Cross-linguistic variability of information structure categories
Evidence from north-eastern Siberia

1 Information structure, serious pragmatics, and universality

My contention is: Cross-linguistic validity of the categories postulated as basic units of information structure – focus, contrast, topic, etc. – cannot be taken for granted.

Two assumptions:
- Meaning-to-grammar assumption: if information structure is necessarily present in any communicative act, then information structure categories must be somehow present in the grammar.
- Meaning-to-context assumption: if a certain meaning must be present in a certain context, then anything appearing in that context must encode that meaning.

Consequences of the m-t-g and m-t-c assumptions:
- The grammatical categories of focus, contrast, topic, etc. are universal and represented in all languages in a uniform way.
- There is a finite set of litmus tests for belonging to these categories; these tests are invariably conceived as context types (question-answer pairs, parallel structures, as-for tests, etc.)

Every speaker meaning is underdetermined by the language (this seems to be a consensus (obviously) among the adherents of contextualism; even serious semantic minimalists have to concede to this – cf. Cappelen & Lepore 2005); this underspecification can be both conversational, i.e. ad hoc, and systematic, i.e. conventional.
What happens if we take this insight seriously in typological work? The corollary is to my mind pretty clear:

- If a meaning seems to be there, this still does not entail that it is grammatically encoded: it may just as well be conventionally or conversationally inferred > meaning-to-grammar assumption is a fallacy.
- If a meaning must be present in a certain context, it need’t be encoded, but may just as well be inferred > meaning-to-context assumption is a fallacy.

There is no a priori reason to assume that we will find the same type of category in two languages, let alone in all languages: the fact that information structure is arguably fundamental to communication does not entail that it corresponds to anything in the grammar.

Linguistic category: a conventional meaning-form pair; meanings are not linguistic categories if they are not overtly expressed.

The potential for variation of information structure categories will be illustrated with two case studies:

- Non-IS category which at first blush appears to encode a certain type of focus
- A category which only partly corresponds to the standard notion of contrast, but goes both beyond and above the phenomenological field of information structure.

2 Languages and data

Tundra Yukaghir

- Together with the practically extinct Kolyma Yukaghir (3 speakers as of 2011, survey DM), the last remnant of a language family which occupied the greater part of north-eastern Siberia till mid-17th century.
- Possible genetic affiliation with Uralic, but more probably an isolated small language family
- North-eastern Siberia, Arctic tundra west of the River Kolyma
- 63 speakers (informal survey Dejan Matić and Cecilia Odé, 2010)

Even

- Northern Tungusic (together with Evenki) > Tungusic > Manchu-Tungusic > Altaic (?)
- North-eastern Siberia, Chukotka, Kamchatka: subarctic coniferous forests
- ca. 7000 speakers (Russian census 2002; probably much less)

Both languages: typical Eurasian structure (vowel harmony, agglutinative, SOV, etc.)

Data

- Tundra Yukaghir: my fielddata from 2008-2011 (Olera Tundra), published texts
- Even: my fielddata from 2006-2011 (northern Yakutia, Kamchatka, eastern Yakutia)
3  *mar*= in Tundra Yukaghir: focus effects of a non-focus morpheme

3.1  Appearances

- Three types of declarative clauses in Tundra Yukaghir:
  1. Focus case on subjects/objects + focus agreement on the verb
  2. No focus case + neutral agreement on the verb
  3. No focus case + proclitic *mar*= + neutral agreement on the verb

- Focus case type – (a) – seems to (roughly) correspond to narrow focus on core arguments (S’s and O’s):

  1. Neme-*laŋ* ije-*məŋ*?
     what-FOC fear-OF.1/2SG
     Labunma-*laŋ* ije-*məŋ*.
     ptarmigan-FOC fear-OF.1/2SG
     “ – What do you fear? – I fear ptarmigans.” (K05: 240)

  2. Mon-*ŋ*it-*ək* werwa-l.
     say-INTR.3PL you-FOC be.strong-SF
     Ələń, köde-*laŋ* werwa-l.
     no man-FOC be.strong-SF.SG
     “ – They say that YOU are strong. – No, the MAN is strong.” (K05: 242)

- Zero type – (b) – regularly contains an oblique argument/adjunct which seems to be focused and has the same prosodic properties as focus-marked S’s and O’s (preliminary results in Matić & Odé, in press):

  3. Qadunuŋdəŋ kew-ej?
     whither go-PF(3SG)
     Moskva-*ŋ*in kew-eč.
     Moscow-DAT go-PF.INTR(3SG)
     “ – Where did he go? – He went to Moscow.” (fielddataDM 2008)

     hat-3POSS-ATTR-3POSS-ACC 3-DAT give.to.3-TR.3PL
     ‘[They found his hat.] They gave his hat to him.’ (fielddataDM 2010)

- *mar*= type – (c): If type (a) and (b) cover different types of narrow focus on terms etc., one could expect type (c) to encode predicate focus. This prediction seems to be borne out (Matić & Nikolaeva 2008):
obligatory in yes/no questions and answers

(5) Nime *(mə=)weː-ŋa?
    house MƏR = do-TR.3PL
    *(Mə=)weː-ŋa.
    MƏR-do-TR.3PL
    “– Have they built a house? – Yes, they have.” (fielddata DM 2008)

obligatory in verb-only sentences

(6) *(Mə=)keweč.
    MƏR-go.PF.INTR.3SG
    ‘He left/ He did leave.’ (fielddata DM 2008)

ungrammatical with focused S’s, O’s and peripheral constituents

(1’) *Labunmə-ləŋ mər=i jɛeː-məŋ. (fielddata DM 2009)
    ptarmigan-FOC MƏR-fear-OF.1/2SG

(2’) *Qaduŋudəŋ mə=keweŋ? Moskvaŋiŋ mə=keweç.
    whither MƏR-go-PF Moscow-DAT MƏR-go-PF.INTR.3SG (fielddata DM 2008)

Tundra Yukaghir thus offers the following neat picture (Matić & Nikolaeva 2008):
(a) Focus case on subjects/objects + focus agreement on the verb = S/O focus
(b) No focus case + neutral agreement on the verb = OBL focus
(c) No focus case + proclitic mə(r)= + neutral agreement on the verb = Predicate focus

3.2 What’s wrong with this analysis, and what is the right analysis?

➢ The most obvious problem: There are verb-only sentences that appear without mə(r)=, which
wouldn’t be the case if it were simply a predicate focus marker:

(7) (*Mər=)uː-jə-li!
    MƏR = go-INTR-1PL
    ‘Let’s go!’ (fielddata DM & Irina Nikolaeva 2011)

(8) (* Mə=)lewda-l-buŋ-i.
    MƏR = eat-AN-DES-INTR.3SG
    ‘He might want to eat.’ (fielddata DM & Irina Nikolaeva 2011)

➢ Davidsonian semantics presupposes existential closure of the event variable; different sources of the
existential closure have been proposed for different languages (cf. Zimmermann 2007: 346 for an
overview).
The meaning of $m\bar{a}(r)=$ is to explicitly express the existential closure over the event argument (in the sense of Davidson 1967). In other words, $m\bar{a}(r)=$ functions as an existential quantifier over the event variable in the semantic representation.

- In pragmatic terms, existential closure of the event variable corresponds to the commitment to the truthfulness of the proposition on the part of the speaker, i.e. $m\bar{a}(r)=$ encodes the factual or realis mood in the sense of Roberts 1990 (cf. Portner 2009: 260ff.).

- From the notional perspective, the Yukaghir non-factual mood includes potential actualizations (epistemic, deontic and desiderative-intentional meanings, as well as all types of directives) and non-actualizations (counterfactual and negative meanings). These two components of meaning are recurrent across the range of uses of the non-factual mood in many languages (see e.g. Verstraete 2005). They are incompatible with $m\bar{a}(r)=$ marking:

  o Morphological imperatives and hortatives
    (9) $M\bar{a}$-t-\text{-l} (*$m\bar{a}=\text{)we:t-\text{-}a-k!}$
    I-0-ACC $M\bar{O}$R-untie-IMP.2SG
    ‘Untie me!’ (K05: 366)

  o Morphological indicatives used as directives, see also (7)
    (10) Lawjə əlγə (*$m\bar{a}=\text{)law-t-\text{-}a-j!}$
        water HOR $M\bar{O}$R=drink-FUT-TR.1PL
        ‘Let’s drink some water!’ (fielddata DM 2010)

  o Hypotheticals expressed by the indicative, with and without hypothetical particles
    (11) QaIγaIji,  mid’eκ (*$m\bar{a}=\text{)môr-i-m!}$
        INTJ HYP $M\bar{O}$R=hear-TR(3SG)
        ‘Awful! What if he hears it! (Imagine he hears it!)’ (fielddata DM 2010)

  o With irrealis grammatical verb forms (necessitative, intentional, desiderative, conditional, etc.)
    $m\bar{a}(r)=$ is marginal, see also (8)
    (12) (*$M\bar{o}=\text{)med’-o-t-moraw-\text{-}a-j\text{-}a-n}$
        $M\bar{O}$R=take-RES-AN-NEC-INTR.1SG
        ‘I must take (it).’ (fielddata DM 2010)
    (13) (*$M\bar{a}=\text{)at=kwej-\text{-}n,  \text{öl’də-l’e-l’al-\text{-}a-\text{-}a-n}$.
        $M\bar{O}$R=COND-come-INTR.3PL boat be-EV-3-LOC
        ‘They would come if there were a boat.’ (fielddata DM/Irina Nikolaeva 2011)
    (14) (*$M\bar{a}=\text{)law-mori-mak}$
        $M\bar{O}$R=drink-INT-TR.2SG
        ‘You should/could drink.’ (fielddata DM 2010)
Negative propositions:

(15) Taŋ köde-ł̥ pure-n  l’ə-l-dəγənə  (*mər=)əl’=l’uo.
    that  person-ACC  above-PROL  be-?-3.DS.CVB  MƏR = NEG = see
    ‘He didn’t see that that man was up there.’ (fielddata DM 2010)

The existential meaning is particularly clearly visible with question verbs, a class of verbal lexemes which express the lack of knowledge on part of the speaker.

- Without a verbal particle, they encode questions (the proposition is not existentially bound)
- With the negative particle əl=, they are negatively quantified assertions (¬∃)
- With mə(r)=, they are existentially bound and encode specific indefinite states of affairs (∃)

(16) monayəɾ-

(a) Tittel monayəɾ-ŋi?
    they say.what-INTR.3PL
    ‘What did they say?’

(b) Tittel əl=monayəɾ-ŋu.
    they NEG-say.what-INTR.3PL(NEG)
    ‘They didn’t say anything.’

(c) Tittel mə=monayəɾ-ŋi.
    they MƏR-say.what-INTR.3PL
    ‘They said something.’ (I know what, but I won’t tell you) (fielddata DM 2009)

3.3 Why does mər= resemble focus, despite being something else?

- The obligatory use of mə(r)= is in many cases a clear consequence of the obligatory overt existential closure over the event argument; its non-use in other cases due to lack of existential commitment > > > no focus semantics involved.

- Complementary distribution with focus clauses (types a and b) produces the impression that mə(r)= and focus-markers belong to the same category. I would like to argue that this is just an impression.

- Clauses with nominal predicates, copular or not, don’t get mə(r)=, irrespective of their factuality; the same holds true for other statives, the result predicted by recent research into event semantics (states are not events and have no event argument: Maienborn 2003, 2011).

(17) Tuŋ adil  (*mər=)əɾučə-łŋ.
    this young.man MƏR=hunter-FOC
    ‘This youngster is/was a hunter.’ (fielddata DM 2010)
(18) Mat 閠 ruːĉa (*mər=)ŋoːd’-aŋ.
I hunter MƏR = be.INTR-1SG
‘I am/was a hunter.’ (fielddata DM 2010)

(19) Mat ile (?/*mər=)puj-ool-ŋi.
I reindeer MƏR = be.many-STAT-INTR.3PL
‘My reindeer are numerous/I have a lot of reindeer.’ (fielddata DM/Irina Nikolaeva 2011)

Focus clauses are underlyingly clefts, i.e. copular predications. As such, they lack the event argument and are therefore incompatible with mər=.

Arguments for the copular nature of focus clauses:
  o The focus case is identical to the form used for nominal predicates in copular clauses

(20) (a) Focus: Waːwə-ɫəŋ ubaː-молə.
  Russian-FOC kiss-OF.3SG
  ‘She kissed a Russian.’
(b) Predicate: Tudel waːwə-ɫəŋ.
  (s)he Russian-FOC
  ‘He is a Russian.’

  o Focus agreement suffixes of the verb are nominal in origin.

(21) (a) Object focus (-mə-ŋ, mə-ɬə, etc.) ~ passive participle (-mə)
(b) Subject focus (-ɬ) ~ action nominal (-ɬ)

  o The verb in focus clauses cannot receive a number of predicative preverbal morphemes, which is a restriction characteristic for verbs in subordinate clauses.

(22) (a) *Waːwə-ɫəŋ əl=ubaː-молə.
  Russian-FOC NEG = kiss-OF.3SG
  (intended reading: ‘She didn’t kiss a Russian’)
(b) */Waːwə-ɫəŋ ət=ubaː-молə.
  Russian-FOC COND = kiss-OF.3SG
  (intended reading: ‘She would kiss a Russian.’) (fielddata DM 2010)

  o Focus clauses cannot be modified with manner adverbials.

(23) *Amutnuŋ tuŋ köde-k jaqtə-l.
  well this person-FOC sing-SF(3SG)
  (intended reading: ‘It is this person that sings well.’)

> > > Focus clauses are clefts and are incompatible with mə(r)= for reasons independent of their focus semantics.
4  -d(A)mAr in Even: idiosyncratic encoding of contrast

4.1  Appearances

➢ First approximation: -d(A)mAr is used to signal contrastive focus, i.e. it is a marked focusing strategy employed in cases of unexpected assertions which go against the assumptions of the common ground (in the sense of Zimmermann 2008):

(24) Bi:-dmer bujum bak-ra-m!
    1sg-D(A)MAR wild.reindeer.ACC find-NONFUT-1SG
    [You guys have killed a nice wild reindeer!] ‘It was me (sc. not us) who found (= killed) it!’
    (fielddata DM 2007)

(25) Mut hi: teti:-wu-h e-če-l-ti dʒorom-da, hi:-dmer dʒorom-di-h
    we you coat-ACC-2SG NEG-PF-PL-1PL steal-NEG.INF you-D(A)MAR steal-PST-2SG
    mut-ŋi-w.
    we-POSS-ACC
    ‘We didn’t steal your coat; it was you who stole ours.’ (fielddata DM 2007)

➢ Second approximation: -d(A)mAr denotes a separate semantic category of contrastive focus à la É. Kiss 1998, which may, but need not include unexpectedness etc.; contrastivity seems to imply membership in a small, usually binary set. The focal status of -d(A)mAr is indicated by the obligatory question-answer congruence and by its use in parallel structures:

(26) Tiniw higi-duŋ ngi:-dmer em-de-n?
    yesterday forest-ABL who-D(A)MAR come-NONFUT-3SG
    Nosegčę bujuhemné-dmer em-de-n.
    young hunter-D(A)MAR come-NONFUT-3SG
    ‘– Who arrived from the taiga yesterday? – The young hunter did.’
    (the speaker’s comment: There were two people who were in the taiga, you knew that only one arrived, but didn’t know which one.) (fielddata DM 2007)

(26’) Tiniw higi-duŋ ngi:-dmer em-de-n?
    yesterday forest-ABL who-D(A)MAR come-NONFUT-3SG
    # Nosegčę bujuhemné tiniw-dmer em-de-n.
    young hunter yesterday-D(A)MAR come-NONFUT-3SG

(27) Urken-du dʒeb-de-n, asi-du mo:-dmer-u bu:-ri-ten.
    young.man-DAT eat-PURP-3SG woman-DAT water-D(A)MAR-ACC give-PST-3SG
    ‘They gave some food to the young man and some water to the woman.’ (fielddata DM 2010)
-d(A)mAr is a focus marker which denotes that a semantic constituent belongs to a limited set which is defined by contextually plausible applicability of a propositional function to its members.

4.2 What’s wrong with this analysis, and what is the right analysis?

- -d(A)mAr is often used with what looks like topical elements in the clause:

(28) Maja aman-dʒị ɲe:l-ri-n, eınım-de\textbf{mer} hoćć ajaw-rị-n.
    Maja father-INST.REFL.fear-PST-3SG mother-REFL-D(A)MAR very love-PST-3SG
    ‘Maja was afraid of her father, her mother she loved a lot.’ (fielddata DM 2008)

- Examples of this kind could be treated as Büring’s contrastive topics (Büring 1999), i.e. as topics belonging to a set defined on the basis of an identical propositional function ([Maja fears her father, Maja fears her mother] [Maja loves her father, Maja loves her mother]).

- The definition above remains intact, only that ‘focus marker’ has to be replaced by ‘contrast marker’ – i.e., on third approximation, -d(A)mAr is a contrast marker which denotes that a semantic constituent belongs to a limited set, and that this limited set is defined by the applicability of a propositional function.

- However, other uses of –d(A)mar speak against this: in many naturally occurring examples, -d(A)mAr is used in topic switch contexts. It is attached to topical expressions whose denotations do not share a potential for the applicability of a propositional function with other denotations; rather, a mere presence in the same spatio-temporal frame seems to be the relevant feature:

(29) Gulun-d\textbf{r}u ieke-w ọldan-dʒị-ɲikan [...] ahị ulku-d-de-n,
    fire-DAT.REFL.PL cauldron-ACC hang-PROG-SS.CVB woman stir-PROG-NONFUT-3SG
    ńarị-d\textbf{mar} bọllaña takụ ner-d-ni.
    man-D(A)MAR TOP salt-ACC put-NONFUT-3SG
    (description of a film) ‘[A man and a woman are near the fire.] The woman is (...) hanging a cauldron over the fire and stirring, and the man, he is adding salt.’ (fielddata DM 2007)

(30) E-la-d\textbf{mer} erek bej kaltaka-d-dan.
    this-LOC-D(A)MAR this man halve-PROG-NONFUT-3SG
    (watching a series of pictures with different people chopping wood) ‘Here, this man is chopping wood.’ (fielddata DM 2008)
Fourth approximation: *-d(A)mAr* denotes contrast (Kontrast à la Vallduví and Vilkuna 1998), i.e. membership in a limited set; it is combinable both with topics and foci. The relevant set can be defined either through the applicability of a contextually relevant propositional function (focus uses, Büring-topic uses) or through the presence of the contrastive elements in the same spatio-temporal coordinates (topic switch uses).

- Up to and including the fourth approximation, the types of contrast denoted by *-d(A)mAr* are not particularly surprising from the European point of view (apart perhaps from the broad range of contrast types covered by one morpheme). Following types seem much more difficult to deal with in terms of the European-style notion of contrast:

  o Comparatives (term, attribute, predicate) and attenuatives

    (31) Mut tì:niw egdʒe-*dmer*-u hepken-e-t.

    1PL yesterday big-D(A)MAR-ACC catch-NONFUT-1PL

    [Two of our reindeer disappeared in the forest.] ‘We were able to catch the bigger one yesterday.’ (fielddata DM 2009)

    (32) Hi: gorat-tuku aja-*tmar* =gu ke:ñeli-*tmer* =gu?

    2SG town-ABL good-D(A)MAR=Q bad-D(A)MAR=Q

    [Do you like our village?] ‘Is it better or worse than your town?’ (fielddata DM 2006)

    (33) Nó:batì-*dmar*-al-ba ọr-al-ba e-či-l ma:r-r.

    white-D(A)MAR-PL-ACC reindeer-ACC NEG-PST-PL kill-NEG.INF

    ‘They didn’t slaughter the whitish reindeer.’ (fielddata DM 2010)

  o Modifier of lexical meaning

    (34) (a) Eruk-u emu-li!

    bag-ACC bring-IMP.2SG

    ‘Bring me the bag!’

    (b) Eruke-*dmer*-u emu-li!

    bag-D(A)MAR-ACC bring-IMP.2SG

    ‘Bring me the bag in which bags are carried (the bag for the bags)!’

  o Replacement of reflexive possessor morphemes with inalienably possessed relational nouns

    (35) (a) Aman-đi unaxdíi-n teti:-ge-n añí-ri-n.

    father-DAT.REFL daughter-3SG coat-DSG-3SG give-PST-3SG

    ‘A daughter, gave her, father a coat.’

    (b) Aman-du-n unaxdíi-n teti:-ge-n añí-ri-n.

    father-DAT-3SG

    ‘A daughter, gave herj (somebody else’s) father a coat.’
(c) = (a) Ama-\textit{dm}ar-du un\textit{a}d\textit{ʒ}i-n teti:-ge-n a\textit{ŋi}-ri-n.
father-D(A)MAR-DAT
‘A daughter, gave her, father a coat.’

(d) *Ama-n\textit{d}ij-\textit{dm}ar / *Ama-\textit{dm}ar-n\textit{d}i
father-DAT.REFL-D(A)MAR father-D(A)MAR-DAT.REFL
(fielddata DM 2010)

(36) Eke-\textit{dm}er no:-di kempe\textit{-t}u bo\textit{-č}e.
older.sister-D(A)MAR younger.silbing-DAT.REFL sweet-ACC give-PST.PF
(description of a picture stimulus) The older sister gave a sweet to the younger brother.
(fielddata DM 2007)

\textit{-d(A)mAr} denotes contrast, i.e. membership in a limited set. The relevant set can be defined:

1) syntagmatically (relative to the current context)
   1a) via applicability of a propositional function (focus, Büring-topic)
   1b) via presence in the same spatio-temporal coordinates (contrastive topics)

2) paradigmatically (relative to lexical/world knowledge)

How does paradigmatic definition of a set work?

- Comparatives/attenuatives: Attached to a word with gradable semantics, \textit{-d(A)mAr} generates a set \{normal value, actual value\} placed somewhere on the scale of property grades. The actual value can be higher or lower than the normal value.

- Lexical modification: Without \textit{-d(A)mAr}, the predicate ‘bag’ simply applies to an entity; with \textit{-d(A)mAr}, the entity is marked as a member of a set and ascribed the property of being a bag + > the entity is a bag with respect to a set of entities to which it belongs, i.e. it is a bag for other bags (similar: \textit{ọ}ra-\textit{dm}ar [reindeer-\textit{-d(A)mAr}] – a reindeer leading a herd)

- Reflexive possessor: In absence of the obligatory argument of the relational noun, the set-denoting function of \textit{-d(A)mAr} serves to derive this argument, along similar lines as in lexical modification.
  Roughly: x is a member of a set and a father
  + > x is a father with respect to the set to which x belongs, i.e. x is a father with respect to the members of his family
  \rightarrow contextual filter \rightarrow x is the father of his daughter
4.3 -d(A)mAr and partial overlaps of information structure categories

- Contrast has been treated as a discrete category (e.g. Vallduví & Vilkuna 1998, and, differently, É. Kiss 1998) or as a type of interpretation with no place in grammar (e.g. Lambrecht 1994: 290, Zimmermann 2008); some would say that the dominant paradigm in focus semantics, Alternative Semantics (Rooth 1992), defines focus as contrast.

- Both categorial and non-categorial approaches to contrast share one feature: they treat it as a part of the inventory of information structure and – due to the languages on which these studies are based – concentrate exclusively on what I call syntagmatic contrast.

- The Even suffix -d(A)mAr doubtlessly defines a discrete category, and it doubtlessly denotes contrast. But its information structural function is epiphenomenal: the contrast denoted by -d(A)mAr is a semantic category with clear truth conditional consequences (cf. e.g. (35)) which can, among its other uses, also be employed with topics and foci and produce specific interpretative effects related to information management in discourse, but is in its semantic contribution independent from the structuring of information in the clause.

5 Wrap-up: why is this relevant?

- Main points summarised
  - a factual mood marker used in (most) contexts in which one expects predicate focus
  - a contrast marker which is just tangentially connected with information structure

- What is interpreted as an information structure category does not have to be one – it can be something completely different, such as TY clitic mə(r)=, or it can represent an idiosyncratic semantic category only occasionally coinciding with a better known information structure category, as illustrated by -d(A)mAr.

- Methodological issue 1: Since meaning-to-context assumption is a fallacy, diagnostic contexts are insufficient to determine encoded meanings; they are no more than a heuristic tool which can single out potentially interesting phenomena, but does not justify labeling exotic categories as focus, contrast, etc.

- Methodological issue 2: Taking the division of labour between semantics and pragmatics seriously enables us to approach understudied linguistic systems with less prejudice: if a meaning is present (even in the intuitions of native speakers), it needn’t be encoded.
Theoretical issue:

- Categories of information structure don’t seem to be universal, at least not in the way it is commonly assumed. The meanings are certainly present, but not necessarily due to purported linguistic categories. Languages happily leave IS fully underspecified, or divide the semantic space in such a way that what appears to necessarily be a unified IS category is covered by other, only partly related categories. Other combinations are conceivable.
- This does not necessarily entail that the encoding of information structure is completely arbitrary (factual mood, asserting, and focusing are related, and the way contrastiveness is marked might turn out to vary systematically across languages) – it rather means that preconceived notions of what categories are can only impede substantial advances in linguistic theory.

Abbreviations

| ABL - ablative | FUT - future | PF - perfective |
| ACC - accusative | HOR - hortative | POSS - possessive |
| AN - action nominal | IMP - imperative | PROG - progressive |
| ATTR - attributive | INT - intentional | PROL - prolative |
| COND - conditional | INTJ - interjection | PST - past |
| CVB - converb | INTR - intransitive | PURP - purposive |
| DAT - dative | INST - instrumental | Q - question |
| DES - desiderative | LOC - locative | REFL - reflexive |
| DS - different subject | NEC - necessitative | SF - subject focus |
| DSG - designative | NEG - negation | SS - same subject |
| EV - evidential | NONFUT - non-future | STAT - stative |
| FOC - focus | OF - object focus | TR - transitive |

References


