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THE CASE OF QUIRKY SUBJECTS

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THE CASE OF QUIRKY SUBJECTS

0. Introduction

So-called quirky subjects are subjects with a lexically selected non-nominative Case.[1] This paper discusses the implications raised by such subjects for the standard Case-theoretic approach to NP-movement and argument chain formation (of Chomsky 1981, 1986a, and many others). The basic problem posed by quirky subjects is well known and simple: quirky subjects are either in chain with [Spec, IP] or moved there, and nevertheless they are non-nominative. It will be argued here that this problem should be taken seriously within GB theory, and that NP-movement and argument chain formation should accordingly not be explained in terms of abstract Case.[2] That is, quirky subjects are not assigned any invisible abstract nominative Case in addition to their inherent Case. Rather, structural Case either remains unassigned or is assigned to a non-subject in quirky constructions, and therefore the movement of quirky subjects into the domain of Infl cannot be Case-driven. I develop an alternative analysis, where promotion to subject or argument chain formation is dinstinguished from overt NP-movement as such, and argue that neither phenomenon is triggered by Case. Promotion to subject or argument chain formation involves subject chain extension and is triggered by a general and simple condition on chains, the *Generalized Chain Condition* (having the effect that chains must either combine or be visibly distinct, structurally or featurally). Overt NP-movement, in turn, applies within extended subject chains, and is triggered by definiteness (or the binding conditions, cf. Safir 1985) and various other poorly understood factors. If so, we have strong reasons to question the hypothesis that there should be a *universal* Case Filter or Visibility Condition. As in the standard approach, however, the members of a chain may not be feature distinct, that is, subject chain extension is blocked if it leads to a doubly Case-marked chain. It follows that quirky subjects should be possible only in languages that (have morphological inherent Case and) allow suppression or non-assignment of structural Case.

The following discussion is strictly GB theoretic. Quirky subjects have received interesting aynalyses within alternative frameworks, above all in Zaenen, Maling and Thráinsson (1985) and in Yip, Maling and Jackendoff (1987). I draw on generalizations made by these and many other authors, but I shall not make any attempt to evaluate my approach against theirs. My aim is to study the implications of quirky subjects for GB theory, and not to claim that they are better (or worse) accommodated in GB than in other frameworks.

Section 1 states the problem raised by Icelandic quirky subjects, and section 2 contains a brief overview of Icelandic quirky constructions. Section 3 discusses and argues against the possibility of analyzing quirky subjects as unproblematic for the standard Case

[1] I wish to thank Anders Holmberg, Jóhannes Gísli Jónsson, Joan Maling, Christer Platzack, Höskuldur Thráinsson and Sten Vikner for valuable and insightful comments on an earlier draft version. Although this is only a working paper, I am indepted to many others, including Cecilia Falk, Gisbert Fanselow, Hubert Haider and Tarald Taraldsen.

[2] The reason why I use the term "GB theory" is purely practical. I assume roughly the principles and parameters approach as outlined in Chomsky (1986a, 1986b). In the interest of (more) general readability I do not recast my discussion in the conceptually attractive "minimalist program" (Chomsky 1992). Quirky subjects raise the same problems in the minimalist program as in earlier versions of the Case-theoretic approach to NP-movement (i.e., assuming that NPs move in order to get their Case checked, rather than assigned, does not solve any of the problems raised by quirky subjects).

theory, and section 4 develops an alternative GB type approach. Most of my arguments are drawn from Icelandic, but comparison with German and Russian suggests that structural Case-marking indeed blocks quirky subjects in some (perhaps most) morphological case languages. In other words, rather than being triggered by Case, argument chain formation (and hence NP-movement) may be blocked by Case.

1. The Problem

Icelandic has all the familiar properties of nominative-accusative languages: Nominative subjects, accusative objects, verb (and predicate) agreement with nominative subjects, accusative Case "absorption" in passive, NP-movement in passive, ergative (unaccuastive) and raising constructions. This is illustrated in (1)-(4):[3]

(1) a Við kusum stelpuna.
we(N) elected(1pl) the girl(A)
b **Stelpan** var kosin.
the girl(N) was(3sg) elected(Nsg.f)

(2) a Þið stækkuðuð garðana.
you(N) enlarged(2pl) the gardens(A)
b **Garðarnir** stækkuðu.
the gardens(N) enlarged(3pl)

(3) **Þær** eru kaldar.
they(Npl.f) are(3pl) cold(Npl.f)

(4) **Þær** virðast hafa verið kosnar.
they(Npl.f) seem(3pl) have been elected(Npl.f)
`They seem to have been elected.'

However, as has been widely discussed in the literature, Icelandic also has numerous so-called quirky subjects, i.e. genitive, accusative or (most commonly) dative subjects.[4] This is illustrated for datives in (5b), (6b), (7) and (8), which should be compared to (1b), (2b), (3) and (4), respectively; notice that quirky subjects differ from nominative subjects in that they never trigger verb (or predicate) agreement, a fact to which I will return:

(5) a Við hjálpuðum stelpunum.
we(N) helped(1pl) the girls(Dpl.f)

[3] I assume, without discussion, that all predicative adjectives are ergative (see Sigurðsson 1989). Icelandic nominals inflect for number (sg, pl), gender (m, f, n), and four morphological cases: **N** = nominative, **A** = accusative, **D** = dative, **G** = genitive. Finite verbs inflect for person (1, 2, 3) and number (sg, pl), showing four to six distinct forms in both tenses (present and past) and both moods (indicative and subjunctive).

[4] See for example Andrews (1976, 1982), Thráinsson (1979), Bernódusson (1982), Marantz (1984), Zaenen and Maling (1984), Zaenen, Maling and Thráinsson (1985), Platzack (1987), Yip, Maling and Jackendoff (1987), Sigurðsson (1988, 1989, 1990-91, 1991), Platzack and Holmberg (1989), Ottósson (1989), Van Valin (1991), Freidin and Sprouse (1991), Rögnvaldsson (1991), Maling and Sprouse (1992). See also many of the contributions in Maling and Zaenen (1990).

b **Stelpunum** var hjálpað.
the girls(Dpl.f) was(3sg) helped(n.sg)
`The girls were helped.'

(6) a Það seinkuðuð ferðunum.
you(N) delayed(2pl) the journeys(D)
b **Ferðunum** seinkaði.
the journeys(D) was-delayed(3sg)
`The journeys (were) delayed.'

(7) **Þeim** er kalt.
them(D) is(3sg) cold(n.sg)
`They are freezing.'

(8) **Þeim** virðist hafa verið hjálpað.
them(D) seems(3sg) have been helped(n.sg)
`They seem to have been helped.'

All quirky subjects of passives and many quirky subjects of ergatives correspond to (and have the same morphological case and theta-role as) objects of corresponding transitives and causatives, as illustrated in (5) and (6). Thus, given standard assumptions, at least many quirky subjects are derived. If so, they obviously have interesting implications for the Case-theoretic approach to NP-movement and argument chain formation.

In the standard GB approach, NP-movement is triggered by abstract Case: an NP crucially moves from a non-Case position to a Case-position, "in order" not to violate the Case Filter (or the Visibility Condition, cf. Chomsky 1986a). At first sight, this approach might seem to be immediately refuted by Icelandic "quirky NP-movement". However, if it could be argued that morphological case (m-case) is not a reflection of abstract Case, it might be possible to maintain the *abstract* Case explanation of NP-movement: the dative in e.g. the passive in (5b) would then have to move into the subject position in order to be successfully assigned (PF invisible) abstract Case, in addition to its m-case. This approach has been repeatedly suggested in the literature (e.g. by Belletti 1988). I shall refer to it as the *Double Case Approach*. The obvious alternative is the *Single Case Approach*, as I shall call it. On this second approach, quirky subjects carry only their PF visible inherent Case, with the consequence that NP-movement and argument chain formation cannot be explained in terms of abstract Case-marking. As we shall see, normal nominative NP-movement does not seem to be Case-driven either.

I shall discuss these alternative analyses in sections 3 and 4.

2. Icelandic Quirky Constructions: An Overview

This section gives some necessary background information on Icelandic quirky subjects. I give a simple overview of quirky constructions, illustrate that quirky subjects have properties that are typical of S-structure subjects, and argue that at least many quirky subjects are derived, i.e. base generated and assigned both Case and theta-role as objects and then promoted to subject.[5]

[5] For a more thorough description of Icelandic quirky subjects, the reader is referred to Zaenen and Maling (1984),

As noted by many (e.g. Zaenen, Maling and Thránsson 1985, Sigurðsson 1989), the m-case of quirky subjects is selected by individual lexical items (Vs, As, Ns). Thus, for example, the verb *vanta* `lack, need' selects an accusative subject, whereas the semantically related *þurfa* `need' does not select inherent Case for its subject. This is illustrated in (9) and (10); as seen in (9b) and (10b), auxiliaries have no effects on Case selection of lexical heads (cf. Thráinsson 1986):

(9) a **Okkur** vantaði vinnu.
us(A) lacked(3sg) job(A)
`We lacked/were in need a job.'
b **Okkur** hafði lengi vantað vinnu.
us(A) had(3sg) long lacked job(A)

(10) a **Við** þurftum vinnu.
we(N) needed(1pl) job(A)
b **Við** höfðum lengi þurft vinnu.
we(N) had(1pl) long needed job(A)

Subjects are most commonly nominative, but almost all types of lexical items that can head a predicate include some items that select a quirky subject, rather than a nominative one. The list in (11) is not exhaustive:

(11)	a	Monadic verbs:	Dat, Acc or (rarely) Gen subject
	b	Dyadic verbs:	Dat or Acc
	c	Predicative adjectives:	Dat
	d	Predicative nouns:	Dat or Gen
	e	Monadic passives:	Dat or Gen
	f	Dyadic passives:	Dat
	g	Present participles:	Dat or Gen
	h	Ergativized infinitives:	Dat, Acc or Gen

These different types are exemplified in (12):

(12) a **Hana** þyrstir. (monadic verb)
her(A) thursts
`She is thursty.'
b **Henni** líkuðu hestarnir. (dyadic verb)
her(D) liked the horses(N)
`She liked the horses.'
c **Henni** var óglatt. (predicative adjective)
her(D) was nauseated
`She was nauseated.'
d **Henni** var engin vorkunn. (predicative noun)
her(D) was no pity(N)
`There was no reason to pity her.'
e **Hennar** var saknað. (monadic passive)

Zaenen, Maling and Thráinsson (1985), and Sigurðsson (1989).

her(G) was missed
`She was missed (by someone).'

f **Henni** voru gefnar bækurnar. (dyadic passive)
her(D) were given the books(N).
`She was given the books.'

g **Henni** er ekki bjóðandi. (present participle)
her(D) is not inviting
`She is not invitable.'

h **Hana** er hvergi að finna. (ergativized infinitive)
her(A) is nowhere to find
`She is nowhere to be found.'

This description is rather gross and only meant to give a general picture of the "quirky phenomenon" in Icelandic. There are for example many different subclasses of quirky-taking monadic verbs and (at least) two distinct classes of dyadic quirky-taking verbs (Acc-Acc verbs, as in (9), and Dat-Nom verbs, as in (12b)).[6] Present participles can only take a quirky subject when they have semantics that corresponds (roughly) to that of English adjectives derived from verbs by *-able*-suffixing (type *readable*, cf. Williams 1981), quirky-taking nouns are not numerous, and ergativization of infinitives is rather unproductive.

Quirky subjects behave like ordinary nominative subjects (and not like preposed objects) with respect to numerous syntactic phenomena, thus differing from superficially similar NPs in e.g. German (see section 4.3). These phenomena include familiar subjecthood tests, such as reflexivization, subject-verb "inversion" (the Verb-Second effect in for example questions), ECM, raising, subject control and Conjunction Reduction. This has already been shown in detail by many authors and I shall not repeat their arguments here (see e.g. Andrews 1976, Thráinsson 1979, pp. 462-476, Bernódusson 1982, pp. 128-160, Zaenen, Maling and Thráinsson 1985, Sigurðsson 1989, pp. 204 ff.). However, as the reader needs to have at least a general impression of the syntactic status of quirky subjects, I briefly demonstrate the bahavior of both a nominative subject (in (13)) and a quirky subject (in (14)) with respect to the above mentioned tests:[7]

(13) a **Hún** sá myndina **sína**. (reflexivization)
she(N) saw the picture self's(A)
`She saw her (own) picture.'

b Hefur **hún** séð myndina? ("inversion")
has she seen the picture

c Ég tel [**hana** hafa séð myndina]. (ECM)
I believe her(A) have seen the picture
`I believe her to have seen the picture.'

d **Hún** virðist [hafa séð myndina]. (raising)
she seems have seen the picture

[6] In addition, much as normal transitives and ECM verbs must be kept apart, verbs that take a nominative object (Dat-Nom verbs) must be kept strictly apart from the so-called Dative and Nominative with Infinitive (D/NcI), where the nominative is not an object, but a subject of an infinitive. See section 4.2.

[7] Sigurðsson (1989, p. 204 ff.) discusses eleven tests of this sort.

	e	**Hún** vonast til [að **PRO** sjá myndina]. she hopes for to PRO(N) see the picture `She hopes to see the picture.'	(control)
	f	**Hún** horfði og (**hún**) sá myndina. she looked and (she) saw the picture	(Conjunction Reduction)
(14)	a	**Henni** leiðist bókin **sín**. her(D) bores the book self's(N) `She finds her (own) book boring.'	(reflexivization)
	b	Hefur **henni** leiðst bókin? has her bored the book `Has she found the book boring?'	("inversion")
	c	Ég tel [**henni** hafa leiðst bókin]. I believe her have bored the book	(ECM)
	d	**Henni** virðist [hafa leiðst bókin]. her seems have bored the book	(raising)
	e	**Hún** vonast til [að **PRO** leiðast ekki bókin]. she hopes for to PRO(D) bore not the book `She hopes not to find the book boring.'	(control)
	f	**Hún** var syfjuð og (**henni**) leiddist bókin. she was sleepy and (her) bored thebook `She was sleepy and found the book boring.'	(Conjunction Reduction)

The mapping of cases onto the most prominent or central theta-roles (of both subjects and objects) is sketched in (15):

(15)	a	Agents:	Nom
	b	Experiencers:	Nom, Dat, Acc
	c	Recipients:	Nom, Dat
	d	"Deprivees":	Nom, Acc
	e	Themes:	Nom, Acc, Dat, Gen

The only general implication is AGENT → nominative (quirky subjects thus never beeing agentive). In addition, certain subregularities can be discerned for special classes of lexical items. Thus, recipients of ditransitive verbs are regularly dative, experiencers in general and experiencers of adjectives in particular strongly tend to be dative too, and so on. However, as pointed out by e.g. Zaenen, Maling and Thráinsson (1985), case/theta-role mappings are often entirely arbitrary. This is seen in (9)-(10) above and further illustrated by the examples in (16) (all meaning `She is terrified/horrified by the danger'):

(16)	a	**Hún** skelfist hættuna. she(N) is-terrified (by) the danger(A)
	b	**Hana** hryllir við hættunni. her(A) is-horrified by the danger(D)
	c	**Henni** ógnar hættan. her(D) terrifies the danger(N) `She is terrified/horrified by the danger.'

Lexical items can thus be marked as assigners of some particular inherent Case feature or features (+Dat, etc.), and the linking of their Case feature to some particular theta-role may either be arbitrarily specified in their lexical entry or regulated by a lexical redundancy rule (such rules evidently apply to classes of full-fledged lexical entries, and not to "isolated" theta-role types as such).[8] Given the hypothesis that inherent Case is associated with theta-marking (Zaenen and Maling 1984, Chomsky 1986, p. 193), both the Case feature and the role to which it is lexically linked are assigned to an NP under theta-government.[9]

Ottósson (1989, 1991a) suggests that some quirky subjects are nonderived, contra Sigurðsson (1989), who claims that all such subjects are derived or syntactically promoted from object to subject. For our purposes it suffices that at least many quirky subjects must be analyzed as derived in any transformational (or chain-theoretic) approach to NP-movement structures. This is most clearly seen in active/passive pairs, as in (17) and (18); as already mentioned, non-nominative passive subjects always bear the inherent Case of an object of a corresponding transitive:

(17) a Við hjálpuðum/björguðum/heilsuðum **henni**.
we helped/rescued/greeted her(D)
b **Henni** var hjálpað/bjargað/heilsað.
her(D) was helped/rescued/greeted
'She was helped/ rescued/greeted.'

(18) a Við söknuðum/leituðum/gættum **hennar**.
we missed/serached for/looked after her(G)
b **Hennar** var saknað/leitað/gætt.
her(G) was missed/searched for/looked after
'She was missed/searched for/looked after.'

3. The Double Case Approach

On the Double Case Approach, quirky subjects move to [Spec, IP] in order to be successfully assigned morphologically invisible abstract Case. As this approach would enable us to keep the standard Case-theoretic analysis of NP-movement and argument chain formation, it should be carefully examined. In this section I consider the question of whether it can be maintained.

The meaning of the term "abstract Case" in GB theory is in fact not very clear. However, it would seem fair to say that most linguists understand it as being strictly confined to arguments and crucially conditioned or licensed by some sort of head government (including chain government, as in den Besten 1984). If so, the temporal accusative of the adverbial NP in (19a) and the comparative dative in (19b) are not instances of "abstract Case" in the relevant sense (as seen in (19b) comparative datives can be embedded into structurally Case-marked arguments):

[8] For further discussion of case/theta-role mappings in Icelandic, see Zaenen and Maling (1984), Zaenen, Maling and Thráinsson (1985), Maling (1988), Sigurðsson (1989), Ottósson (1989, 1991a).

[9] In other words, the inherent Case feature and the associated theta-role enter syntax or the "computational system" as a single, amalgamated L-relation in the minimalist program (Chomsky 1992).

(19) a Hún var hér **tvö ár**.
she was here two years(A)
b Við eigum dóttur og **tveim árum** yngri son.
we have daughter(A) and two years(D) yonger son(A)
`We have a daughter and a two years yonger son.'

It is thus clear that m-case is not always a reflection of abstract Case in the GB theoretic sense (but see below). The question is whether the m-case of *arguments* (which must be head governed) reflects their abstract Case. Consider the active/passive pair in (20), the raising in (21) and the ECM infinitive in (22):

(20) a Við hjálpuðum **þeim**.
we(N) helped(1pl) them(D)
b **Þeim** var hjálpað.
them(D) was(3sg) helped(n.sg)
`They were helped.'

(21) **Þeim** virtist [hafa verið hjálpað].
them(D) seemed(3sg.) have been helped
`They seemed to have been helped.'

(22) Við töldum [**þeim** hafa verið hjálpað].
we believed(1pl) them(D) have been helped
`We believed them to have been helped.'

If the dative of the object in (20a) does not reflect its abstract Case, we can perhaps say that it is assigned abstract accusative by its verb, in addition to its morphological dative, and NP-moved in (20b), (21) and (22) in order to get abstract Case (nominative in (20b) and (21), but accusative from *töldum* `believed' in (22)). If so, the question arises how (more common) nominative-accusative alternations as in (23)-(25) should be analyzed:

(23) a Við aðstoðuðum **þá**.
we(N) aided(1pl) them(Apl.m)
b **Þeir** voru aðstoðaðir.
they(Npl.m) were(3pl) aided(Npl.m)

(24) **Þeir** virtust [hafa verið aðstoðaðir].
they(Npl.m) seemed(3pl) have been aided(Npl.m)
`They seemed to have been aided.'+

(25) Við töldum [**þá** hafa verið aðstoðaða].
we believed(1pl) them(Apl.m) have been aided(Apl.m)

The generalization behind the data in (20)-(25) is this (see e.g. Zaenen and Maling 1984, Zanen, Maling and Thráinsson 1985, Sigurðsson 1989): while NP-movement (or argument chain formation) never affects inherent or lexically selected Case, it affects non-selected or purely structural Case in the familiar manner. It thus seems clear that proponents of the

Double Case Approach to quirky subjects would not want to claim that the nominatives and accusatives in (23)-(25) are "double": In at least ordinary nominative-accusative patterns, morphological case is a reflection of abstract Case.

The conclusion that most nominatives and accusatives reflect abstract Case has some consequences. First, consider Case and finite verb agreement. As argued in recent studies of Icelandic agreement (Sigurðsson 1990-91, 1991, p. 332 ff., 1992), finite verb agreement is conditioned by structural nominative Case-marking (and not vice versa). That is, *the finite Infl may agree with an NP iff it assigns Case to that NP*.[10] Under the Double Case Approach we would accordingly expect verbs to agree with quirky subjects as well as with nominative subjects. As seen in the examples above, however, this prediction is not borne out: While the nominative subjects in (20a), (22) and (23)-(25) trigger obligatory finite verb agreement, the finite verbs in (20b) and (21) may not agree with their quirky subjects, showing up in the default third person singular instead. This is further illustrated by the contrast between the nominative construction in (26) and the quirky construction in (27):

(26) Við **höfðum**/*hafði hresst.
we(N) had(1pl/*3sg) recovered

(27) Okkur **hafði**/*höfðum batnað.
us(D) had(3sg/*1pl) recovered
`We had recovered.'

It should be noted in this connection that agreement is contingent on structural Case-marking, and not on morphophonological (PF) nominative case as such. There are various types of evidence in favor of this claim, for example the fact that default nominatives (which are not governed by Infl), such as dislocated and "vocative" nominatives, never control agreement. This is illustrated by the impersonal passives in (28) and (29):

(28) **Strákarnir**, við þá **hafði**/*höfðu aldrei verið talað.
the boys(N) with them had(3sg/*3pl) never been talked

(29) **Strákar**, **hafði**/*höfðu/*höfðuð ekki verið dansað við ykkur?
boys(N) had(3sg/*3pl/*2pl) not been danced with you
`You guyes, had nobody danced with you (by then)?'

Dat-Nom constructions raise another problem for the Double Case Approach. Consider the examples in (30) and (31):

(30) Okkur **höfðu** verið sagðar **sögurnar** áður.
us(D) had(3pl.) been told the stories(N) before
`We had been told the stories before.'

[10] This formulation is sufficiently strong for our purposes, but there are reasons to believe that the finite Infl *must* agree with an NP iff it assigns Case to that NP.

As argued in the above mentioned works, the nonfinite Infl seems to be a potential assigner of structural nominative Case in Icelandic, which suggests that the conditioning relation between agreement and nominative Case is such that nominative conditions agreement (when Infl contains Agr), and not vice versa.

(31) Okkur **höfðu** líkað **fyrirlestrarnir**.
us(D) had(3pl.) liked the lectures(N)

It is a well established fact that the nominative in both passive and active Dat-Nom constructions in Icelandic is an object (the dative being the subject, see e.g. Bernódusson 1982, Zaenen, Maling and Thráinsson 1985, Sigurðsson 1989, 1990-91). The agreement of the auxiliaries with the nominative objects in (30) and (31) suggests that Infl can assign or transmit structural nominative Case into VP in Icelandic (as argued in e.g. Sigurðsson 1988, 1989, 1990, Maling and Sprouse 1992).[11] Under the Double Case Approach to quirky subjects we would thus have to say that Infl assigns Case to *both* the nominative object *and* the dative subject in Dat-Nom constructions, as in (30) and (31).[12] - Unless we would want to say that the nominative, agreement controlling object is assigned invisible structural accusative by the main verb in (31) and the passive participle in (30)!

A related problem for the standard Case-theoretic approach to NP-movement is raised by non-movement of nominative subjects in passive and ergative existentials (as pointed out in Sigurðsson 1988; see also e.g. Platzack and Holmberg 1989, Andrews 1990, Vikner 1990, Sigurðsson 1989, 1991). Consider the passives in (32):

(32) a **Þrír stólar** höfðu verið seldir á uppboðinu.
three chairs(N) had(3pl) been sold at the auction
b Það höfðu verið seldir **þrír stólar** á uppboðinu.
there had(3pl) been sold three chairs(N) at the auction
c Á uppboðinu höfðu verið seldir **þrír stólar**.
at the auction had(3pl) been sold three chairs(N)
d Höfðu verið seldir **þrír stólar** á uppboðinu?
had(3pl) been sold three chairs(N) at the auction

As seen, the logical subject is nominative irrespective of whether it moves or not, and, as suggested by the agreement of the finite auxiliary, it is arguably assigned Case by Infl. If so, structural Case assignment or transmission into VP is a rather general phenomenon in Icelandic, and Icelandic NP-movement cannot be explained in terms of Case. I return to this issue in section 4.4.[13]

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[11] At first sight, it might seem possible that (active) Dat-Nom verbs regularly assign nominative to their object (cf. e.g. the discussion in Ottósson 1991b, Taraldsen 1991b, Sigurðsson 1992). On this approach, however, it would be mysterious that the auxiliary in Infl, and not the main verb, agrees with the nominative in examples such as (31) (recall that agreement is not contingent on PF nominative as such). In addition, it is unclear how Dat-Nom passives, as in (30), would be accounted for under this approach.

[12] Maling and Sprouse (1992) present interesting evidence in favor of the suggestion of Sigurðsson (1989) that both subjects and NP predicates (type "John(N) is a doctor(N)") are assigned structural nominative Case (in languages such as Icelandic, where the copula is not a structural Case assigner). It does not follow, however, that Infl can assign Case to two argumental NPs.

[13] Following Sigurðsson (1990, based on den Besten 1984), I assume that Infl assigns or transmits nominative into VP under chain-government (such government of Case being blocked, however, by Case-minimality, i.e. by intervention of a an assigner of structural Case). In his treatment of the existiential construction in English, Chomsky (1992) suggests that the indefinite subject raises in LF (adjoining to *there*), and is thus locally Case-checked (at LF) by Infl (see section 4.1 below). This approach, however, does not extend to VP internal nominatives in Icelandic Dat-Nom constructions (which are not subject to any indefiniteness restriction). In addition, it does not account for the fact (discussed in e.g. Lasnik 1989) that indefinite subjects in English existential passives must undergo at least "short" NP-movement into the domain of *be*.

If inherently Case-marked arguments need invisible structural Case in addition to their morphological case (m-case), it is mysterious why they should carry m-case. Any NP in Icelandic, including adverbial NPs and PRO (cf. Sigurðsson 1991), must have m-case if it has specified phi-feature values, i.e. Case seems to be a prerequisite for visibilty of phi-features rather than of theta-roles.[14] In addition, there seem to be various abstract Case types (i.e. different strategies that license Case and decide the Case value of any particular NP), for example default Case (as in (29) and (30)), several types of adverbial NP Case (as in (19a, b)), and argumental Case (inherent or purely structural), differing from the other Case types in being crucially licensed by government (including chain government) of a Case assigning or Case licensing head. If so, we can say that any instance of abstract Case (argumental, adverbial and so on) must be reflected or made visible by some m-case in a m-case language like Icelandic.[15] This "naturalistic" view is obviously incompatible with the Double Case Approach. On that approach, m-case would not seem to have any function in grammar.

If the notion "abstract Case" is not an axiomatic feature of UG (cf. section 4.4) it must be acquired. On the Double Case Approach, however, it is unclear how it should be acquired by the Icelandic child: the child would be constantly lead astray by innumerable mismatches between m-case and abstract Case, whereas such mismatches never arise in impoverished Case languages such as English. In other words, the Double Case Approach makes the counterintuitive prediction that m-case should make the task of acquiring abstract Case extremely difficult for the Icelandic child, instead of facilitating its acquisition. Conversely, if abstract Case is a universal feature, it is mysterious why any language should develop special morphological means to mask it.

German has constructions that are strikingly similar to Icelandic quirky constructions, for example certain passives:

(33)	a	Okkur var hjálpað.	(Icelandic)
	b	Uns wurde geholfen.	(German)
		us(D) was(3sg) helped	
		`We were helped (by someone).'	

As argued by Zaenen, Maling and Thráinsson (1985), however, German "quirky-like" constructions crucially differ from Icelandic quirky constructions: while the non-nominative argument is a subject in Icelandic, it is an object in German (i.e. it is neither in [Spec, IP] nor in chain with it). I return to this German-Icelandic contrast in section 4.3, where I suggest, first, that German "quirky-like" constructions differ from Icelandic quirky constructions in having expletive nominative pro in [Spec, IP], and, second, that structural

[14] Thanks to Höskuldur Thráinsson and Cecilia Falk for insightful comments on this issue. Normally, of course, theta-marked NPs have specified phi-features. There are however some exceptions that suggest that even lexical theta-marked NPs are not assigned structural Case (as opposed to inherent Case) if they do not have any specified phi-features (Sigurðsson 1990-91, 1992). In contrast, all NPs that have at least one specified phi-feature must have Case, whether or not they are theta-marked. These generalizations are supported by both morphological and syntactic facts, but space limitations prevent me from illustrating them.

[15] Interestingly, the relevant level of visiblity seems to be LF rather than PF, as suggested by the simple fact that the Case of PRO (and pro) is of course not directly PF visible (although it has PF visible effects in Icelandic, cf. Sigurðsson 1991 p. 328 ff. and the references cited there). If so, m-case features, and probably morphosyntactic features in general (that are at least sometimes PF visible in a given language), are LF visible even when they are not spelled out in PF.

Case can remain unassigned in Icelandic, whereas it must be assigned in German (to *pro* in examples such as (33b)). If so, the German-Icelandic contrast reflects different properties of heads that assign structural Case, which is not surprising if "parameters are ... stateable in terms of X^o-elements and X^o-categories only" (Chomsky 1991, p. 446). Proponents of the Double Case Approach would presumably have to say, instead, that UG has a parameter that says that stuctural and inherent Cases may or may not be mutually exclusive, a position that is highly problematic, as we shall see in section 4.3.

It may seem costly to reject the Double Case Approach. By rejecting it, we abandon one of the most influential claims of standard GB theory, namely the hypothesis that NP-movement and argument chain formation are Case-driven. In addition, we evaporate most of the content of the Case Filter (as a universal, see section 4.4). However, in view of the empirical and conceptual problems with the Double Case Approach, I propose that we should seriously consider an alternative explanation of NP-movement and argument chain formation.

4. The Single Case Approach

I will here develop the Single Case Approach to quirky subjects. My basic assumptions are as follows:

(34) a Nonderived subjects are generated as VP specifiers (Kitagawa 1986, Chomsky 1992 and others)

b In accord with the Extended Projection Principle (Chomsky 1986a, pp. 93, 116-117) every predicate (I', V' and so on) takes a specifier that hosts a member of a subject chain or CHAIN

c A structural Case assiger in Icelandic discharges its Case only if there is an NP in its domain (lexical or empty) that would otherwise be Caseless[16]

The point in (34c) is for example illustrated by numerous Dat-Nom verbs that take an optional nominative object, as in (35):

(35) a Mér hafði leiðst.
me(D) had(3sg) bored
`I had been bored.'

b Mér höfðu leiðst fyrirlestrarnir.
me(D) had(3pl) bored the lectures(N)
`I had found the lectures boring.'

There is no NP in (35a) that has need of nominative Case, which therefore remains unassigned, as suggested by the default third person singular of Infl. In (35b), in contrast, Infl assigns Case to and agrees with the nominative object. Thus, structural Case assignment is "last resort" in Icelandic (see also Yip, Maling and Jackendoff 1987). As we shall see in section 4.3, however, Icelandic seems to differ from both German and Russian in this respect. In a sense, then, structural Case is weaker in Icelandic than in German and

[16] For an alternative version of the Single Case Approach, where structural Case is assigned to Agr (by Comp), see Platzack (1987) and Platzack and Holmberg (1989).

Russian, which is not surprising in view of the unusually strong position of the inherent Cases in Icelandic grammar.[17]

Section 4.1 distinguishes between overt NP-movement (which decides the position of a lexical argument within its chain) and the underlying argument chain formation, and argues that overt NP-movement is not Case-driven. Section 4.2 claims that argument chain formation is not triggered by Case either but by a highly general and simple condition on chains. Section 4.3 discusses some comparative issues that lend support to the present analysis and section 4.4 contains a note on the Case Filter and structural licensing of lexical arguments.

4.1 Subject chain extension vs. overt NP-movement

Inspired by Chomsky's (1986a, p. 132 ff.) approach to expletive-argument CHAINS, I distinguish between two processes involved in NP-movement: the overt movement transformation itself, and the underlying argument chain formation, i.e. the extension of the subject chain so as to include the object (or the subject of a raising infinitive). I refer to the latter as *subject chain extension*. Consider the dative passives in (36):

(36) a **Einum stól** hafði verið stolið.
one chair(D) had been stolen
b Það hafði verið stolið **einum stól**.
there had been stolen one chair
`There had been one chair stolen.'

The D-structure representation of both examples is given in (37), where *EX* is expletive <u>pro</u> or <u>það</u> `there, it', i.e. the head of an expletive subject chain:

(37) $[_{IP}\ \mathbf{EX_i}\ [_{I'}\ I \ldots [_{VP}\ \mathbf{e_I}\ [_{V'}$ stolið einum stól]]]]
… stolen one chair(D)

This structure is input to subject chain extension, which extends the expletive subject chain to the object by coindexing the two, yielding (38):[18]

(38) $[_{IP}\ \mathbf{EX_i}\ [_{I'}\ I \ldots [_{VP}\ \mathbf{e_I}\ [_{V'}$ stolið **einum stól**$_i$]]]]

Subsequently, the argument of the so formed expletive-argument chain (or CHAIN) may or may not raise "within its chain", by overt NP-movement. This distinction between overt NP-movement and subject chain extension is supported by the well-known fact that the latter applies in PRO infinitives, under the same structural conditions as in finite clauses (on this issue in Icelandic, see Thráinsson 1979, p. 282 ff.).[19]

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[17] In another sense, however, Icelandic has very "strong" structural Case, namely in the sense that it makes extensive use of long distance structural Case-marking, both nominative and accusative (in ECM). See section 4.4.

[18] The notion of "extended chain" is adapted from Chomsky (1986b, p. 75).

[19] It is possible that movement reduces to chain formation (and some feature spreading mechanism within chains), as argued by Roberts (1991) and Taraldsen (1991a) (but compare Chomsky 1992). That is, "movement" is perhaps only a metaphor. For expository purposes, however, I use the term "overt movement" to express the fact that lexical NPs can show

As is well known, overt NP-movement is in part driven by definiteness (Milsark 1977, Safir 1985). The Definiteness Effect upon NP-movement is illustrated for a nominative subject in (39) and (40):

(39) Það höfðu verið seldir **fjórir stólar** á uppboðinu.
there had(3pl) been sold four chairs(N) at the auction

(40) a *Það höfðu verið seldir **stólarnir** á uppboðinu.
there had(3pl) been sold the chairs(N) at the auction
b **Stólarnir** höfðu verið seldir á uppboðinu.

It is standarly assumed (in GB) that the Definiteness Effect reduces to the Case Filter: while indefinite NPs can undergo LF raising into the domain of Infl, where their nominative Case is checked (Chomsky 1992), definite NPs cannot raise in LF and must thus resort to overt NP-movement. This approach is however undermined by the fact that the Defniniteness Effect applies to quirky subjects in exactly the same way as it does to nominative subjects (as first pointed out in Sigurðsson 1988). This is illustrated in (41)-(42), which should be compared to (39)-(40):

(41) Það hafði verið stolið **fjórum stólum** á uppboðinu.
there had(3sg) been stolen four chairs(D) at the auction

(42) a *Það hafði verið stolið **stólunum** á uppboðinu.
there had(3sg) been stolen the chairs(D) at the auction
b **Stólunum** hafði verið stolið á uppboðinu.

It is conceivable that all finite clause subjects must be locally licensed by Infl, either at LF or in overt syntax. Given the Single Case Approach to quirky subjects, however, licensing by Infl is not necessarily accompanied by Case assignment or Case checking (see section 4.4). That is, the Defniniteness Effect does not reduce to the Case Filter, and overt NP-movement is not Case-driven (cf. Sigurðsson 1988, 1989).

Inspired by Safir (1985), I assume that the Definiteness Effect as such reduces to the binding conditions. However, the position of lexical subjects in passive, ergative and raising constructions is decided by various factors other than pure definiteness.[20] Thus, important aspects of the question of why and when overt NP-movement takes place within extended chains remain murky, and I shall not discuss it any further here. My main concern is another interesting issue raised by the approach sketched in (37)-(38) above, namely, the question of why subject chain extension is obligatory in (potential) NP-movement constructions. I now turn to this question.

4.2 The Generalized Chain Condition

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up in different positions within chains.

[20] For a discussion of some of these factors in Icelandic, the reader is referred to Rögnvaldsson (1984), Maling (1988), Sigurðsson (1989, chapter 6.3) and Ottósson (1989).

The fundamental question raised by NP-movement configurations is not the question of why NPs must sometimes undergo overt movement to [Spec, IP], but the question of why passive and ergative or unaccusative subjects must promote from object to subject, in PRO infinitives as well as in other clauses. This question has also been widely discussed in alternative frameworks, above all in Relational Grammar and LFG, a fact that suggests that it is the right kind of theory-independent question to ask. In the present approach it amounts to the question just formulated, namely, why subject chain extension should be obligatory in potential NP-movement constructions. Another way to formulate the relevant question (in GB terms) is to ask why certain NPs (promoted objects, raising subjects) that are not generated as (VP specifier) subjects of IP_i must be in [Spec, IP_i] or in chain with it.

At first sight, it might seem simple to extend the standard Case-theoretic analysis of overt NP-movement to this problem. Consider the English nominative NP-movement constructions in (43):

(43) a [$_{IP}$ **EX$_i$** [$_{I'}$ was ... [$_{VP}$ **e$_i$** [$_{V'}$ stolen a chair]]]]
b [$_{IP}$ **EX$_i$** [$_{I'}$ would ... [$_{VP}$ **e$_i$** [$_{V'}$ seem [$_{IP}$ ... the chair ...]]]]]

As it is standarly assumed that the lexical NPs are in non-Case positions in these structures, it might seem straightforward to claim that they must be included in the expletive subject chains for the purposes of the Visiblity Condition. However, given the Single Case Approach to quirky subjects, the exactly parallel subject chain extension in Icelandic quirky constructions cannot be driven by the Case Filter or the Visisibility Condition:

(44) a Það var stolið stól.
there was stolen a chair(D)
b Stólnum mundi virðast hafa verið stolið.
the chair(D) would seem (to-)have been stolen

(45) a [$_{IP}$ **EX$_i$** [$_{I'}$ var ... [$_{VP}$ **e$_i$** [$_{V'}$ stolið stól]]]]
b [$_{IP}$ **EX$_i$** [$_{I'}$ mundi … [$_{VP}$ **e$_i$** [$_{V'}$ virðast [$_{IP}$ ... stólnum ...]]]]]

Not surprisingly, then, we come to the same conclusion for subject chain extension as for overt NP-movement: it cannot be analyzed as Case-driven unless we adopt the Double Case Approach.

This conclusion gains striking support from comparison of raising and the so-called Dative and Nominative with Infinitive (D/NcI) in Icelandic (cf. Sigurðsson 1989, p. 95 ff., 1991, p. 357 ff.), as illustrated in (46) and (47):

(46) a Höfðu **stólarnir**$_i$ virst [t$_i$ vera dýrir]?
had(3pl) the chairs(N) seemed be expensive
`Had the chair seemed to be expensive?'
b *Höfðu virst [stólarnir vera dýrir]?

(47) a Höfðu þér virst [**stólarnir** vera dýrir]?
had(3pl) you(D) seemed the chairs(N) be expensive
`Had it seemed to you that the chairs were expensive?'
b *Höfðu stólarnir$_i$ virst þér [t$_i$ vera dýrir]?

The well-formedness of the infinitive-internal nominative in (47a) suggests that the raising in (46a) is not Case-driven (see also section 4.4); notice in particular that there is no indefiniteness requirement on the nominative in the D/NcI construction. Moroever, comparison of (46b) and the superraising (i.e. raising across an intervening A-position) in (47b) indicates that subject chain extension is both forced and conditioned by a locality constraint that has nothing to do with Case-marking (see below).

It seems that we are missing some crucial point here. Subject chain extension applies in a strikingly similar manner across languages with widely different Case systems as well as languages that do not have any morphological case at all (such as the Bantu languages discussed by Bresnan and Moshi 1990). We would not expect this to be the case unless subject chain extension is driven by some "deep" principle of grammar, which underlies subject chain extension in those cases where it is accompanied by structural Case-marking as well as when it is not accompanied by any such marking (as in Icelandic quirky constructions, for example). I propose that the principle in question is <u>not</u> a Case-theoretic principle, but a well-formedness condition on chains in general, whether A-chains, A'-chains or X^o-chains. I refer to the condition in question as the *Generalized Chain Condition* and formulate it as in (48), where I follow Rizzi (1990, p. 7) in letting "Z" range over A, A' and X^o:

(48) Where both *a* and *b* are legitimate members of a Z-chain, (*a*, *b*) is a link in a Z-chain iff:

a *a* locally Z-governs *b*, and

b the features of *a* and *b* are non-distinct

Condition (48a) is (trivially) in accord with standard assumptions. It simply states: (i), if (*a*, *b*) is a link in an A-chain, then *a* must locally A-govern *b*; (ii), if it is a link in a A'-chain, then *a* must locally A'-govern *b*; and (iii), if it is a link in an X^o-chain, then *a* must locally X^o-govern *b*. The raised nominative in (47b) above does not locally A-govern its trace (being raised across the intervening dative), hence the ill-formedness of the chain. Similarly, subject chains cannot extend into prepositional phrases (irrespective of Case-marking), PPs being barriers to A-government.[21]

Condition (48b) presupposes the widest possible sense of "feature", including Case, theta-roles and phi-features as well as referential indices and phonetic features. If this is the right step to take, it follows that lexical expletives, such as *there*, do not enter into a PF chain with the nonraised subject NP in existential sentences (the two having distinct phonetic features), whereas they are in a chain with the subject NP at LF (irrespective of whether the NP raises at LF). This is not an unwelcome consequence, considered the fact that the NPs in question are "logical" but not "structural" subjects. Standard assumptions also follow, i.e. *a* and *b* may neither be assigned different Cases nor different theta-roles.

[21] The so-called Ergative-Impersonal Alternation in Icelandic offers striking evidence in favor of this approach (see Sigurðsson 1989, p. 289 ff.). Potential problems for the local Z-government condition are raised by passive prepositional stranding of the exceptional English type (cf. e.g. Maling and Zaenen 1985), structural Case-marking of adverbial NPs in Finnish (Maling 1991) and passivization of certain double object verbs in Scandinavian languages (cf. e.g. Maling, Zaenen and Thráinsson 1985, Falk 1990, Holmberg 1991, Ottósson 1991b). Notice also that my approach has no bearing on the important question of why there are certain differences between languages with respect to the mapping of theta-roles and external and internal arguments (cf. Belletti and Rizzi 1988, Maling 1988, Ottósson 1991a, Taraldsen 1991b).

Subject chain extension in potential NP-movement constructions follows directly from the Generalized Chain Condition. NP-movement applies in the canonical configuration in (49), where X and NP are not separated by a barrier:

(49) $[_{IP}\ EX_i \ldots [_{XP}\ e_i\ [_{X'}\ X - NP]]]$

The expletive subject chain (EX_i, ..., e_i) is extended to NP, the result being the extended chain (EX_i, ..., e_i, NP_i). Since e_i in [Spec, XP] locally A-governs NP, the two must form a link in an A-chain by (48), if they are not assigned different features, for example different Cases or different theta-roles.

For expository purposes I specifially state the conditions on subject chain extension in (50):

(50) An A-chain $C = (a_1, \ldots, a_n)$ is extended so as to include an NP *b* iff:
a a_n locally A-governs *b*, and
b the features of *C* and *b* are non-distinct

As seen, (50) is merely a subcase of (48).

This approach is both extremely general and simple. It says, simply, that it is impossible to keep two potential chains (*C* and *b* in (50)) "chain-distinct" if their structural relationship meets the general structural conditions on chain formation and if they do not have any distinct features. In other words, chains must either combine or be visibly distinct, structurally or featurally.

It follows from the present approach that quirky subjects should be both possible and obligatory if the lexical NP in (49) is assigned inherent Case and if (EX_i, ..., e_i) is not assigned any feature that is distinct from the features of the lexical NP. If so, we must conclude that Infl does not assign nominative Case to [Spec, IP] in Icelandic quirky constructions.

4.3 German and Russian: a brief comparison

Obviously, we need not explain the fact that languages like English and for example the mainland Scandinavian languages do not have quirky subjects. We do not expect a language to have such subjects unless it has (morphological) inherent Case-marking (see below on Burzio's generalization). German is such a language, and it has certain constructions that might at first sight seem to involve quirky subjects. Consider the facts in (51) and (52):

(51) a Mir ist kalt/übel. (German)
b Mér er kalt/flökurt. (Icelandic)
me(D) is(3sg) cold/nauseated
`I am freezing/nauseated.'

(52) a ... daß uns geholfen wurde. (German)

that us(D) helped was(3sg)
b ... að okkur var hjálpað. (Icelandic)

that us(D) was(3sg) helped
`... that we were helped.'

As argued by Zaenen, Maling and Thráinsson (1985, p. 476 ff.), however, it seems clear that non-nominative arguments in German examples such as (51a) and (52a) are not subjects, and thus fail to pass subjecthood tests such as those mentioned in section 2 (see also Cole et al. 1980, Freidin and Sprouse 1991). As opposed to the Icelandic datives in (51) and (52), the German datives cannot, for example, be subjects of PRO infinitives or license Conjunction Reduction of a nominative subject. These contrasts are illustrated in (53) and (54), respectively:

(53) a *Wir hofften [geholfen zu werden]. (German)
we hoped helped to be
b Við vonuðumst til [að verða hjálpað]. (Icelandic)
we hoped for to be helped
`We hoped to be helped.'

(54) a Mir war übel und *(ich) konnte nicht lachen. (German)
b Mér var flökurt og (ég) gat ekki hlegið. (Icelandic)
me was nauseated and (I) could not laugh

In the standard analysis of German word order, all main clauses are Verb Second CPs (den Besten 1983, Platzack 1986, Vikner 1990 and many others). If so, we have to analyze main clause initial "quirky-like" NPs as topicalized, i.e. XP-moved to [Spec, CP]. However, in contrast with normal topicalized objects (cf. Travis 1984, Zwart 1992), these "quirky-like" NPs need no extra stress (and can even have clitic-like properties) in initial position of main clauses.

The sentence structure proposed in Chomsky (1992) offers an interesting way of resolving this problem, and of analyzing the Icelandic-German contrast under discussion as well. In Chomsky's system German "quirky-like" NPs can be analyzed as being in Spec of Agr_O, whereas Icelandic quirky subjects are in Spec of Agr_S or in chain with it ([Spec, IP] in more traditional analyses, such as the present one). If so, the finite verb is in Agr_O (in PF) in German "quirky-like" constructions (and raises to T(ense) and Agr_S at LF, in order for its features to be checked). This is possible because forms enter syntax (or the computational system) fully inflected in the minimalist program.[22]

Further evidence that German "quirky-like" NPs are neither in [Spec, IP] (Spec of Agr_S) nor in chain with it comes from expletive insertion. Consider the typical German-Icelandic contrast in (55) and (56):

(55) a Es ist mir kalt/übel.
b *Það er mér kalt/flökurt.
there is me cold/nauseated

[22] As mentioned in section 2, Icelandic (definite) quirky subjects behave the same way as nominative subjects do with respect to Verb-Second, showing up immediately after the finite verb. At first sight German "quirky-like" NPs would seem to share this behavior with Icelandic quirky subjects. However, as German is an OV language and has extensive scrambling, the postverbal position in Verb-Second structures is not an unequivocal subject position, as it is in Icelandic, i.e. the postverbal argument might have been scrambled in German, or it might simply be VP internal (or Agr_O" internal).

(56) a Es wurde uns geholfen.
there was us helped
b *Það var hjálpað okkur.
there was helped us

If *es*-initial (and other subject inital) main clauses are bare IPs, as in Travis (1984, 1991) and Zwart (1992), then [Spec, IP] is occupied by *es* in (55a) and (56a). Moreover, *es* should not be able to bind the pronominal datives, in violation of binding condition B, i.e. the datives are not in chain with [Spec, IP] in the German examples in (55a) and (56a), hence the grammaticality of expletive insertion.

Consider the structures of (56a, b):

(57) $[_{IP}\ EX_i \ldots [_{VP}\ e_i\ [_{V'}\ DAT\ V]]]$ (German)

(58) $[_{IP}\ EX_i \ldots [_{VP}\ e_i\ [_{V'}\ V\ DAT]]]$ (Icelandic)

In Icelandic the expletive subject chain must extend so as to include the dative (hence the ungrammaticality of expletive insertion in (55b) and (56b), in violation of binding condition B), whereas subject chain extension is blocked under exactly parallel structural conditions in German (the VO-OV contrast is irrelevant). Any analysis of Icelandic quirky subjects must provide some answer to the question of why this should be the case (cf. Zaenen, Maling and Thráinsson 1985). It is the most interesting and intriguing question raised by the Icelandic-German contrast under discussion, and a theory of argument chains that makes it an impossible question to ask is obviously suspect. It seems to me that the standard Case-theoretic approach to NP-movement constructions is a theory of this sort. The standard approach is naturally interpreted as making either of two predictions: that quirky subjects should be universally blocked (if structural and inherent Cases are mutually exclusive), or that "quirky-like" NPs should be subjects in all languages where they arise (if structural and inherent Cases are not mutually exclusive, as in the Double Case Approach). The third possiblity, within the standard approach, is to say that structural and inherent Cases are mutually exclusive in some languages, such as German, but compatible with each other in other languages, such as Icelandic. However, this is both *ad hoch* and counterintuitive, nominative forms of nouns and other nominals being morphologically marked with special endings in Icelandic as opposed to German. That is, we would expect exactly the opposite result, namely that double Case-marking in Icelandic rather than in German should "crash" at PF (in the terminology of Chomsky 1992). In addition, the empirical and conceptual problems with the Double Case Approach that were discussed in section 3 remain unresolved.

Reconsider the Generalized Chain Condition, repeated here in (59):

(59) Where both *a* and *b* are legitimate members of a Z-chain, (*a*, *b*) is a link in a Z-chain iff:
a *a* locally Z-governs *b*, and
b the features of *a* and *b* are non-distinct

Given this approach, we must conclude that the expletive subject chain ((EX_i, ..., e_i), where e_i = *a* in (59)) in German structures such as (57) is assigned some feature that is distinct

from the features of the dative argument (= *b* in (59)), whereas this is not the case in corresponding Icelandic structures, such as (58). The obvious candidate is nominative Case. That is, while structural Case can remain unassigned in Icelandic, its assignment seems to be mandatory in German. Thus, we are led to believe that the Icelandic-German contrasts under discussion reduce to the (informal) statement in (60), where [+C] stands for "structural Case":

(60) A head that is a potential assigner of [+C] and has an NP in its domain must assign [+C] to that NP
a Yes: German, ...
b No: Icelandic, ...

If (60) is on the right track, we must conclude that Case-marking is not always triggered by (some version of) the Visibility Condition: expletive subject chains in German structures like (57) seem to have no features apart from structural Case. Moreover, we come to the interesting conclusion that subject chain extension, hence NP-movement, can be blocked by structural Case, rather than triggered by it.

The statement in (60) is a possible parameter in a program where all parameters are "morphological" in the sense that they are stateable in terms of heads (as in Chomsky 1991, 1992, based on Borer 1983). However, as we are only at a very preliminary stage of cross-linguistic research of non-nominative subjects, it would be premature to claim that (60) is a nonderivable parameter.[23]

Many more comparative issues arise. Figuratively speaking, structural Case and subject chain extension are in competition with each other in both German and Icelandic: structural Case "beats" chain formation in "qirky-like" constructions in German, whereas chain formation "beats" structural Case in Icelandic quirky constructions. Russian seems to be of a third type, where this competition cannot be resolved (for inherently Case-marked "subject candidates"), but leads to a derivational "crash". While Icelandic and German have both nominative passives and quirky vs. "quirky-like" passives, Russian has only the former type. That is, verbs that assign inherent Case in Russian cannot passivize. Thus, if we consider only two classes of transitive verbs, Nom-Acc and Nom-Dat verbs, we get the pattern sketched in (61) (where I denote passive participles simply as "V"):

(61)

		Icelandic	*German*	*Russian*
a.i	active:	Nom-V-Acc$_i$	Nom-V-Acc$_i$	Nom-V-Acc$_i$
a.ii	passive:	Nom$_i$-V	Nom$_i$-V	Nom$_i$-V
b.i	active:	Nom-V-Dat$_i$	Nom-V-Dat$_i$	Nom-V-Dat$_i$
b.ii	passive:	Dat$_i$-V	Dat$_i$-V	*Dat$_i$-V

In general, Russian does not seem to have any quirky or "quirky-like" constructions, neither in active nor in passive sentences (cf. Freidin and Sprouse 1991 and the references cited there).[24]

[23] It is tempting to extend our analysis of Icelandic quirky subjects to absolutive subjects in ergative languages (recall however that quirky subjects do not trigger agreement, in contrast with absolutive subjects and objects in e.g. Greenlandic).

[24] In contrast, Russian has non-nominative subjects that are not lexically selected, namely, subjects that are assigned the "semantic" genitive of negation (Babby 1980, Freidin and Sprouse 1991). Similarly, Finnish has genitive subjects that are not lexically selected (although such subjects are not confined to negated clauses, as in Russian; see e.g. Maling 1991, p.

The Russian gap in (61b.ii) is illustrated by the active/passive pair in (62) (based on (16) in Freidin and Sprouse 1991, p. 400):[25]

(62) a Rabotnik podrazaet **inostrannym metodam**.
worker(N) copies foreign methods(D)
`The worker is copying foreign methods.'
b ***Inostrannym metodam** podrazajutsja.
foreign methods(D) are-copied

We are thus lead to believe that Russian differs from Icelandic and German in that both structural Case-marking and subject chain extension must apply in examples such as (62b). If so, the result is an extended chain that is doubly Case-marked, and the derivation crashes.[26]

It is intresting to notice that we have now come to a conclusion that is very different from the predictions made by the Double Case Approach (insofar as its predictions are clear): First, Icelandic escapes double Case-marking of quirky chains by not assigning structural Case. Second, German also escapes double Case-marking, but it does so by opposite means, i.e. by assigning structural Case (to expletive pro or es) and blocking subject chain extension in "quirky-like" constructions. Third, Russian cannot escape double Case-marking in potential quirky and "quirky-like" constructions, the result being that all such constructions are ruled out. In all three languages, double Case-marking of chains seems to be strictly forbidden.[27]

Icelandic, German and Russian all observe Burzio's generalization (Burzio 1986, p. 185). That is, in the canonical NP-movement configuration in (49), repeated here as (63), the lexical NP may not be assigned structural accusative Case:[28]

(63) $[_{IP}\ EX_i \ldots [_{XP}\ e_i\ [_{X'}\ X - NP]]]$

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271). A possible interpretation of these facts is that genitive replaces nominative as structural Case under certain circumstances in these languages.

[25] As also illustrated by Freidin and Sprouse, verbs that assign inherent Case cannot passivize at all, i.e. not only the "Icelandic/German type" is excluded, but also both nominative passivization (with the inherently Case-marked object showing up as a nominative subject) and "impersonal passivization" (with the dative in the object position).

[26] My analysis of the three-way Icelandic-German-Russian contrast under discussion has some interesting consequences: Either Case-marking and subject chain extension are not direct reflections of universal principles or principles can compete in a manner that remains to be accommodated in the principles and parameters approach.

[27] Yoon and Yoon (1991) discuss interesting facts from Korean and several other languages that seem to suggest that this ban on double Case-marking of chains is not universal. Thus, Korean passives have subject forms like *Bill-eykey-ka* `Bill-Dat-Nom', where, according to Yoon and Yoon, *ka* is a nominative ending and *eykey* a dative marker, assigned to the moved NP in its D-structure position. An alternative that should be explored is that *ka* is a nominative head, taking the moved dative as a complement. Irrespective of how the Korean facts are anlyzed, they do not allow the conclusion that double Case-marking is an option in European languages, where "Case stacking" of this sort is never attested (compare Icelandic **Ólaf-i-ur* `Olaf-Dat-Nom').

[28] I abstract away from apparent counterexamples that are found in nonstandard dialects of all three languages.

In contrast, X in (63) is allowed to assign inherent Case, as we have seen. Moreover, such Case assignment seems to be compatible with structural Case assignment to the expletive subject (EX_i, ..., e_i) in German, as suggested by examples like (55a), (56a), and (64c):

(64) a Er half mir.
he(N) helped me(D)
b Mir wurde geholfen.
me(D) was helped
c Es wurde mir geholfen.
there(N) was me(D) helped
`I was helped.'

In the light of the grammaticality of (64c), the ungrammaticality of (65c) is interesting:

(65) a Er schlug mich.
he hit me(A)
b Ich wurde geschlagen.
I(N) was hit
c *Es wurde mich geschlagen.
there was me(A) hit

As observed by Yip, Maling and Jackendoff (1987), structural accusative cannot be assigned or "activated" unless structural nominative is also assigned. It thus seems that the two are in some sense the "same feature".[29] If so, the ungrammaticality of (65c), as compared to (64c), follows directly from the Generalized Chain Condition (GCC): As the expletive subject chain and *mich* cannot be made feature distinct by Case-marking and have otherwise non-distinct features, subject chain extension is forced by GCC, and, as nominative takes precedence over structural accusative, the extended chain must be assigned nominative (as in (65b)). Thus, German behaves the same as Icelandic and Russian in NP movement constructions that involve only structural Case-marking (whereas these languages treat inherently Case-marked NPs quite differently, as we have seen). It also follows that in languages such as English, that do not have any morphological inherent Case-marking, extended subject chains are invariably nominative.[30]

In short, the point that is missed by the standard Case-theoretic approach to NP-movement and argument chain formation is amazingly simple, namely, the claim embodied in the Generalized Chain Condition: chains must either combine or be visibly distinct. Clearly, however, this solution is latent in the standard theory and crucially based on Chomsky's chain theory. We only have to give up the claim that NP-movement and argument chain formation are Case-driven.

[29] I owe this idea to Anders Holmberg.

[30] The core of Burzio's generalization, then, is Yip, Maling and Jackendoff's (1987) generalization that accusative is conditioned by nominative. Notice, however, that this generalization is merely descriptive; we have not really explained it. In a way, the nominative-accusative relation resembles the relation between independent main clause tense and dependent complement tense. It is thus tempting to view nominative and accusative as "independent" versus "dependent" Case. In the sentence structure proposed by Chomsky (1992), we could say that Agr_O inherits "Case activity" from a "Case active" Agr_S, in a similar way as the value of the T(ense) of a complement clause is often decided by the value of its main clause T.

4.4 A note on configurational licensing and the Case Filter

Finally, consider structural or configurational licensing of lexical arguments. It is clear that Infl/+Agr licenses lexicalization of [Spec, IP], as opposed to Infl/-Agr in e.g. PRO infinitives. However, as argued in Sigurðsson (1991), it does so by virtue of being a proper head governor (like e.g. English *be* and passive participles in Scandinavian and Romance languages), and not per se by being a Case assigner. In other words, proper head government (in the sense of Sigurðsson 1991) and Case-marking are distinct relations, and it is the former, rather than the latter, that licenses lexicalization of argument positions. Thus, in nominative constructions, Infl/+Agr both licenses the (potential) lexicalization of [Spec, IP] and Case-marks the argument NP of the chain headed by it, whereas it only licenses its (potential) lexicalization in quirky constructions. Conversely, Infl/-Agr is a potential Case assigner but not a lexicalization licenser, as seen rather clearly in both Portuguese and Icelandic infinitives (cf. Raposo 1987, Sigurðsson 1991).

That there is only a partial overlap of the sets of Case assigners and licensers is further illustrated by D/NcI examples such as (47a) above and by long distance structural Case-marking in examples such as the following ones:

(66) Það höfðu verið keyptir **þrír stólar** á uppboðinu.
there had(3pl) been bought three chairs(N) at the auction

(67) Ég taldi [hafa verið keypta **þrjá stóla** á uppboðinu].
I believed(1sg) have been bought three chairs(A) at the auction

(68) Það virtust [hafa verið keyptir **þrír stólar** á uppboðinu].
there seemed(3pl) have been bought three chairs(N) at the auction

In (66) and (68) the nominative of the nonraised NP is assigned by Infl (the matrix Infl in (68), as seen by verb agreement). In (67) it gets accusative from the ECM verb **telja** `believe'. In all three examples, however, the lexicalization of the object position is locally licensed by a head that is not a Case assigner, namely the passive participle. Notice that the alternation between nominative and accusative in these examples, diagnostic of purely structural Case, is highly problematic for Belletti's (1988) theory of "partitive Case" (for further discussion, see Sigurðsson 1988, 1989, 1991, Platzack and Holmberg 1989, Vikner 1990).

In short, Case-marking is evidently not the factor that decides which of the positions of an A-chain is lexicalized, whether the Case is assigned by a structural Case assigner at the "top" of the chain, as in (66)-(68), or by an inherent Case assigner at the "bottom" of the chain, as in (69)-(71) (recall that passive participles can assign inherent Case as opposed to structural Case):

(69) Það hafði verið stolið **þrem stólum** á uppboðinu.
there had(3sg) been stolen three chairs(D) at the auction

(70) Ég taldi [hafa verið stolið **þrem stólum** á uppboðinu].
I believed(1sg) have been stolen three chairs(D) at the auction

(71) Það virtist [hafa verið stolið **þrem stólum** á uppboðinu].
there seemed(3sg) have been stolen three chairs(D) at the auction

It is not entirely clear to what extent the present approach evaporates the Case Filter and (some version of) the Visiblity Condition. As mentioned in section 3, there are reasons to believe that specified phi-features of all Icelandic NPs and NP-chains must be made visible by some type of abstract Case (argumental, adverbial and so on). None of the facts discussed here forbid us to extend this analysis to Case impoverished languages such as English or even to languages that have no morphological case at all. However, if argument chain formation is not Case-driven, and if the lexicalization of an argument position is not licensed by Case, then much or most of the motivation for postulating a *universal* Case Filter is obviously gone. Moreover, if there are languages that do not make any use of phi-features in their grammars (cf. Rizzi 1986, p. 545), we presumably have to abandon the idea that abstract Case is a universal feature. It seems more plausible to assume that the Visibility Condition, hence the Case Filter, is a characteristic of only those languages that have "grammatical" phi-features.

Even if we only consider languages that have (some) overt Case, cross-linguistic evidence strongly suggests that lexical arguments must be configurationally licensed, and that licensing, Case-marking and argument chain formation or subject chain extension are independent (but interacting) phenomena. A theory that reduces all three phenomena to Case is at first sight attractively economic, but it is evidently much too simple, and it is uneconomic in the sense that it buys us very little. Crucially, it has intolerably limited predicting power for languages where overt Case phenomena can really be studied.

One can of course choose to refer to configurational licensing as "abstract Case", much as one might choose to refer to government as "abstract dominance", or to person as "abstract gender". This terminological trick, however, is not likely to increase our understanding of grammar, nor does it turn overt Case into a pseudophenomenon or make the problems raised by it disappear. In particular, it does not if we make the plausible assumption that all acquisitional "clues" are PF visible (cf. Chomsky 1992).

5. Conclusion

This paper discusses the implications raised by quirky subjects for the standard Case-theoretic approach to NP-movement and argument chain formation. My major conclusion is that such subjects show that NP-movement and argument chain formation neither can nor should be explained in terms of Case (with the consequence that the universality of abstract Case and the Case Filter must be seriously questioned). Overt NP-movement applies within argument chains and is triggered by definiteness (the binding conditions) and various other poorly understood factors, i.e. Case is not the factor that licenses the lexicalization of argument position. The more basic phenomenon of argument chain formation or subject chain extension (also seen in PRO infinitives) is triggered by a highly general and simple condition on chains, the Generalized Chain Condition, which requires that chains should either combine or be visibly distinct (structurally or featurally). It follows that quirky subjects should be possible and obligatory in languages such as Icelandic only, i.e. languages that have morphological inherent Case and allow structural Case to remain unassigned. In contrast, German and Russian seem to exemplify languages where structural Case-marking is mandatory and blocks the formation of quirky subject chains. Thus, we come to the striking conclusion that structural Case may block rather than trigger argument chain formation and NP-movement.

It seems that we have to take morphological case seriously, after all. If not, the critical question arises what kind of language it takes to force a revision of the standard Case theory. We must ask ourselves whether such a language is indeed conceivable, and, if not, whether we really want linguistic theory to be construed in such a manner that it escapes all potential tests.

REFERENCES

Andrews, Avery: 1976, `The VP Complement Analysis in Modern Icelandic', *NELS* **6**, 1-21. Reprinted in Maling and Zaenen (eds.), pp. 165-185.

Andrews, Avery: 1982, `The Representation of Case in Modern Icelandic', in J. Bresnan (ed.), *The Mental Representation of Grammatical Relations*, The MIT Press, Cambridge, Massachusetts, pp. 427-503.

Andrews, Avery: 1990, `Case Structures and Control in Modern Icelandic', in J. Maling and A. Zaenen (eds.), pp. 187-234.

Babby, Leonard H.: 1980, *Existential Sentences and Negation in Russian*, Karoma Publishers, Ann Arbor, Michigan.

Belletti, Adriana: 1988, `The Case of Unaccusatives', *Linguistic Inquiry* **19**, 1-34.

Belletti, Adriana and Luigi Rizzi: 1988, `Psych-Verbs and Theta-Theory', *Natural Language and Linguistic Theory* **6**, 291-352.

Bernódusson, Helgi: 1982, *Ópersónulegar setningar* [Impersonal Sentences], Master's thesis, University of Iceland, Reykjavík.

den Besten, Hans: 1983: `On the Interaction of Root Transformations and Lexical Deletive Rules', in W. Abraham (ed.), *On the Formal Syntax of the Westgermania*, John Benjamins, Amsterdam, pp. 47-138.

den Besten, Hans: 1984, `The Ergative Hypothesis and Free Word Order in Dutch and German', in J. Toman (ed.), *Studies in German Grammar*, Foris, Dordrecht, pp. 23-64.

Borer, Hagit: 1983, *Parametric Syntax*, Foris, Dordrecht.
Bresnan, Joan and Lioba Moshi: 1990, `Object Asymmetries in Comparative Bantu Syntax', *Linguistic Inquiry* **21**, 147-185.
Burzio, Luigi: 1986, *Italian Syntax*, Reidel, Dordrecht.
Chomsky, Noam: 1981, *Lectures on Government and Binding*, Foris, Dordrecht.
Chomsky, Noam: 1986a, *Knowledge of Language*, Praeger, New York.
Chomsky, Noam: 1986b, *Barriers*, The MIT Press, Cambridge, Massachusetts.
Chomsky, Noam: 1991, `Some Notes on Economy of Derivation and Representation', in R. Freidin (ed.), pp. 417-454.
Chomsky, Noam: 1992, `A Minimalist Program for Linguistic Theory', manuscript, MIT.
Cole, P., W. Harbert, G. Hermon and S. N. Sridhar: 1980, `The Aquisition of Subjecthood', *Language* **56**, 710-743.
Falk, Cecilia: 1990, `On Double Object Constructions', *Working Papers in Scandinavian Syntax* **46**:53-100.
Freidin, Robert: 1991, (ed.) *Principles and Parameters in Comparative Grammar*, The MIT Press, Cambridge, Massacusetts.
Freidin, Robert and Rex A. Sprouse: 1991, `Lexical Case Phenomena', in R. Freidin (ed.), pp. 392-416.
Haider, Hubert and Klaus Netter: 1991, (eds.) *Presentation and Derivation in the Theory of Grammar*, Kluwer Academic Publishers, Dordrecht.
Hellan, Lars and Kirsti Koch Christensen: 1986, (eds.) *Topics in Scandinavian Syntax*, Reidel, Dordrecht.
Holmberg, Anders: 1991, `On the Scandinavian Double Object Construction', in Sigurðsson et al. (eds.), pp. 141-152.
Kitagawa, Yoshihisa: 1986, *Subjects in Japanese and English*, doctoral dissertation, Universtiy of Massachusetts, Amherst.
Lasnik, Howard: 1989, `Case and Expletives: Notes Towards a Parametric Account', manuscript, University of Connecticut.
Maling, Joan: 1988, `Variations on a Theme: Existential Sentences in Swedish and Icelandic', *McGill Working Papers in Linguistics: Special Issue on Comparative Germanic Syntax*, May, pp. 168-191.
Maling, Joan: 1991, `Objects, Adverbs and Grammatical Case in Finnish', in Sigurðsson et. al. (eds.), pp. 267-278.
Maling, Joan and Rex A. Sprouse: 1992, `Structural Case, Specifier-Head Relations, and the Case of Predicate NPs', manuscript, Brandeis and Harvard.
Maling, Joan and Annie Zaenen: 1985, `Preposition-stranding and Oblique Case', *Nordic Journal of Linguistics* **8**, 197-209.
Maling, Joan and Annie Zaenen: 1990, (eds.) *Modern Icelandic Syntax*, Academic Press, San Diego.
Marantz, Alec: 1984, *On the Nature of Grammatical Relations*, The MIT Press, Cambridge, Massachusetts.
Milsark, Gary L.: 1977, `Toward an Explanation of Certain Peculiarities of the Existential Construction in English', *Linguistic Analysis* **1**, 1-29.
Ottósson, Kjartan G.: 1989, `Lexical and Structural Case in Icelandic', manuscript, University of Maryland, College Park.
Ottósson, Kjartan G.: 1991a, `Psych-verbs and Binding in Icelandic', in Sigurðsson et al. (eds.), pp. 335-344.

Ottósson, Kjartan G.: 1991b, `Icelandic Double Objects as Small Clauses', *Working Papers in Scandinavian Syntax* **48**, 77-97.
Platzack, Christer: 1986, `COMP, INFL, and Germanic Word Order', in L. Hellan and K. K. Christensen (eds.), Reidel, Dordrecht, pp. 185-234.
Platzack, Christer: 1987, `The Scandianvian Languages and the Null-Subject Parameter', *Natural Language and Linguistic Theory* **5**, 377-401.
Platzack, Christer and Anders Holmberg: 1989, `The Role of AGR and Finiteness in Germanic VO languages', *Working Papers in Scandinavian Syntax* **43**, 51-76.
Raposo, Eduardo: 1987, `Case Theory and Infl-to-Comp: The Inflected Infinitive in European Portuguese', *Linguistic Inquiry* **18**, 85-109.
Rizzi, Luigi: 1986, `Null Objects in Italian and the Theory of *pro*.' *Linguistic Inquiry* **17**, 501-557.
Rizzi, Luigi: 1990, *Relativized Minimality*, The MIT Press, Cambridge, Massachusetts.
Roberts, Ian: 1991, `NP-Movement, Crossover and Chain-Formation', in H. Haider and K. Netter (eds.), pp. 17-52.
Rögnvaldsson, Eiríkur: 1984, `Icelandic Word Order and **það**-insertion', *Working Papers in Scandinavian Syntax* **8**.
Rögnvaldsson, Eiríkur: 1991, `Quirky Subjects in Old Icelandic', in Sigurðsson et al. (eds.), pp. 369-378.
Safir, Kenneth: 1985, *Syntactic Chains*, Cambridge University Press, Cambridge.
Sigurðsson, Halldór Ármann: 1988, `NP-movement with Special Reference to Icelandic', *Groningen Arbeiten zur Germanistischen Linguistik* **29**, 1-36.
Sigurðsson, Halldór Ármann: 1989, *Verbal Syntax and Case in Icelandic*, doctoral dissertation, University of Lund.
Sigurðsson, Halldór Ármann: 1990, `Feature Government and Government Chains', *Working Papers in Scandinavian Syntax* **46**, 3-36.
Sigurðsson, Halldór Ármann: 1990-91, `Beygingarsamræmi' [Agreement], *Íslenskt mál og almenn málfræði* **12-13**, 31-77.
Sigurðsson, Halldór Ármann: 1991, `Icelandic Case-marked PRO and the Licensing of Lexical Arguments', *Natural Language and Linguistic Theory* **9**, 327-363.
Sigurðsson, Halldór Ármann: 1992, `Agreement and Case', manuscript, University of Iceland, Reykjavík.
Sigurðsson, Halldór Ármann, Þorsteinn G. Indriðason and Eiríkur Rögnvaldsson: 1991, (eds.) *Papers from the Twelfth Scandinavian Conference of Linguistics*, Institute of Linguistics, University of Iceland, Reykjavík.
Taraldsen, Knut Tarald: 1991a, `Experiencers as External Arguments in Icelandic', paper read at the 7th Workshop on Comparative Germanic Syntax, Stuttgart, November 22-24, 1991.
Taraldsen, Knut Tarald: 1991b, `NP-Movement and Expletive Chains', in H. Haider and K. Netter (eds.), pp. 53-69.
Thráinsson, Höskuldur: 1979, *On Complementation in Icelandic*, Garland Publishing, New York.
Thráinsson, Höskuldur: 1986, `On Auxiliaries, AUX and VPs in Icelandic', in L. Hellan and K. K. Christensen (eds.), pp. 235-266.
Travis, Lisa deMena: 1984, *Parameters and Effects of Word Order Variation*, doctoral dissertation, MIT, Cambridge, Massachusetts.
Travis, Lisa deMena: 1991, `Parameters of Phrase Structure and Verb-Second Phenomena', in R. Freidin (ed.), pp. 339-364.
Van Valin, Robert D.: 1991, `Another look at Icelandic Case Marking and Grammatical Relations', *Natural Language and Linguistic Theory* **9**, 145-194.

Vikner, Sten: 1990, *Verb Movement and the Licensing of NP-positions in the Germanic Languages*, doctoral dissertation, University of Geneva.

Williams, Edwin: 1981, `Argument Structure and Morphology', *The Linguistic Review* **1**, 81-114.

Yip, Moira, Joan Maling and Ray Jackendoff: 1987, `Case in Tiers', *Language* **63**, 217-250.

Yoon, James and Jeongme Yoon: 1991, `Chain Condition, Ambiguity of Government and Derivational Grammars', *NELS* 21.

Zaenen, Annie and Joan Maling: 1984, `Unaccusative, Passive and Quirky Case', in Westcoat et al. (eds.), *Proceedings of the Third West Coast Conference on Formal Linguistics*, Stanford University, pp. 317-329. Reprinted in Maling and Zaenen (eds.), pp. 137-152.

Zaenen, Annie, Joan Maling and Höskuldur Thráinsson: 1985, `Case and Grammatical Functions: The Icelandic Passive', *Natural Language and Linguistic Theory* **3**, 441-483.

Zwart, Jan-Wouter: 1992, `Verb Movement and Complementizer Agreement', paper read at the 15th GLOW Colloquium, Lisbon, April 13-15, 1992.