VARIATIONS ON A THEME:
EXISTENTIAL SENTENCES IN SWEDISH AND ICELANDIC*

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0. Introduction

It is well-known that the syntactic properties of existential sentences in the various Germanic languages differ considerably. This research began with one particular parameter: whether or not the transitive verbs in the active voice can be used in this construction. Thus, Swedish (like English) does not allow existentials of transitive verbs, as illustrated by the contrast in (1).

(1) a. *Det åt en man en pudding. (Swedish)
    b. *There ate a man a pudding. (English)
    c. það borgaði maður būging. (Icelandic)

I plan to discuss the question of which verbs can occur in existential sentences in Swedish as compared to Icelandic. In a very interesting paper, Platzack (1983) compares the syntactic properties of existential sentences in four Germanic languages, two of which allow transitive verbs and two of which do not. He suggests that this difference follows from the difference in the status of dummy pronouns in the various languages. In essence, if the dummy pronoun is a grammatical subject, as in Swedish and English, then transitive verbs cannot be used; if the dummy pronoun is not a grammatical subject, as in Icelandic and German, then transitive verbs can occur in existential sentences. Why should this be so? What I will argue here is that, given the grammatical status of the dummy pronoun in a particular language, the range of verbs that can occur in existential

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sentences follows automatically, not from transitivity per se, but rather from the verb's argument structure. More precisely, what is relevant is the nature of the theta roles that a verb assigns, not the number of arguments. The analysis presented here draws heavily on the insights and observations of Platzack (1983), but differs in the details of the analysis. Where the two analyses make different predictions, the data support an analysis based on argument structure.

This is still very much a working paper; my goal is simply to suggest that any characterization of existential sentences will need to refer to a thematic hierarchy, if not to particular theta roles, and that the restrictions on existential sentences can tell us something about the mapping between semantic or thematic roles and constituent structure. In this paper, I will restrict my attention to Swedish and Icelandic. I will have little or nothing to say about other well-known problems concerning existentials, notably the source of (abstract) Case for the indefinite NP, and the restrictedness of English as compared to other Germanic languages.

1. Platzack's Analysis

Let us begin by asking what the constituent structure of an existential sentence is. It is a fairly uncontroversial assumption that dummy pronouns in Swedish are surface subjects, whereas those of Icelandic are not. As supporting evidence, one might mention among other things the ability (or inability) to undergo Subject-Verb Inversion, as illustrated by the questions in (2), taken from Platzack (1983).

\[(2) \quad \begin{align*}
a. \quad & \text{Satt det en fågel på taket?} \quad \text{(Swedish)} \quad (=9b) \\
& \text{sat there a bird on the-roof} \\

b. \quad & \text{Eru (*það) mys í baðkerinu?} \quad \text{(Icelandic)} \quad (=10b) \\
& \text{are [there] mice in the-bathtub}
\end{align*}\]

This suggests that dummy pronouns occupy rather different surface structure positions in the two types of languages. In Swedish, then, we can assume that the dummy pronoun *det* occurs in subject position, [NP, S]. In Icelandic, however, it seems reasonable to assume that the dummy does not occur in subject position. Platzack assumes that it occurs in topic position. (This assumption was also argued for in a quite different theoretical framework by Zaenen (1980).)

Working within the framework of Government-Binding Theory, Platzack argues for the hypothesis that the "logical subject" of existential sentences in Swedish is generated in [NP, VP] position. Further evidence comes from verbs like *put*, which subcategorize obligatorily for both NP and PP complements; as
illustrated in (3), the "logical subject" must occur in object position before the PP complement.

(3) Det har lagts flera böcker på bordet.
there has been-put several books on the-table

In essence, then, the intransitive verbs which occur in existential sentences are analysed as "unaccusative" (Perlmutter 1978) or "ergative" verbs (Burzio 1986): i.e. they subcategorize for an NP-complement but do not assign Case, and they take non-the thematic subjects in D-structure. Platzack discusses at some length the co-indexing mechanisms by which they get Case in the existential construction; this mechanism is irrelevant to our concerns.\footnote{Following Safir (1982), Platzack argues that the Indefiniteness Effect follows from coindexing with the thematically non-distinct empty subject position together with the assumption that names, including definite NPs, must be free. Since definite NPs cannot be coindexed, they will not be able to get Case in [NP, VP]. Thus, definite NPs in [NP, VP] will either violate the Case Filter, or the restriction that names (definite NPs) be free. The coindexing mechanism will both transmit nominative case to the NP inside the VP, and ensure that it is indefinite. However, the Icelandic data make it clear that the indefiniteness effect cannot be reduced to the assignment of NOM case. Lexically case-marked arguments are also subject to the Indefiniteness Effect; moreover, nominative objects can be definite. Both of these facts are illustrated by the following example containing the verb \textit{hetne} 'recover-from', which takes a dative subject and a nominative object:}

\begin{enumerate}
\item[(1)] pað hefur engum \textit{hetneð} þessi veikin.
there has no-one (D) recovered-from this disease (N)
\end{enumerate}

Thus, the presumed correlation between Indefiniteness and the assignment of nominative case is falsified in both directions.
there will be no room inside VP for any other NP-arguments. This account seems suspicious, however, given that Swedish (like all other Germanic languages) does have ditransitive verbs, and hence the P-S rules must clearly allow for two NP positions inside VP. Moreover, as Platzack himself notes, there are exceptions to the statement that there cannot be two NPs in VP in an existential sentence, as illustrated in (4):

(4) a. Det hade tilldelats honom en belönning. (=29a) 'there had been allotted him a reward'

b. Det hände honom något konstigt igår. (=31a) 'there happened him something strange yesterday'

c. Det väntade mig en verklig överraskning när jag kom hem. 'there awaited me a real surprise when I came home' (=31b)

(These sentences are equally grammatical with full NPs in place of the dative pronouns.) The first sentence is a passive of a ditransitive verb, while the last two contain active VPs which, according to Platzack, "do not assign a B-role to the subject" (p.92). I will suggest that it is entirely predictable that these two kinds of "exceptions" should exist in Swedish.

Whatever the reason, it is clear that phrase-structure restrictions (i.e. the number of NP slots) do not really account for the non-occurrence of (active voice) transitive verbs in existential sentences. Something more must be said.

Could subcategorization be the answer? Transitive verbs are subcategorized for a single NP-complement, if the "logical subject" of a transitive verb occupies that NP-slot, there will be no room for the "logical object". Put differently, a typical transitive verb has two theta roles (say, <agent, theme>) to assign, and it cannot assign both of them inside VP without violating the subcategorization requirements of the verb. But observe that if the "logical object" of an active voice transitive verb fills the one available [NP,VP] slot, the sentence is still ungrammatical:

(5) *Det åt en pudding. 'there ate a pudding

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2 See the appendix of Maling (1987) for a brief discussion of the fact that predicative verbs are excluded from existential sentences in Swedish and English.
Since under standard GB assumptions subjects are not subcategorized for, the problem must lie instead with Theta theory: not assigning the agent role would lead to a violation of the Theta Criterion.

Another argument against accounting for the restriction against transitive verbs in terms of subcategorization comes from considering pseudo-transitive verbs like äta 'eat' or röka 'smoke', which optionally take objects. If we assume that such verbs are subcategorized optionally for an NP-object, then both the transitive and intransitive uses are simply alternative realizations of the same lexical entry. But note that even if the verb has only one theta role to assign (as in its intransitive use), it still cannot be used in existential sentences if that role is clearly <agent>:

   there ate very carefully a man

       there smoked eagerly several students

       there bit eagerly many dogs

Sentence (6c) contains an 'absolutive' passive, i.e. a morphologically passive voice verb whose subject is an agent rather than a theme. Such verbs are semantically transitive in the same way as those in (6a,b), and hence it is not surprising that the absolutive passive cannot occur in existentialis even though true passives occur freely.³

2. Theta Role Assignment

The data show clearly that agentive predicates are barred from Swedish existentials. The unacceptability of sentences such as those in (6) suggests that the agent role can never be assigned by V within VP. In previous work on this topic (Maling 1987), I provided additional evidence in support of this hypothesis.

I suggested that it is the nature of the theta roles that a verb assigns rather than their number that is crucial. The seeds of the explanation are noted by Platzack himself (pp. 93-4). Suppose that, following Williams (1981), there is a correlation between particular theta roles and the position(s) to which those theta roles can be assigned. Suppose in particular that a verb can assign the theta role

³ This observation is due to Steve Wechsler (pers. com.).
of act or agent (perhaps indirectly by VP) only to subject position, [NP, S]; a verb assigns all other theta roles, e.g. theme, goal, or source, to its complements, i.e. to object positions, [NP, VP]. Then, if the logical subject of an existential sentence in Swedish is generated in [NP, VP] position, and hence assigned its theta role directly by the the verb, we predict that it cannot bear the theta role agent.

In support of this assumption, Platziack cites an observation due to Anward (1981) that intentional verbs have a purely locative meaning when used in existential sentences, and further notes that “adverbials denoting intentional behaviour cannot be used in such sentences” (p.94). This would follow if only agent arguments can exhibit intentional behaviour, and the agent role cannot be assigned within VP. An intentional verb can be used in an existential sentence, then, only if its subject can be interpreted as simply <theme> rather than as volitional agent. It is crucial to note that I am using the notion <theme> in the sense of Jackendoff/Gruber to refer to that NP which undergoes the action described by the V; note, in particular, that the subjects of intransitive verbs of motion are <themes> by this definition. Such subjects may also be volitional agents; hence I am assuming that a single NP-argument may bear more than one theta role, at least for certain combinations, e.g. <agent> and <theme>. See the tier analyses of Jackendoff (1983) Sec. 9.4.

Within the framework of Jackendoff (1983), we can understand the locative interpretation given to existentials as the consequence of the mapping rules between thematic or semantic roles and constituent structures. The universal syntactic mapping is that of the actor/agent role onto subject position, and of an ACTION onto VP. If the actor/agent role cannot be mapped onto subject position (e.g. when that position is filled by a dummy), then the VP will be interpreted as an EVENT.5

The problem with the ungrammatical sentences in (6) then, lies in the fact that the existential construction does not allow the agent role to be assigned, either to subject position or by V within VP. On the other hand, passives of agentive verbs pattern with non-agentive; they occur freely in existentials, as illustrated in (7):

4 Note that I am assuming that agentive by-phrases and the like are adjuncts, not verbal arguments. Hence they are assigned their role not by V but by the preposition by. See Grimshaw (1986a) for further discussion.

5 See also the suggestion of Belletti & Rizzi that “only eventive predicates allow referentially vacuous predication” (1986, p. 57). This is a good approximation of Swedish existentials, I think, but it seems to be the sort of generalization that should follow from something else. Icelandic is problematic since certain psych-verbs allow both arguments to be VP-internal (see below).
(7) a. Det dansades ganska motvilligt.
   there was-danced rather reluctantly

   b. Det dracks ivrigt en hel tunna öl.
   there was-drunk eagerly a whole barrel [of] beer

   c. Det hade ganska motvilligt tilldelats honom en plats.
   there had rather reluctantly been allotted him a seat

   d. Det hade tilldelats honom en belöning av företaget.
   there had been-allotted him a reward by the company

Note that these passive examples are exceptions to the claim that intentional or purposive adverbs cannot occur in existential sentences. It should come as no surprise that passives are exceptional in this respect. It is standardly assumed that a passive verb has an implicit agent argument which can license the purpose phrase even though the agent is not syntactically realized. Recall the well-known contrast between passives and "unaccusatives" or "middles":

(8) a. The ship sank (*on purpose/by the captain).

   b. The ship was sunk on purpose/by the captain.

These contrasts follow if we assume that middles have only a single, non-agent theta role to assign, whereas passives have an implicit agent argument as well. In sum, there are two ways to "suppress" the agent argument of a transitive verb: (i) either it can be removed from the argument structure altogether, as in the formation of certain "unaccusatives", or (ii) it can be made implicit, as in the passive voice. The fact that passives of agentive verbs pattern with non-agentives provides support for the hypothesis that passive verbs do NOT assign the agent theta role (Grimshaw 1986a). Grimshaw argues that the implicit subject argument in passives and nominals is "lexically satisfied" rather than syntactically satisfied. Such lexically satisfied arguments license (optional) adjuncts, in this case, agentive by-phrases and other volitional adjuncts. Because they are adjuncts, however, they are optional; they are not arguments of the verb, and do not satisfy the Theta Criterion. Thus verbs in the passive voice occur freely in existential sentences since they do not actually assign the agent role.

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6 All so-called "unaccusatives" share this property. For our purposes, it does not matter whether the transitive form or the intransitive form is considered basic, and the other derived. Thus, one might want to distinguish lexical rules of causative formation which add agent-arguments from lexical rules like middle-formation which delete them. Whatever the correct derivation, the intransitive form does not allow a purpose-phrase.
syntactically; yet because that agent role is still implicit, they freely allow such intentional adverbs.

2.1. Summary

Let us now return to the predictions about which classes of verbs will occur in existentials. I summarize here the essential claims of the analysis:

1) In Swedish, the dummy pronoun occupies subject position [NP, S]  
2) the agent role can only be assigned to subject position; hence no verb with an agent role to assign can occur in an existential sentence in Swedish without creating a Theta Criterion violation.

The restrictions on existential sentences cannot be stated in terms of the number of arguments. Triadic verbs can be used in existentials as long as they occur in the passive voice, thus "suppressing" the agent argument. Dyadic verbs can be used in existentials in either of two cases: (i) either it occurs in the passive voice, in which case the agent argument is suppressed or implicit, or (ii), the verb has no agent role at all. Examples of verbs whose argument structure does not include an assignable agent role were given above in (4b,c). Other examples of dyadic verbs with no agent role are the verbs nå 'reach' and slå 'hit, strike', whose argument structure is <theme, goal>.\(^7\) Compare the non-agentive (9b) with the agentive use of the same verb in (9c).

(9) a. Det nådde Tomas ett brev hemifrån.  
there reached Thomas a letter from-home

b. Det slog mig något interressant igår.  
there struck me something interesting yesterday

there struck me a colleague

Monadic verbs can be used in existentials provided that their sole argument is not (interpreted as) an agent. There are many intransitive verbs like 'roll'.

\(^7\) One would expect the verb *receive* to be similar to *reach*, except that the assignment to grammatical functions is reversed, but unlike *reach*, it cannot be used in existentials. Note, however, that the Swedish verb *motlåga* is based on the stem *låga* 'låga'. It seems to be more agentive than its English counterpart, however, as indicated by the oddness of the Swedish translation of "He received the award posthumously," which carries an image of a hand reaching out of the coffin.
whose subjects are always themes, but may also be volitional agents when animate.\(^8\) For such verbs, we expect to find contrasts like the following:

(10) a. Det rullade en boll nedför kullen. \(<\text{THEME}>\)
    there rolled a ball down the-hill

b. Det rullade en pojke nedför kullen (*med flit). \(<\text{*on purpose}>\)
    there rolled a boy down the-hill (*on purpose)

The corresponding personal sentence allows the purpose phrase, of course.

The account given so far would lead us to expect that any nonagentive verb could be used in a Swedish existential. Yet, as Jan Anward pointed out to me, most verbs, in fact, cannot occur in the existential construction. In some sense, this is accidental: few verbs have the right argument structure. But clearly, our account is still incomplete, since in fact, it is not true that any nonagentive dyadic verb can occur in an existential sentence. Consider the examples in (11).

(11) a. *Det skrämmmer mig sådana tankar. \('\text{frighten}’\)
    there scares me such thoughts

b. *Det behagade honom lite musik. \('\text{please}’\)
    there pleased him a little music

c. *Det fruktade en man ett jordskalv. \('\text{fear}’\)
    there fears a man an earthquake

d. *Det gillade en man klassisk musik. \('\text{like}’\)
    there likes a man classical music

Let us assume that these verbs all have the same argument structure. One argument is clearly an experiencer; for the purposes of discussion, we will follow the usual practice of identifying the other argument as a theme. Hence the argument structure of these verbs is represented as <experiencer, theme>. It does not matter which argument is the grammatical subject of the active sentence: \textit{Psych-predicates are barred from Swedish existentials}.

Note that if we replace the NP with a finite clause, as illustrated in (12), then the sentences become grammatical:

\(^8\) Recall that I am assuming that a single NP argument may bear more than one theta role, e.g. <agent> and <theme>. See the tier analysis of Jackendoff (1983), Section 9.4.
(12) a. Det skrämmer mig att atomvapen är nödvändigt.
            it  scares me that atomic-weapons are necessary

b. Det behagade mig att Jon spelade piano.
            it pleased me that J. played piano

At first glance, this might look like counterevidence to the hypothesis that it is argument structure which determines whether these verbs can occur in existentials. Surely the thematic role is the same, whether the argument is realized syntactically as an NP or an S. But in fact the sentences in (12) are not existentials, but simply instances of extrapolated sentential subjects. Note that the English translations are perfectly grammatical even though English existentials are very restricted. Moreover in Danish, the two constructions have different dummy subjects, as shown in (13).

(13) a. Der skete ham noget mærkeligt i går.  (Danish)
            there happened him something remarkable yesterday

b. Det skete, at han gik i biografen.
            it happened that he went to the movies

So the problem is indeed that psych-verbs have the wrong argument structure. This is the case not only with so-called psych-verbs, but with any verb which has an experiencer argument. In other words, experiencers (like agents) are barred from Swedish existentials:

(14) a. Der frös nogle sør i nat.  (THEME)  (Danish)
            there froze several ponds during the night

b. *Der frös mange børn.  (EXPERIENCER)
            there froze many children

c. *Der klør mange børn over det hele.  (EXP)
            there itched many children all over

Before going on to Icelandic, let me summarize. I have suggested that any description of existential sentences in Swedish must necessarily refer to particular theta roles. The relevant property which determines whether a verb can occur in an existential sentence is whether or not it has an agent or experiencer role to assign syntactically. There are two points to take special note of:

1) It is crucial to use the notion <theme> in the sense of Jackendoff/Gruber, since verbs of motion occur freely in existentials.
2) The Unaccusative Hypothesis alone will not suffice as an explanation, even though it indirectly reflects the semantics of a given verb, and it is by and large true that unaccusative verbs are those with no agent argument. However, it is not the case that only unaccusative verbs can occur in existential sentences.

This can be shown by considering verbs like dansa ‘dance’. Within the assumptions of Relational Grammar, the verb dansa can NOT be an unaccusative verb, since it has an Impersonal passive, illustrated in (15a).

(15) a. Det dansades hele natten.
   there was-danced all night

b. Det dansade fortfarande flera par vid midnatt.
   there danced still several couples at midnight

However, as shown in (15b), the verb dansa can occur in existential sentences in the active voice. A purely syntactic analysis like the Unaccusative Hypothesis forces us either to choose between two conflicting types of evidence for unaccusativity, or to say that there are two verbs ‘dance’, one unergative and one unaccusative. Given our assumptions, however, the sole argument of a verb can be both an agent and a theme, and either theta role can be relevant to its use in a particular construction.

3. Icelandic

In this section we will consider various differences between Swedish and Icelandic existentials, beyond the (im)possibility of using transitive verbs. Recall that the dummy pronoun of Icelandic is not a grammatical subject. We can, therefore, assume that the constituent structure of existential sentences in Icelandic is essentially as shown in the tree in (16) for the sentence shown in (17). (This is a bare bones tree without traces or empty nodes; the reader may enrich it according to his/her theoretical preferences.)
We have already seen that in Swedish, the theta role &lt;agent&gt; is barred from existential sentences because the subject position is occupied by the dummy pronoun. In Icelandic, however, the subject position NP₁ is available, and hence agenthood is totally irrelevant. Agents can occur in this construction, together with all other arguments of a given verb. This is illustrated by the example in (17), which contains an active ditransitive verb.

(17) það hefur einhver gefið börnunum sælgæti.
    there has someone given the-children candy

However, we might still ask whether the same mapping principles hold as for Swedish. The answer is by and large yes, I think, but in Icelandic the mapping principles are discernible only if we look at whether a particular argument can be realized internal or external to VP. While agents are not barred from existentials in Icelandic, they &lt;agents&gt; cannot be internal to VP, as illustrated by the contrast in (18):

(18) a. það hefur einhver strákur [VP borðað hnetusmjórið].
    there has some boy eaten the-peanut-butter

b. *það hefur [VP borðað einhver strákur hnetusmjórið].
3.1. Word Order Differences

Now let us look more closely at the question of which verbal arguments can occur internal to the VP, and which must be external to VP. In Swedish, all arguments must be internal to VP since the subject position is occupied. In Icelandic, however, this is not true, so the indefinite argument typically occurs outside VP. Typically, the external argument (i.e. grammatical subject) is an agent. But if there is no agent role to assign syntactically, for example, as in passives, it could be the underlying object which is external to VP in surface structure. Thus we find word order contrasts of the type illustrated in (19)-(20).

(19) a. Det hjälptes en man över gatan. (Swedish)
   there was-helped a man across the-street

   b. ?*pað var hjalpað gömlum manni yfir götuna. (Ice)
   there was helped old man across the-street

   c. pað var gömlum manni hjalpað yfir götuna.
   there was old man helped across the-street

(20) a. Det tackades många personer i förordet. (Swedish)
   there was-thanked many people in the preface

   b. ?*pað var pakkaz mörgum mönnun í formála. (Ice)
   there was thanked many in preface

   c. pað var mörgum pakkaz í formála.

Note that the preferred Icelandic word order parallels the English, except that the "subject" NP comes immediately after the finite verb rather than after the first occurrence of to be.

We see that in Icelandic, for the passives of the verbs like hjálpa 'help' or pakka 'thank', most speakers do not like to have the sole NP-argument internal to
In an existential sentence, one might at first hypothesize that the subject position (i.e. NP1 in the tree shown in (16)) must always be filled with some verbal argument. This is (almost) always possible, but not always necessary, however. For all speakers there exist monadic verbs for which the sole argument can be inside VP.10 Platzack cites examples in (21), taken from Rögnvaldsson (1982, 118, ex. (49b,c)):

(21) a. það hafa margir furðuruglar [VP komið hingað] í dag.
    there have many queer customers come here today

    b. það hafa [VP komið margir furðuruglar hingað] í dag.

One can easily find other verbs where, for all speakers, both orders are possible, some passive as in (24), some not as in (22)-(23):

(22) a. það hafa margir bátar sokkið í hafí.
    there have many ships sunk in the-harbor

    b. það hafa sokkið margir bátar í hafí.

(23) a. það hafa margar flöskur brotnað í dag.
    there have many bottles broken today

    b. það hafa [brotnað margar flöskur] í dag.

(24) a. í morgun var úthlutað teppum til flóttamannanna.11
    in-the-morning was distributed blankets to the-refugees

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9 As noted by Rögnvaldsson (1982, Ch. 5), such examples are best with full NPs, and worst with (indefinite) pronouns. The pronoun engin 'no one' is always unacceptable in post-participle position, and einhver 'someone' is at best marginal. Rögnvaldsson suggests that the problem lies in discourse factors having to do with the "information value" of an NP in post-participle position. Such factors no doubt play a role, but for many speakers, the sentences in (19b, 20b) remain unacceptable or at best questionable even if full NPs comparable to the Swedish examples are used internal to VP.

10 To the best of my knowledge, there are no verbs in Icelandic whose sole thematic argument must remain inside VP. In this respect Icelandic is clearly different from Swedish where, judging from Platzack's description, the theme can never be outside VP. (But see below for some cases where the sole NP cannot be externalized even in Icelandic).

11 This example is taken from Platzack (1985), (32a).
b. þæg var kastað nokkrum nemendum út úr skrifstofunni.
   there was kicked several students (D) out of the-office

c. þæg var bjargað mórgum sjómannunum úr skipinu.
   there was rescued many sailors from the-ship

The difference between the verbs which allow their NP-argument to remain inside VP and those which do not, seems to lie in the particular theta role that the argument bears: unlike themes, goal arguments like to appear external to VP. Thus, we can plausibly assume that the objects of the verbs hjálp 'help' and þakka 'thank' are not themes but goals. Independent evidence for this comes both from paraphrases ('help NP' = 'give help to NP') and from nominalizations:

(25) a. our distribution of blankets (THEME)
   our rescue of the sailors
   the sailors' rescue

b. our help to/*of John (GOAL)
   our thanks to/*of God

c. the sailors' help (AGENT only, *GOAL)

Only theme and agent can be realized inside NP as genitives or of-phrases; goal must be marked with a preposition, ta. The same is true of Icelandic nominalizations. Thus, although (26a) is perfectly grammatical, it can only be interpreted as meaning that the sailors were doing the helping, not being helped. Contrast this with (26c), where sjómannanna 'the sailors' is most easily interpreted as the object of björgun 'rescue'.

(26) a. Hjálp sjómannanna barst of seint.
   help the-sailors (G) arrived too late

b. Hjálp til sjómannanna barst of seint.
   help to the-sailors came too late

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12 It is not hard to find apparent counterexamples to this claim. For example, a phrase like "my gift" looks very much as if the genitive my can be either agent or goal. Note, however, that in "my gift of a book", the my can only be interpreted as agent, and the goal reading is clearly excluded. Hence I will assume that goal arguments cannot be realized inside NP as a genitive, and that my in "my gift" is simply a possessive. In general, one needs to distinguish carefully between process and result nominals, and between arguments and simply modifiers. For discussion, see Grimshaw (1986a).
c. Bjorgun sjomannanu ....
rescue the-sailors (G)

The inability of goal arguments to remain inside VP has nothing to do with the dative case-marking that these particular verbs assign to their objects. There are verbs whose dative objects are clearly themes, and these dative themes behave just like accusative themes. The examples in (26) are all of this type.

It seems clear, therefore, that it is the thematic roles which are relevant to characterizing the existential construction. Objects bearing the theta role theme behave differently from objects bearing the theta role goal. Themes can be either internal or external to VP, whereas the goal objects of verbs like hjálpa 'help' and *pakka 'thank' tend to be external. Note that passives of ditransitives show the same tendency for goals to be externalized, as illustrated by the contrast in (27).

\[(27) \quad a. \text{pað var mörgum stúdentum [úthlutað styrkjum til framhaldnáms].} \]
\[\text{there was many students distributed fellowships for gradstudy} \]

\[b. *\text{pað var [ úthlutað mörgum stúdentum styrkjum til ... ]} \]
\[\text{GOAL} \quad \text{TH} \]

Of course, the goal argument can be external only if there is no agent argument. Thus, an active voice existential such as the one in (17) is perfectly grammatical with the goal internal to VP. This suggests that some sort of thematic hierarchy is in effect. Let us assume the standard hierarchy: agent > goal > theme. Then, as a first approximation, we can describe the existential construction in Icelandic as follows: Externalize the highest argument. All other

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I would also expect this to be true for the raising of *pað, which, according to Thráinsson (1979, 482) is possible for at least some speakers of Icelandic when the verb is intransitive, but impossible for all speakers when the verb is transitive. Piatzack (1983, 98) suggests the following explanation: the dummy pronoun can be raised only when it is generated in subject position, but this will be possible only if the logical subject is NOT generated there. And in this case, "there is no place for another NP complement of the verb".

The account presented here predicts that unaccusativity rather than transitivity should be the relevant factor. Thus, in principle, one might expect that the Icelandic counterparts to the sentences in (2) might allow raising of *pað. Testing this prediction will, however, be complicated by the fact that in Icelandic it is not only agents which must be assigned outside the VP, but experiencers as well. Unfortunately, I do not know any native speakers who accept raising of *pað even for intransitive verbs.
verbal arguments will, of course, be internal to VP. This generalization is, I think, a reasonable idealization of native speaker judgements. We will return in a minute to the question of why themes do not have to be externalized.

3.2. Which Arguments must be External; Which can be Internal?

Recall that we have accounted for the restriction on Swedish existentials by assuming that both agent and experiencer roles must be assigned outside VP, and all other theta roles can be assigned inside VP. Do we find the same mapping principles in Icelandic, or are there differences in the positions to which particular theta roles can be assigned? Let us now consider experiencers. At first glance, it would seem that in Icelandic the role of experiencer as well as agent must be assigned external to VP in existentials, just as in Swedish. This is clearly the case for monadic predicates with an experiencer argument, as indicated in (28)-(29).

(28) a. páð hefur mórgum börnum [verið kalt].
there has many children been cold

b. *páð hefur [verið mórgum börnum kalt].

(29) a. páð hefur margan manninn [klæjað i lófann].
there has many a-man (A) itched in the-palm

b. *páð hefur [klæjað margan manninn i lófann].

Recall that, in Swedish, experiencers are barred from existential sentences, because the external argument position, which the experiencer must occupy, is already occupied by the dummy and hence not available. However, the bar against VP-internal experiencers is not an absolute prohibition in Icelandic existentials as it is in Swedish. Consider the so-called psych-verbs, which are dyadic predicates with argument structure (experiencer, theme). Note that there are (at least) two kinds of psych-verbs: verbs like ‘fear’ where the experiencer is the grammatical subject, and verbs like ‘frighten’ where the experiencer is instead the object. We find that the experiencer can be internal to VP in an existential sentence only if it is normally the object, or, in other words, only if the other argument (the theme) is designated as the external argument in the sense of Williams (1981). This is illustrated by the contrast between óttaðt ‘fear’ and hræða ‘frighten’; we will assume that these verbs share the same argument structure, but have alternative mappings to grammatical functions. Underlining
indicates the argument that is normally the grammatical subject, i.e. is normally the external argument.

\[ \text{"óttast" 'fear' \langle Exp., Theme \rangle vs. "hraeda" 'frighten' \langle Exp., Theme \rangle} \]

(30) a. \[ \begin{align*}
\text{\( \text{\textit{\textsc{pa\text{"a}}} \text{\text{nara margir (\textit{\textsc{\text{"o}}ttast} fj"olun slysa)}}\) } \\
\text{there have many feared an-increase of-accidents} \\
\text{EXP} \quad \text{TH}
\end{align*} \]

b. \[ \begin{align*}
\text{\( \text{\textit{\textsc{\text{"a}}} \text{\text{nara (\textit{\textsc{\text{"o}}ttast margir l"ogregiunenn} fj"olun slysa)}}\) } \\
\text{EXP} \quad \text{TH}
\end{align*} \]

For the verb \textit{ôttast}, the experiencer must be external, as shown in (30). But this is not surprising, since the experiencer is the grammatical subject of this verb. Contrast this with the verb \textit{hraeda}, where the experiencer is the object and can be internal to VP in existential sentences, as illustrated in (31a).

(31) a. \[ \begin{align*}
\text{\( \text{\textit{\textsc{\text{"a}}} \text{\text{nara einhver mynd (hr"aett b"ornin)}}\) } \\
\text{there has some picture frightened the-children} \\
\text{EXP} \quad \text{TH}
\end{align*} \]

b. \[ \begin{align*}
\text{\( \text{\textit{\textsc{\text{"a}}} \text{\text{nara (hr"aett b"ornin einhver mynd)}}\) } \\
\text{EXP} \quad \text{TH}
\end{align*} \]

c. \[ \begin{align*}
\text{\( \text{\textit{\textsc{\text{"a}}} \text{\text{nara m"org b"orn hr"aett þessi mynd.} \) } \\
\text{there has many children frightened this picture} \\
\end{align*} \]

Note that, as before, the theme can be either internal or external.

The same pattern arises if we look at dyadic verbs whose argument structure is \langle goal, theme \rangle. Considering first a verb \textit{fá} 'receive', whose argument structure is \langle goal, theme \rangle, we once again find that the goal must be outside, as is illustrated in (31).

\[ \text{\textit{fá} 'receive' \langle Goal, Theme \rangle vs. \textit{bísa} 'await' \langle Goal, Theme \rangle} \]

(32) a. \[ \begin{align*}
\text{\( \text{\textit{\textsc{\text{"a}}} \text{\text{nara margir st"udentar fengi"a n"amsstyrki.} \) } \\
\text{there have many students received fellowships} \\
\end{align*} \]

b. \[ \begin{align*}
\text{\( \text{\textit{\textsc{\text{"a}}} \text{\text{nara fengi"a margir st"udentar n"amsstyrki.} \) } \\
\end{align*} \]
c. *pað hafa námsstyrki fengið margir stúdentar.
   there have fellowships received many students

Of course, the goal argument of this verb is the grammatical subject, while
the theme is the object. Contrast this with a verb whose arguments show the
alternative mapping onto grammatical functions. Such verbs are surprisingly hard
to find in Icelandic, where there seems to be a very strong tendency to map the
goal onto subject position (berast, etc). But one example is the verb bida in the
sense of 'await', which arguably takes a theme subject and a goal object. Now we
find that the goal can be internal to VP; moreover, both arguments can be internal,
as illustrated in (33b), which contrasts with the ungrammatical (32b)

(33) a. pað hefur nokkuð skemmtilegt [ bêðið mín ] lengi.
   there has something run awaited me long
   TH GOAL
b. pað hefur alltaf [ bêðið mín nokkuð skemmtilegt ]
   GOAL TH
   there has always awaited me something run

þegar ég kem heim.
when I come home

c. *pað hefur einhvers [ bêðið eitthvað skemmtilegt ].
   there has someone awaited something run

How can we interpret these results? First, assume the standard thematic
hierarchy indicated in (34). In recent work, Jane Grimshaw suggests that the
thematic hierarchy establishes a hierarchy of relative prominence in argument
structure.

(34) relative prominence in argument structure:

   AGENT > EXPERIENCER > GOAL > THEME

How are the various thematic arguments of a verb mapped onto the phrase
structure? It is often assumed that there are universal principles which
determine how arguments are realized in phrase structure; e.g. that agents are
always subjects. Grimshaw (1986b) suggests that this is a particular instance of
the general mapping principles: in the unmarked case, thematic prominence
matches configurational prominence. That is, the highest role, e.g. agent, will be the subject. "If there is no Agent, then the Experiencer will be subject; if there is neither an Agent nor an Experiencer, then the Goal/Source/Location will be the subject, and finally if none of these theta roles is available, the Theme will be the subject. Similarly for object: the most prominent nonsubject will be realized as the direct object, in the unmarked case." Thus, verbs like 'fear' < experiencer, theme > and 'get' or 'receive' <goal, theme > illustrate the unmarked mappings of arguments onto phrase structure.

Of course, it is easy to think of verbs for which this is not true, e.g. 
*frighten*, which has an experiencer object. Clearly, therefore, other factors must interfere in the mapping. One such factor is that a given argument can be lexically pre-associated with a particular realization. This pre-association will be represented as part of the argument structure, and it has the effect of exempting that argument from the usual mapping principles.\(^\text{14}\) Consider verbs like 'frighten' or 'reach' which have noncanonical mappings. The theme argument of these verbs is the grammatical subject. Since thematic prominence and configurational prominence do not match for such verbs, one of the two arguments must be lexically marked.

There are two possibilities:

1. The theme is lexically marked as being the subject or external argument (Williams 1981), or alternatively,

2. The experiencer (or goal) is lexically marked as being the object (Belletti & Rizzi 1986, Grimshaw 1986b), and other principles will make sure that the theme ends up in subject position.

If we adopt Williams' notation, e.g. *frighten* < Exp., Theme >, we would indeed expect that a goal designated as external could not be internal, but we would again have to explain why a theme argument designated as being the external argument of a verb can nonetheless occur internal to VP in an existential.

Suppose we adopt the alternative, marking instead the preassociation of the higher thematic role with the OBJ position:

\[ 'frighten' < \text{Exp.}, \text{Theme} > \quad \text{reach} < \text{Goal}, \text{Theme} > \]

\[ \text{OBJ} \quad \text{OBJ} \]

\(^{14}\) See Yip et al. (1987) for an analogous treatment of the interaction between lexical Case-marking and the assignment of so-called structural Case.
In this example, if the experiencer argument of *frighten* is lexically marked as being an OBJ, then the mapping principles will pass over this argument, and the theme will automatically become the SUBJ. Then the only thing we need to add to account for the various word orders in Icelandic existentials is a statement that externalization is optional for themes, a stipulation which is independently necessary, as we have already seen.

But why are themes special? Why can they always be internal to VP in an existential? What makes themes different from other thematic roles? Grimshaw (1986b) argues on the basis of passive that themes are inherently nonprominent.

(35) Themes are inherently nonprominent (Grimshaw 1986b)

Icelandic existentials provide support for this interpretation. If the existential construction is one which externalizes the most prominent argument of a verb, and themes are inherently nonprominent, they will naturally be exempt from the generalization. Nothing prevents them from being externalized, but nothing forces them to be external either.

Further support for the relevance of prominence comes from examples like those in (36)-(37).

(36) a. það var hrópað "húrra" þegar Jón komst í land.
there was shouted hurray when J. reached land

b. *það var "hurría" hrópað þegar Jón komst í land.

c. "Húrra" var hrópað til allra keppendanna.
 hurray was shouted to all contestants

(37) a. það var dansaður vals um miðnætti.
there was danced a-waltz at midnight

b. ?*það var vals dansaður um miðnætti.

The status of *húrra* and *vals* in these examples is not immediately obvious, but it seems reasonable to say that they are not thematic arguments of the normally intransitive verbs 'shout' and 'dance', although they can be direct objects and passivize. It is also intuitively reasonable to say that they are nonprominent.
One desirable consequence of this analysis is that we need never refer to specific thematic roles — only to notions like highest or lowest (most or least prominent) thematic role.

3.3. Which Argument is Indefinite?

There are other aspects of existentials which seem to require reference to particular theta roles. In Swedish, the agent is in principle excluded from existentials; if there is more than one argument, it is the theme (i.e. not the goal or experiencer) which must be indefinite, as illustrated above in (4). This seems to suggest that the thematic hierarchy determines which NP is subject to existential quantification and, hence, subject to the Indefiniteness Effect: the argument bearing the lowest thematic role.

In Icelandic, on the other hand, it seems to be the agent (if any) that is subject to the Indefiniteness Effect, and not the theme. If there is no agent in an Icelandic existential, then which argument must be indefinite? In Icelandic, the NP which is outside the VP is necessarily indefinite. But in Swedish, where all arguments are VP-internal, no such syntactic generalization is possible. Thus, there are good reasons to assume that grammatical rules must be able to refer not only to thematic versus non-thematic positions, but also to the relative position on the thematic hierarchy.

References


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