Impersonal Passives

Shlonsky, Ur; Lappin, Shalom

Impersonal passives*

SHALOM LAPPIN and UR SHLONSKY

Abstract

We propose two binary-valued lexical features of passive morphemes and show that the interaction of the values assigned to these features for the passive morpheme(s) in a language explains the cross-linguistic possibilities for impersonal and in situ transitive passive formation. One feature marks a passive morpheme as a +/− theta-role bearer. The second feature determines whether it is a +/− strong Case absorber. We show that our lexical-feature-based account of the main syntactic properties of passive morphemes provides a more comprehensive and unified explanation of the facts of passivization in a wide variety of languages than competing Case-based theories.

The existence of impersonal passive constructions in which an intransitive verb with passive morphology heads a VP with an expletive (possibly empty) subject poses an interesting puzzle. It is frequently the case that such a construction is productive in one language, but not in a genetically related language with similar syntactic and morphological properties. Thus, for example, classical Arabic and German both permit impersonal passives ([1a] and [2a], respectively), while Hebrew and English do not ([1b] and [2b], respectively).

(1) a. siira ʔila l-madrasat-i kull-a
walked-PASSIVE-3MS to the-school-GEN every-ACC
yawm-in.
day-GEN
'It was walked to school every day'

b. *nehelax le-beit ha-sefer kol yom.
walked-PASSIVE-3MS to-school every day

Linguistics 31 (1993), 5–24 0024–3949/93/0031–0005 $2.00

(2) a. Es wurde viel gearbeitet.
it was much worked-PASSIVE
'It was worked a great deal.'
b. *It was worked a great deal.

The contrast between these language pairs suggests the existence of a parameter whose different values produce the observed distinctions with respect to impersonal passive formation.

In this paper we will argue that the lexical representations of passive morphemes contain two parameterized features. One is a theta-role feature, and the other is a Case-absorption attribute. Each feature has a binary choice of value settings. The different possible combinations of values yield the full cross-linguistically observed range of passive constructions.

In section 1, we present our analysis of intransitive impersonal passives. In section 2, we deal with in situ transitive (impersonal transitive) constructions. In sections 3–5, we consider three recent Case-based accounts of both types of impersonal construction. We argue that in each instance, our theory provides a more comprehensive and adequate account of the relevant phenomena than the alternative.

1. The passive morpheme and theta-role assignment

1.1. *The no-bare-verb condition*

As the basis of our account of impersonal passives, we will assume the no-bare-verb condition (NBVC) stated in (3). Let a verb's theta roles be the theta roles that it assigns directly (i.e. without the mediation of a preposition or oblique Case), and the external role assigned by the VP that it heads.

(3) *No-bare-verb condition:*
Every verb must assign at least one of its theta roles to a syntactic argument.

We will take the case in which the VP headed by V assigns its external role to the subject NP as satisfying this condition.

We will assume that the NBVC is not a basic principle of the grammar, but that it follows from the theory of predication. Specifically, it seems reasonable to regard it as a consequence of the requirement that it must be possible to construct a predication from an IP such that one of the arguments of the clause is the subject of a predicate derived from the remainder of the IP (perhaps by lambda abstraction).[1] When an NP that

is the head of a theta chain appears in subject position, a predication is obtained directly by taking the VP (or I′) as the predicate of the subject NP. This is the case when an NP occurs in subject position at D-structure or is raised into this position by NP movement.

In passive constructions in which the object NP remains in object position at S-structure (we refer to these as "in situ transitive passive" constructions) the internal role of the verb is assigned to an NP which remains in object position at S-structure, and the subject position is occupied by an expletive. Such structures are possible in Norwegian, for example (Åfarli 1989).

(4) Det vart sett ein mann.
there was seen a man

In order to obtain a predication, it is necessary to perform the equivalent of lambda abstraction on the object NP. There are at least two ways of implementing such an operation. On one approach, the object NP is adjoined to the expletive NP in subject position at LF.[2] LF raising here is the counterpart of NP movement in non–in situ transitive passives. A second possibility is to apply the semantic device of storage to the denotation of the in situ object NP. The NP denotation is released from storage when the set denoted by the VP has been computed, and it is then applied to this set to yield a predication.[3] We will not attempt to decide between these alternatives here.[4]

1.2. *The D-structure position of the passive morpheme*

Baker et al. (1989) (hereafter BJR) propose that the passive morpheme is generated in I° and is lowered onto the verb at S-structure. They argue that this assumption accounts for the fact that the passive morpheme receives the external theta role of the verb heading the VP that I takes as its complement. We see a significant problem with this analysis. It classifies I as a theta position, and hence as an A-position. Given that INFL is a Case assigner, it should be possible for full NPs to occur in I. They will be theta-marked and will receive nominative Case under government. But then I is both an A-position and the (nonlexical) head of IP. This clearly does violence to the distinction between heads and arguments, which is at the basis of X′ theory.[5]

As an alternative, we propose that passive morphemes are generated in Spec/V position. Thus the D-structure of a passive sentence is as in (5).

(5) $[_{IP}[_{SPEC}][_{I'}[_{I}][_{VP}[_{SPEC}$ PASSIVE$][_{V'}]]]]$

Spec/V is an argument position external to the V′. Therefore, when the passive morpheme receives a theta role, it is the external role of the verb heading the VP.[6] Following, among others, Kitagawa (1986), Kuroda (1988), Roberts (1988), Sportiche (1988), and Koopman and Sportiche (1988), we will also assume that the subject NP of an active sentence is generated in a position internal to VP and external to V′, and that it is raised to Spec/I to receive nominative Case. On this analysis, Spec/V is possibly (but not always) a theta position, while Spec/I is a Case but not a theta position. It follows that when a passive morpheme occurs in Spec/V, a nonexpletive NP cannot appear in either Spec/V or SPEC of IP at D-structure. The first position is occupied, and the second is a non–theta position. The object NP can, of course, be moved into SPEC of IP to receive Case at S-structure. Therefore, a passive morpheme prevents the occurrence of a nonexpletive NP in subject position at D-structure independently of whether or not the former receives a theta role. Hence our analysis entails that the passive morpheme blocks assignment of a theta role to the subject NP, without requiring that the passive morpheme itself actually receive a theta role.

Note, moreover, that Spec/V is an A and a possible theta position, but not a head. Thus our analysis preserves the basic distinctions of X′ theory and avoids the problems raised above with respect to BJR's analysis.

1.3. *The theta role–bearing feature*

We propose that in those languages in which an intransitive impersonal passive construction is possible, the passive verb assigns its (in the unmarked case) external theta role to the passive morpheme, which functions as a theta role–bearing argument.[7] If the verb is intransitive, then it has only its external role to assign. Given that the passive morpheme can realize this role, the addition of passive morphology to an (unergative) intransitive verb satisfies the NBVC. However, in languages that do not permit impersonal passives, the passive morpheme cannot receive a theta role. It only blocks the realization of a theta-marked NP in subject position by virtue of the fact that it is generated in Spec/V. Therefore, if passive morphology is added to an intransitive verb, the sentence is ruled out as a violation of the NBVC. Thus the parameterized lexical feature of passive morphemes that we are postulating to account for the cross-linguistic facts of intransitive impersonal passive formation is the binary valued feature +/− theta role bearer (TRB).

We also postulate a semantic counterpart to the distinction between +TRB and −TRB passive morphemes. We will assume that a −TRB

passive morpheme denotes a function which maps the property corresponding to a verb into a property whose subject argument is interpreted as an existentially bound variable. Thus, for example, if transitive *see* denotes the property $\lambda(x)[\lambda(y)[(x \textit{ see } y)]]$ and the passive morpheme in English is −TRB, then passive *AUX seen* denotes the property $\lambda(y)[\exists x(x \textit{ see } y)]$. By contrast, if a passive morpheme is marked as +TRB, it receives the same interpretation as an indefinite NP (perhaps *pro*) and so denotes the subject argument of the passive VP to which it attaches. If a −TRB passive morpheme is attached to an intransitive verb, like *work* in English, the result is an expression that denotes the proposition $\exists x(x \textit{ work})$. On the other hand, if a +TRB passive morpheme attaches to an intransitive verb, like *arbeit* in German, it will yield the proposition $\lambda(x)[x \textit{ work}](pro)$. The expressions representing these two propositions are both well formed, and given the view that indefinites are either existentially quantified NPs or, alternatively, variables subject to existential closure in discourse (as Kamp [1984] and Heim [1982] suggest), they have identical truth conditions. However, while $\lambda(x)[x \textit{ work}](pro)$ is obtained by applying the property that *arbeit* denotes (represented by the lambda expression) to an indefinite argument, $\exists x(x \textit{ work})$ is, in a sense, directly generated. Unlike the former, it is not derived through the application of a property to an argument. We can say, then, that the semantic content of the NBVC is the requirement that a verb discharge at least one of its theta roles (in Higgenbotham's [1985] sense) in order to yield a proposition that is derived by the application of a property to an argument that corresponds to that theta role.

It is important to note that when the external role of a passive verb is realized in a *by* phrase (or in an oblique Case), it is not assigned by the verb. Therefore, the presence of a *by* phrase cannot save an impersonal passive from violating the NBVC if the passive morpheme is marked as −TRB. When the passive morpheme is +TRB, the presence of a *by* phrase is analogous to clitic doubling in Romance, where a clitic and the corresponding full NP argument can optionally both appear in the same VP.[8]

There are two empirical considerations that support our proposed analysis of the intransitive impersonal passive. The first involves what Roberts (1988) refers to as *circumstantial predicates*, like *naked* in 6, which applies to the subject NP.[9]

(6) John_i played tennis naked_i.

Roberts provides convincing evidence for the view that such predicates occur within the VP. Interestingly, German and English exhibit different possibilities for circumstantial predicates in passive VPs.[10]

(7) a. Das Konzert wurde formell angezogen gespielt.
the concert was formally dressed played
'The concert was played formally dressed.'
b. Es wurde nackt geschlafen.
it was naked slept
'It was slept naked.'

(8) a. *The concert was played formally dressed.
b. *The lecture will be given naked.

If we assume that the passive morpheme in German is +TRB while in English it is −TRB, we have a straightforward explanation of this contrast. In German, the passive morpheme can serve as the external argument of the circumstantial predicates in (7a)–(7b). Given our assumption that the passive morpheme originates in Spec/V and Roberts's (1988) analysis of circumstantial predicates as occurring within VP, the mutual c-command condition on predication is satisfied. The passive morpheme in English is −TRB, and so it cannot serve as the external argument of a circumstantial predicate.[11]

We also assume, contrary to Jaeggli (1986), that the clitic status of the passive morpheme at S-structure exempts it from the Case Filter, even when it receives a theta role. This view is analogous to the proposal advanced by BJR that the passive morpheme can achieve visibility through morphological incorporation into a verb. However, unlike BJR, we maintain that cliticization of the passive morpheme always satisfies the visibility condition.

The second consideration is as follows. If the well-formedness of intransitive impersonal passive constructions depends upon a parameterized lexical feature of the passive morpheme, one would expect there to be languages with two passive morphemes, each with a distinct value for this feature. This is, in fact, the case. Czech has two passive constructions. The auxiliary passive corresponds to the English passive in that it does not permit impersonal passive formation. The reflexive passive is formed with a third person singular reflexive clitic, and it allows both personal and intransitive impersonal passives.

(9) a. Kniha byla dobře napsanā.
book-NOM was well written-PASSIVE
'The book was well written'
b. *(Mně) bylo dobře utīkano.
(me-DAT) was well run

(10) a. Kniha se mi dobře pīše.
book-NOM REFL me-DAT well writes
'The book is easy for me to write.'

b. Tady se dobře utīkā.
here REFL well runs
'Here it is easy to run.'

c. Mně se dobře utīkā.
me-DAT REFL well runs
'It is easy for me to run.'

In (9a)–(9b), a passive morpheme is attached to the verb, and the auxiliary *byla* is present. As these examples show, intransitive impersonal passive formation is not possible with the auxiliary construction. In (10a)–(10c), the third person singular reflexive clitic is attached to the verb (but see note 12), and no auxiliary is present. The appearance of this clitic requires the object NP to be realized in subject (Spec/I) position, (10a), and prevents the external argument of the verb from being realized in Spec/V or Spec/I ([10a] and [10c]). (10b)–(10c) indicate that intransitive impersonal passive formation is possible in this construction. If we assume that the reflexive passive morpheme is +TRB while the auxiliary passive morpheme is −TRB, then our theory accounts for this contrast.[12]

Notice that unlike the impersonal *si* construction in Italian, (11b), the Czech reflexive passive requires the object of a transitive verb to move to subject, as the ungrammaticality of (11a) indicates.

(11) a. *Knihu se mi dobře pīše.
book-ACC REFL me-DAT well writes

b. Si leggera volentieri alcuni articoli.
one reads-SING-FUT willingly some articles
'One will willingly read a few articles.'

This indicates that in (10a)–(10c), *se* is a passive morpheme that absorbs the Case assigned by the verb and blocks subject theta-role assignment, rather than an impersonal subject clitic pronoun.

Given that our analysis implies that when a passive morpheme is +TRB, it is assigned the external role of the verb to which it is attached, we also account for the fact that unaccusative verbs do not, in general, undergo impersonal passivization, as illustrated in (12) for German.[13]

(12) a. *Es wurde gekommen.
'It was come.'

b. *Es wurde sehr lange gedauert.
'It was very long lasted.'

As unaccusative verbs do not assign external roles, the passive morpheme does not receive a theta role in (12a) and (12b), although it is marked +TRB. Therefore, these sentences violate the theta criterion.

In fact, there are cases in which verbs in a given language that correspond to unaccusative verbs in another language do undergo impersonal passivization, as, for example, in Arabic, (13a), and Czech, (13b).[14]

(13) a. wuṣila ʔila huna.
arrived-PASSIVE to here
'It was arrived here.'
b. Tady se pokracuje dal.
here REFL continues on
'From here one continues.'

There are two possible ways of characterizing these cases. First, we could treat such examples as indicating that the verbs in question are actually unergative rather than unaccusative. The fact that they correspond to unaccusative verbs in other languages simply shows that unaccusativity is a syntactic property that is not semantically predictable, as Rosen (1984) argues.

Alternatively, we could regard these as cases in which the internal role of the verb is assigned to the passive morpheme as a marked option. Clearly, the first approach is more elegant. However, if there is independent syntactic evidence for characterizing it as unaccusative and it permits impersonal passive formation, we will be forced to adopt the second explanation of (13a) and (13b).

2. *The passive Case feature*

It is generally assumed that the object of a passive verb (and the embedded subject of the infinitival complement of a passive ECM verb) raise to subject to satisfy the Case Filter, because passive morphology absorbs accusative Case (as Chomsky [1981] proposes). However, there are languages in which in situ transitive passives are possible. As we have observed, these structures exist in Norwegian (example [4], repeated below), and Sobin (1985) points out that they are also possible in Ukrainian (example 14).

(4) Det vart sett ein mann.
There was seen a man.
'There was seen a man.'

(14) Cerkv-u bul-o zbudova-n-o v 1640 roc'i.
church-ACC-FEM was-IMP built-PASSIVE-IMP in 1640
'The church was built in 1640.'

Shlonsky (1987) shows that in situ transitive passives also exist in Hebrew.

(15) nixtevu harbe maʔamarim ʕal nose ze.
write-PASSIVE-PL many articles on subject this
'Many articles were written on this subject.'

(15) and (16) illustrate a contrast between an in situ passive, as in (15) and (16a), and a passive clause in which a deep object has been fronted to Spec/I position, (16b). When the NP *ha-maʔamarim* 'the articles' remains in situ, it must be indefinite. This suggests that it is under V′ at S-structure (rather than being, say, a postposed subject).

(16) a. ??nixtevu ha-šana ha-maʔamarim ʕal nose
write-PASSIVE-3PL this-year the-articles on subject
ze.
this

b. ha-maʔamarim ʕal nose ze nixtevu
the-articles on subject this written-PASSIVE-3PL
ha-šana.
this-year
'The articles on this subject were written this year.'

This constraint would seem to be an instance of the same condition that applies to the postverbal NP complement in existential *there* sentences.

(17) a. hayu harbe maʔamarim ʕal nose ze.
was-passive-3PL many articles on subject this
'There were many articles on this subject'.

b. *Hayu ha-maʔamarim ʕal nose ze.
was-PASSIVE-3PL the-articles on subject this

If we assume that the postverbal NP in existential sentences is in verb-complement position and that the definiteness constraint is a condition on the relation between certain classes of verbs and their NP complements, it follows that the NP *harbe maʔamarim* in (15) is in object position.

We will take the view that the same mechanism that requires the copulas of existential *there* sentences to agree in number and gender with their complement NPs operates in in situ transitive passive constructions. One possibility is that in both structures, the expletive in subject position and the complement NP are coindexed to constitute a chain in which the number and gender features of the theta-marked argument are visible. The verb will then agree with the features of this chain, which are inherited

by the expletive subject. Chomsky (1986) proposes an analysis of this kind. He also provides evidence against the view that Case is transmitted from the expletive subject to the theta-marked argument in a theta chain. If Case transmission did occur, then (18) (Chomsky's [48]) should be acceptable, which it is not.

(18) *There seems a man to be in the room.

In light of this consideration, we will also assume that Case is not transmitted to the object of an in situ transitive passive.[15]

How, then, are we to account for this passive structure? Following Chomsky (1986), we will distinguish between the structural Case with which a Case assigner marks its complement by virtue of the configurational relation that holds between them, and the inherent Case that a lexical Case assigner gives to its complement(s) as a consequence of a feature specified in its lexical representation. In a canonical active transitive VP where the verb takes a lexically realized object NP, it assigns both inherent and structural Case to its complement.

We will assume that the lexical feature of a passive morpheme that causes it to absorb Case is parameterized, so that passive morphemes are lexically specified as + or − strong Case absorbers (SCA). If this feature receives a positive value, the passive morpheme blocks both inherent and structural Case assignment to the complement of the verb to which it is attached. When a negative value is selected, the passive morpheme inhibits only the assignment of structural Case.[16] We will reformulate the Case Filter as in (19).

(19) *The Case Filter (revised):*
An A-chain must contain at least one Case-marked position of either type, and at most one Case-marked position of each type.

Within an active transitive VP, the object NP constitutes an A-chain with one element, which receives both structural and inherent Case. If a +SCA passive morpheme is attached to a transitive verb, its complement NP must move to subject position to satisfy the Case Filter. However, if a −SCA passive morpheme is present, either the complement NP can remain in object position, where it will receive inherent Case, or it can move to subject position where it will receive structural Case. If the former option is chosen, the resulting A-chain will have one Case-marked position, corresponding to the theta-marked position, which receives inherent Case. In the latter instance, the A-chain will have two distinct Case positions, each of a different type.[17,18]

On our analysis of the passive, there are two distinct parameterized features in the lexical representation of passive morphemes. The values

of these features can vary independently of each other. The matrix in (20) represents the range of impersonal passive structures permitted by each combination of values for TRB and SCA.[19]

(20)

	+TRB	−TRB
+SCA	intransitive impersonal passive only (German, Czech reflexive passive)	neither intransitive impersonal passive, nor in situ transitive passive (English, Czech auxiliary passive)
−SCA	intransitive impersonal passive and in situ transitive passive (Norwegan, Ukrainian)	in situ transitive passive only (Hebrew)

As (20) illustrates, the predictions that our theory makes concerning the range of possible passives associated with each configuration of feature values are exemplified for every case.

Finally, we note that our analysis accounts for the existence of the limited set of impersonal propositional passives that are possible in languages like English, which generally exclude impersonal passive structures.

(21) a. It is widely believed that John is competent.
b. It was decided to appoint Mary to the position.

The passive verbs in (21a) and (21b) assign internal roles to their sentential complements, and so these sentences satisfy the NBVC. Moreover, as these complements are not NPs, they do not require Case. Therefore, there is no violation of the Case Filter, despite the fact that the passive morpheme in English is +SCA.[20]

We will now briefly consider three alternative accounts of impersonal passive constructions, which rely primarily on various aspects of Case theory.

3. Intransitive verbs as Case assigners

Jaeggli (1986) maintains that the passive morpheme is an argument that is always assigned an external theta role and structural Case. He suggests that in languages like Arabic and German, intransitive (unergative) verbs assign structural Case, and so intransitive impersonal passives are possible. Intransitive verbs in English, on the other hand, are not Case assigners, and so impersonal passives are excluded. Jaeggli also assumes

that transitives in languages that permit in situ transitive passive structures assign two structural Cases. Transitive verbs in languages like English and German assign only one structural Case. Therefore, they cannot have in situ NP complements when they are passivized, unless these complements receive a marked inherent Case, as happens when double-object verbs are passivized.

There are at least two serious difficulties with Jaeggli's analysis. First, as Rappaport (1989) points out, intransitive verbs in English can assign structural Case when they take NP complements with resultative phrases.

(22) a. He laughed himself sick.
b. John ran his heels flat.

On Rappaport's account, *himself* and *his heels* are nonsubcategorized complements of *laughed* and *ran*, respectively. These verbs assign Case, but not theta roles, to their complements in (22a) and (22b).

Moreover, optional complement verbs are Case assigners, but they do not permit impersonal passivization.

(23) a. John ate (the meal) heartily.
b. *It was heartily eaten.

As the verbs in (22) and (23) allow optional NP objects, they are Case assigners. Therefore, on Jaeggli's analysis, they should be able to assign Case to the passive morpheme when they occur without objects, and so this analysis incorrectly predicts that verbs of this kind will permit impersonal passivization in English.

Second, Jaeggli's account entails mutually incompatible conclusions concerning the Case-assigning properties of intransitive verbs in Czech. As Czech intransitives do not permit impersonal passive formation with the auxiliary passive morpheme, Jaeggli must assume that they are not Case assigners.

(9) b. *(Mně) bylo dobře utīkano.
(me-DAT) was well runs.

But he must treat them as Case assigners in order to explain the fact that they do passivize with the reflexive passive morpheme.

(10) b. Tady se dobře utīkā.
here REFL well runs

Neither of these problems arises on our analysis. We explain the variation in the possibilities for intransitive impersonal passive formation in terms of the value assigned to the TRB feature of particular passive morphemes. Therefore, we can allow intransitive verbs to be Case assign-

ers (although our account does not require that they be). Impersonal passivization of both intransitives and optional complement verbs is ruled out by the NBVC when the passive morpheme is marked as −TRB.

4. Parametric variation in the Case requirements of the passive morpheme

Åfarli (1989) proposes that the passive morpheme must be assigned Case in English, but not in Norwegian. Consequently intransitive impersonal and in situ intransitive passives are possible only in the latter.

(22) and (23) pose a problem for Åfarli, as well as for Jaeggli. If intransitive and optional complement verbs can be Case assigners in English, then it is not clear how his analysis excludes impersonal passives in English.

More significantly, this explanation will not generalize to German or Hebrew. As intransitive impersonal passives exist in German, it follows that the passive morpheme need not receive Case. Then Åfarli's analysis predicts, contrary to fact, that in situ transitive passives should also be possible in German. Conversely, given that Hebrew allows the latter construction, Åfarli's theory incorrectly implies that it should permit the former.

In our theory, the values of the TBR and SCA features are determined independently of each other. Therefore, the presence of one type of impersonal passive in a language does not entail the appearance of the other in that language.

5. An extended visibility condition account

BJR follow Jaeggli in treating the passive morpheme as an argument that is always assigned a theta role. They substitute a disjunctive visibility condition for the Case Filter. According to this condition, an argument is visible for theta-role assignment if either (i) it is assigned case, or (ii) it is morphologically incorporated into an expression of an X^0 category. They formulate a parameterized visibility principle with three possible values, which are organized in an ascending hierarchy of restrictiveness. The principle and its possible values are given in (24).

(24) If α is an argument of a language, then α can be made visible by
   a. Case assignment or incorporation;
   b. Case assignment if structurally possible; otherwise incorporation;
   c. Case assignment only.

The (a) value is the least restrictive, and it is exemplified by languages that permit both intransitive impersonal and in situ transitive passives. In this instance, the passive morpheme is rendered visible only by incorporation into the verb, and so it need not receive Case. Therefore, the passive verb can assign Case to a complement NP. (b) is the intermediate value, which is selected by German. Intransitives do not take NP complements or assign Case, and so the passive morpheme on an intransitive can be rendered visible by incorporation. Transitives do assign Case, and so a passive morpheme on a transitive verb must receive Case. This leaves the NP complement without Case, and it must move to subject position to satisfy the visibility condition. English illustrates the (c) value. It requires that the passive morpheme always be Case-marked. Therefore, intransitive impersonal and in situ transitive passives are ruled out.

There are at least three difficulties with this theory. First, as in the previous two analyses, (22)–(23) are problematic for this theory.

A second and more significant problem is that the BJR analysis excludes the option exemplified by Hebrew in which in situ transitive passives are possible but intransitive impersonal passives are not. This analysis entails that if the former construction is permitted, then incorporation is freely available as a means of satisfying the visibility condition. Therefore, it incorrectly predicts that intransitive impersonal passives will also be permitted.

Finally, it is not obvious how this theory can accommodate the two passive constructions in Czech. The parameterized visibility principle given in (24) is a general condition on arguments. It is reasonable to assume that a value for this principle will be determined with respect to all arguments in a given language, or at least for a class of arguments. But to explain the behavior of the two passive constructions in Czech, BJR must allow distinct values for the principle to be selected for different lexical items of the same argument class in one language. This involves allowing a general visibility principle to make reference to specific arguments, and this is clearly undesirable.

We have already seen that the first two of these problems do not arise on our proposed analysis. This analysis also avoids the third difficulty. We take the passive morpheme to be exempt from the Case Filter by virtue of morphological merger (or association) with the verb. Its two parameterized features are not general principles of the grammar, but lexical properties whose parametric values can be expected to vary independently of each other across the set of passive morphemes, both within a given language, and cross-linguistically.

6. Conclusion

We have proposed that passive morphemes have a theta role–bearing and a Case-absorbing feature, and that these features are parameterized. As the values for these features are determined independently of each other, there are four possible configurations of joint feature assignments. Each such combination allows a specific range of impersonal passive constructions, and each predicted range is, in fact, exemplified in one or more languages. Our analysis provides a more comprehensive and straightforward account of the cross-linguistic facts of impersonal passive formation than any of the three alternative theories that we considered.

Received 4 February 1992
Revised version received
15 September 1992

IBM T. J. Watson Research Center
University of Geneva

Notes

* We are grateful to Malka Rappaport for helpful discussion of some of the ideas presented in this paper, to a helpful *Linguistics* reviewer, and to the audience at Brandeis University, where parts of this paper were presented. We would also like to thank Elena Biller-Lappin for the Czech and German data, and Miriam Lappin and Anita Mittwoch for judgments on some of the German sentences. Correspondence address: Dr. Ur Shlonsky, Département de linguistique générale et française, Université de Genève, 3, place de l'Université, CH-1211 Genève 4, Switzerland; Dr. Shalom Lappin, Thomas J. Watson Research Center, P.O. Box 704, Yorktown Heights, NY 10598, USA.

1. Weather verbs such as *rain* in (i) constitute a putative counterexample to the NBVC.

   (i) It is raining.

   However, there are grounds for treating the subject of (i) as a quasi argument that receives a theta role. As the contrasts in (ii) and (iii) indicate, the subject NP of a weather verb can appear in a theta-marked position, from which expletives are excluded.

   (ii) a. John forced it to rain by using cloud-seeding techniques.
   b. *John forced it to seem that he is funny.
   (iii) a. A rise in air pressure prevented it from raining.
   b. *John prevented it from seeming that Mary is funny.

2. Chomsky (1986) proposes an analysis of this kind for existential *there* sentences.
3. See Cooper (1983) and Lappin (1984, 1991) for discussions of storage as an alternative to QR.
4. Raising verbs like *seem* in (i) assign an internal theta role but do not head VPs that are predicated of NPs.

   (i) It seems that Mary is happy.

One could claim that although *seem* is syntactically a function from a sentence (CP) to a VP in (i), semantically it is a sentential adverb, that is, a function from propositions to propositions. In this case, there is a lack of correspondence between the syntactic and semantic functions assigned to this expression. Williams (1982) suggests a view of this kind. Alternatively, we might argue that the complement of *seem* forms a theta chain with the expletive and so is interpreted as the subject of *seem* (through LF movement or a variant of storage), which is taken as denoting a property of propositions.

5. A reviewer for this journal questions the validity of this argument against BJR on the ground that an NP, that is, a maximal projection, cannot appear in I, since it is a zero-level category and therefore cannot dominate an X^{max}.

   Theta roles need not be assigned to maximal projections, as we are not claiming that passive morphemes are maximal. However, a position to which a theta role can be assigned is an A-position, and so a maximal projection could, in principle, appear here. Therefore, claiming that the passive morpheme occurs in I, as BJR do, creates the problem that we point out. It is not sufficient to observe that I can only be occupied by an X^0 constituent to avoid this difficulty. The question remains as to how a canonical head position can also be both an A and a possible theta-marked position.

6. The idea that the passive morpheme receives a theta role is implicit in Chomsky (1981) and is a cornerstone of BJR. Among the well-known arguments in favor of this view is the fact that the passive morpheme can control the subject of a purpose clause as in (i) (with Control of PRO indicated by coindexing.)

   (i) The boat was sunk (sink + ed_i) [[PRO_i to collect the insurance]]

7. Jaeggli (1986) proposes a similar view. However, there are differences between our proposal and his. We compare our analysis of the passive to Jaeggli's in section 3.

8. Jaeggli (1986) suggests a similar account of the *by* phrase in passives. However, while Jaeggli claims that the passive morpheme is always a theta-marked argument, we maintain that this is only sometimes the case. We discuss Jaeggli's treatment of impersonal passives in section 3.

   We can interpret a *by* phrase as an adverbial function on a VP that maps the property that the VP denotes into a property specified as one for which the subject argument is identical to the entity denoted by the object of the *by* phrase. Thus, if we assume that (ia) is the property denoted by *was written*, then (ib) is the property corresponding to *was written by John*.

   (i) a. $\lambda(y)[\exists x(x \text{ write } y)]$
   b. $\lambda(y)[\exists x(x \text{ write } y \ \& \ x = j)]$

   (ii) represents the interpretation of *The book was written by John*.

   (ii) $\lambda(y)[(\exists x(x \text{ writes } y \ \& \ x = j)]$ (the book)

   The function that the *by* phrase denotes does not introduce the subject argument directly but identifies the interpretation of *John*, the object of the *by* phrase, with the bound variable in subject position. Therefore (ii) satisfies the semantic constraint that we identified with the NBVC by virtue of the fact that the property denoted by $\lambda(y)[\exists x(x \text{ writes } y \ \& \ x = j)]$ applies to the argument *the book*.

9. We are grateful to Malka Rappaport for suggesting this line of argument to us.

10. Arabic patterns like German in allowing circumstantial predicates with passive VPs, while Hebrew behaves like English in ruling these structures out.

(i) a. ʕuzifat l-muusiiqqa bi-l-ʔabyaḍ.
played-PASSIVE the music in-the-white
'The music was played in white.'
b. ruqisa fi-l-naadi minduun l-θiyaab.
danced-PASSIVE in-the-club without the-clothes
'It was danced in the club without clothes.'

(ii) *ha-harcaʔa nitna ʕerom.
the-lecture give-PASSIVE nude
'The lecture was given nude.'

This contrast follows from our explanation of the contrast between (7a) and (7b), if we assume that the passive morpheme in Arabic is +TRB, and the passive morpheme in Hebrew is −TRB.

11. It is important to distinguish between circumstantial predicates like *naked* in (8b) and superficially similar PP manner adverbials like *in (the) nude*, which can occur with passive VPs in languages where the passive morpheme is −TRB, such as English and Hebrew.

(i) The lecture will be given in the nude.

(ii) a. *ha-harcaʔa tinaten ʕerom.
the-lecture give-PASSIVE-FUT nude
'The lecture will be given nude.'
b. ha-harcaʔa tinaten be-ʕerom.
the-lecture give-PASSIVE-FUT in-nude
'The lecture will be given in the nude.'

Unlike circumstantial predicates, PP manner adverbs do not require independent subject control. This distinction between circumstantial predicates and PP manner adverbs is supported by the fact that only the latter can occur as modifiers of deverbal nouns.

(iii) a. an appearance in the nude
b. *an appearance naked

(iv) a. a performance in formal dress
b. *a performance formally dressed

When an NP controller appears in NP subject position, circumstantial predicates seem at least marginally possible.

(v) a. John's appearance naked amused his friends.
b. ?Mary's performance formally dressed delighted the audience.

12. The fact that the third person reflexive clitic *se* is not adjacent to the verb in (10a)–(10c) poses a problem for our claim that the passive morpheme is attached to the verb at S-structure. One possibility is that the presence of nominal reflexive morphology on this passive morpheme prevents it from being morphologically merged with the verb. Therefore, it is adjoined to V′. This analysis accounts for the fact that the adverb *dobře* precedes the verb and follows the clitic in these cases. It will be necessary to claim that the clitic is able to absorb the inherent and structural Cases of the verb from the adjoined V′ position.

13. Perlmutter (1978) and Perlmutter and Postal (1984) explain this generalization by means of the *1 Advancement Exclusiveness Law*, while Marantz (1984) invokes the *Nonvacuous Affixation Principle* to rule out the attachment of passive morphology to

unaccusative verbs. The generalization follows from our account independently of either of these principles for cases in which the passive morpheme is +TRB. However, as John Frampton has pointed out to us, we still require an additional principle of this kind to prevent impersonal passivization of ergative verbs when the passive morpheme is −TRB, as it is in English. This is due to the fact that in this instance, the internal argument of an ergative verb could raise directly into Spec/I position to receive Case, and the verb will thus satisfy the NBVC. As the passive morpheme is −TRB, it will not require a theta role.

14. See BJR for additional examples and references. We discuss the analysis of impersonal passives that BJR propose in section 5.
15. See Lasnik (1992) and Shlonsky (1987) for additional arguments against Case transmission.
16. Note that the fact that the passive morpheme, in addition to bearing the external theta role, absorbs accusative and not, say, nominative Case follows from structural considerations: accusative but not nominative Case is assigned internally to VP (nominative being assigned via the inflectional system). It would be strange for a morpheme base-generated in Spec/V to block a structural Case assigned by Infl.
17. Passives involving double-object verbs in English, like those in (i), pose a difficulty for our account of in situ transitive passives, given our characterization of the English passive morpheme as +SCA.

    (i) John was given a book.

    One way around this problem is to assume that double-object verbs are lexically marked as assigning two inherent Cases. This assumption will explain the fact that double-object verbs can take a second NP complement without a mediating Case-assigning preposition. We could stipulate that when passive morphology attaches to a double-object verb in English, it suppresses structural Case and one of its inherent Cases. The second inherent Case remains available for assignment to an NP complement in a structure like (i). This approach correctly predicts that an in situ NP complement is possible with a passive verb in English only when the verb can assign two inherent Cases. Larson (1989) assumes that passive transitive verbs in English generally retain their inherent Case-assigning capacity. While this view allows for double-object passives, it is not clear how it can rule out in situ transitive passives with non–double-object verbs, like

    (ii) *There was written a book.

    Notice that double-object verbs with optional complements are a problem for both accounts. On both analyses, we would expect them to permit in situ transitive passives with one complement realized in object position, but such constructions are excluded.

    (iii) a. *There was sent Mary.
          b. *There was sent a letter.

    It might be possible to accommodate these cases within the framework of our proposal by stipulating that the second inherent Case of a double-object verb is available only when both NP complements are realized at D-structure.
18. A reviewer for this journal notes that the object of the Norwegian sentence (4) is predicted by our analysis to be in the accusative. However, since Norwegian lacks a morphological distinction between accusative and nominative, s/he suggests that we look at Icelandic, where NPs are overtly Case-marked. Vikner (personal communication and 1991: 189) provides the following example, where the postparticipial NP bears nominative and not accusative Case.

(... adh) thadh var bordhadh epli
(... that) there was eaten (an) apple-NOM

One might argue that morphological Case on *apple* in (i) is an instance of inherent, rather than structural Case and therefore does not constitute a counterexample to our analysis.

19. A reviewer notes that sentences such as (i), where the dative phrase appears to the left of the passivized object (i.e. in a hierarchically higher position) pose a problem for our analysis, which holds that NP movement is obligatory in German passives (since the passive morpheme is classified as [+TRB, +SCA]).

(i) weil dem Arnim das Fahrrad gestohlen wurde
because to the Arnim the bike stolen was

The question is this: if *das Fahrrad* is in Spec/I, what position is occupied by *dem Arnim*? A possible answer would be to hold, with, for example, Webelhut (1992), that the dative in (i) is scrambled leftward over the passivized object, giving rise to the word order observed in (i).

20. Examples like (i) in French pose a problem for our theory.

(i) Il a eté parlé de votre livre hier.
it was talked about your book yesterday

Like English, French, does not permit impersonal passive constructions with intransitives or in situ transitive passives. Therefore, the passive morpheme in French is −TRB and +SCA. But, as (i) illustrates, at least some PP complements can occur in situ with passive verbs. Such oblique complement passives are excluded in English.

(ii) *It was talked about your book yesterday.

We do not have a fully developed account for this contrast between English and French. However, a possible line of explanation is as follows. English permits preposition stranding, while French does not.

(iii) a. The book was talked about.
b. *Le livre a eté parlé de.

This is often attributed to the possibility of reanalyzing prepositions as constituents of complex verbs in English, but not in French (see, for example, Stowell 1981). If we assume that the presence of passive morphology on a verb always triggers reanalysis of the preposition heading an adjacent complement, then the contrast between English and French follows. In English, the complex verb that results from reanalysis in (ii) has a passive morpheme attached to it. Hence it cannot assign Case to the object of the preposition, which is, in effect, an in situ direct object. The prepositional head of the complement in (i), on the other hand, is not reanalyzed and so continues to assign Case to its object.

References

Åfarli, Tor (1989). Passive in Norwegian and in English. *Linguistic Inquiry* 20, 101–108.
Baker, Mark; Johnson, Kyle; and Roberts, Ian G. (1989). Passive arguments raised. *Linguistic Inquiry* 20, 219–251.

Chomsky, Noam (1981). *Lectures on Government and Binding*. Dordrecht: Foris.
—(1986). *Knowledge of Language: Its Nature, Origin, and Use*. New York: Praeger.
Cooper, Robin (1983). *Quantification and Syntactic Theory*. Dordrecht: Kluwer.
Heim, Irene (1982). The semantics of the definite and indefinite noun phrases. Unpublished doctoral dissertation, University of Massachusetts, Amherst.
Higginbotham, James (1985). On semantics. *Linguistic Inquiry* 16, 547–594.
Jaeggli, Osvaldo (1986). Passive. *Linguistic Inquiry* 17, 586–622.
Kamp, Hans (1984). A theory of truth and semantic representation. In *Truth, Interpretation and Information*, Jeroen Groenendijk et al. (eds.). Dordrecht: Foris.
Kitagawa, Yoshihisa (1986). Subjects in Japanese and English. Unpublished doctoral dissertation, University of Massachusetts, Amherst.
Koopman, Hilda; and Sportiche, Dominique (1988). The position of subjects. *Lingua* 85, 211–258.
Kuroda, S.-Yuki (1988). Whether we agree or not. In *Japanese Syntax. Papers from the Second International Workshop on Japanese Syntax*, William Poser (ed.). Stanford: CSLI.
Lappin, Shalom (1984). VP anaphora, quantifier scope, and logical form. *Linguistic Analysis* 13, 273–315.
—(1991). Concepts of logical form in linguistics and philosophy. In *The Chomskyian Turn*, Asa Kasher (ed.). 300–333. Oxford: Blackwell.
Larson, Richard (1989). On the double object construction. *Linguistic Inquiry* 19, 335–392.
Lasnik, Howard (1992). Case and expletives. *Linguistic Inquiry* 23, 381–405.
Marantz, Alec (1984). *On the Nature of Grammatical Relations*. Cambridge, MA: MIT Press.
Perlmutter, David (1978). Impersonal passives and the unaccusative hypothesis. *Berkeley Linguistic Studies* 4, 157–189.
—; and Postal, Paul (1984). The 1-advancement exclusiveness law. In *Studies in Relational Grammar*, vol. 2, David Perlmutter and Carol Rosen (eds.). Chicago: University of Chicago Press.
Rappaport, Malka (1989). Resultatives. Paper presented at the Fifth Annual Conference of the Israel Association for Theoretical Linguistics, Haifa.
Roberts, Ian G. (1988). Predicative APs. *Linguistic Inquiry* 19, 703–710.
Rosen, Carol (1984). The interface of semantic roles and initial grammatical relations. In *Studies in Relational Grammar*, D. Perlmutter and C. Rosen (eds.). 38–77.
Shlonsky, Ur (1987). Null and displaced subjects. Unpublished doctoral dissertation, MIT.
Sobin, Nicholas (1985). Case assignment in Ukrainian morphological passive constructions. *Linguistic Inquiry* 16, 649–662.
Sportiche, Dominique (1988). A theory of floating quantifiers and its corollaries for constituent structure. *Linguistic Inquiry* 19, 425–450.
Stowell, Tim (1981). Origins of phrase structure. Unpublished doctoral dissertation, MIT.
Vikner, Sten (1991). Verb movement and the licensing of NP positions in the Germanic languages. Unpublished doctoral dissertation, Université de Genève.
Webelhut, Gert (1992). *Principles and Parameters of Syntactic Saturation*. New York: Oxford University Press.
Williams, Edwin (1982). Syntactic vs. semantic categories. *Linguistics and Philosophy* 6, 423–446.