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CONSTRAINTS ON PASSIVES IN SWEDISH AND IN ENGLISH

In this study, I will present an analysis of the ways in which Swedish suffixal passives differ from English (participial) passives. The study is inspired by Afarli's analysis of the differences between Norwegian passives and English passives (Afarli 1989a, 1989b), but I develop an analysis that is broader in scope than Afarli's, by connecting the passive contrasts to other similar contrasts among the two languages. My analysis has much in common with the independently conceived analyses in Falk (1989) and Holmberg (1989), an indication, I believe, that our analyses might be on the right track.

1. Background

Afarli (1989), following the lead of Jaeggli (1986) and Baker (1988), suggests that the differences between Norwegian and English passives can be reduced to the following two principles:

- (1) There is a passive element (PASS) that is assigned the external θ -role of the verb in both Norwegian and English
- (2) PASS receives abstract (objective) Case, obligatorily in English, but optionally in Norwegian

From the difference in (2), it follows that Norwegian, but not English, allows impersonal passives, where either no objective case is assigned, as in (3a) and (4a), or objective case is assigned to a postverbal NP, as in (3b) and (4b).

- (3) a. Det vart gesticulert
(It was gesticulated)
- b. Det vart kjøpt ein bil
(There was bought a car)
- (4) a. *It was gesticulated
- b. *There was bought a car

Swedish suffixal passives, g-passives, behave exactly like Norwegian participial passives in these respects:

- (5) a. Det gesticulerades
 - (It gesticulated-PASS)
 ('It was gesticulated')
- b. Det köptes en bil
 (It bought-PASS a car)
 ('It was bought a car')

This follows from Afarli's analysis, if we assume that Swedish g is a lexicalization of PASS, and that PASS obeys the same constraints in Norwegian and Swedish

However, there are problems with Afarli's analysis:

There is a minor problem with English sentences of the following kind:

(6) It is widely believed that subordinate clauses do not receive Case

For Afarli's proposal to work, believe must somehow assign Case in (6). It is of course not impossible to construct an analysis of (6) (and similar cases) where the verb assigns Case. We might, for example, assume that believe is obligatorily construed with an empty NP position that is bound by its S complement. The problem is whether such an analysis has independent justification.

But there is also a more serious problem: Afarli's analysis does not generalize to non-passive cases. The difference between English sing and Swedish sjunga (sing) parallels exactly the difference between English and Swedish passives:

- (7) a. John sang
 b. *It sang in every tree
 c. *There sang a bird in the garden

- (8) a. John sjöng
 (John sang)
 b. Det sjöng i varje träd
 (It sang in every tree)
 c. Det sjöng en fågel i trädgården
 (There sang a bird in the-garden)

Yet in this case we can not appeal to abstract Case. Neither (7b) nor (7c) contains any abstract element that fails to receive Case.

2. An Alternative

In Anward (1987), I argued that the principles in (9) - (11) are principles of Universal Grammar, which initially constrain language acquisition. These principles provide an initial characterization of the categories Verb, Noun, and Adjective, which makes it possible for a language learner to induce a categorial differentiation among the lexical items of the language to be acquired. (It is of course possible that the principles are not truly primitive, but can be derived from the notional cores of the categories Verb, Noun, and Adjective.)

- (9) a. Verbs do not project to governed XP
 b. Verbs project to predicate XP
 c. Verbs project to S
 (or its equivalent in theories that do not recognize S)
- (10) a. Nouns may project to governed XP
 b. Nouns may project to predicate XP
 c. Nouns do not/may project to S
- (11) a. Adjectives do not project to governed XP
 b. Adjectives project to predicate XP
 c. Adjectives do not/may project to S

Here, I would like to propose that principle (9b) defines a parameter that is responsible for the differences between English and Swedish that I am dealing with. Note, to begin with, that the contrast between (4) and (5), as well as the contrast between (7) and (8), follows, if

we assume that English, but not Swedish, is subject to (9b).

I assume a Montague-style notion of predicate, where an n-place predicate is analyzed into n one-place predicates, and where each projection of a lexical item consequently may have at most one argument slot. (9b) requires VP to be a predicate, which means that VP must have exactly one argument slot. The sentences in (4) and (5), as well as (7b), (7c), (8b), and (8c) violate (9b), since VP is not a predicate in any of these sentences. Assuming that (9b) holds for English, but not for Swedish, correctly predicts that the English sentences (4a), (4b), (7b), and (7c) are ungrammatical, while the Swedish sentences (5a), (5b), (8b), and (8c) are grammatical.

I further assume, in line with Chomsky's Principle of Full Interpretation (Chomsky 1986: 98-99), that a predicate must always be saturated. This means that a language that is subject to (9b) is also subject to (12).

(12) VP must combine with an argument

Note that (12) comes very close to Holmberg's Spec-VP Condition (Holmberg 1989), which Holmberg assumes holds for English, but not for Swedish:

(13) Spec-VP must have thematic content

3. An Acquisition Scenario

I assume, then, that acquisition is initially constrained by (9b) and (12), i.e. that early internalized grammars always incorporate these principles. As acquisition proceeds, language learners are faced with the following two options:

- A. Drop or retain (9b)
- B. Drop or retain (12)

Learners of Swedish drop (9b), while learners of English retain it (in a modified form; see below). However, both learners of Swedish and learners of English retain (12). In both languages, subjects are obligatory.

If we drop (9b) and retain (12), we allow zero-place VP:s, but we require that these combine with arguments, just as one-place VP:s must do. I would like to propose that this situation brings about an expletive interpretation of maximally unmarked pronominal elements, like det (it), il, il, and there. The expletive interpretation consists in classifying such pronouns as possible dummy arguments, arguments that may combine with a predicate without receiving any thematic role from that predicate. Such an interpretation is presumably a last-resort interpretation, actualized only with zero-place phrases that require an argument.

If both (9b) and (12) are dropped, we get a language that does not need expletives, neither with weather verbs, nor in sentences where the subject has been adjoined to VP. In the latter case, the lower VP is saturated by the adjoined subject, and the higher VP can stand on its own. In other words, we get a language which allows the equivalents of (14a) and (14b).

- (14) a. Rains
b. Comes John

If (12) is retained, expletives are required in both cases. In the case of adjoined subjects, a Definiteness Effect is thereby normally created, which means that only indefinite adjoined subjects are allowed.

Further variation is introduced by principle (15) and the associated parameter C.

- (15) AGR may saturate VP

C. Choose (15) or not

A language which chooses (15) allows the equivalent of (16).

- (16) Comes

The parameter C thus distinguishes between two types of languages which retain neither (9b) nor (12): Italian-type languages, which allow the equivalents of both (14a) and (16), and Modern Icelandic-type languages, which allow the equivalents of (14a), but not the equivalents of (16). For further discussion of this contrast, see Platzack (1989).

In the scenario I have outlined, languages like Swedish and English do not, contra Hyams (1987), go through an initial stage of pro-drop. This is not the place to argue against Hyams's analysis. Let me just remark that I, along with many others, am fairly convinced that what Hyams takes as early cases of pro-drop in English are better analyzed as cases where an empty subject is bound by a zero topic.

4. Lexical Structure

Having placed English and Swedish in a broader context, I will now develop a more detailed analysis of the ways in which the two languages differ

To do this, I will first present some theoretical background. In line with much recent work in syntax, I regard syntactic structure as almost wholly derivable from lexical structure. In this section, I will outline a rather common-sense notion of lexical structure, and in sections 5 and 6, I will then show how D-structure and S-structure can be derived from lexical structure.

The lexical structure of a verb consists of the verb, followed by a set of thematic roles, possibly ordered in accordance with a hierarchy of roles. Some of these roles are, obligatorily or optionally, linked to structural argument positions by means of the symbols x, y and z

For example, the lexical structure of give is:

- (17) V:give <Agent:x; Goal:z; Theme:y>

In the unmarked case, x links a role to subject position, while y links a role to direct object position and z links a role to indirect object position. A role linked to a certain position is assigned to the element occupying that position, while a role that is not linked

to a position is assigned to an adjoined phrase of appropriate (semantic) type. Another way to express this is to say that a role creates an argument slot that can be saturated in two ways: either by an element in a position that is linked to that argument slot, or by an adjoined phrase of a particular kind.

In the case of give, the Agent slot is satisfied by an NP in subject position, and the Theme slot by an NP in direct object position. The Goal slot is either saturated by an NP in indirect object position, if the *z* option is chosen, or by an adjoined PP, headed by to, if that option is not chosen.

5. Projection of Lexical Structure

There are at least two phases in the construction of syntactic structure from lexical structure. First, a phrase structure projection of the lexical item is constructed. Then, the argument structure of the lexical item is mapped onto that phrase structure.

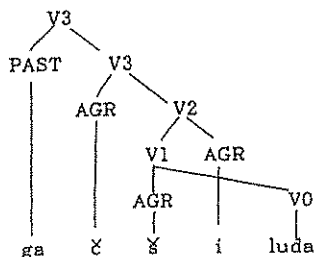
5.1 Phrase Structure

I will assume a conception of phrase structure that best can be characterized as a marriage of X-bar Theory and Categorial Grammar, which also incorporates a distinction between word-level projections and phrase-level projections, inspired by Jensen's theory of X-bar morphology (e.g. Jensen 1982).

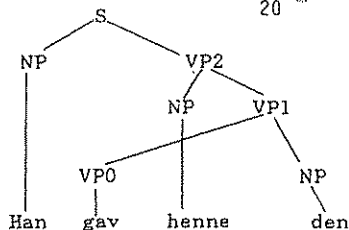
In the maximal case, a lexical V (i.e. V0) may have three word-level projections: V1, V2, and V3. V0 combines with direct object agreement, V1 with indirect object agreement, and V2 with subject agreement. Tense, mood, and aspect morphemes can be regarded as (obligatory) modifiers, adjoined to one or more of these word-level projections.

For example: The Chinookan form ga-č-š-i-luda (past-he-it-to him-give; Keenan 1972:447) may be assigned the structure:

(18)



A lexical V also have four phrase-level projections, above Vmax: VP0, VP1, VP2, and S. VP0 combines with a direct object, VP1 with an indirect object, and VP2 with a subject. For example: Han gav henne den (He gave her it) would have the following structure:



Phrase structure is constructed from lexical structure, using the functional characterization of the part-of-speech of the lexical item. A fuller version of (9b,c) is given in (20) below. A parenthesized condition is optional. Thus, 'V projects to (predicate) VP0' means that V must project to VP0, which may, but need not be, a predicate.

- (20) a. V projects to (predicate) VP0
 b. V projects to (predicate) VP1
 c. V projects to predicate VP2
 d. V projects to S

If a projection may be a predicate, then that projection may optionally combine with an NP. However, if a projection that need not be a predicate must combine with an NP, that must be explicitly stated. Thus, (12) becomes a condition that VP2 combines with an argument.

The Swedish and English versions of (20), with conditions on combination with NP made explicit, are given in (21) and (22), respectively

- (21) Swedish:
 a. V projects to (predicate) VP0; (VP0 combines with NP)
 b. V projects to (predicate) VP1; (VP1 combines with NP)
 c. V projects to (predicate) VP2; (VP2 combines with NP)
 d. V projects to S

- (22) English:
 a. V projects to (predicate) VP0; (VP0 combines with NP)
 b. V projects to (predicate) VP1; (VP1 combines with NP)
 c. V projects to predicate VP2; (VP2 combines with NP)
 d. V projects to S

5.2 Predication

The structural slots x,y, and z are mapped onto syntactic structure in the following way:

- (23) a. x is mapped onto VP2 (u) or VP0 (m)
 b. z is mapped onto VP1 (u) or VP2 (m)
 c. y is mapped onto VP0 (u) or VP2 (m)

XP< α >, where α is x, y or z, is then saturated by an NP (or AGR) sister, or, in case it has no NP (AGR) sister, by the closest NP (AGR) that c-commands it.

If we map structural slots onto syntactic structure, choosing only unmarked options (those followed by (u) in (23)), we derive

essentially D-structure. S-structure results from a mapping that can use all options. An important constraint on the latter mapping is that a structural slot in an argument structure can not map onto a marked option, if that option is the unmarked option of another slot in the same argument structure. x can not map onto VP0, if there is also a y to be mapped, and y or z can not be mapped onto VP2, if there is an x to be mapped.

6. Verb Classes

Let us now look at particular classes of verbs in Swedish and English.

6.1 Ambient Verbs

Weather verbs in Swedish, such as regna (rain):

- (24) a. V:regna <(Location)>
 b. Det regnar
 (It rains)

and other verbs that lack structural slots (ambient verbs, as Chafe (1970) calls them), map onto the syntactic structure in (25),

- (25) NP2 VP2 VP1 VP0

and can only combine with an expletive subject, as in (24b). This is true of English, as well. However, this is not what my analysis predicts. If English were really subject to (22c), weather verbs would be impossible in English. We must then weaken (22c), as in (26), where V<*> signifies a verb that lacks structural slots.

- (26) a. V<*> projects to VP2
 b. Otherwise, V projects to predicate VP2;
 c. VP2 combines with NP

6.2 Intransitive Verbs

Intransitive verbs are customarily divided into two classes: unaccusative verbs, with D-structure objects, and true intransitive verbs, with D-structure subjects. This division is particularly clear-cut in Swedish:

- (27) Unaccusative verbs:
 a. V:spricka <Theme:y>
 b. Vasen sprack
 (The-vase cracked)
 c. Det sprack en vas
 (There cracked a vase)
 d. *Det spracks
 (It cracked-PASS)
 ('It was cracked')

- (28) True intransitive verbs:
 a. V:sjunga <Agent:x>
 b. John sjöng
 (John sang)

- c. Det sjöng en fågel i trädgården
(There sang a bird in the-garden)
d. Det sjöngs överallt
(It sang-PASS everywhere)
(‘It was sung everywhere’)

The natural way to capture the distinction between the two classes of intransitive verbs, in the framework adopted here, is to assume that unaccusative verbs have a y slot, while true intransitive verbs have an x slot, as shown in (27a) and (28a). In Swedish, both types of verbs may have their structural slot saturated by a direct object, but only verbs with an x slot may passivize (the passive suffix saturates x; see below). Compare (27c) and (27d) to (28c) and (28d).

Active V<x> is mapped onto (29a) or (29b), while active V<y> is mapped onto (30a) or (30b).

- (29) a. NP2 VP2<x> VP1 VP0
b. NP2 VP2 VP1 NP0 VP0<x>
(30) a. NP2 VP2<y> VP1 VP0
b. NP2 VP2 VP1 NP0 VP0<y>

In (29a), x is saturated by the subject (NP2), as in (28b), and in (29b), x is saturated by the direct object (NP0), while the subject is expletive, as in (28c). In (30a), y is saturated by the subject, as in (27b), while in (30b), y is saturated by the direct object and the subject is expletive, as in (27c).

English unaccusative verbs, such as be and hang, occur in there-sentences, and do not passivize.

- (31) a. V:be <Theme:y; (Location)>
b. A book was on the table
c. There was a book on the table
d. *It was been on the table
(32) a. V:hang <Theme:y; (Location)>
b. A portrait of Sapir hung on the wall
c. There hung a portrait of Sapir on the wall
d. *It was hung on the wall

English true intransitive verbs, on the other hand, do not occur in there-sentences, and do not passivize.

- (33) a. V:sing <Agent:x>
b. John sang
c. *There sang a bird in the garden
d. *It was sung in the garden

In English, then, active V<x> is mapped onto (29a), while active V<y> is mapped onto (30a) or (30b). This follows, if we substitute (34) for (26).

- (34) a. V<*> projects to VP2
b. V<y> projects to (predicate) VP2
c. Otherwise, V projects to predicate VP2;
d. VP2 combines with NP

According to (34), V<*> and V<y> may project to non-predicate VP2, but

not $V\langle x \rangle$. In Swedish, though, which obeys (21c), $V\langle * \rangle$, $V\langle y \rangle$, and $V\langle x \rangle$ may all project to non-predicate VP2.

What about passive, then? Let us assume the analysis proposed by Jaeggli (1986), where PASS may saturate an argument slot of the verb. In the present framework, the following condition is needed:

(35) V projects to (predicate) V1; (V0 combines with PASS)

Moreover, we must change (23a) into (36)

(36) a. x is mapped onto VP2 (u) or VP0 (m) or V0 (m)

Given (35) and (36), x may be saturated by PASS.

From this it follows that $V\langle * \rangle$ and $V\langle y \rangle$ can not be passivized, while $V\langle x \rangle$ can be passivized. However, since $V\langle x \rangle$ must project to predicate VP2 in English, $V\langle x \rangle$ can not be passivized in English. $V\langle x \rangle$ can be passivized in Swedish, though, where $V\langle x \rangle$ may project to non-predicate VP2. Thus, in Swedish, $V\langle x \rangle$ may map onto (37), where the subject is expletive.

(37) NP2 VP2 VP1 VP0 V0 $\langle x \rangle$ PASS0

Jaeggli's analysis of passives is not unproblematic. In particular, the status of participle-forming affixes as arguments is rather dubious, in view of the fact that they contrast with tense/mood/aspect affixes, which do not have argument status. What matters in this context, though, is not the particular way in which x is saturated at word-level, but only that x somehow is saturated at that level.

6.3 Transitive Verbs

Most transitive verbs in Swedish and English passivize, and should consequently be analyzed as $V\langle x, y \rangle$, as in (38a) and (39a).

(38) a. Vi fånga $\langle \text{Agent}:x; \text{Theme}:y \rangle$

b. Vi fångade en fågel för en vecka sedan
(We caught a bird a week ago)

c. *Det fångade en pojke en fågel för en vecka sedan
(There caught a boy a bird a week ago)

d. Fågeln fångades för en vecka sedan
(The-bird caught-PASS a week ago)
(‘The car was bought a week ago’)

e. Det fångades en fågel för en vecka sedan
(It caught-PASS a bird a week ago)
(‘There was bought a car a week ago’)

(39) a. Vi:catch $\langle \text{Agent}:x; \text{Theme}:y \rangle$

b. We caught a bird

c. *There caught a bird a bird

d. A bird was caught

e. *There was caught a bird

f. There was a bird caught

In both Swedish and English, $V\langle x, y \rangle$ may map onto (40a), where x is saturated by the subject (NP2), and y by the direct object (NP0), as well as onto (40b), where x is saturated by PASS, and y is saturated by NP2. However, only in Swedish may $V\langle x, y \rangle$ map onto (40c), where x is

saturated by PASS, and y is saturated by NP0. The mapping of $V\langle x,y \rangle$ onto (40c) violates (34c), and is consequently illegitimate in English. Compare (38e) and (39e).

- (40) a. NP2 VP2 $\langle x \rangle$ VP1 NP0 VP0 $\langle y \rangle$
 b. NP2 VP2 $\langle y \rangle$ VP1 VP0 V0 $\langle x \rangle$ PASS0
 c. NP2 VP2 VP1 NP0 VP0 $\langle y \rangle$ V0 $\langle x \rangle$ PASS0

What about (39f)? Here we have a predicative VP2 that combines with the direct object of be. In other words, VP2 is a predicate in (39f), but not in (39e).

(38c) and (39c) are ungrammatical because there is no possible mapping of $V\langle x,y \rangle$ onto just VP1 and VP0. Neither x nor y can map onto VP1 and it is not possible for two slots (x and y , in this case) to map onto the same position (VP0, in this case).

6.4 Inversion Verbs

In Swedish, there are a few transitive verbs that occur in presentation sentences and do not passivize. Such verbs, reminiscent of the class of Inversion verbs recognized in Relational Grammar, can be assumed to have the argument structure $V\langle y,z \rangle$. Since there is no x , they do not passivize, and y may be saturated by either NP2 or NP0.

- (41) Inversion verbs:
 a. V:hända \langle Theme: y ; (Goal: z) \rangle
 b. Något konstigt hände mig igår
 (Something strange happened me yesterday)
 c. Det hände mig något konstigt igår
 (There happened me something strange yesterday)
 d. *Det händes (mig) igår
 (It happened-PASS (me) yesterday)
 ('It was happened (me) yesterday')

$V\langle y,z \rangle$ is thus mapped onto (42a), where y is saturated by NP2, and z is saturated by NP1, or onto (42b), where y is saturated by NP0, and z is saturated by NP1.

- (42) a. NP2 VP2 $\langle y \rangle$ NP1 VP1 $\langle z \rangle$ VP0
 b. NP2 VP2 NP1 VP1 $\langle z \rangle$ NP0 VP0 $\langle y \rangle$

However, z can not be saturated by NP2:

- (43) *Jag hände något konstigt igår
 (I happened something strange yesterday)

We can express this as a requirement that the z of an inversion verb must be mapped onto its unmarked position, i.e. must be an unmarked z (uz):

- (44) V:hända \langle Theme: y ; (Goal: uz) \rangle

In English, await and befall are possible inversion verbs:

- (45) a. A horrible fate awaits us all
 b. A misfortune befell him

These do not passivize:

- (46) a. *We are awaited by a horrible fate
 b. *He was befallen by a misfortune

but they do seem to occur in there-sentences:

- (47) a. There awaits us all a horrible fate
 b. There befell him a misfortune

Moreover, (48a) does not mean the same thing as (45a), and (48b) is ungrammatical:

- (48) a. We await a horrible fate
 b. *He befell a misfortune

This means that await and befall have the same lexical structure as hända:

- (49) V:befall <Theme:y; Goal:uz>

and map onto the same syntactic structures: (42a) and (42b). Now note that (34b) does not really allow (49) to map onto (42b), since there is no mention of z in (34b). This indicates that (34) should be revised. Consider our results so far:

In English, V<*>, and V<y>, and V<y,z> may all project to non-predicate VP2, but V<x> and V<x,y> must project to predicate VP2.

In Swedish, V<*>, V<y>, V<x>, V<x,y>, and V<y,z> may all project to non-predicate VP2.

These results are consistent with the following reformulation of (34):

- (50) a. V<x,...> projects to predicate VP2
 b. Otherwise, V projects to (predicate) VP2;
 c. VP2 combines with NP

The difference between Swedish and English is then that English, but not Swedish, is subject to (50a). How does this difference relate to the parameter A that I proposed in section 3? Suppose that ambient verbs (V<*>) and unaccusative verbs (V<y>) are in fact universal verb classes, to be found in all languages, and that the mapping of y onto VP0 is likewise universal. Then, (9b) can not be retained as such, but must be retained as something like (50a-b). In other words, parameter A would be equivalent to A' below.

A'. Substitute either (50a) + (50b) or just (50b) for (9b)

6.5 Bitransitive verbs

Bitransitive verbs have the argument structure V<x,y,z>. Such verbs can, of course, not be mapped onto active impersonal structures. The same constraints that exclude these structures with transitive verbs, exclude them with bitransitive verbs. As for passives of bitransitive verbs, we find two distinct paradigms in Swedish (at least in my idiolect). Verbs with arguments that can be realized as an indirect object, but not as an adjoined PP, such as erbjuda (offer), have the

following paradigm:

- (51) a. Han erbjöd oss en ny lägenhet
(He offered us a new apartment)
b. *Han erbjöd en ny lägenhet till oss
(He offered a new apartment to us)
c. Vi erbjöds en ny lägenhet
(We offered-PASS a new apartment)
(‘We were offered a new apartment’)
d. En ny lägenhet erbjöds oss
(A new apartment offered-PASS us)
(‘A new apartment was offered us’)
e. Det erbjöds oss en ny lägenhet
(It offered-PASS us a new apartment)
(‘There was offered us a new apartment’)

Such verbs have lexical structures of the following kind:

- (52) V:erbjuda <Agent:x; Theme:y; Goal;z>

and map onto the following syntactic structures:

- (53) a. NP2 VP2<x> NP1 VP1<z> NP0 VP0<y>
b. NP2 VP2<z> VP1 NP0 VP0<y> V0<x> PASS0
c. NP2 VP2<y> NP1 VP1<z> VPO V0<x> PASS0
d. NP2 VP2 NP1 VP1<z> NP0 VP0<y> V0<x> PASS0

Verbs with arguments that can be realized as either an indirect object or an adjoined PP have the following paradigm:

- (54) a. Han gav barnen en vacker bok
(He gave the-children a beautiful book)
b. Han gav en vacker bok till barnen
(He gave a beautiful book to the-children)
c. *Barnen gavs en vacker bok
(The-children gave-PASS a beautiful book)
(‘The children were given a beautiful book’)
d. *En vacker bok gavs barnen
(A beautiful book gave-PASS the-children)
(‘A beautiful book was given the children’)
e. En vacker bok gavs till barnen
(A beautiful book gave-PASS to the-children)
(‘A beautiful book was given to the children’)
f. *Det gavs barnen en vacker bok
(It gave-PASS the-children a beautiful book)
(‘It was given the children a beautiful book’)

Such verbs map only onto (53a), and onto (55a) and (55b) (which are variants of (40b) and (40c), respectively).

- (55) a. NP2 VP2<y> VP1 VPO PP V0<x> PASS0
b. NP2 VP2 VP1 NP0 VP0<y> PP V0<x> PASS0

In English, we seem to have at least the following paradigms:

- (56) To-Dative Verbs:
a. John gave Mary a book
b. John gave a book to Mary
c. Mary was given a book
d. (*)A book was given Mary

e. A book was given to Mary

(57) For-Dative Verbs I:

- a. John bought Mary a new wardrobe
- b. John bought a new wardrobe for Mary
- c. Mary was bought a new wardrobe
- d. *A new wardrobe was bought Mary
- e. A new wardrobe was bought for Mary

(58) For-Dative Verbs II:

- a. John played Mary a tune
- b. John played a tune for Mary
- c. *Mary was played a tune
- d. *A tune was played Mary
- e. A tune was played for Mary

The judgments in (56) - (58) are those of Jackendoff & Culicover (1971). Jackendoff & Culicover accept (56d), but Culicover (1976:175) stars (56d). That is why (56d) has an optional star.

English bitransitive verbs do not occur in impersonal passives. The mapping of $V\langle x,y,z \rangle$ onto (53d) or (55b) is blocked by (50a). All kinds of bitransitive verbs seem to map onto (55a), if they allow an adjoined PP. This holds for both English and Swedish. The variation among verb classes in both languages is thus confined to the structures (53b) and (53c).

To account for this variation, we use the idea introduced in connection with inversion verbs: an argument slot of a verb may be constrained to map only onto its unmarked position. Using the notation $u\alpha$ to mark an argument slot that is so constrained, we get the following lexical structures:

- (59) a. $V \langle \text{Agent};x; \text{Theme};y; \text{Goal};z \rangle$
 b. $V \langle \text{Agent};x; \text{Theme};uy; \text{Goal/Benefactive};z \rangle$
 c. $V \langle \text{Agent};x; \text{Theme};uy; \text{Goal/Benefactive};uz \rangle$
 d. $V \langle \text{Agent};x; \text{Theme};y; \text{Goal/Benefactive} \rangle$

Erbjud occurs in (59a), and Ge in (59c) and (59d), both verbs with Goal as third argument. Give occurs either in (59a) and (59d) (when (56d) is grammatical) or in (59b) and (59d) (when (56d) is ungrammatical). In both cases, the third argument is Goal. Buy has Benefactive as third argument and occurs in (59b) and (59d). Finally, Play has also Benefactive as third argument and occurs in (59c) and (59d). The main difference between Swedish and English appears to be that Swedish favors (59a) and excludes (59b), while English favors (59b). As Cecilia Falk has pointed out to me, there should be some principled reason for this contrast. At present, I am unfortunately unable to find one.

(59a) maps onto (53a-d) in Swedish and onto (53a-c) in English. (59b) maps onto (53a-b). (59c) maps only onto (53a). (59d), finally, maps onto (55a-b) in Swedish and onto (55a) in English.

Why does not (59c) map onto the impersonal passive, (53d), in Swedish (cf (54f))? Let me offer the speculation that uy somehow requires VP2 to be a predicate. Note that such a constraint would also give us simple lexical structures for transitive verbs that do not passivize, namely $V\langle x,uy \rangle$. Such a lexical structure can neither map onto (40b), because the second argument is uy , nor onto (40c) (in Swedish, where

that possibility obtains), because that would violate the constraint that $V\langle x, \dots, y, \dots \rangle$ must project to predicate VP2.

6.6 Passives with Extraposed Sentential Subjects

How do I account for the grammaticality of (6), repeated in (60)?

(60) It is widely believed that subordinate clauses do not receive Case

(60) does not violate (50a) if the complement S is adjoined to VP2. In that case, the lower VP2 can be $VP2\langle y \rangle$, which is saturated by the complement S, while the higher VP2 is a non-predicate that combines with the expletive it.

7. Conclusion

It is not necessary to place any specific constraints on passives in English and Swedish. Their contrasting properties follow from a parametric difference between Swedish and English. The parameters involved are given below, in more explicit and definitive form:

- A'. 1. Substitute:
 - V projects to (predicate) VP2;
 - for:
 - V projects to predicate VP2
- 2. Choose:
 - $V\langle x, \dots \rangle$ projects to predicate VP2
 - or not
- B. Choose:
 - VP2 combines with NP
 - or not
- C. Choose:
 - Structural slots may be saturated by AGR
 - or not

Swedish and English are alike in realizing the positive option of B and the negative option of C. They differ in that only English realizes the positive option of A'2.

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