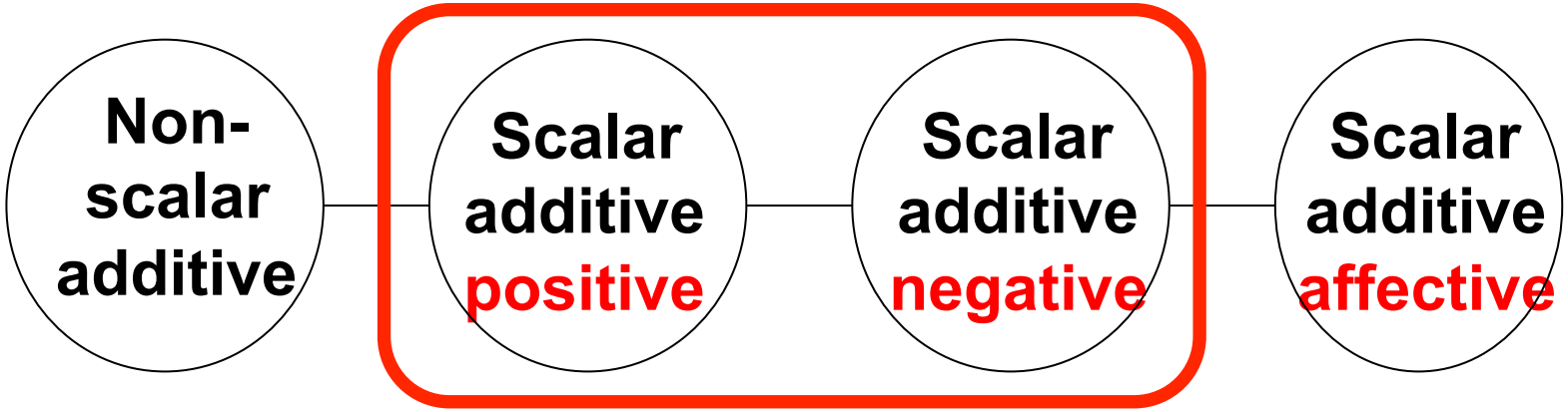
There was even water. *There was not even water.*



Pseudo-English

**even* *even* *even* **even*

There was even no water. = There was not even water.



So not just metonymy, metaphor, generalization and specialization … but also scope reversal

Conclusion

Semantic maps are ideal for describing and explaining at least some aspects of synchronic and diachronic variation