Semantic relations

Taxonomy, Partonomy, Attributes, Roles

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KEY

⟶   taxonomic relation

⟶   prototype hyponym

⇢   other hyperonym-hyponym relation

⋯▶   marginal or not really hyponym

⟶   primary partonomic relation

⟶   head partonym

⇢   other partonomic relation

⟶   feature (attribute) relation

⟶   role relation   ⇢   role-filler relation (only for participant role — participant)
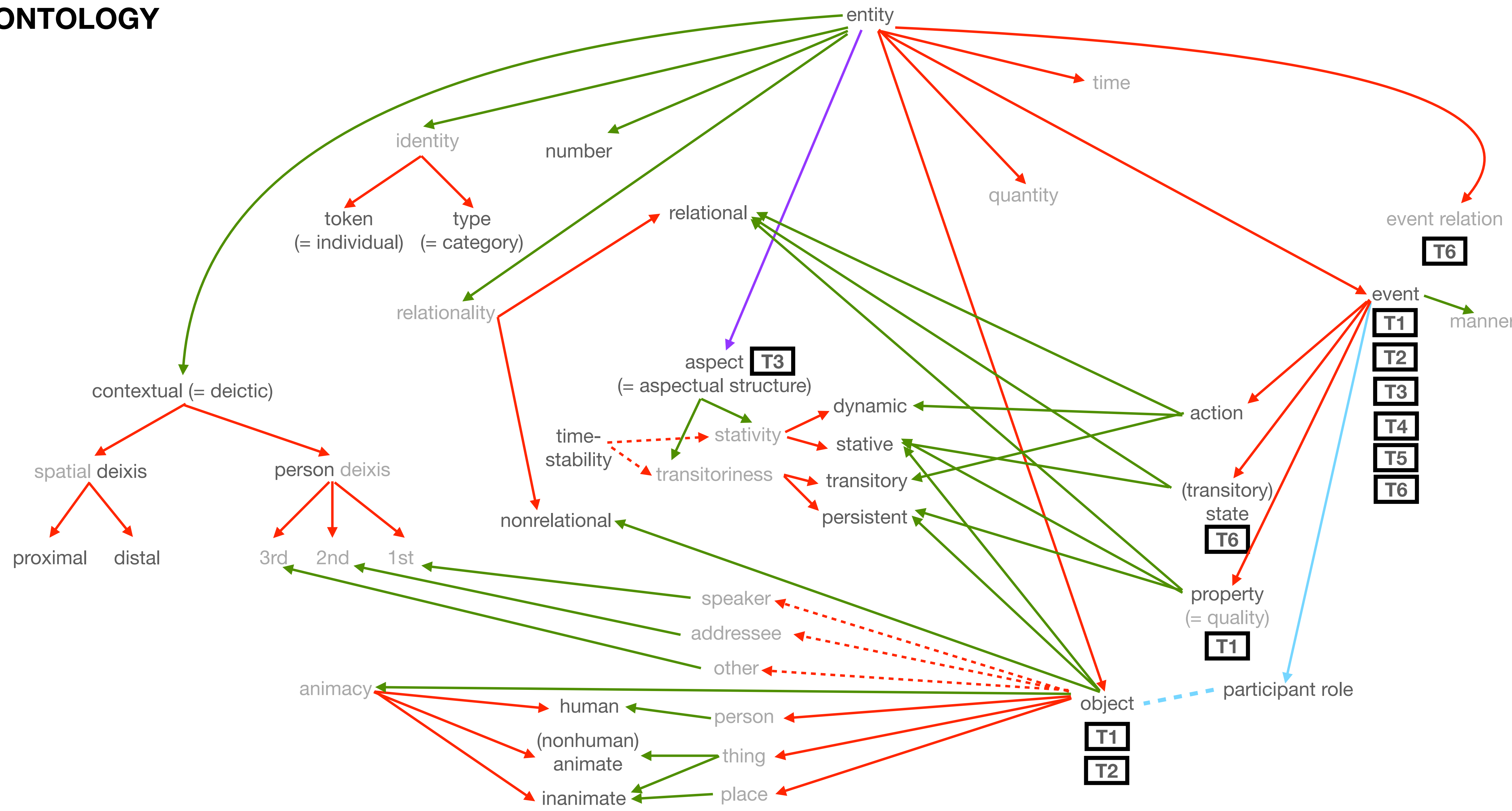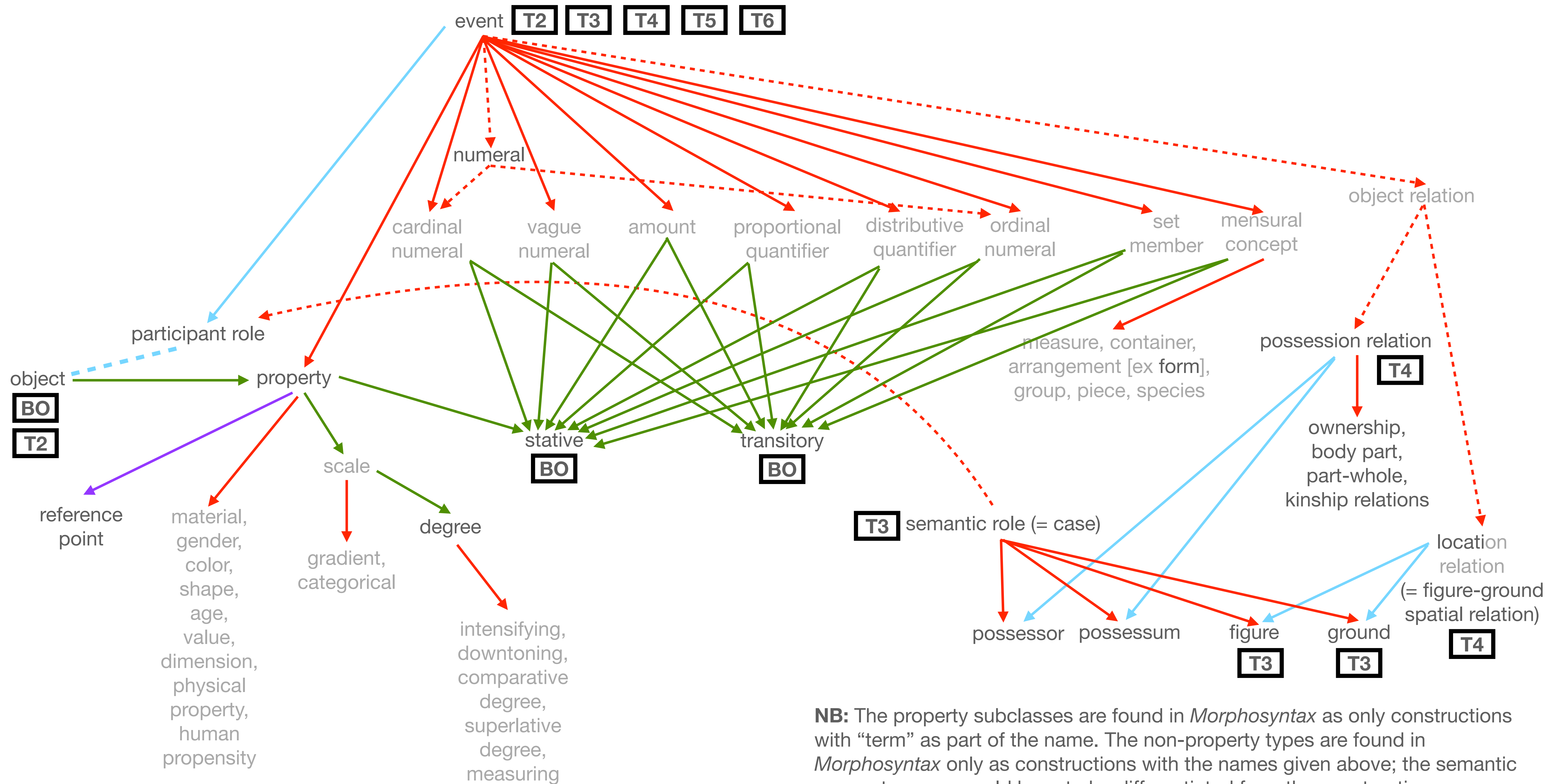
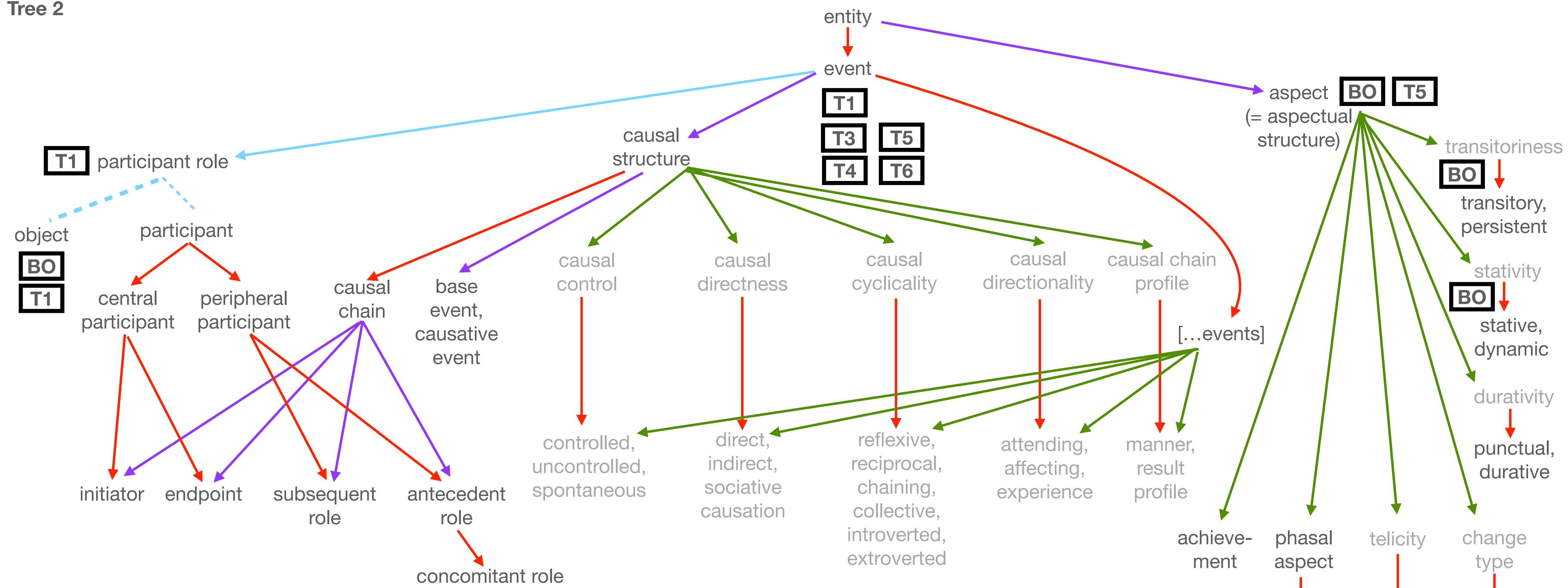*semantic*   semantic term not in *Morphosyntax* (but should be)

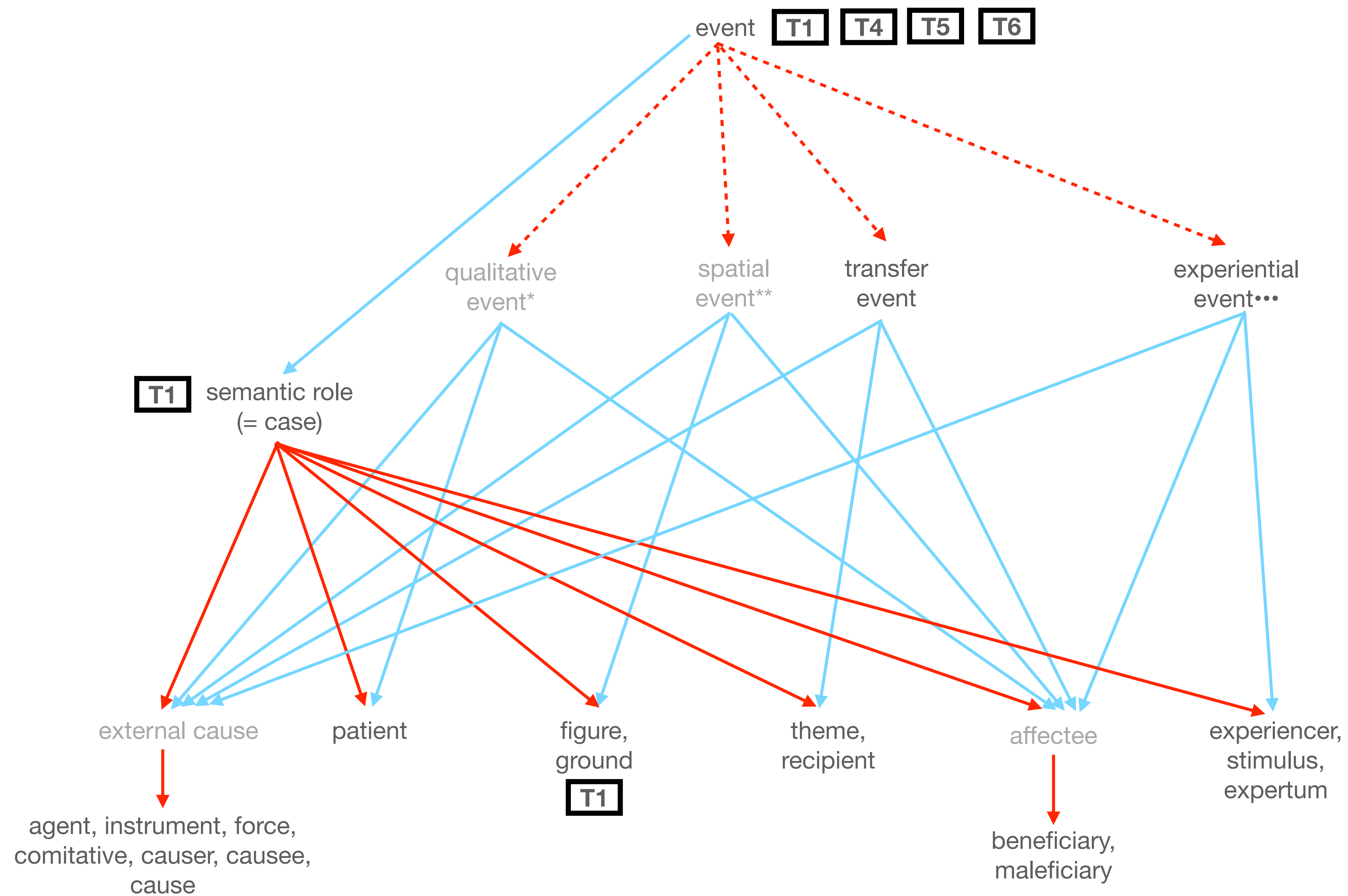T#   this tree is linked to Tree # at this node

THE BASIC ONTOLOGY

Tree 1

event   T2   T3   T4   T5   T6

numeral

cardinal numeral · vague numeral · amount · proportional quantifier · distributive quantifier · ordinal numeral · set member · mensural concept

object relation

participant role

object
BO
T2

property

measure, container, arrangement [ex form], group, piece, species

possession relation
T4

stative
BO

transitory
BO

reference point

scale

material, gender, color, shape, age, value, dimension, physical property, human propensity

gradient, categorical

degree

intensifying, downtoning, comparative degree, superlative degree, measuring

T3 semantic role (= case)

ownership, body part, part-whole, kinship relations

location relation (= figure-ground spatial relation)
T4

possessor · possessum · figure **T3** · ground **T3**

NB: The property subclasses are found in *Morphosyntax* as only constructions with "term" as part of the name. The non-property types are found in *Morphosyntax* only as constructions with the names given above; the semantic concept names would have to be differentiated from the construction names.

Tree 2

entity

event

aspect **BO** **T5**
(= aspectual structure)

participant role **T1**

T1

T3 **T5**

T4 **T6**

causal structure

transitoriness

BO

transitory, persistent

object **BO** **T1**

participant

causal chain

base event, causative event

causal control

causal directness

causal cyclicality

causal directionality

causal chain profile

stativity

BO

stative, dynamic

central participant

peripheral participant

[...events]

durativity

punctual, durative

initiator

endpoint

subsequent role

antecedent role

controlled, uncontrolled, spontaneous

direct, indirect, sociative causation

reflexive, reciprocal, chaining, collective, introverted, extroverted

attending, affecting, experience

manner, result profile

achieve-ment

phasal aspect

telicity

change type

concomitant role

inceptive, completive, terminative, continuative (= perseverative)

telic, atelic

directed change, undirected change

NB: The next three trees represent three different semantic analyses of events and their participants.
Tree 2 represents a decompositional analysis of the causal and aspectual structure of events and their participants (Croft 2012). Event subtypes defined in terms of causal structure in *Morphosyntax* (as opposed to event semantic domains; see Trees 3-4) are analyzed here as attributes of causal structure (their names are the same as the corresponding events minus "event"). Aspect is also analyzed as an attribute of the aspectual structure of an event.
Tree 3 represents a standard semantic role analysis of event participants, analyzed in terms of event superclasses based on semantic domains that are used to define the roles (unpublished work, from NSF grant #2213804 on Uniform Meaning Representation).
Tree 4 represents a finer-grained classification of events by domain, organized by valency, and the exemplar model of valency-based semantic roles (Haspelmath 2011b, 2015). The classification of events is by no means complete; in particular, social events are not present (for social events, see Kalm 2022 [PhD dissertation]). Events with other events as participants are found in Tree 6.
All three analyses have their value, with different typological universals couched in their terms.

Tree 3

event T1 T4 T5 T6

qualitative event*
spatial event**
transfer event
experiential event•••

T1 semantic role (= case)

external cause
patient
figure, ground T1
theme, recipient
affectee
experiencer, stimulus, expertum

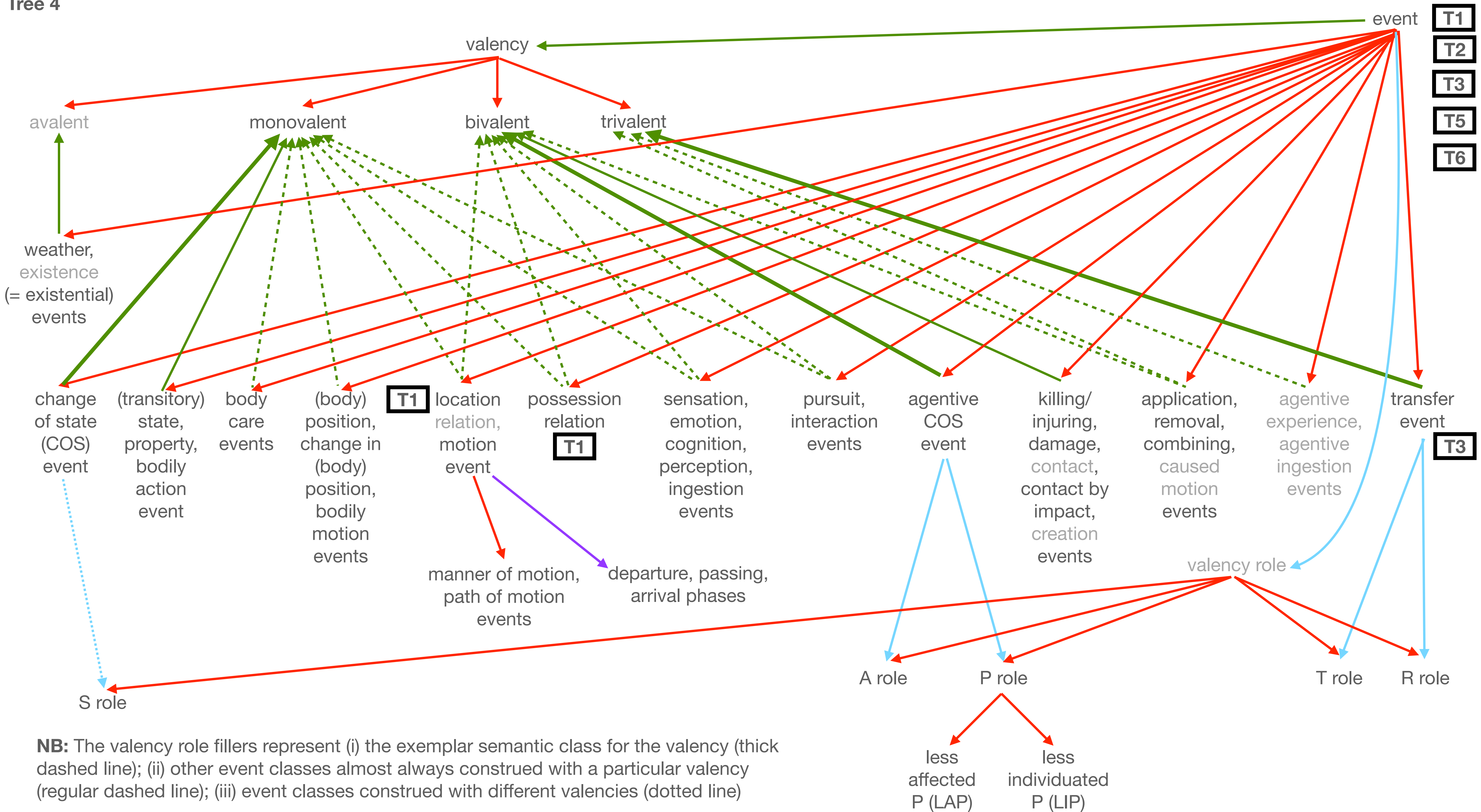agent, instrument, force, comitative, causer, causee, cause

beneficiary, maleficiary

*includes property, change of state, agentive change of state, contact, contact by impact, creation, killing/injuring, damage events; see Tree 4
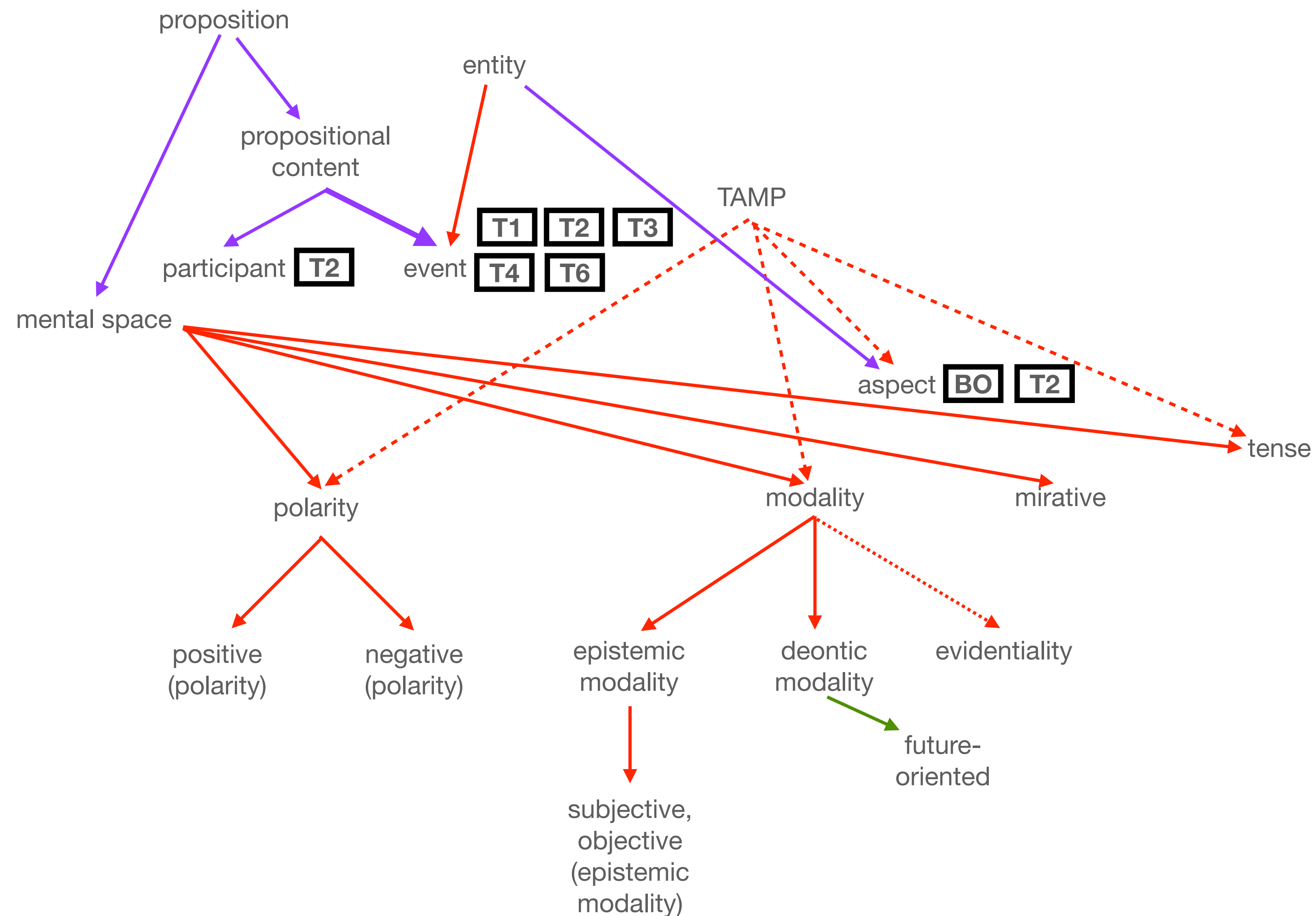**includes location, (change in) (body) position, motion, application, removal, combining, and caused motion events; see Tree 4
***includes perception, cognition, emotion, sensation, agentive experience, ingestion and agentive ingestion; see Tree 4

Tree 4

event T1
T2
T3
T5
T6

valency

avalent

monovalent   bivalent   trivalent

weather,
existence
(= existential)
events

change
of state
(COS)
event

(transitory)
state,
property,
bodily
action
event

body
care
events

(body)
position,
change in
(body)
position,
bodily
motion
events

T1 location
relation,
motion
event
T1

possession
relation

sensation,
emotion,
cognition,
perception,
ingestion
events

pursuit,
interaction
events

agentive
COS
event

killing/
injuring,
damage,
contact,
contact by
impact,
creation
events

application,
removal,
combining,
caused
motion
events

agentive
experience,
agentive
ingestion
events

transfer
event   T3

manner of motion,
path of motion
events

departure, passing,
arrival phases

valency role

A role   P role

T role   R role

S role

less
affected
P (LAP)

less
individuated
P (LIP)

NB: The valency role fillers represent (i) the exemplar semantic class for the valency (thick dashed line); (ii) other event classes almost always construed with a particular valency (regular dashed line); (iii) event classes construed with different valencies (dotted line)

Tree 5

NB: The propositional content of a proposition is essentially the same as the event, including its participants (i.e., "who did what to whom"). In *Morphosyntax,* I follow the mental space analysis of propositions and semantic categories associated with propositions. A proposition is essentially an event in a particular mental space, either 'reality space' (i.e. a proposition taken to be true by the interlocutors) or a non-real mental space representing polarity, modal/evidential status, or also a particular time. Hence polarity, modality-evidentiality and tense are subtypes of mental spaces. A non-mental space analysis might simply have polarity, modality-evidentiality and tense as attributes of a proposition.

Tree 6