What are subjects good for?
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1   Introduction

In this paper, I address the question of what is on the basis of the fundamental relation between subject and predicate in language. I will argue that the subject has the function to situationally anchor the predicate in the clause. This implies in turn that clauses cannot have a (semantically) expletive subject and leads to a reanalysis of the fundamental role of so-called expletive elements in the grammar.

It is generally assumed that the subject-predicate relation constitutes a core notion of human grammar. The introduction and the wide-spread acceptance of the vP-internal subject hypothesis leads to the question of why a particular argument of the verb should enter into a specific agreement relation with the tensed verb or into a Spec-head relation with T.

in most recent accounts to complex argument structure, the subject is introduced by a causative-like abstract verb (little v) that assign the theta-role AGENT to the DP in its Specifier:

(1) $[_{vP}$ SU v $[_{VP}$ IO V DO]]
(2) $[_{TP}$ DP$_1$ T $[vP$ t$_1$ [IO V DO]]]   the subject moves for purely formal reasons to check the EPP-feature of T

One can either stipulate the subject-predicate relation as a purely syntactic necessity in the grammar (cf. EPP) or investigate the question whether the relation between the subject and the finite verb / Tense has a semantic or pragmatic role to play.

2   Subjects as anchors of the event time of the predicate

To appreciate better the question at issue, let us look at the interpretation of a simple case like (3). In event semantics, the interpretation of (3a) can be specified as in (3b), that is, the sentence represents the claim of the speaker that there is an event of visiting in the past (at a time before the speech event) in which a certain individual, named John, figured as the agent of this event and the individual's mother figured as the theme of the event.

(3)   a.   John visited his mother
         b.   ∃e visiting(e) & past (e) & agent (e, John) & theme (e, his mother)

From a semantic point of view, one may want to ask what does it buy us to know that the individual *John* figures also as the subject of the clause? A possible answer to this question is the observation that it is normally not sufficient to temporally anchor the clause to the speech event alone, as is indicated in (4). Anaphorically linking *she* to *his mother* in (2a), the meaning of (2b) amounts to the claim that there is an event of sickness in the past whose theme is John's mother. This rendition is incomplete since speakers typically interpret (2b) as a claim about John's mother being sick at the time of his visit.

(4)   a.   John visited his mother. (e$_1$)

     b.   She was sick (e_2)

     c. $e_1 < e_2 < s$, $e_2 < e_1 < s$, e_1 o $e_2 < s$

     d.   She was sick one week before/earlier

One may assume that this specification in meaning is due to a pragmatic mechanism that instantiates the non-specified discourse relation between (2a) and (2b): the utterance in (2b) is relevant in the context of the utterance of (2a) only if the speaker intends to say that there was a temporal overlap between John's visit and his mother's sickness. Note that this will not do, since there are linguistic expressions that explicitly refer to the time of John's visit as a reference point, as is indicated in (2d).

     The proposal that I would like to make is that the reference time in (2c) is not determined by verbal categories like Tense and Mood directly but mediated by the subject. The anaphoric subject in (2b) and (2d) refers to a discourse antecedent that has been established in a previous event in the context, namely the event of John's visit, and it is this event with respect to which the predicate is (temporally) situated in (2b) and (2d).

     There are various possibilities conceivable of achieving this temporal anaphoric link. One way, advocated for in this paper, is the assumption that nominal expressions are individuated with respect to an event (cf. Carnap 1928, Elbourne 2005), as is illustrated in (5).

(5)   a.   man (x)   an individual with the property *man(hood)*

     b.   man (x,e)   an individual that is a man in e

     c.   the man (x,e) the unique individual x such that x is a man in e

     d.   he (x,e)   the male individual x in an event e pre-established, already in the CG

This is immediately evident with deictic nominal expressions of the type *this man (here)* or *that woman (there)* which designate an individual with respect to (a location of) the speech event, but can be extended to all kinds of nominal expressions.

     The crucial point of this approach is that this event, depending on the DP's interpretation and syntactic position in the clause, can be identified with the event denoted by the verb or can be identified with an event in the context (as is the case with discourse anaphoric DPs).

     We are now in a position to explain why subjects in [Spec,TP] serve to anchor the predicate denoted by the verb (phrase). It is T - by establishing a relation between speech time and reference time - that introduces two more event arguments in addition to the one introduced by the verb. According to Reichenbach (1947), Tense establishes a link between speech time and reference time, as is illustrated in (6).

(6)   The meaning of tense according to Reichenbach (1947)

     a.   Past:= $e_R < e_S$

     b.   Present:= $e_R \subseteq e_S$

(7)   The meaning of aspect according to Reichenbach (1947)

     a.   Perfect := $e_v < e_R$

     b.   Imperfect := $e_v \subset e_R$

compositionality and event identification:

(8)   Voice^0 = $\lambda x \, \lambda e.$ Agent (x,e)

however, this voice head must combine with the meaning of the complement VP first; but the meanings of (8) and (9b) are not compatible because of a type mismatch; hence Kratzer (1996:122)

proposes event identification as a special rule of composition and functions f and g combine a yield a new function h: (e, (s,t)) & (s,t) → (e, (s,t)), which is illustrated in (9c)

(9) a. John visited his mother
     b. VP = λe. visiting (his mother, e)
     c. (8) & (9b) = λx λe. Agent (x,e) & visiting (his mother, e)

I propose that the Spec-head relation between the subject and T is interpreted as the identification of the event arguments of the subject and T. In other words, the reference time of T (and henceforth of the verb) is identified with the event with respect to which the subject is evaluated in the discourse.

(10) a. $\lambda e_r \lambda e_s. e_r < e_s$ (interpretation of a past morpheme in T)
      b. λe λx. the unique man (x,e) (interpretation of the subject in Spec,T)
      c. event identification: $\lambda e_1 \lambda$x. the unique man (x,e_1) & $\lambda e_s. e_1 < e_s$

Value assigment to the event argument is then constrained by the subject in the following way: the individual mapped from this event must be identical with the discourse antecedent of the subject.

3   When the subject does not qualify as an anchor

Not all subjects qualify as anchors for the main predicate. In particular, indefinite DPs are not evaluated with respect to a pre-established event in the context. In this case, the event argument of the indefinite DP is identified with the event argument of the verb and the predicate has to be anchored in an alternative way.

3.1   Alternative Anchors in English

In English, the adverbial *there* is inserted in Spec,TP in this case. I will argue that *there* is not an expletive element but serves semantically as an alternative anchor in the clause, as is illustrated in (11ab).

(11) a. John visited his mother
      b. There was a child crying in the garden
      c. I went to the local bar last night. Into the room walked a man with a green hat ...

In the present account, *there* is a function that maps an event onto its location and referring back to the event of John's visit provides the event with respect to which the predicate *was a child crying in the garden* is temporally and locally evaluated.

In conclusion, subject-verb agreement probably results from the grammaticalisation of this important relation between subject and Tense, but what is crucial is that a referentially anchored expression enters into a Spec-head relation with T, allowing for the temporal location of the event denoted by the predicate. That is why PPs, by denoting the resultant location of a predicate expressing a change of state (location) can serve as *subject* / anchor in cases of locative inversion, as illustrated in (11c).

3.2   An alternative anchor in Cimbro: a case study

Take a look at the distribution of subjects in Cimbrian, a German dialect spoken in the village of Luserna, Trentino:

(12)   a. Bas **hatt-ar_¡** herta gekoaft dar Luca_j   d.*Dar Luca **hatt-ar_¡** herta gekhoaft in libar
             what has-he always bought the Luca   the Luca has-he always bought a book

        b. Bas **hat-ta** herta gekoaft dar Luca?   e.*Dar Luca **hat-ta** herta gekhoaft in libar
             what has-DA always bought the Luca   the Luca has-DA always bought a book

        c.*Bas **hat** herta gekoaft dar Luca?   f. Dar Luca **hat** herta gekhoaft in libar
             what has always bought the Luca   the Luca has always bought a book
             "What has always Luca bought?"   "Luca has always bought a book."

Generalisation from the literature (Bidese & Tomaselli 2005 and subsequent work, Kolmer 2005, Grewendorf & Poletto 2015):

> → *Da* and subject clitic are ruled out in all cases in which the subject precedes the finite verb;
> → *da* or a subject clitic are obligatory in all cases in which the subject follows the finite verb.

The post-verbal position is ruled out for NP subjects and restricted to subject clitic pronouns (no German-type subject inversion):

(13)   a.   *Gestarn hat dar pua gisekk in has
                   yesterday   has the boy seen the hare
        b.   Gestarn hatt-ar gisekk in has
                   yesterday has-he seen the hare
                            "Yesterday he saw the hare."

Subjects can follow the non-finite verb when they are doubled by *da* or by a subject clitic pronoun. In this case, the subject is typically focussed (new-information or contrastive focus).

(14)   a.   Haüt iz=ta khent dar nono
                   today is-da arrived the grandfather
        b.   Haüt izz=ar_j khent (dar nono_j)
                   today is=he arrived (the grandfather)
        c.   *Haüt iz khent dar nono
                    today is arrived the grandfather
                   "The grandfather arrived today."

Da (but not subject clitics) must co-occur with an overt NP subject; one element must realise the post-verbal position (pro-drop ruled out in Cimbrian).

(15)   a.   *Haüt izz=ta khent
                   today is-da arrived
        b.   Haüt izz=ar gånt ka schual
                    today is=he gone to school
        c.   *Haüt izz=*pro* gånt ka schual
                   today is   gone to school
                   "He went to school today."

The pattern just described for the distribution of *da* and subject clitics:
→   is valid for all (transitive, unaccusative etc) verbs and tenses as long as the NP subject is
         postverbal (see Kolmer 2005:63-64);
→   it is obligatory with all types of NP subjects (definite, indefinite, singular, plural).

<u>What has been claimed about the nature of *da*?</u>

→ *Da* is only homophonous with the locative *da* "here" (see Grewendorf&Poletto 2015:402), Kolmer (2005), Bidese&Tomaselli (2016 and previous work):

(16)   Bas hat-ta gatont a khin da?   (Grewendorf&Poletto 2015:402)
         what has-da done a boy there
         "What has a boy done there?"

→ *Da* is not an expletive comparable to English *there,* realising Spec,TP which has direct counterpart in Bavarian and Hessian dialects where it appears in relative clauses (see Grewendorf & Poletto 2015 based on Bayer & Suchsland's 1997) or Dutch *er* (see Mohr 2005, Biberauer & van der Wal 2014), since:

→   *da* is compatible with definite and indefinite NPs;
→   nothing can intervene between *da* and the finite verb (main clauses) and *bo*+complementiser.

<u>What is *da* and what is its function?</u>

→ uncontroversial claims: *da* is hosted in the lower portion of CP, i.e. FinP (see Rizzi 1997, Benincà 2001, 2006) & its position with respect to the finite verb is fed by V-to-C movement (see Bidese&Tomaselli 2005 and subsequent work and Grewendorf&Poletto 2011 for an analysis of Cimbrian as a V2 language).

Evidence for this: *da* is in complementary distribution with Wackernagel clitic pronouns.

(17)   Gem=en di milch di baké?   (Bidese&Tomaselli 2016:12)
         give-them the milk the farmers
         "Do the farmers give them the milk?"

What is the function of *da* (and of clitic pronouns?)

→ Bidese et al (2012), Bidese & Tomaselli (2016:15): formal syntactic account→ *da* and subject clitic pronouns realise subject φ features in C (see Holmberg & Platzack 1995 for the idea that in V2 languages T features are features of C): distribution of *da* and clitics is to be connected with the realisation of the syntactic subject (and subject agreement), see also Kolmer (2005) for a similar analysis.

"[B]oth T and the lower CP layer, i.e. FIN^0, are characterized by the EPP feature. The EPP feature in FIN^0 is φ-independent as in German. As a matter of fact, it is probed by: a) the nominal subject raised to SPECFINP; b) direct merge of the CP expletive *'z*; c) any XP raised/merged in the higher CP-layers. The EPP feature in T is always controlled from above, either by the nominal subject in SPECFINP or by a clitic subject in complementary distribution with expletive *-da/-ta.*"

                                             Bidese&Tomaselli (2016:15)

→ Grewendorf&Poletto (2015) semantic and syntactic account → *da* is a Ground marker in CP:

→ GroundP = projection marking the ground context with respect to which the head noun individuated by the relative clause is interpreted;

→ GroundP also hosts weak pronouns (in the sense of Cardinaletti & Starke 1994) and this is why *da* is in complementary distribution with them;

→ GroundP is a FP specified for *old information* (413), this is why *da* is obligatory with new-information/focussed NP subjects in Cimbrian → "it is necessary to define a Ground [context] of already known information against which the new subject is set" (Grewendorf & Poletto: 2015:414).

Novel proposal:

> → *clitics* and *da* → semantically/pragmatically have the role of anchoring the utterance in the context (see Cognola & Hinterhölzl 2016);
> → *da* is not an element without referential content (unlike German(ic) expletives, see Biberauer 2010 among many others);
> → *da* makes salient the reference to the utterance situation; clitics make salient a previous situation by referring to an individual in a discourse-given situation;

→   referential subjects can always anchor, irrespectively of their information status (given or focused information):

(18)   a.   Dar Mario hat gekhoaft in liber
                  the Mario has bought the book

         b.   *Dar Mario$_j$ hatta/hat-ar$_j$ gekhoaft in liber
                  the Mario has-da/has-he bought the book
                  "Mario bought the book.

→   non-referential subjects can anchor if a nominal element (QN or WhN) is present → NP is the actual anchor:

(19)   a.   Belz khinn hatt bokhennt soin tatta?
                  which kind has met his father

         b.   *Belz khinn hatt-ta bokhennt soin tatta?
                  which kind has-da met his father
                  "Which kind met his father?"

→   non-referential subjects with no NP overtly realised (QPs and simple wh-elements): here *da* os optional depending on the interpretation of the subject, as is illustrated in (20) and (21); Context for (20): You are watching TV and hear the telephone ringing. You say :

(20)   a   Ber riüft-ta   o?   → 4,8/5
                  who phone-da   sep.pref

         b.   Ber riüft   o?   → 2/5
                  who phone   sep.pref
                  "Who is phoning?"

(21)   You and your friends have to book a room for the weekend. You do not know who is supposed to phone the hotel. You ask:
         a.   Ber riüft-ta   o?   → 2,5/5
                  who phone-da   sep.pref.
         b.   Ber riüft   o?   → 4,8/5
                   who phone   sep.pref.
                  "Who of us is going to make the phone call?"

Conclusions:

- the event argument of subject and predicate are identified in the T-domain
- but the subject is assigned a referential value, namely a specific event, in Spec,FinP

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