

Modelling corpus evidenced lexical phenomena in a systemic functional grammar

A response to Sinclair and Hoey

Gordon Tucker
Cardiff University, UK

OUTLINE

- **The corpus-informed** challenges of Sinclair and Hoey to the modelling of lexis (and in particular here in a Systemic Functional Grammar)
- Modelling lexical selection in Systemic Functional Grammar and its consequences?
- SFG response to the challenge of the idiom principle and lexical priming
- Feasibility (or not) of a lexical priming oriented approach to linguistic modelling

Sinclair's 'Idiom Principle'

“The principle of idiom is that a language user has available to him or her a number of semi-preconstructed phrases that constitute single choices, **even though they might be analysable into segments**” (Sinclair 1987:320)

Isn't an SFG essentially about making a series of choices from whole networks of options?

Michael Hoey's theory of Lexical Priming (Hoey 2005)

The theory [of Lexical Priming] reverses the role of lexis and grammar, arguing that lexis is complexly and systematically structured and that grammar is the outcome of this lexical structure'

(Hoey 2005:1)

This is a fully lexicalist theory. Isn't lexis considered 'most delicate grammar' in SFG?

LEXIS IN SYSTEMIC FUNCTIONAL LINGUISTICS

SFG as theory – as model

- SFG not a theory of language processing/production
- a theory of the relationship between meaning and form
- an SFG is an account of the meaning potential of a language
- organised paradigmatically as systems of options in a system network

Halliday's 'grammarian's dream'

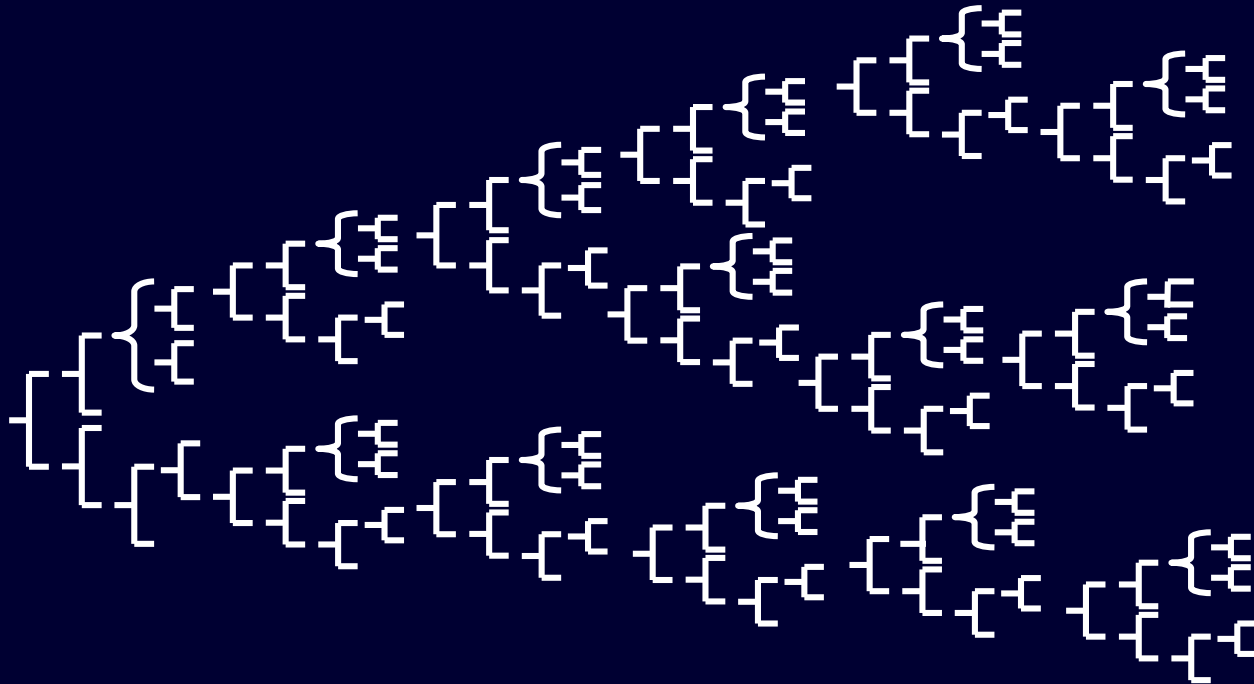
Lexis as Most Delicate Grammar (LAMDG)

He [the grammarian] would like to turn the whole of linguistic form into grammar, hoping to show that lexis can be defined as 'most delicate grammar'. The exit to lexis would then be closed, and all exponents ranged in systems.

.....

No description has yet been made so delicate that we can test whether there really comes a place where increased delicacy yields no further systems: relations at this degree of delicacy can only be stated statistically, and serious statistical work has hardly begun. (Halliday 1961)

from grammatical to lexical choice



grammatical.....lexical



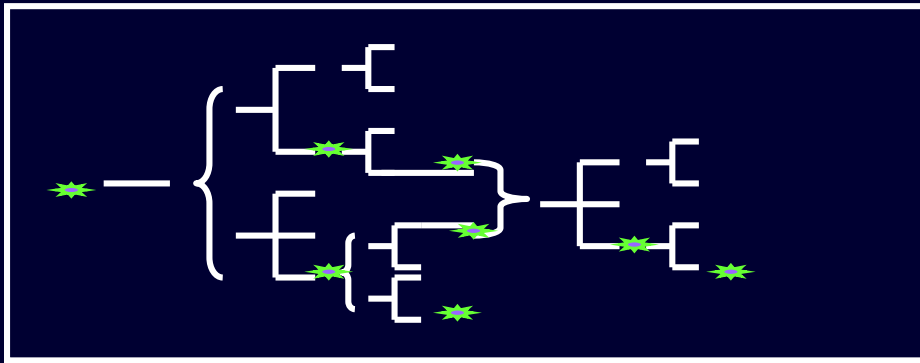
increase in delicacy

LEXIS IN THE CARDIFF GRAMMAR

(a model of SFG developed at
Cardiff University)

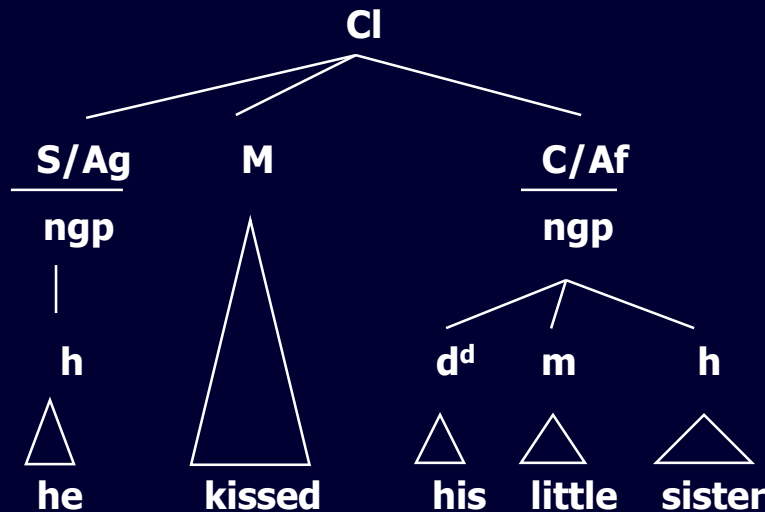
lexis in the Cardiff Grammar

1. system networks are organised from left to right in terms of more general to less general – from general to delicate
2. lexical difference (difference in senses realised by lexical expressions) = more delicate options (in meaning and in lexicogrammatical form)
3. lexical selection (senses realised by lexical expressions) within the **S**(ubject), **C**(omplement), **A**(djunct) elements of the clause **follows** selection of elements at clause level
4. lexical selection involves **consequent choices in dependent grammar** (e.g. 'complementation' of individual adjectives/main verbs/nominal heads).
5. lexicalisation is **only one aspect** of a lexicogrammatical 'configuration' (e.g. Process Types in the system of TRANSITIVITY concerns the configuration of Participant Roles, as well as the lexical verb)



[action, two role process (1), contact, kick (3) , agent subject theme (5), information giver (6) pastness (7) , not retrospective, not modalised (31), circumstance unspecified, positive (44), etc. etc.]

'Cl' , S @ 33, Ag by S, m < "little" etc.



**SYSTEM
NETWORK**



**SELECTION
EXPRESSION**

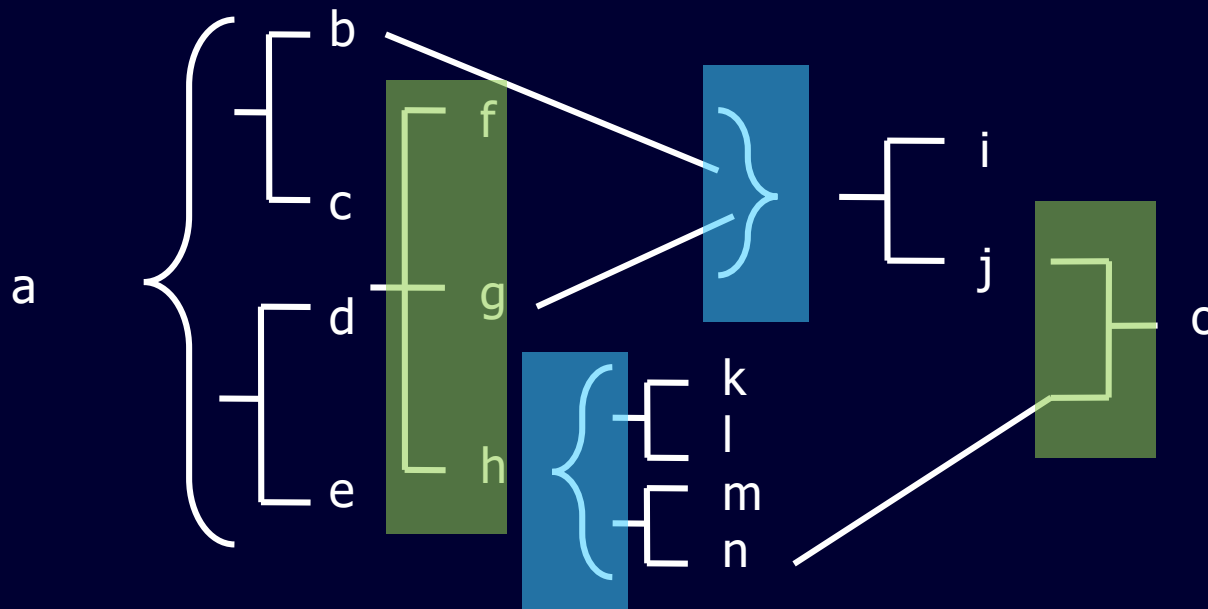


**(REALISATION
RULES)**



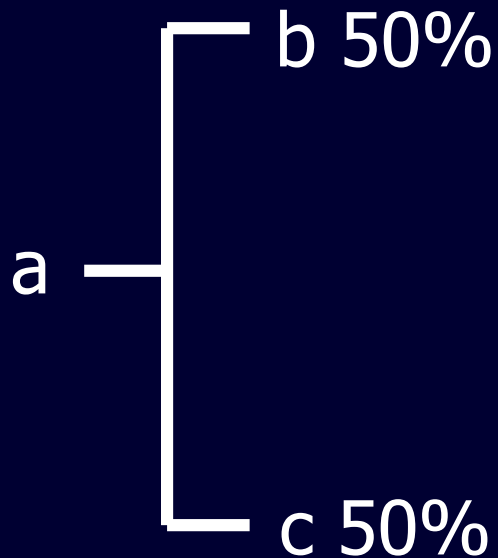
**FUNCTIONAL
STRUCTURE**

(1) a full range of system network conventions

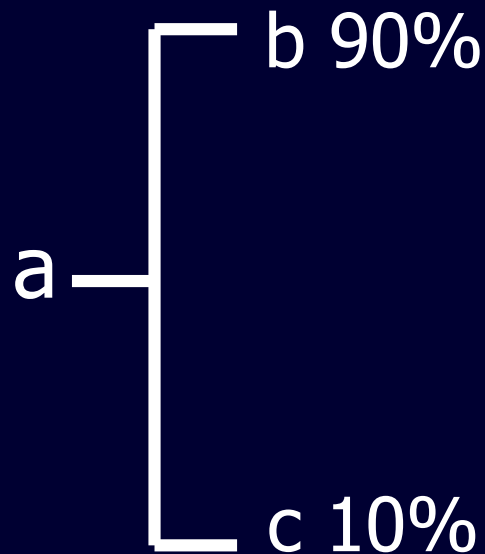


probabilities on features in systems

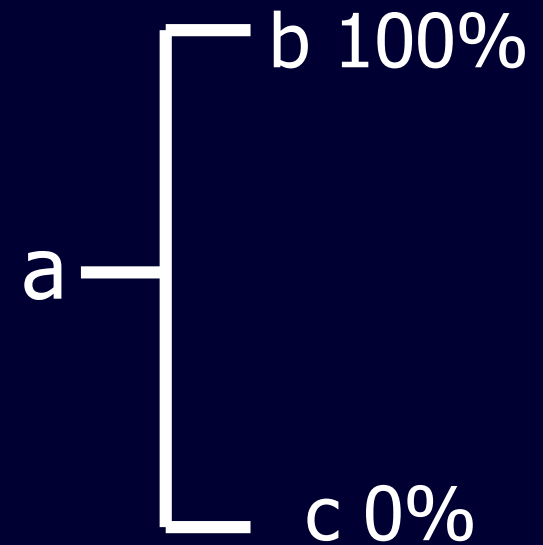
(collocational and colligational tendencies)



DEFAULT



SKEWED

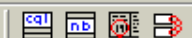
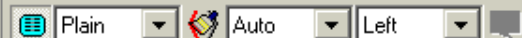


ABSOLUTE

IDIOM

(after Sinclair)

take a liking to, fall in love with, make fun of, get something into your head, get your head around something, have an idea that, not have the faintest idea that, tear a strip off someone, take the rise/piss out of someone, make inroads into something, pull someone's leg, take a snipe at someone, wear oneself to a frazzle, play someone at their own game, have a go at someone, take something as gospel, cut the ground from under someone, get a grip on oneself, run someone into the ground, keep your hair on, meet someone halfway, keep something under one's hat, keep one's head. lose one's head, break one's heart, give someone hell, not give someone houseroom, treat someone with kid gloves, throw someone to the lions, button one's lip, give someone a piece of one's mind, touch a nerve,



g else to hang on to, but I still hadn't the faintest idea how everyone was going to re
ny of the young people today haven't the first idea of what's going on.'

'I haven't the faintest idea what you mean.'

s interested in conducting but hadn't the slightest idea how to go about it.

Of course Joy hadn't the first idea what it was.

'I haven't the faintest idea!

tent of about 700 gulden and haven't the faintest idea how I am going to support my

I hadn't the remotest idea, but I followed the little rails
ing about it herself, since she hadn't the remotest idea what went on under the bon

I haven't the faintest idea of how to spell auf-wie-der-se
t from the back of beyond who hasn't the vaguest notion of what happens in the big,
llé would do for a start, but he hadn't the faintest idea how to go about it and nor ha
per cent of UK managers, but hasn't the faintest idea how good she is.

or a long time,' replied Ray, 'I hadn't the faintest idea.

He simply replies that he hasn't the faintest idea.

g in the middle of a working day isn't the best idea in any case.

ist an ignorant little squirt who hasn't the foggiest idea what you're talking about!'

She hadn't the faintest idea what this thing was.

have + NEG

(got)

the

vaguest

remotest

foggiest

faintest

slightest

first

least

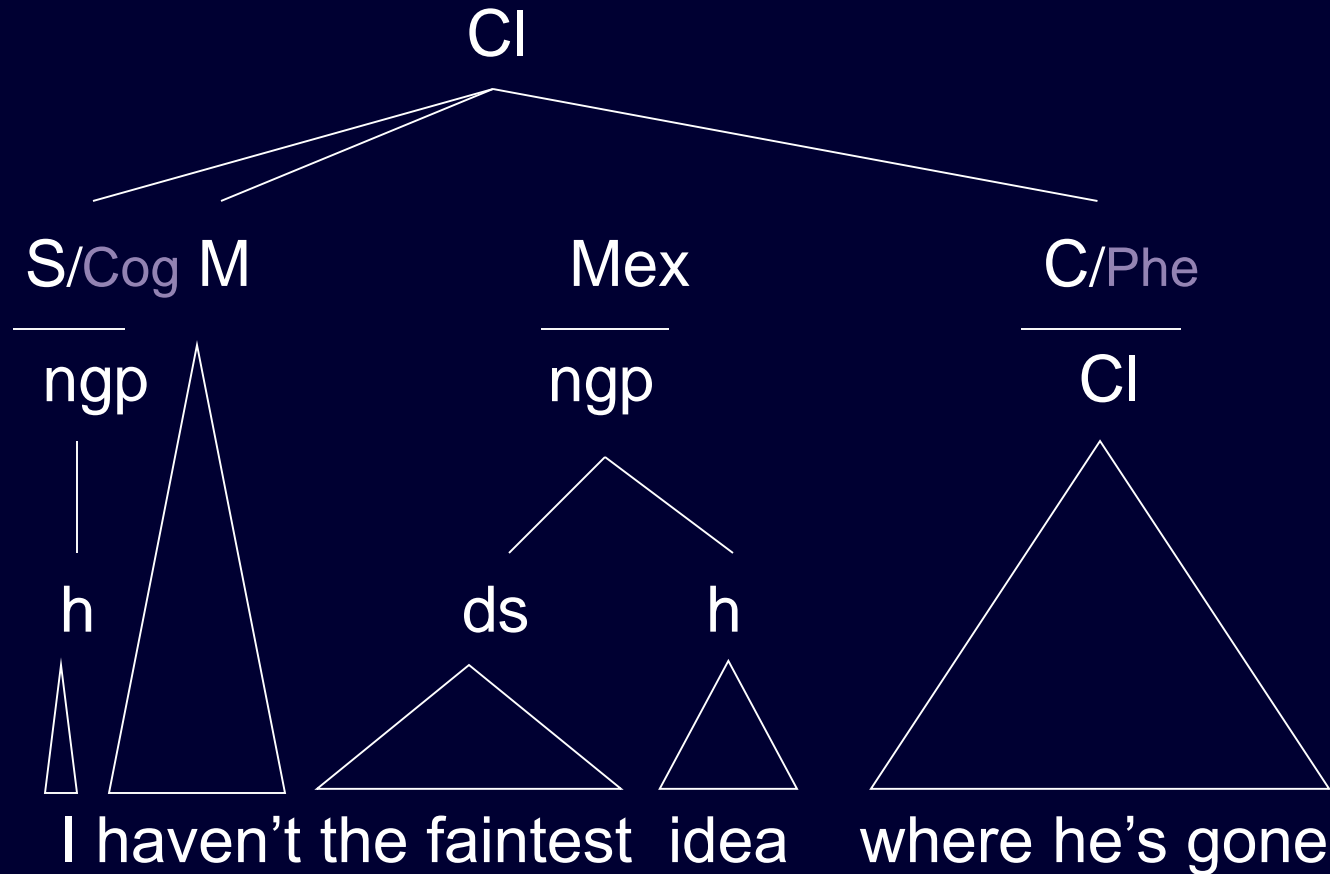
clue

idea

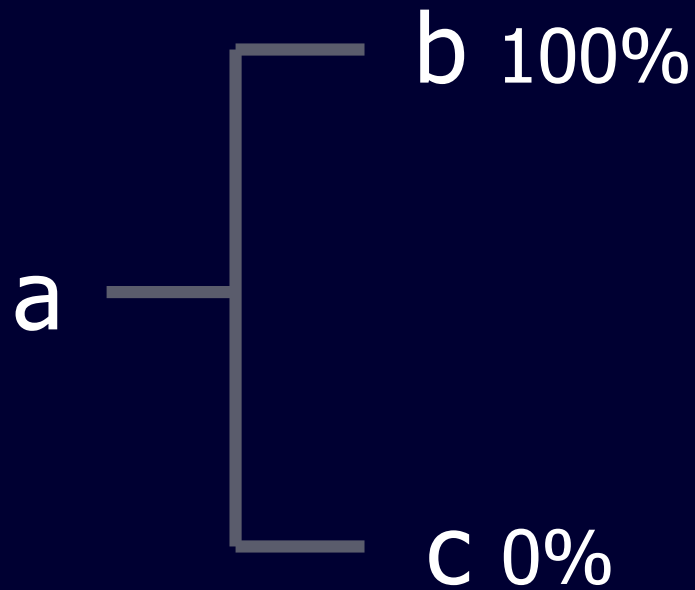
notion

Analysis based on a mental process of cognition

(N.B. not relational process of possession)

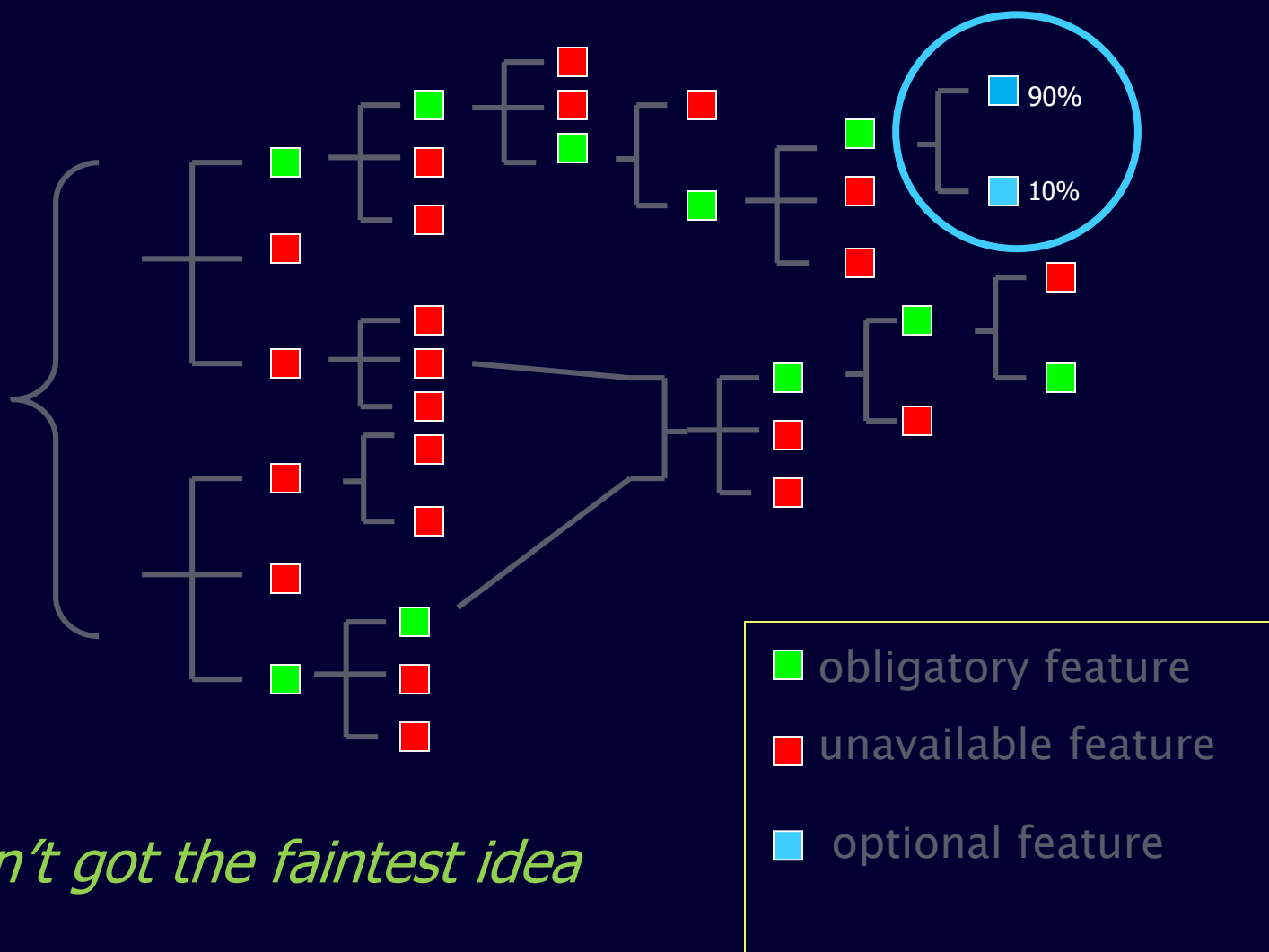


probabilities on features in systems



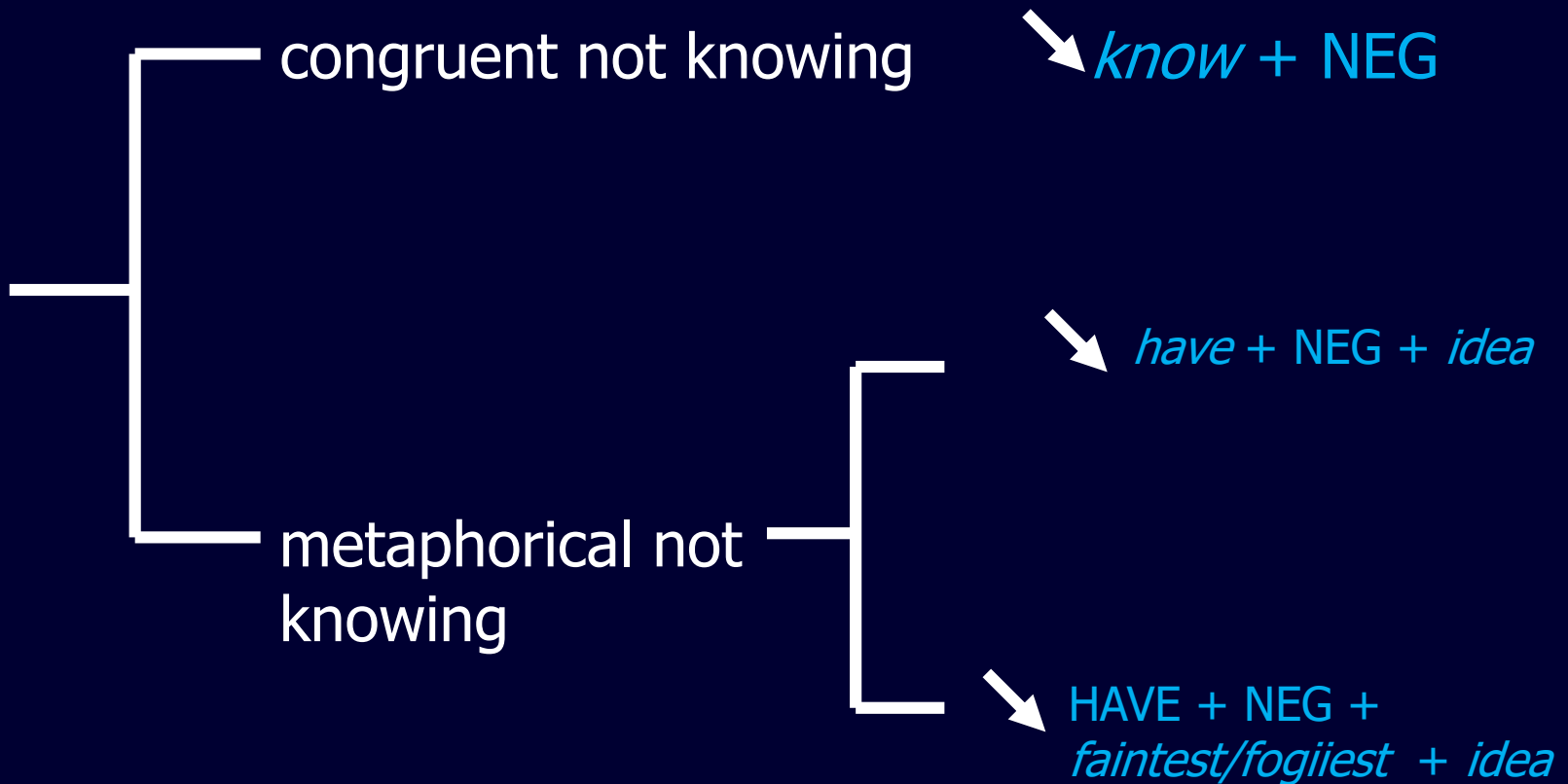
ABSOLUTE

predetermined pre-selection through a system network



e.g. *I haven't got the faintest idea*

Sinclair's single (or reduced) choice



LEXICAL PRIMING

(after Hoey)

Hoey's Theory of Lexical Priming: Key Points

1. Every word is **primed** to occur:
 - with particular other **words** (collocates)
 - with particular **semantic sets** (semantic associations)
 - in association with particular **pragmatic functions** (pragmatic associations)
 - in (or avoid) certain **grammatical positions** and to occur in (or avoid) certain **grammatical functions** (colligations)
2. Co-hyponyms and synonyms differ with respect to their collocations, semantic associations and colligations

3. When a word is polysemous, the collocations, semantic associations and colligations of one sense of the word differ from those of its other senses
6. Every word is primed for use in one or more **grammatical roles (grammatical categories)**
7. Every word is primed to participate in, or avoid, particular types of **cohesive relation** in a discourse (textual collocations)
8. Every word is primed to occur in particular **semantic relations** in the discourse (textual semantic associations)
9. Every word is primed to occur in, or avoid, **certain positions within the discourse** (textual colligations)

nesting

Primitives **nest** and **combine**. For example, *winter* collocates with *in*, producing the phrase *in winter*. But this phrase has its own collocates, which are separate from those of its components.

(Hoey 2005: 10-11)

Hoey's interpretation of Hallidayan 'Lexis as Most Delicate Grammar'

'Theories of lexis that can claim to be more sophisticated, such as systemic-functional linguistics, likewise sometimes represent the relationship between grammar and lexis as if the precise lexical choice was the last choice to be made.'

(Hoey 2005:2)

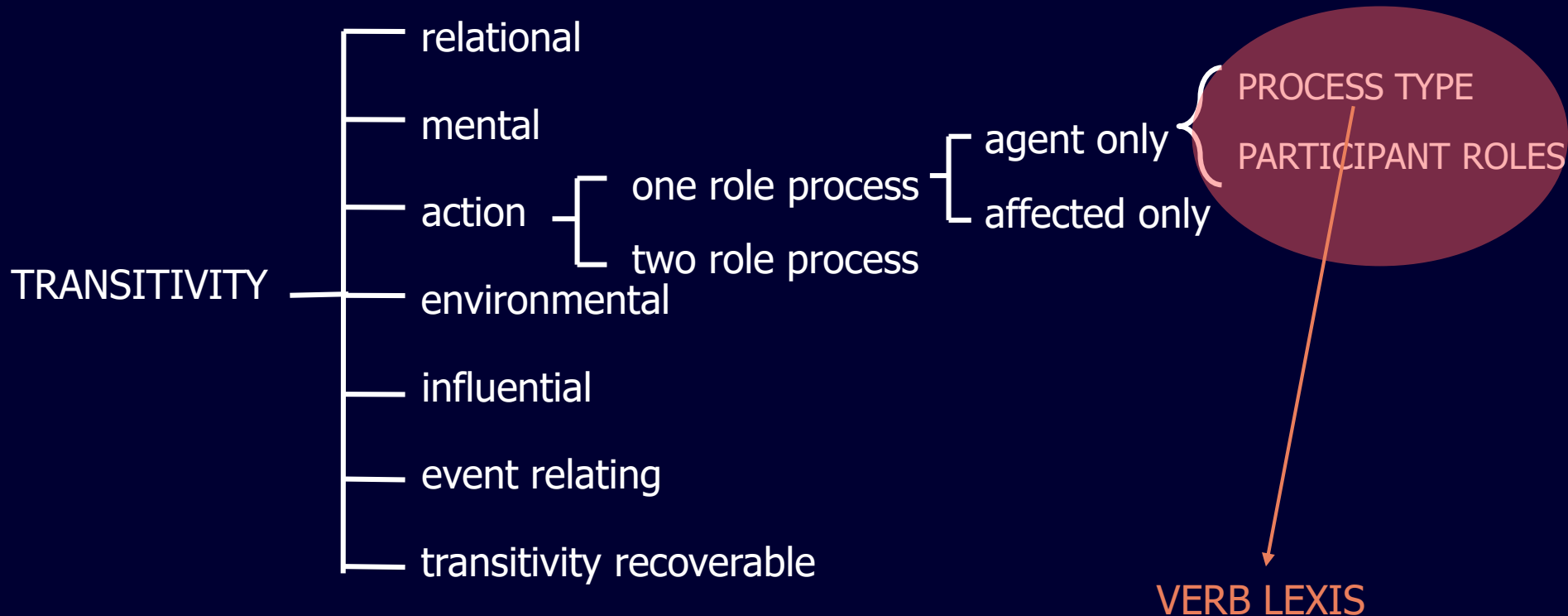
ISSUE: How can SFG respond to this observation, made on the basis of 'lexis as *most delicate* grammar'?

grammatical choice before lexical choice?

TRANSITIVITY

- TRANSITIVITY is not just about selecting a lexical verb - appropriate configuration of meanings and features associated with it
- Each lexical verb is associated with ONE or MORE semantic and structural configurations (essentially polysemy)
- As Hoey points out, polysemous words have different collocations and colligations

simplified network for TRANSITIVITY in the Cardiff Grammar



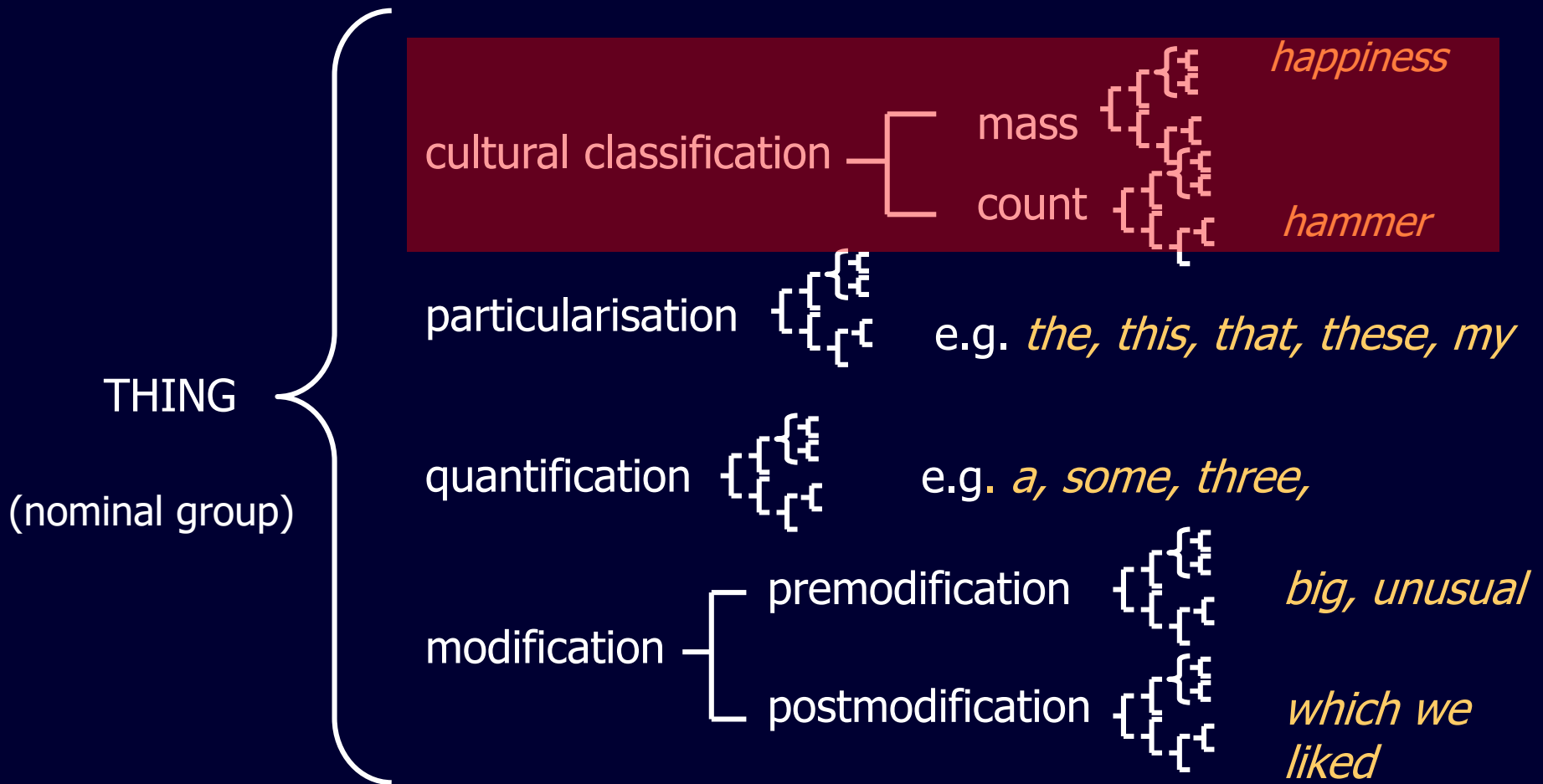
SYSTEMS IN SITUATION (CLAUSE)

the realised clause depends on choices in many systems

SITUATION
(clause)

- TRANSITIVITY VERB LEXIS
- DEPENDENCE (independent/dependent)
- TIME-POSITION (tense)
- POLARITY
- THEMATISATION
- CO-ORDINATION
- MOOD
- VALIDITY (modality)
- LOGICAL RELATIONS

systems in the network for **THING** (meanings realised in the nominal group)



In winter, Hammerfest is a thirty-hour ride by bus from Oslo

	in winter (236)	in the winter (331)	during the winter (203)	That winter (26)
Present tense	59%	34%	30%	-
Past tense	18%	50%	36%	100%
Present perfect	2%	2%	9%	-
Modal	11%	8%	12%	-
none	10%	7%	12%	-

one use = timeless truth

In winter, Hammerfest is a thirty-hour ride by bus from Oslo

priming direction?

are the words *in winter*, as Circumstantial Adjunct, primed to collocate and colligate respectively with the other words, nestings, structures, grammatical categories, semantic classes, present in the clause?

PRESENT TENSE (as TIMELESS TRUTH) -> *in winter*

OR

are the words, nestings, structures, semantic classes, present in the clause, respectively, primed to occur with the words *in winter*, as a Circumstantial Adjunct?

in winter -> PRESENT TENSE (as TIMELESS TRUTH)

DECISIONS (and probabilities/primings) in an SFG

In winter, Hammerfest is.....

to express or not circumstantial meaning (through Circumstantial Role) **yes/no**

to select type and sub-type of Circumstantial Role

time, manner, location etc.
time position, frequency etc.

to select a communicatively appropriate expression for the circumstantial role

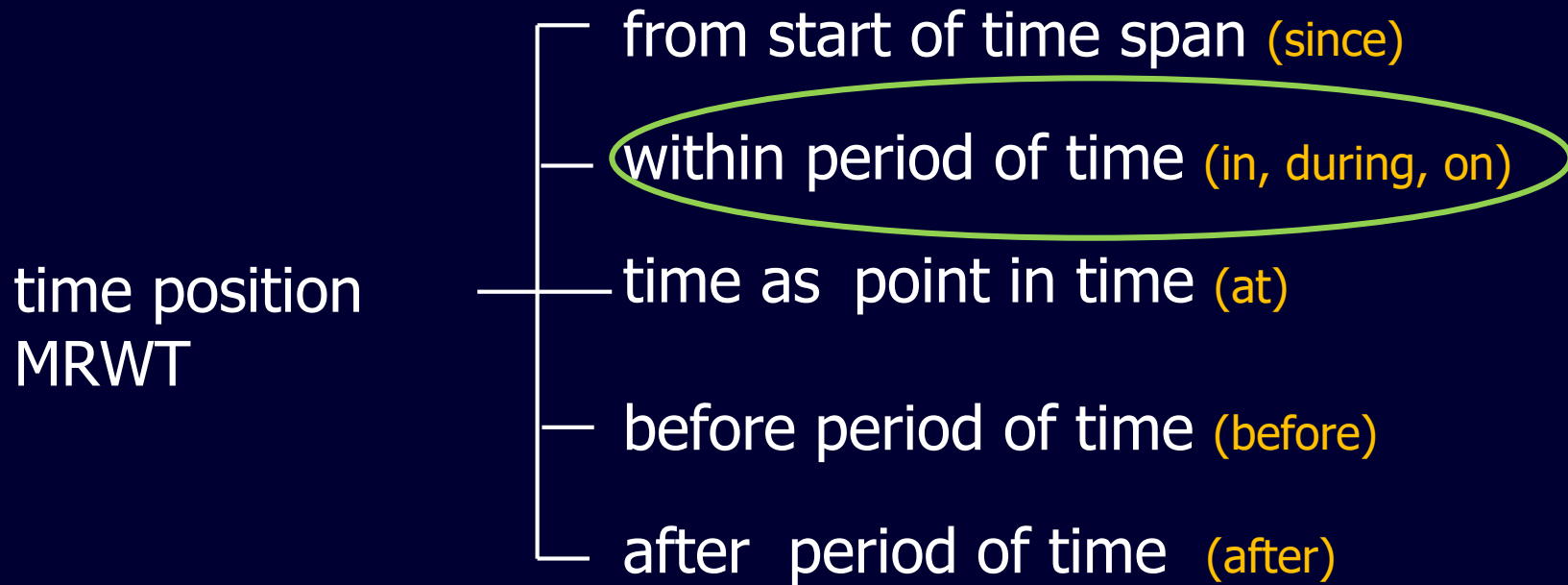
situation (clause) e.g. *when winter arrives*
quality of situation (adverbial group) e.g. *about now*
minor relationship with thing (prepositional group) e.g. *in winter*
thing (nominal group) e.g. *this year*

to present it thematically

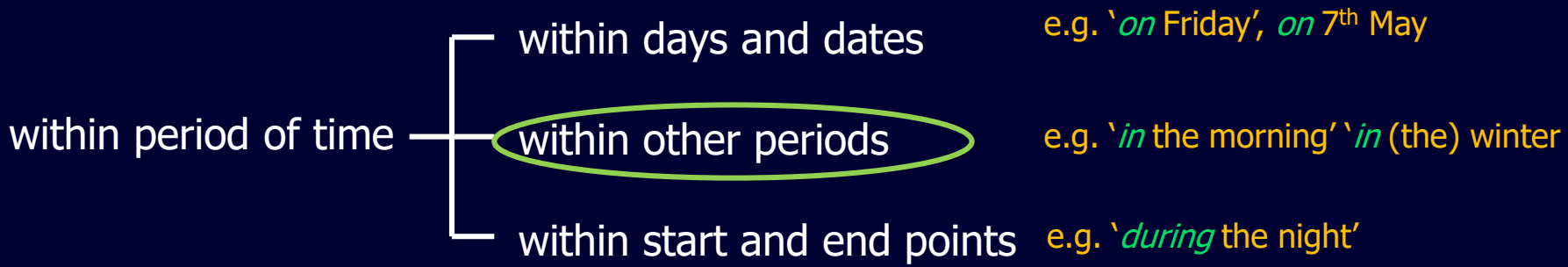
time circumstance thematised *in winter, Hammerfest is.....*
time circumstance integrated
time circumstance potentially new
time circumstance as supplementary information unit

ALL OPTIONS INVOLVE
PRIMINGS

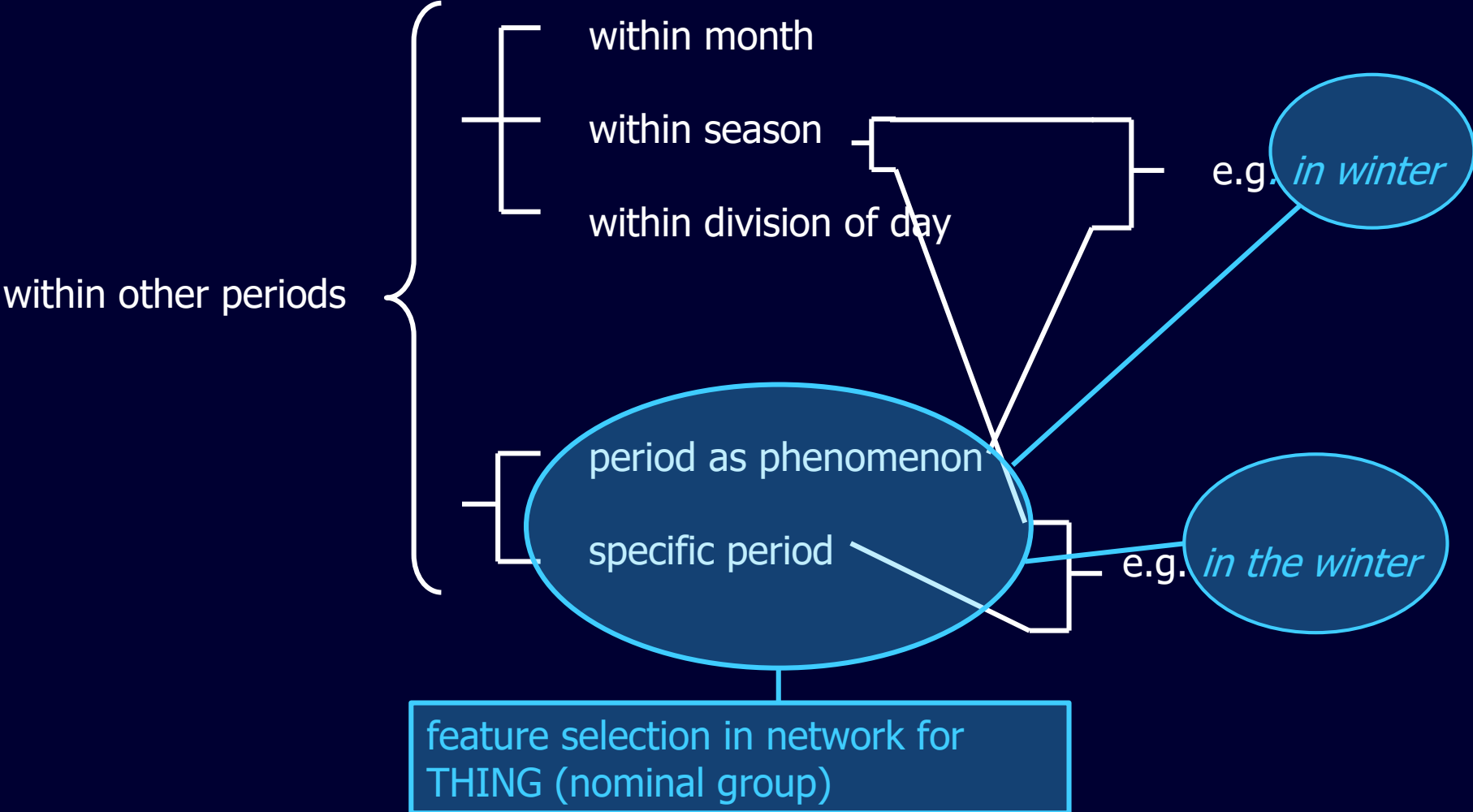
preposition or prepositional group priming



are prepositions primed colligationally in general or dependent upon their completive (the nominal group that completes them) or both?



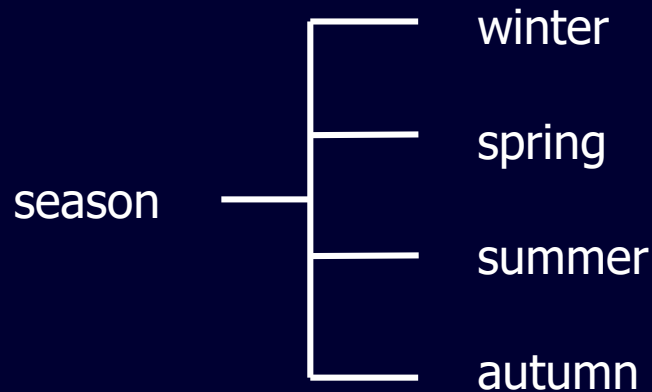
in winter *versus* in the winter – different primings



preselecting (preferring) in the Thing (ngp) network

if previously [within season] and [period as phenomenon],
then prefer [season, 30% summer/30% winter/20%
spring/20% autumn, singular, unparticularised,
unquantified, no ad hoc classification].

This will give bare *winter* for example



**most choices in
THING network
already made!**

the (un)feasibility of a lexicogrammatical model based on lexical priming

what are the priming values for *winter*:

in nesting

(e.g. with words in a nominal group – *the winter, last winter, cold winters* etc. etc.)

(e.g. with prepositions in a prepositional group – *in winter, during the winter, before the winter* etc. etc.)

for itself, and for its nestings: (e.g. *in winter, in the winter*)

with TRANSITIVITY, TENSE, MOOD, THEMATIZATION, POLARITY, MODALITY etc realisations within the clause

the (un)feasibility of a lexicogrammatical model based on lexical priming (Systemic Functional Grammar Architecture)

1. system networks are organised from left to right in terms of more general to less general – from general to delicate
2. lexical selection within the S, C, A elements of the clause follows selection of elements at clause level

currently no means of starting from the perspective of the realisation of a given lexical item within a group and specifying its collocations and colligations at the level of the clause

In winter, Hammerfest is a thirty-hour ride by bus from Oslo

Hoey's central, general claim

'lexis is complexly and systematically structured and that grammar is the outcome of this lexical structure'
(2005:1)



tentative conclusions

an SFG models choice in meanings – the meaning potential
– (→ lexical and grammatical realisation)

not a model of serial language production in time

idiom and priming can be modelled through probabilities

probabilities can only be corpus-derived

impossible to write comprehensive grammars – only snippets

