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## Theticity In Generative Grammar

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## Theticity in Generative Grammar<sup>1</sup>

Kai von Fintel

### 1. Theticity Revisited

The aim of this paper is to re-examine the distinction between thetic and categorial statements in the light of recent developments in formal semantics and generative grammar. The theory of these two types of statements originates with the German philosopher Franz Brentano and was further developed by his student Anton Marty (1897). It constitutes one of the positions taken in the long raging debate on the status of impersonal constructions ("Impersonaliendebatte").<sup>2</sup> Such sentences presented a nagging problem to a logical tradition that was built around the fundamental dichotomy of subject and predicate. Impersonal sentences have no obvious subject, a property illustrated by the existential construction in (1), the locative inversion in (2), and the subject incorporation in (3).

- (1) *There are yellow flowers.*
- (2) *Down the stairs fell the baby.*
- (3) *ka-hsahe't-ahi-hw-i*  
*3N-bean-spill-CAUS-ASP*  
*'It bean-spilled'*

The embarrassing existence of impersonals can be accommodated in various ways. They could be construed as having a hidden subject and thus not being an exception after all. This view led to proposals like Prantl's *for whom* the German expletive *es* denotes "die unbestimmte Allgemeinheit der Wahrnehmungswelt".<sup>3</sup> Whimsical though this particular proposal might seem, there is in fact a large number of cases where impersonal sentences do seem to have a true subject, in the guise of a locative prepositional phrase.<sup>4</sup> This will be incorporated into our ultimate proposal.

A second option is to discard all rescue attempts as misguided and call for a radical revision of logic. Brentano and Marty argued that Western logic is only adequate for categorial judgments such as (4), which have the subject-predicate structure and were thus also called double judgments.

- (4) *Socrates est homo.*

A completely different type of judgment subsuming the impersonals had to be treated on its own terms. These thetic judgments do not have the usual articulation into subject and predicate. They were also called simple judgments, since they were seen to consist of only one act: expressing an event, a state of affairs, a situation, without predicating anything of anything. Consider Marty's examples in (5) and (6).

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<sup>2</sup>A nice overview of the debate is given in Schmidt 1987. Some of the theories rivaling Brentano's can be found in Ammann 1929, Brugmann 1917, Corrodi 1925, Miklosich 1883, Sigwart 1888.

<sup>3</sup>Modern proponents of such a view are Bishop and Kossuth 1979.

<sup>4</sup>See most recently Bresnan and Kanerva 1988, but also Kuno 1971.

- (5) *Es gibt gelbe Blumen.*  
*ES gives yellow flowers*  
 (6) *Ein Markt findet statt.*  
*a market finds place*

In both these examples we find that although the syntactic constraint that German sentences have to have a structural subject is fulfilled, logically there is no predicating a predicate of a subject.

The most influential reconstruction of the notion of theticity in the framework of modern linguistics has been in the realm of discourse-pragmatics. This move started with Mathesius in the framework of Functional Sentence Perspective. Kuno (1972) proposed the category neutral description defined as "an utterance not containing discourse-pragmatically presupposed material". A very similar approach is Schmerling's (1976) who introduced the notion of all-new utterances. Sasse (1987) shows clearly that the pragmatic view cannot explain the structures and uses of thetic statements.

Sasse proposes to continue the other line of modern reconstruction represented by Kuroda (1972) and Dahl (1974). Sasse's own position is that thetic constructions are characterized by a desubjectivization of the potential subject.

In this paper I will present in response to Sasse some ideas on what the status of theticity might be in the framework of generative grammar and formal semantics. In this light, restrictions on the predicate in thetic constructions will be investigated, establishing that they only allow predicates that have internal subjects. Complementarily, restrictions on the subject of thetic sentences will be discussed, which are usually subsumed under the Definiteness Effect.

## 2. A Theory of Theticity

The idea to be entertained in this paper is that theticity is a property of logical forms, more or less in accordance with the original theory of Brentano and Marty. Thetic constructions then are those that unambiguously map into thetic logical forms. To spell out this theory, we need some background from recent developments in formal semantics and generative syntax.

I will assume that the logical form of sentences can be represented by the tripartite quantification structures deriving from the restrictive quantification tradition and developed in recent years by Lewis, Heim, Kamp, and Kratzer. The three parts of a logical form are a main logical operator (quantifier), the Restrictive Clause, and the Nuclear Scope. A further ingredient is the operation of Existential Closure which binds off existentially all free variables in the Nuclear Scope that are not captured by the main operator.<sup>5</sup> A sample analysis is given in (7).

- (7) a. *Bicycles have wheels.*  
 b.  $\text{Gen}_x [\text{bicycle}(x)] E_y [\text{wheels}(y) \ \& \ \text{has}(x,y)]$

The logical form (7b) has as its main operator a generic quantifier which is non-overt in the sentence (7a), the Restrictive Clause is furnished by the surface subject, the Nuclear Scope by the surface VP. An English rendering of (7b) would be: "it is generally the case that if something is a bicycle then there is something that are wheels and that the first something has".

<sup>5</sup>In Heim's theory Existential Closure was also applied to whole texts. This is disputed by Kratzer (1989) who shows that a better account of the so-called Proportion Problem is available if Existential Closure is only applied to Nuclear Scopes. These matters do not seem to be relevant for the purposes of this paper and I will assume Kratzer's version. Free variables in the Restrictive Clause will be contextually supplied with a value.

For our purposes here, it is important to see that reduced forms of tripartite structures are possible and occur. In sentences without any logical operator we might get a bipartite structure as shown in (8).

- (8) a. *James Bond has a revolver.*  
 b. [*James Bond(x)*]  $E_y$  [*revolver(y) & has(x,y)*]

"For the contextually given entity named James Bond there is something that is a revolver and that that entity has".

Now, we might also expect logical forms with no Restrictive Clause at all which hence are all Nuclear Scope. This limiting case is what I will call a thetic logical form. But because of the evidence that thetic statements may often have a subject in the guise of locative phrases, this crude proposal has to be refined. The central idea is then given in (9).

- (9) Theticity

A logical form is called thetic iff it is at most bipartite with a locative phrase in its Restrictive Clause.

If we add to our assumptions a theory of the mapping between syntax and logical form, we can make fruitful predictions about the syntax of sentences that can be associated with thetic logical forms. Diesing (1988) and Kratzer (1989) have proposed such a theory which can be summarized as in (10).

- (10) Material inside the VP is mapped into the Nuclear Scope, material outside the VP is mapped into the Restrictive Clause.

This, as can be seen easily, correctly applies to our (categorical) examples (7) and (8) above. But without further assumptions this would predict that no sentence with a syntactic surface subject could ever map onto a thetic logical form.

In recent years, investigators using the framework of generative grammar have opened up the possibility that some subjects start out as internal arguments of the main predicate. The first such proposal, by now widely accepted, was the Unaccusative Hypothesis which says that subjects of certain intransitive verbs are generated in the direct object position and move into the standard subject position later in the derivation.

A more radical proposal suggests that most or even all subjects are initially internal arguments. A modification of this view is the one which we will utilize. It was developed by Diesing and Kratzer to explain the different syntactic and semantic behavior of two classes of predicates. Non-unaccusative verbs under this account split up into individual-level predicates and stage-level predicates. Individual-level verbs have subjects generated in the usual specifier position of the sentence IP. Stage-level predicates have an extra Davidsonian argument which forces the subject to be generated VP-internally. The empirical support for this theory is described in the papers cited and should not detain us here. Stage-level predicates will always project their Davidsonian argument into the Restrictive Clause, the locative phrase that can be the subject of thetic sentences can be construed as a predicate of this argument.

We conclude now that a sentence can only be mapped into a thetic LF if its subject was generated VP-internally. In our view, theticity is a property of logical forms and only derivatively a property of construction types. This derivative notion of theticity is defined in (11).

- (11) Constructions are thetic iff they unambiguously map onto a thetic LF as defined in (9).

This setup implies that sentences that are not of a thetic construction type in the sense of (11) can sometimes be mapped onto an LF that is thetic in the sense of (9). A transitive sentence like (12a) is a case in point. It has an ordinary sentence structure but has a possible LF as given in (12b) that is thetic.

- (12) a. *Bears destroyed my garden.*  
 b. [*PAST(e)*]  $E_{x,y}$  [*bears(x) & my\_garden(y) & destroyed(e,x,y)*]

There are a number of properties that sentences that have VP-internal arguments throughout the derivation are expected to have. Specifically only stage-level predicates and unaccusative individual-level predicates should be able to occur in such constructions. In non-generative approaches, there have been some attempts at describing the limits on the predicates admissible in different thetic constructions.<sup>6</sup> My discussion will show that VP-internality and other structural properties of the constructions in question determine the range of admissible predicates, suggesting that a non-formal approach is misguided.

Of the list of thetic constructions discussed by Sasse, I will concentrate on three types: inversions, subject-accented sentences, and subject incorporation. In the next section, I will discuss in some detail generative analyses of existential sentences. Specifically, it will be shown that they are all characterized by having VP-internal arguments, which means that their logical form will unambiguously be a thetic one.

### 3. A Case Study: Existential Sentences

The most prominent member of the class of thetics are impersonal sentences, especially English *there*-sentences and their equivalents in other languages, as in (13) and (14).

(13) *There is a wolf at the door.*

(14) *Es sitzt ein Vogel auf dem Dach.*

*ES sits a bird on the roof*

We also find sentences with the subject position being occupied by a locative phrase, locative inversions as in (15).

(15) *Into the room walked my brother Jack.*

As mentioned earlier, locative inversions offer the most convincing evidence that there is something like a reversal of predication in thetic statements, i.e. that a location becomes the subject. Here all that we want to convey is the fact that the logical subject is VP-internal in such constructions. But I will take the opportunity to go into the syntax of existential in a bit more detail.

English *there*-sentences and locative inversion sentences show the following pattern: they are well-formed only with the small class of stage-level unaccusative verbs denoting existence or appearance, cf. *appear* in (16). Excluded types of predicates then are especially unergatives as in (17), transitives as in (18), passives of ditransitives as in (19), individual-level unaccusatives as in (20), and even stage-level unaccusatives not denoting existence or appearance as in (21). These exceptionally tight restrictions are not shared by other, even closely related languages, as we will soon see.

(16) *There appeared a man.*

(17) *There shouted a child.*

(18) *There ate a man a pudding.*

(19) *There was given a child a book.*

(20) *There belong ponds to this lot.*

(21) *There disappeared a man.*

Two of the restrictions illustrated in (16)-(21) will not detain us for long, although they both merit intensive discussion:

- The restriction against non-presentative predicates could be explained in pragmatic terms and be derived from the presentative function of existential sentences. Note that this function cannot be equated with theticity as for example shown by (22), a fine

<sup>6</sup>Some of these are largely impressionistic, like Allerton and Cruttenden (1979) who give a list of verbs appearing in English subject-accented sentences: (i) verbs that are semantically empty or predictable, (ii) verbs denoting appearance or disappearance, (iii) verbs denoting misfortune.

thetic sentence of the subject-accented type. Presentativity then is a further ingredient to the meaning of inversion sentences.

(22) *JOHN's disappeared.*

A different approach is suggested by ter Meulen (1989) who shows that if verbs are treated as generalized quantifiers there is an important model-theoretic difference between *appear* and *disappear*: the former is indefinite whereas the latter is definite. The restriction against *disappear* and similar predicates might then be assimilated to the familiar Definiteness Effect that existential sentences display.

- The restriction against individual-level unaccusatives is more or less special to English *there* (it is not shared by German *es* or indeed any other thetic construction as far as I know<sup>7</sup>). It might be possible to assume that *there* is necessarily linked to an event argument that is only supplied by stage-level predicates in the theory of Kratzer (1989).

The other restrictions are presumably interrelated and here English differs crucially from some other Germanic languages. In my discussion, German will serve as the representative of these languages. English patterns with Swedish. Like German pattern Icelandic and Norwegian.<sup>8</sup> The pairs of sentences below repeat the English examples with the grammatical German equivalents, unergative in (23), transitive in (24), and passive of ditransitive in (25).

(23) a. *There shouted a child.*

b. *Es schrie ein Kind.*

(24) a. *There ate a man a pudding.*

b. *Es ass ein Mann einen Pudding.*

(25) a. *There was given a child a book.*

b. *Es wurde einem Kind ein Buch gegeben.*

I will discuss a number of possible ways of deriving these differences.

A first minimal difference between the two languages concerns the syntactic status of the expletive. English *there* clearly occupies the [NP,IP] position and in most respects acts like a subject NP. German *es* occupies the topic position before the fronted finite verb. Crucially, it is excluded from occurring in embedded clauses. The standard account of Verb-Second in Germanic languages assumes the structure in (26).

<sup>7</sup> Thus cf. German *es* in (i) and English subject accent in (ii):

(i) *Es gehoeren ihm keine Fahrraeder.*

*ES belong to-him no bicycles*

(ii) *PONDS belong to this lot.*

I do not know at present whether such predicates allow subject incorporation.

<sup>8</sup> Dutch seems to occupy some middle ground between these two groups, cf. Rullmann (1989): Dutch *er*-sentences allow transitive predicates if the object is indefinite as in (i), pronominal objects as in (ii) are marginal, definite object as in (iii) are ungrammatical.

(i) *Fred zag dat er iemand bloemen gekocht heeft.*

(ii) *?...dat er hem iemand geholpen heeft.*

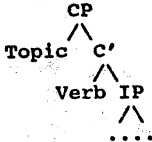
(iii) *\*...dat er iemand het huis gekocht heeft.*

The exact same exceptions are noted by Sasse (1987) who for German subject accent that ordinarily excludes transitive predicates provides examples (iv) with a pronominal object and (v) with an indefinite object.

(iv) *HANS hat dich gerufen.*

(v) *Mein HANSter hat Junge gekriegt.*

(26)



In this structure, the finite verb has moved into the complementizer position and some other constituent has moved in front of it into the specifier position of the CP. (A recent discussion of this treatment which was first developed by Thiersch 1978 can be found in Schwartz & Vikner 1989). *Es* then is an expletive that can only occur in this topic position, explaining its obligatory absence in embedded clauses where no V2 occurs because the pre-IP positions are occupied by a complementizer and/or wh-phrases.

Building on this standard analysis of V2, Platzack (1983) now argues that while English *there* is in [NP,IP] position thus forcing the logical subject to be VP-internal which entails the restrictions above, German *es* as a topic expletive allows the logical subject to appear in its usual [NP,IP] position.<sup>9</sup> If we assume that the AGENT thematic role can only be assigned to [NP,IP], we have then excluded unergatives and transitives from the English *there*-construction.

Note that this leaves the cases of passives of ditransitives as in (25) untouched. There is a more powerful argument against this approach, though: Platzack's theory was developed before the advent of VP-internal subjects and there is now good evidence that even in German the logical subjects of *es*-sentences are VP-internal.

Kratzer (1989) has developed syntactic tests for VP-internality of subjects in German, resting on certain facts concerning extraposition and negative quantifiers. She suggests that for ECP reasons relative clauses can only be extraposed from VP-internal arguments. Now, relative clauses can in fact be extraposed from the logical subjects of transitive *es*-sentences as in (27).

- (27) *Es assen zwei Maenner einen Pudding, die niemand zuvor gesehen hatte.*  
*ES ate two men a pudding who noone before seen had*

The negative quantifier *keine* is argued by Kratzer to be a late amalgamation of a negation adverb *nicht* and the zero determiner of an adjacent bare plural NP to its right. Since *nicht* arguably occurs at the left periphery of the VP, this again is a test for VP-internal subjects. Crucially, the logical subject of a transitive *es*-sentence can indeed contain this quantifier as in (28).

- (28) *Es assen keine Kinder einen Pudding.*  
*ES ate no kids a pudding*

We now need some explanation of why subjects of *es*-sentences are VP-internal. One approach is to use the approach to the V2-phenomenon proposed by Kathol (1989), who argues that the topic position in German root sentences is in fact the [NP,IP] position. Then the topic expletive *es* would be in this position and force the logical subject to stay inside the VP. There are however problems with this approach. To explain the obligatory absence of *es* from embedded clauses, Kathol suggests that INFL in embedded clauses only projects to the I' level which leaves no position for *es* to appear in. But note that this also leaves no position for the subject of individual-level predicates to occur in for which Kratzer has convincingly argued that they have to be generated in the [NP,IP] position. But obviously, individual-level predicates can occur in embedded clauses, cf. (29).

<sup>9</sup>For a variant of this approach see Maling (1987).

(29) *Es war bekannt, dass Polizisten intelligent sind.*

*ES was known that policemen intelligent are*

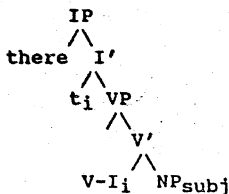
An alternative might be to assume that topic *es* has to co-occur with an empty expletive *pro* in the normal subject position. This also forces the lexical subject to be VP-internal. The status of this proposed linking of *es* and *pro<sub>expl</sub>* is however unclear and needs further work.

At this point, the main purpose of this section is accomplished: we have established that in existentials the subject is VP-internal. The following is a sustained speculation on the difference between English and German.

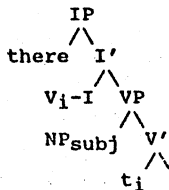
We are back to square one: the difference between English and German cannot be reduced to the difference between the syntactic positions of their expletives *there* and *es*. English *there*-sentences could presumably have the structures in (30).

(30)

a.



b.



V-to-I raising of verbs as in (30b) is fairly restricted in English (Pollock 1989), but is argued by Guéron (1989) to be what happens in *there*-sentences. The restrictions on which verbs can occur in such sentences could then be reduced to the Pollock facts.

Alternatively, if the usual I-to-V lowering occurs as in (30a), we can exclude unergatives and transitives from *there*-sentences with one further assumption about the assignment of the AGENT role. In theories with VP-internal subjects, it is natural to assume that the AGENT thematic role is assigned to the [Spec,VP] position, the highest NP inside VP. The postverbal subject in (30a), however, is V'-internal and can therefore not be assigned the AGENT role. Thus we are replicating Platzack's results by pushing everything one level downwards.

We still need to account for the ungrammaticality of (25a) which involves the passive of a ditransitive verb. Woolford (1989) who assumes V-to-I raising suggests a Case-theoretic explanation: the raised passive participle cannot govern a V'-internal second NP because there is a closer governor in the trace of the raised verb which is however itself unable to assign any Case (the notion of Minimality is explored in detail in Rizzi 1989). She gives the example (31) where only the auxiliary is raised which assigns Nominative to the subject and the participle remains in place and can assign Case to the second NP.<sup>10</sup>

(31) *There were six people given tours of the house.*

The treatment of these cases is entirely unclear to me.

<sup>10</sup>There is a puzzling minimal difference between *there*-sentences and locative inversion sentences, illustrated by the examples below.

- (i) *There was a note put in the box.*
- (ii) *There was put a note in the box.*
- (iii) *In the box was a note put.*
- (iv) *In the box was put a note.*

I have no explanation for these facts.

Can this approach explain the grammaticality of the German examples in (23)-(25)?

I will not be able to provide an answer to this question but would like to put forward a few suggestions. It has been pointed out by den Besten (1983) that German allows nominative NPs to occur inside the VP even if they are preceded by another NP, cf. (32). Note that this is a non-presentative embedded sentence, so that we need some kind of Case-mechanism independently of the problem of existentials.

(32) *Hans meint, dass dem Vater die Buecher gefallen.*

*Hans thinks that to-the father the-NOM books please*

It seems then that the wider range of possible predicates in German existential sentences might be linked to additional ways of assigning Case into a VP. This is as far as I want to take my speculations here.

In the next section, I will look at two further construction types that Sasse argues to be thetic: subject-accnt and subject incorporation.<sup>11</sup> In both cases, I will only provide some initial evidence that VP-internality of the subject is required. As in the case of existential sentences further research is necessary.

#### 4.1 The theticity of subject-accnt

Subject-accnted sentences in English, German, and Dutch have been discussed by a number of authors.<sup>12</sup> Sentences in these languages are normally given at least two intonational peaks as in (33). In cases with intransitive verbs, however, an alternative accnt pattern occurs which has only one peak on the subject as in (34).<sup>13</sup>

(33) *The BUTter MELTed.*

(34) *The BUTter melted.*

For a nice discussion of the semantico-pragmatic properties of subject-accnt see the following quotation from Chafe (1974):

"In [33] ... the concepts 'butter' and 'melt' have not coalesced to form a conceptual unit; but in [34] one might say that there is a single concept 'butter-melt', an instance of which is said to have occurred". (115)

Selkirk (1984) formulates a Phrasal Focus Rule that basically states that a constituent may be focussed by assigning pitch accnt to its head or one of the head's arguments. Since descriptions of subject-accnted sentences as 'all-new' suggest that the VP is focussed, the natural conclusion is that subject-accnt is possible if the subject starts out VP-internally. Again, we find that the predictions that our theory of theticity then makes are warranted: subject-accnt typically occurs with stage-level predicates and resists agentive predicates: Kraak (1970) notes the contrast between (35) and (36).

(35) *Your EYES are red.*

(36) *Your EYES are BLUE.*

For eyes, *red* is a temporary, stage-level predicate whereas *blue* is permanent, individual-level. Subject-accnt is only possible with the stage-level *red*.

As far as agentive predicates are concerned, Faber (1987) argues that "human-agentive" intransitive verbs cannot occur in subject-accnted sentences.

<sup>11</sup>Sasse gives some more examples of presumably thetic constructions which I will not discuss in this paper: thetic clefts (for a recent discussion, also employing the notion of theticity, cf. Lambrecht 1988) and verb nominalizations.

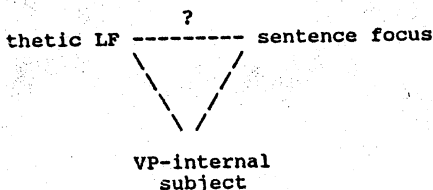
<sup>12</sup>E.g. Kraak 1970, Chafe 1974, Schmerling 1976, Allerton and Cruttenden 1979, Fuchs 1980, Gussenhoven 1983, Faber 1987.

<sup>13</sup>I will follow the established custom of capitalizing main stress syllables.

Summarizing then, it is plausible to assume that subject-accent is possible only if a subject started out VP-internally.

But what remains still mysterious is the connection between sentence focus and thetic logical form. The upper link in the triangle in (37) is to be explained.

(37)



At this point, all we have is an observational generalization that if focus projection sees a VP-internal subject trace then the mapping to LF also has to project the subject by using this trace. An answer to this riddle would also help to explain what happens to sentences like (38a) which can be mapped into a thetic LF (38b) and a categorial LF (38c) which are however be truth-conditionally equivalent assuming that existential closure over the variable  $x$  in (38b) and contextual assignment of some value to it in (38c) are equivalent.<sup>14</sup>

- (38) a. *John came.*  
 b.  $[PAST(e)] E_x [John(x) \& came(e,x)]$   
 c.  $[PAST(e) \& John(x)] [came(e,x)]$

For Sasse this is no problem since for him we are not dealing with an essentially semantic contrast but one between two communication perspectives. Is it dangerous to assume that our tripartite quantification structures encode more than truth-conditions? If there is a link between this level of representation and focus structure, we could explain why the semantically equivalent (38b) and (38c) have different uses.

#### 4.2 The theticity of subject incorporation

The last thetic construction type to be covered in this paper are noun-verb compounds which by themselves constitute a sentence because the incorporated noun is a subject. Noun incorporation occurs in a variety of languages and has been specifically investigated in connection with North American Indian languages (cf. the early exchange between Kroeber 1909, 1911, and Sapir 1911). The discussions of the discourse function and/or semantics of noun incorporation strongly suggest that they can be classified as thetic constructions (cf. Mithun 1984, Sasse 1984).

Again, I will show that the theticity of subject incorporation is based on the VP-internality of the subject. The literature on noun incorporating languages clearly shows that there is a fundamental asymmetry as to which NPs can be incorporated. Some authors state the facts in semantic terms and claim that only themes or patients can incorporate (Chafe 1970, Williams 1976, Mithun 1984). Cases of incorporated instrumentals (Nahuatl) or incorporated locatives (Samoan), however, suggest a different generalization. It may be that agents are excluded from being incorporated or that, as Rosen (1989)

<sup>14</sup>Note that this problem does not arise with anything other than referring expressions. A plural indefinite NP will show the familiar ambiguity described by Carlson. It is only for cases like (38) that we have to say more than just truth-conditions.



What's the status of these subjects for the ECP? If only stage-level verbs generate their subject VP-internally we expect more diversity. Is that justified?

### 5. Further Issues: Thetic subjects

Of all thetic constructions again, English *there*-sentences impose the strictest demand on their subject, known as the Definiteness Effect. Other thetic constructions have weaker restrictions. While there are some well-known exceptions to the DE in *there*-contexts, they do seem to have certain properties in common, notably a list interpretation (Milsark, Rando and Napoli, Belletti). Non-observation of the DE in other thetic constructions clearly does not have a list flavor. Compare the list-type (45) and the non-list (46).

(45) *Who can help me with this? Well, there's John.*

(46) *Down the stairs fell the baby.*

In this section no attempt at deriving the DE in its full force will be made. Instead, I will simply illustrate the weaker restrictions that seem to hold for all thetic constructions. These split into two cases: strongly quantificational subjects and anaphoric subjects are not allowed.

#### 5.1 The Quantification Effect

What does seem to hold in full generality for thetic sentences is a prohibition against strongly quantificational subjects. Consider (47) from Milsark (1977) and (48) from Gussenhoven.

(47) *\*There was each packet inspected.*

(48) *EVeryone's escaped.*

A necessary proviso: determiners that are usually strongly quantificational can sometimes be given a cardinal, group-level reading. Thus we find sentences like (49) and (50).

(49) *Out of the barn ran every horse my father owned.<sup>15</sup>*

(50) *There is every professor I ever talked to at the party.*

#### 5.2 The Anaphoric Constraint

The second restriction that holds of all thetic subjects is a constraint against anaphoric subjects.

Inversion: Prince notes the constraint for Yiddish. Bresnan and Kanerva show that Chichewa behaves similarly, cf. (51).

(51) *Ku-nu-dzi ku-na-bwer-a iwo  
17-3-village 17SB-RECPST-come-IND IIIPLPRON  
'To the village came they'*

Gussenhoven notes the same fact for subject-accented sentences, as shown in (52).

(52) *A: Why don't we go to Val d'Isere for our holiday?*

*B: You SISter had an accident there!*

*B: I had an accident there!*

This constraint may be best explained by a pragmatic prohibition. Prince suggests such a principle for the Yiddish data, given here as (53).

<sup>15</sup>Note that there is no reading of (49) where the horses ran out of the barn on different occasions (this was apparently first noted by Higginbotham, cf. Stowell 1981, fn. 13 on p. 425f). This phenomenon is typical of thetic sentences which always seem to refer to one and only one event. Further research into this question might be fruitful.

(53) Postposed subjects of *es*-sentences indicate that they do not represent entities which have already been invoked in the discourse.

This is strikingly similar to the proposal made by Ranđo and Napoli for *there*-sentences. In the worst case we have to rely on such a stipulation.<sup>16</sup>

Bresnan & Kanerva (1989) also derived the anaphor restriction from a pragmatic constraint, they note that the logical subject in inversion sentences has presentational focus which is logically incompatible with anaphoricity.

#### 6. A Final Speculation: Theticity and Words

The notion of lexical integrity as applied to words is largely isomorphic to properties of thetic constructions that I have discussed in this paper. As food for further thought, let me present some of the facts.

The first relevant phenomenon is the anaphoric islandhood of words, a concept introduced by Postal (further discussion by Seuren 1975, DiSciullo & Williams 1987, Coulmas 1988). Thus (54) is impossible while on the phrasal level (55) is perfectly fine.

(54) *Cello<sub>i</sub>-players love them<sub>i</sub>.*

(55) *Players of cellos<sub>i</sub> love them<sub>i</sub>.*

Barbara Partee has raised the question of whether such opacity also works the opposite way, i.e. if the existence of words with pronouns in them is excluded. This needs careful thought since inflection or agreement markers are most probably pronominal in nature and would thus render the question trivial. Sproat (1988) suggests that the relation of agreement is not an anaphoric one but one of licensing and is thus not relevant to the discussion of anaphoric islandhood.

Emmon Bach in a discussion of polysynthetic languages has suggested another principle which he called the density of words. He notes that even in such polysynthetic languages we do not expect to find words that have an internal quantification structure. Thus we do not expect there to be "donkey-words" such as (56).

(56) *donkey<sub>i</sub>-owners-bear-them<sub>i</sub>*

The connection to the two restrictions on thetic subjects discussed in Section 5 should now be obvious. Whether anything can be made of this parallelism is an open question.

<sup>16</sup>Another proposal is made by Mark (1978) in his Yiddish grammar who effectively posits a restriction on expletive-argument chains.

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[Note: this is very much a working bibliography. I have not yet looked at all the items in it.]

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