

Control vs. Complex Predication Identifying Non-Finite Complements

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Received: date / Accepted: date

Abstract This paper comments on Davison’s analysis of the Hindi/Urdu permissive as: 1) a control construction with an ‘allow to do’ reading; 2) an ECM construction with an ‘allow to happen’ reading. The paper reiterates Butt’s (1995) original reasons for positing a complex predicate analysis of the ‘allow to do’ permissive and extends the analysis to the ‘allow to happen’ reading of the permissive. The argumentation covers different theoretical perspectives and brings out issues with respect to finiteness and different degrees of embedding that pertain to how “tight” a given predication ranging over subevents is. The paper argues that events embedded under a control or raising predicate are less tightly connected to the matrix verb/event than is the case in complex predication and that the different degrees of cohesion between events must be understood as reflecting embedding within different modules of grammar.

Keywords Hindi/Urdu · Complex Predicate · Permissive · Infinitive · Finiteness · Embedding · Agreement · Case · Argument Structure

1 Introduction

Davison (this volume) focuses on a particular infinitive construction in Hindi/-Urdu known as the *permissive*. Davison points out that the permissive gives rise to two different meanings: ‘allow to do’ ((1a)) and ‘allow to happen’

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((1b)).¹ The readings depend on what type of verb is embedded: an agentive one as in (1a) or a non-agentive verb as in (1b).

- (1) a. *mā=ne* *baccō=ko* *kitāb-ē* **par^h-ne**
 mother.F=Erg child.M.Pl.Obl=Dat book.F-Pl.Nom read-Inf.Obl
ḍī
 give.Pf.F.Pl
 ‘Mother let (the) children read (the) books.’
- b. *pita=ne* *peṛ* **kaṭ-ne** **di-e**
 father.M.Sg=Erg tree.M.Nom be.cut-Inf.Obl give-Pf.M.Pl
 ‘Father allowed the trees to be cut.’

The verb *de* ‘give’ in Hindi/Urdu takes three arguments: a giver (x), a recipient (y) and the thing given (z). Butt (1995) analyzes the permissive in (1a) as a version of giving in which an event is abstractly “given” to y, thus yielding a permissive reading. The difference between (1a) and (1b) is that no overt y argument is realized in (1b), so that there is no actual person/thing being permitted to do something, rather an event is allowed to take place.

Davison seeks to analyze the difference in semantics as stemming from a difference in syntactic structure. She sees (1a) as a control construction, whereas (1b) is taken to be an instance of ECM. In contrast, Butt (1995) argued that the permissive is a complex predicate. In this paper, I concentrate on the distinction between control and complex predication and reiterate the position in Butt (1995) that the permissive is a complex predicate.

In articulating my position, I consider the issue of finiteness and how it pertains to our understanding of various types of embeddings. Within the Minimalist Program, different types of embedding are thought of as involving CPs with a very articulated functional structure that can be truncated (e.g., see Adger 2007). For example, finite embedded clauses with a complementizer embed a CP, non-finite clauses without a complementizer perhaps a vP or TP, depending on how (non)finiteness is encoded. The positing of complex layers of functional projections, which can then be truncated at various points in principle allows for the articulation of several different kinds of embeddings. So-called “restructuring” verbs, for example, are generally held to embed a VP rather than a vP, the difference being that an embedded “subject” can be introduced in the vP, but not the VP (Rosen, 1989). Restructuring verbs in Romance languages correspond to the notion of complex predication I work with (Alsina, 1996) and so one could conceive of the permissive being analyzed as embedding a VP rather than a vP. However, I suggest that although this approach allows for many options, it does not allow for the right kind of distinction between complex predicates and control/raising. I couch

¹ The list of abbreviations used in this paper is: Acc=Accusative, Caus=Causative, Dat=Dative, Dem=Demonstrative, Erg=Ergative, F=Feminine, Fam=Familiar, Fut=Future, Gen=Genitive, Imp=Imperative, Ipf=Imperfect, Ind=Indicative, Inst=Instrumental, M=Masculine, Nom=Nominative, Obl=Oblique, Obj=Objective, Pf=Perfect, Pl=Plural, Pres=Present, Pron=Pronoun, Sg=Singular. A ‘-’ indicates a morpheme boundary, a ‘=’ a clitic boundary.

my analysis within Lexical-Functional Grammar (LFG; Dalrymple 2001; Bresnan 2001), in which different types of embeddings are represented at different levels of representation. Constituents are embedded within one another at c(onstituent)-structure. Dependency relations such as embedded complements are represented at f(unctional)-structure. C-structure and f-structure are not isomorphic and embedding at c-structure need not correspond to embedding at f-structure and vice versa. The same holds for a(rgument)-structure, which contains information about thematic/semantic roles. In LFG, control represents embedding at f-structure while complex predication involves embedding at a-structure. The difference thus does not lie in what layers of functional structure are truncated, but in what type of linguistic structure is being embedded.

Within LFG, the difference between control/raising and complex predication is modelled as embeddings at f-structure vs. a-structure. However, I also suggest that the full range of possibilities of how events can be related to one another via linguistic means still remains to be accounted for, irrespective of theoretical framework and that a careful understanding of the subtle and complex issues involved remains to be achieved.

After providing some necessary background in section 2, I therefore reiterate my position that the permissive is a complex predicate which shows no evidence for an embedded syntactic complement in section 3. Rather, the relevant embedding is at the level of a-structure. In section 4, I extend the complex predicate analysis for examples as in (1b) and argue that the complex predicate analysis accounts for the properties observed by Davison more satisfactorily than an ECM analysis. Section 5 goes back to the issue of finiteness and different degrees of embedding that pertain to how “tight” a given predication ranging over subevents is. Section 6 concludes the paper.

2 Finiteness, Agreement and Types of Embedding

One traditional assumption going back to Latin grammarians is that tense cooccurs with finiteness and that finiteness in turn correlates with person and number morphology on the verb (Nikolaeva, 2007b). However, this understanding has been shown not to hold up crosslinguistically. Various alternative proposals are currently seeking to establish a more differentiated understanding of finiteness (e.g., see Nikolaeva 2007a and the references therein).

2.1 Finiteness in Hindi/Urdu

Hindi/Urdu is also problematic from the traditional perspective. In Hindi/Urdu only one verbal paradigm codes person and number: the subjunctive. The Hindi/Urdu verb ‘be’ uses this paradigm to express the present tense and the future uses the subjunctive as part of its paradigm. (Butt and Rizvi, 2010).

As shown in (2), the permissive is generally characterized by a “matrix” predicate *de* ‘give’ that is considered to be finite despite the fact that there

is no person/number marking on the verb. The verb inflects for gender and number and expresses past tense. (2b) provides a version with present and past auxiliaries, yielding a present and a past perfect, respectively. Although only the examples in (2b) contain person/number morphology on the verb, all three examples in (2) are generally considered to be finite.

- (2) a. *nadya=ne yasin=ko paoda kaṭ-ne di-ya*
 N.F=Erg Y.M=Dat plant.M.Nom cut-Inf.Obl give-Pf.M.Sg
 ‘Nadya let Yassin cut the plant.’
- b. *nadya=ne yasin=ko paoda kaṭ-ne di-ya*
 N.F=Erg Y.M=Dat plant.M.Nom cut-Inf.Obl give-Pf.M.Sg
he/t^h-a
 be.Pres.3.Sg/be.Past-M.Sg
 ‘Nadya has/had let Yassin cut the plant.’

As also shown in (2), the finite verb *de* ‘give’ is combined with a verb bearing infinitive morphology in the permissive. The lexical semantics of this other verb are freely variable, but it must always be marked with the oblique form of the infinitive: *-ne*.

Note that I have been careful about saying that the *de* ‘give’ embeds an infinitive verb. This is because I do not want to imply that the infinitive is syntactically embedded under the finite verb. Rather, my analysis of the permissive as a complex predicate posits embedding at a-structure, but not at the syntactic level of f-structure. Before proceeding on to that discussion in section 3, I briefly provide basic information on clausal embedding in Hindi/Urdu in section 2.2 and on case and agreement in section 2.3.

2.2 Complementation in Hindi/Urdu

In this section, I point out two properties of complementation strategies in Hindi/Urdu. The complementation patterns in Hindi/Urdu generally conform to the overall head-final pattern of the language, with one exception — finite clauses have the complementizer in clause initial position (cf. Bayer 1999). This is illustrated for the finite complementizer *ki* ‘that’ in (3).

- (3) *nadya=ne kah-a [ki yasin paoda kaṭ-e-g-a]*
 N.F=Erg say-Pf.M.Sg that Y.M.Nom plant.M.Sg.Nom cut-3.Sg-Fut-M.Sg
 ‘Nadya said that Yassin will cut a/the plant.’

Non-finite complements are expressed via a range of different constructions and either have no overt complementizer or have a clause final complementizer. Finite complements can only ever appear at the edges of a clause, non-finite complements tend to appear to the left of the matrix verb (Davison, 1991).

Given the morphosyntactic shape of the permissive, I here focus on embedded infinitives. (4) illustrates an infinitive in combination with the matrix verb *cah* ‘want’. As can be seen, the matrix verb is finite and the embedded

verb is infinitive. The same is true of the examples in (5) and (6), with the difference that the infinitive either bears case or is followed by a postposition.

- (4) amad=ne [kitab xarid-na] cah-a
 A.M=Erg book.F.Sg.Nom buy-Inf.M.Sg.Nom want-Pf.M.Sg
 ‘Amad wanted to buy a book.’
- (5) nadya=ne yasin=ko [paoda kaṭ-ne]=**ko** kah-a
 N.F=Erg Y.M=Dat plant.M.Sg.Nom cut-Inf.Obl=Acc say-Pf.M.Sg
 ‘Nadya told Yassin to cut the plant.’
- (6) rad^ha=ne mohan=ko [kitab paṛ^h-ne]=**ke liye**
 R.F=Erg M.M=Dat book.F.S.Nom read-Inf.Obl=for
 maḡbur ki-ya
 force do-Pf.M.Sg
 ‘Radha forced Mohan to read a book.’
- The examples in (5) and (6) in particular make the point that the infinitives can function as verbal nouns (Davison, 1991; Butt, 1993). This means that they can license verbal arguments, but also behave like nouns in that they can be case marked ((5)) or function as PPs ((6)).
- Example (5) has been dubbed the *instructive* by Butt (1995) and is explicitly contrasted with the *permissive*.² Butt analyzes the instructive as an instance of control, but the permissive as a complex predicate. This is discussed further in section 3. At this point, the instructive serves to make the point that infinitive complements can be case marked and that in general, embedded non-finite complements as in (5) can also be expressed as finite complements, cf. (3). This is also true for the embedded infinitives in (4) and (6), as illustrated in (7) and (8).
- (7) amad=ne cah-a [kī vo kitab xarid-e]
 A.M=Erg want-Pf.M.Sg that Pron.3.Sg book.F.Sg.Nom buy-Subj.3.Sg
 ‘Amad wanted (this) that he would buy a book.’
- (8) rad^ha=ne mohan=ko maḡbur ki-ya
 R.F=Erg M.M=Dat force do-Pf.M.Sg
 [kī vo kitab paṛ^h-e]
 that Pron.3.Sg book.F.Sg.Nom read-Subj.3.Sg
 ‘Radha forced Mohan that he should read a book.’
- (9) *nadya=ne di-ya [kī yasin paoda kaṭ-e-g-a]
 N.F=Erg give-Pf.M.Sg that Y.M.Nom plant.M.Nom cut-3.Sg-Fut-M.Sg
 ‘Nadya let that Yassin will cut the plant.’

² Note that Hindi speakers tend to prefer a version in which the instructee is marked with the instrumental/comitative *se* rather than the *ko* shown in (5).

The permissive, in contrast, does not allow for finite clauses ((9); Davison (this volume)). I take this to show that the subevents in the permissive (the letting event and the cutting event in (10)) are more tightly integrated than the subevents in the morphosyntactically very similar instructive. In contrast, Davison (this volume) takes this fact to be indicative of the particular flavor of modality expressed by the permissive. However, she does not provide details of how this analysis could be fleshed out.

2.3 Short Primer on Agreement in Hindi/Urdu

A phenomenon that is also pertinent to discussions of comparative clausal integration is long-distance agreement. In Hindi/Urdu, the verb can only agree with an NP that is not overtly marked for case and that is moreover not oblique — this form is now commonly referred to as the nominative. If there are two nominative arguments in a clause, as in (10a), for example, then the verb agrees with the subject. If the subject is marked and the object is unmarked, as in (10b), the verb agrees with the object. If there are no nominative arguments, then the verb exhibits “default” masculine singular agreement (10c).

- (10) a. **adnan** **gaṛi** **cala-ta** **he**
 A.M.Nom car.F.Nom drive-Ipf.M.Sg be.Pres.3.Sg
 ‘Adnan drives a car.’
 b. **adnan=ne** **gaṛi** **cala-yi** **he**
 A.M=Erg car.F.Sg.Nom drive-Pf.F.Sg be.Pres.3.Sg
 ‘Adnan has driven a car.’
 c. **nadya=ne** **gaṛi=ko** **cala-ya** **he**
 N.F=Erg car.F.Sg=Acc drive-Pf.M.Sg be.Pres.3.Sg
 ‘Nadya has driven the car.’

In addition, Hindi/Urdu allows for so-called long-distance agreement (LDA; Davison 1985, 1988; Mahajan 1989; Butt 1993, 1995; Bhatt 2005). LDA occurs with embedded infinitives which are “nominative”, i.e., they do not bear case, they are not morphologically oblique and they are not followed by a postposition. (5) and (6) do not allow for LDA, but (4) does, as shown in (11a). The verb *cah* ‘want’ in fact allows for optional LDA, as illustrated in (11b).

- (11) a. **amad=ne** [**kitab** **xarid-ni**] **cah-i**
 A.M=Erg book.F.Sg.Nom buy-Inf.F.Sg.Nom want-Pf.F.Sg
 ‘Amad wanted to buy a book.’
 b. **amad=ne** [**kitab** **xarid-na**] **cah-a**
 A.M=Erg book.F.Sg.Nom buy-Inf.M.Sg.Nom want-Pf.M.Sg
 ‘Amad wanted to buy a book.’

Butt (1993, 1995) analyzes LDA as a series of local agreement relations. So, in (11a) the infinitive verb ‘buy’ agrees with its object ‘book’ and the finite verb in turn agrees with its object, the infinitive phrase ‘buy a book’.

The optionality of agreement is attributed to a type of noun incorporation in (11b). Bhatt (2005) instead proposes an analysis by which the LDA is licensed via a restructuring configuration of the kind proposed by Wurmbrand (2001).

Thus, while Butt sees two separate domains of agreement relations, Bhatt sees one and ties it to the notion of restructuring, which has been invoked for an understanding of complex predication. LDA is thus one phenomenon that is relevant in understanding the relative cohesiveness of clauses.

3 Complex Predicates vs. Control/Raising

Now let us return to complex predication vs. control/ECM. In Butt (1995), I developed several diagnostics for monoclausality and argued that the permissive should be analyzed as a complex predicate in which two verbs each contribute thematic/semantic roles to an overall syntactically monoclausal predication.

In contrast, Davison analyzes the ‘allow-to-do’ permissive in (1a) as a control construction, but the ‘allow-to-happen’ version in (1b) as an instance of ECM. Another perspective is offered by Bhatt (2005), who sees both versions of the permissive as instances of restructuring, but additionally also assumes raising for (1b) in that in (1b) the case on the object is taken to be licensed by the finite predicate, whereas in (1a) it is licensed by the infinitive.

In what follows, I first lay out my definition of a complex predicate (section 3.1). This notion corresponds to what has been called restructuring or clause union with respect to Romance (e.g., Rizzi 1982; Aissen and Perlmutter 1983; Rosen 1989; Alsina 1996). I revisit Butt’s (1995) claim that the permissive, but not the instructive fall under this definition and reject Davison’s analysis of the permissive as involving either control or ECM (section 3.2). As part of the discussion, I address Davison’s *Lexical Case Condition*, which she uses to help motivate her control/ECM analysis of the permissive (section 3.2.4).

3.1 What is a complex predicate?

Complex predicates are formed when two or more predicational elements enter into a relationship of co-predication. Each predicational element adds arguments to a monoclausal predication. Unlike what happens with control/raising, there are no embedded arguments and no embedded predicates at the level of syntax. Tests for complex predicatehood are language specific. In Romance they famously include clitic climbing and long passives, Choi (2005) developed NPIS (negative polarity items) as a test for Korean (this has been proposed as a test for Hindi/Urdu as well, see Bhatt 2005) and Butt (1995) adduced evidence from agreement, control and anaphora resolution for Urdu/Hindi.

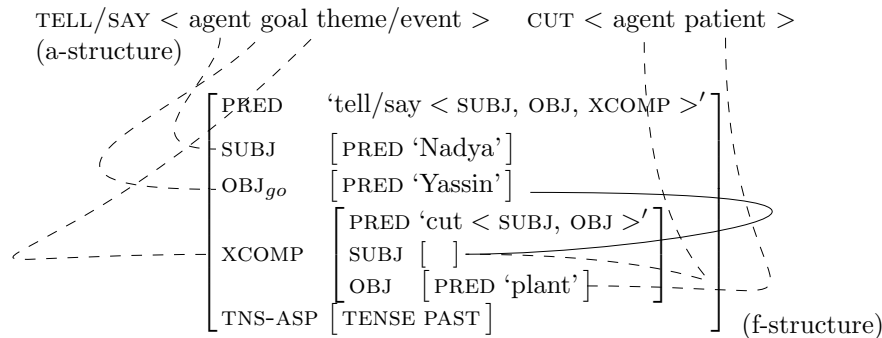
Tests involving linear adjacency, scrambling, negation or other adverbial modification tend not to be good tests for complex predicatehood (Butt, 1994, 2010). This is because they tend to test surface constituency. The question is whether the predicational elements have combined to form one co-predicational

domain, not whether they form a surface constituent and whether the events they denote can be modified separately or not (see Seiss 2009; Butt 2010 for an overview). For example, morphological causatives function semantically much like periphrastic causatives and both types form complex predicates (cf. Alsina 1997), however, the periphrastic causatives can in principle be modified by two different adverbs (e.g., ‘Yesterday I slowly made you eat your sandwich quickly.’) while this is generally not possible with morphological causatives.

The modular projection architecture of LFG (Dalrymple, 2001; Bresnan, 2001) provides a clear analysis of the difference between control, raising and complex predication. Let us begin by examining the instructive, repeated here in (12), whose status as a control construction is uncontroversial.

- (12) *nadya=ne yasin=ko [paoda kaɬ-ne]=ko kah-a*
 N.F=Erg Y.M=Dat plant.M.Sg.Nom cut-Inf.Obl=Acc say-Pf.M.Sg
 ‘Nadya told Yassin to cut the plant.’

(13) **Biclausal Control (Instructive)**



As shown in (13), two predicates are involved, each with their separate argument structure: *kah* ‘tell/say’ is a three-place predicate which subcategorizes for an agent, a goal/recipient (the goal of the telling) and a thing that the goal is told. The verb ‘cut’ is a two-place predicate with an agent and a patient. This is represented at the level of a(rgument)-structure.³

The matrix verb is ‘tell’ and its arguments correspond to the matrix subject, object and XCOMP (in LFG this represents a non-finite controlled complement) of the f-structure in (13), respectively. The embedded verb is ‘cut’. It is shown as being embedded within the XCOMP at f-structure and its arguments correspond to the subject and object of that f-structure, respectively. The embedded subject is the equivalent of a PRO, in that it does not appear overtly in the embedded clause, but is identified with the subject of the matrix clause.

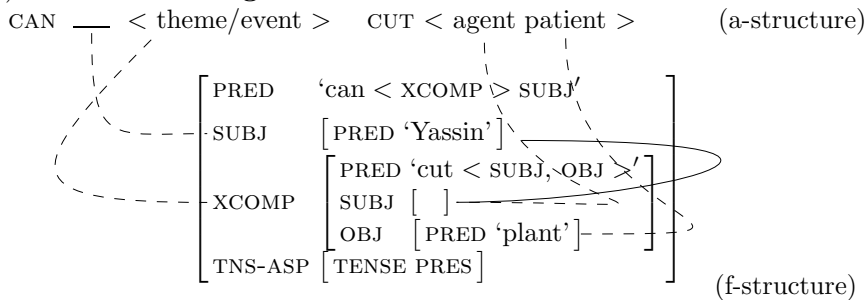
Next, consider the raising construction in (14). The modal *sak* ‘can’ was analyzed as a raising verb in Bhatt et al. (2011), the raising analysis shown in

³ The precise representation of semantic roles at a-structure is the subject of on-going debate, as is the precise formulation of LFG’s Mapping or Linking Theory (see Butt 2006 for an overview). For the purposes of this paper, I abstract away from the details and use thematic role labels and the standard formulation of linking in Bresnan (2001).

(15) is standard LFG (Bresnan, 1982, 2001). The verb ‘can’ has two arguments, an XCOMP and a subject. In contrast to the control analysis in (13), the subject is non-thematic. This is indicated by the fact that it is represented outside of the angle brackets — arguments inside the angle brackets are thematic. In parallel to the control analysis, the embedded subject within an XCOMP of a raising verb is identified with the matrix subject. The only substantive difference between raising and control within LFG lies in whether the matrix grammatical relation is thematically licensed by the matrix verb.

- (14) yasin paoda kaṭ sak-ta hε
 Y.M.Nom plant.M.Sg.Nom cut can-Ipf.M.Sg be.Pres.3.Sg
 ‘Yassin can cut a/the plant.’

(15) **Biclausal Raising**

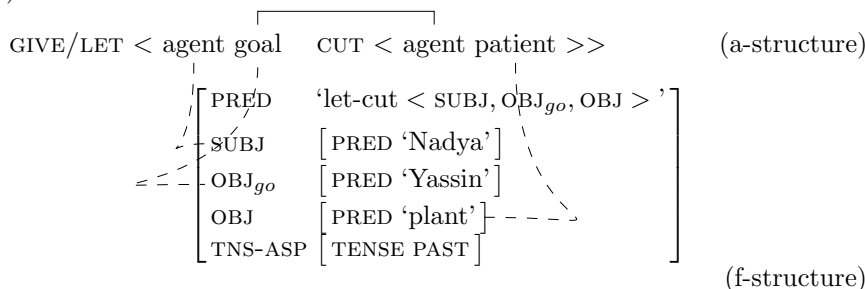


Now contrast this with the complex predicate analysis for the permissive. As shown in (17), again two separate predicates are involved at a-structure. The verb ‘give/let’ is a three-place predicate which subcategorizes for an agent, a goal/recipient and a thing that the recipient is given. In this case, the thing that is given is another event, denoted by the predicate ‘cut’. These two argument structures are combined. The trigger for the combination is attributed to different factors in different theories. I assume that light verbs like the permissive ‘let’ are incomplete predicates, which subcategorize for another event and that at a-structure the lowest matrix argument is fused with the highest embedded argument, as shown in (17) (Butt, 1995, 1998) (also see section 4.1).

As also shown in (17), the composed argument structure corresponds to a monoclausal f-structure. It is this mismatch across levels of representation that characterizes complex predicates: a biclausal argument structure corresponds to a monoclausal f-structure. There are no embedded verbs or arguments in (17), rather the predication is a complex, composed one.⁴

- (16) nadya=ne yasin=ko paoda kaṭ-ne di-ya
 N.F=Erg Y.M=Dat plant.M.Sg.Nom cut-Inf.Obl give-Pf.M.Sg
 ‘Nadya let Yassin cut the plant.’

⁴ The analyses in (13), (15) and (17) also illustrate that auxiliaries merely contribute functional information to the f-structure — the information contained under TNS-ASP. This reflects their status as functional, non-predicational elements (Butt et al., 2004).

(17) **Monoclausal Permissive**

One major point to make is that the argument composition illustrated in (17) does not take place in the lexicon. In the case of morphological causatives, the argument composition is handled within the morphological component. In the case of periphrastic complex predicates like the permissive, the argument composition is handled in the syntax. The technical details of argument composition within LFG are complex and have been discussed for Urdu in Butt (1995); Butt et al. (2003); Butt and King (2006). The basic architecture is as follows. The c-structure projects both f-structure and a-structure information. The a-structure information is collected up and related to the f-structure that has been collected up separately from the various c-structure nodes. The system is one of mutually constraining levels of representation with the relevant information for a-structure and f-structure being collected up and unified from the various nodes of the c-structure tree as part of the overall projection architecture (e.g., see Dalrymple 2001; Asudeh and Toivonen 2009).

3.2 Evidence for complex predicate status of the permissive

Despite their surface similarity, the permissive and the instructive differ in terms of their syntactic behavior. Davison (this volume) critically discusses the evidence brought to bear in Butt (1995) and raises points which are designed to weaken the evidence. Her discussion is much appreciated and I am more than willing to concede that since each of the phenomena used as evidence are themselves complex, issues with respect to the tests do arise and judicious application is called for. However, the instructive and the permissive nevertheless differ and this contrast needs to be accounted for. Indeed, Davison does not succeed in arguing against all of the evidence adduced. Moreover, she adds an argument in favor of the complex predicate analysis by observing that the instructive has a version in which it takes a finite complement (which appears to be true for control verbs in general), but the permissive does not (cf. section 2.2 and Davison's examples (46) and (47)).

3.2.1 Anaphora Resolution

Butt (1995) used the subject tests formulated in Mohanan (1994) to ascertain whether there is an embedded subject in the permissive or not. One of the

tests uses the distributional facts of the Urdu/Hindi reflexive *apn-* ‘self’ in conjunction with the behavior of the pronominals. In a simple clause, *apn-* ‘self’ must refer to the subject, in contrast, the pronoun cannot refer to the subject. This is illustrated in (18) for the ditransitive verb *de* ‘give’.

- (18) a. $\text{anjum}=\text{ne}_i$ $\text{adnan}=\text{ko}_j$ $\text{apn-}i_{i,*j}$ $\text{ga}\ddot{r}\ddot{i}$ d-i
 A.F=Erg A.M=Dat self-F car.F.Sg.Nom give-Pf.F.Sg
 ‘Anjum gave Adnan his/her (Adnan’s or somebody else’s) car.’
 b. $\text{anjum}=\text{ne}_i$ $\text{adnan}=\text{ko}_j$ $\text{us}=\text{ki}_{*i,j,k}$ $\text{ga}\ddot{r}\ddot{i}$ d-i
 A.F=Erg A.M=Dat Pron=Gen.F car.F.Sg.Nom give-Pf.F.Sg
 ‘Anjum gave Adnan his/her (Adnan’s or somebody else’s) car.’

The reflexive *apn-* ‘self’ is not locally bound by its minimal clause, but can refer long-distance across non-finite clause boundaries (Gurtu, 1985). Mohanan (1994, 125) analyzes *apn-* ‘self’ as being bound either by the syntactic subject or a logical subject within its minimal finite clause. The logical subject is the most prominent argument role, whereby argument roles are considered to be ordered according to a thematic hierarchy (see section 4.1; Bresnan 2001, 307). Now consider the anaphora data with respect to the permissive vs. the instructive. There is a clear contrast in binding possibilities, as shown in (19a) vs. (19b) for the reflexive and in (20a) vs. (20b) for the pronominal.

- (19) a. $\text{anjum}=\text{ne}_i$ $\text{adnan}=\text{ko}_j$ $\text{apn-}i_{i,*j}$ $\text{ga}\ddot{r}\ddot{i}$ cala-ne d-i
 A.F=Erg A.M=Dat self-F car.F.Sg.Nom drive-Inf.Obl give-Pf.F.Sg
 ‘Anjum let Adnan drive her car.’
 b. $\text{anjum}=\text{ne}_i$ $\text{adnan}=\text{ko}_j$ [$\text{apn-}i_{i,*i,j}$ $\text{ga}\ddot{r}\ddot{i}$ $\text{cala-ne}]=\text{ko}$
 A.F=Erg A.M=Dat self-F car.F.Sg.Nom drive-Inf.Obl=Acc
 kah-a
 say-Pf.M.Sg
 ‘Anjum told Adnan to drive his/her car.’
- (20) a. $\text{anjum}=\text{ne}_i$ $\text{adnan}=\text{ko}_j$ $\text{us}=\text{ki}_{*i,j,k}$ $\text{ga}\ddot{r}\ddot{i}$ cala-ne
 A.F=Erg A.M=Dat Pron=Gen.F car.F.Sg.Nom drive-Inf.Obl
 d-i
 give-Pf.F.Sg
 ‘Anjum let Adnan drive his/her car.’
 b. $\text{anjum}=\text{ne}_i$ $\text{adnan}=\text{ko}_j$ [$\text{us}=\text{ki}_{i,j,k}$ $\text{ga}\ddot{r}\ddot{i}$
 A.F=Erg A.M=Dat Pron=Gen.F car.F.Sg.Nom
 $\text{cala-ne}]=\text{ko}$ kah-a
 drive-Inf.Obl=Acc say-Pf.M.Sg
 ‘Anjum told Adnan to drive his/her car.’

These contrasts make sense if the permissive is viewed as being monoclausal and the instructive as biclausal. In (19a) there is only one grammatical subject (*Anjum*). So this subject is the only possible antecedent for the reflexive. In (19b), *Adnan* controls the the embedded PRO subject and *Anjum* is the matrix subject. So there are two grammatical subjects within the minimal finite

clause the reflexive is contained in and both are possible antecedents. My informants at the time favored the embedded subject as an antecedent, presumably because of preferences for the binding to occur as locally as possible.

Davison (this volume, (48)) notes that the judgements of her informants differ in that both *Anjum* and *Adnan* are allowed as possible antecedents for the reflexive in (19a). Given that, according to Mohanan, the *apn*- ‘self’ can be bound by a logical subject as well as a grammatical subject, these judgements still do not make a case against the complex predicate analysis — *Anjum* is the most prominent argument in the embedded a-structure and can thus also in principle serve as an antecedent for *apn*- ‘self’.

Because *apn*- ‘self’ can refer to both a-structure and f-structure in terms of antecedent determination, it alone does not provide a good test for subjecthood. Mohanan therefore crucially used data from reflexives and pronominals in tandem in order to test for grammatical subjecthood, a strategy followed by Butt (1995). Davison (this volume) only discusses the reflexive data.

The pronominal data in (20) shows a robust difference between the permissive and the instructive, which again follows if one assumes that the permissive is monoclausal whereas the instructive is biclausal. Recall that a pronoun cannot refer to the subject of its clause, but can refer to anything else. In (20a), the subject *Anjum* cannot bind the pronoun. In contrast, in (20b), the pronoun can refer to *Anjum*. The pronoun can also refer to *Adnan*. This is because *Adnan* is the indirect object of the matrix clause. *Adnan* also controls the PRO subject of the clause containing the pronoun, but I suggest that the co-reference is licensed via the matrix indirect object status of *Adnan* (see Dalrymple 1993).

Davison also points to another anaphor, the complex reflexive *apne ap* and argues that the data from this reflexive speak for a biclausal analysis of the permissive. The crucial example put forward by Davison is in (21) (her (21b)).

- (21) mā=ne_i rad^ha=ko_j apne ap=ko_{*i,j} aine=mẽ
 mother.F.Sg=Erg R.F=Dat self/by self=Acc mirror.M.Obl=in
 dek^h-ne nahĩ di-ya
 see-Inf.Obl not give-Pf.M.Sg
 ‘Mother did not allow Radha to look at herself in the mirror.’

Unlike the simple reflexive, the complex reflexive must be bound in its local clause. The assumption made by Davison is that it must be bound by a subject. If this were the case, then the fact that *Radha* binds the complex reflexive in (21) would indeed be a problem for my analysis. However, Mohanan (1994) did not posit the complex reflexive as a possible subject test among the battery of tests for Hindi/Urdu. When queried about this, she responded that as far as she could ascertain, the data are complex and subject to variability in speaker judgement and as such not suitable for a test for subjecthood (Tara Mohanan, p.c. March 27, 2013). One difficulty is that the complex reflexive has two meanings. It can mean ‘self’, but it can also mean ‘by self’, as in (22).⁵

⁵ The predication in (22) is a V-V complex predicate of a type that occurs with high frequency in Hindi/Urdu. The finite light verb adds aspectual and Aktionsart information

- (22) *nadya_i apne ap_i so ga-yi*
 N.F.Nom self/by self sleep go-Pf.F.Sg
 ‘Nadya went to sleep by herself.’

It is apparently difficult for speakers to tease apart the ‘self’ vs. ‘by herself’ reading in complex examples, leading to differences in judgement as to possible antecedents. Furthermore, Mohanan points to the following datum involving a morphological causative, in which *Radha* is not the subject of the clause, but is nevertheless a possible antecedent, given the right kind of context.

- (23) *nadya=ne_i rad^ha=se_j apne ap=ko_{i,j} mam dil-va-ya*
 N.F=Erg R.F=Inst self/by self=Dat prize.M.Nom give-Caus-Pf.M.Sg
 ‘Nadya made Radha give herself the prize.’

In conclusion, the data from reflexives taken in conjunction with pronominal reference point to a structural contrast between the permissive and the instructive and support a complex predicate analysis of the permissive.

3.2.2 Agreement

In this section I first present the agreement contrast Butt (1995) used to argue for a complex predicate analysis of the permissive. I then discuss Bhatt’s (2005) analysis of LDA in Hindi/Urdu and its potential ramifications. As already discussed in section 2.3, the finite verb agrees with the subject if the subject is nominative, else it agrees with the object if that is nominative, else it shows “default” masculine singular agreement. With respect to agreement, the permissive again patterns like a regular simple predicate (cf. (10)) while the instructive shows evidence for an embedded clause.

- (24) a. *anjum=ne saddaf=ko xat lk^h-ne di-ya*
 A.F=Erg S.F=Dat letter.M.Nom write-Inf.Obl give-Pf.M.Sg
 ‘Anjum let Saddaf write a letter.’
 b. *anjum=ne saddaf=ko ciṭṭ^hi lk^h-ne d-i*
 A.F=Erg S.F=Dat note.F.Sg.Nom write-Inf.Obl give-Pf.F.Sg
 ‘Anjum let Saddaf write a note.’
- (25) a. *anjum=ne saddaf=ko [xat lk^h-ne]=ko kah-a*
 A.F=Erg S.F=Dat letter.M.Nom write-Inf.Obl=Acc say-Pf.M.Sg
 ‘Anjum told Saddaf to write a letter.’
 b. *anjum=ne saddaf=ko [ciṭṭ^hi lk^h-ne]=ko kah-a*
 A.F=Erg S.F=Dat note.F.Sg.Nom write-Inf.Obl=Acc say-Pf.M.Sg
 ‘Anjum told Saddaf to write a note.’

In (24) the finite verb agrees with the object. This is masculine in (24a) and feminine in (24b). In contrast, the finite verb in the instructive in (25) always

(telicity) to the overall predication without which the event description is often deemed to be “incomplete” by native speakers. See a.o. Hook (1974); Butt (1995); Butt and Ramchand (2005) for some further discussion.

shows masculine singular morphology, suggesting that this is the “default” agreement. This in turn suggests that the potential candidates for agreement that are nominative (*letter* and *note*) are embedded and therefore not available. Again, the data follow straightforwardly from an analysis in which the permissive is a complex predicate while the instructive is an instance of control.

However, as also already discussed in section 2.3, Hindi/Urdu has LDA, illustrated in (26) (Butt, 1993). Given this, one may then wonder whether (24) is not really an instance of LDA.

- (26) a. *nadya=ko* [*gaṛi* *cala-ni*] *a-ti* *he*
 N.F=Dat car.F.Sg.Nom drive-Inf.F.Sg come-Ipf.F.Sg be.Pres.3.Sg
 ‘Nadya knows how to drive a car.’
- b. *nadya=ko* [*tāga* *cala-na*] *a-ta* *he*
 N.F=Dat tonga.M.Sg.Nom drive-Inf.M.Sg come-Ipf.M.Sg be.Pres.3.Sg
 ‘Nadya knows how to drive a tonga.’ (a tonga is a horse-drawn cart)

Butt’s (1993, 1995) proposal was that LDA be understood as a series of local agreements. Under this analysis in (26) the infinitive agrees with the object (feminine in (26a) and masculine in (26b)) and the finite verb in turn agrees with the infinitive. The infinitives are seen as verbal nouns which head their own phrases and act as verbs for phrase internal purposes, but as nouns for phrase external purposes.

Bhatt (2005) instead proposes an analysis which involves a version of Agree, AGREE, whereby finite T^0 is the only probe and looks for the closest visible set of ϕ -features. Crucially for Bhatt, finite T^0 does not have to license the case of the XP it agrees with (thus opening up the possibility of the finite verb in (26) agreeing with an embedded object). The agreement on the infinitive is explained as parasitic in that it is dependent on the probe issued by the finite verb. The probe from the finite verb looks for something to agree with, first finds the infinitive, but finds no help as the agreement features are assumed to be initially unvalued. The finite verb then probes further and finds the nominative embedded object. It agrees with that and in the process also values the agreement features of the infinitive.

However, note that the morphosyntax of the permissive is quite different from the cases of clear LDA. In all the clear cases of LDA, the infinitive is part of the agreement chain, however it is analyzed. This contrasts with the morphosyntax of the infinitive in the permissive, which is an invariant oblique *-e*. It does not participate in an agreement chain. In Bhatt’s account, this does not receive an explanation. In my account, the invariant oblique *-e* of the permissive is taken to be an indication of complex predication — the event expressed by the infinitive is embedded to a different degree in the permissive as compared to the infinitivals which allow for LDA (see section 5).

A major difference between Butt (1995) and Bhatt (2005) concerns the status of the permissive. Butt sees the permissive as a monoclausal predicate whose agreement patterns along the lines of that of the simple verbs. Other examples involving LDA are seen as instances of a series of local agreements

involving different clauses in which one is embedded in the other. In contrast, Bhatt sees the permissive and the LDA examples as belonging to the same category, namely that of restructuring verbs.

3.2.3 NPI

Bhatt (2005) adduces evidence from NPI to support the perspective that the permissive and constructions allowing for LDA are instances of essentially the same kind of structure. Both the permissive and the LDA constructions permit NPI. In contrast, the instructive does not. The relevant data are provided in (27)–(29) ((27) and (29) are Bhatt’s (37a) and (38), respectively)

(27) ek=b^hi laṛke=ne [sita=ki kitab
 one=also boy.M.Obl=Erg S.F=Gen.F book.F.Sg.Nom
 nahī paṛ^h-ni] cah-i
 not read-Inf.F want-Pf.F.Sg
 ‘Not even a single boy wanted to read Sita’s book.’

(28) ek=b^hi laṛke=ne sita=ko kitab
 one=also boy.M.Obl=Erg S.F=Dat book.F.Sg.Nom
 nahī paṛ^h-ne d-i
 not read-Inf.Obl give-Pf.F.Sg
 ‘Not even a single boy let Sita read the book.’

(29) a. *ek=b^hi laṛke=ne sita=se [kitab
 one=also boy.M.Obl=Erg S.F=Inst book.F.Sg.Nom
 nahī paṛ^h-ne]=ko kah-a
 not read-Inf.Obl=Acc say-Pf.M.Sg
 ‘Not even a single boy told Sita to read the book.’
 b. ek=b^hi laṛke=ne sita=se [kitab
 one=also boy.M.Obl=Erg S.F=Inst book.F.Sg.Nom
 paṛ^h-ne]=ko nahī kah-a
 read-Inf.Obl=Acc not say-Pf.M.Sg
 ‘Not even a single boy told Sita to read the book.’

In Urdu/Hindi, when the negative marker and the polarity item are distributed across two different clauses, an NPI reading cannot be obtained. The data again speak for the instructive as being biclausal (NPI reading can only be obtained when the negative marker and the polarity item are in the same clause, (29)), but the permissive as monoclausal (NPI reading can be obtained even if the negative marker is positioned before the infinitive).

This test thus also upholds my analysis of the permissive as a complex predicate. However, it would also seem to indicate that the LDA constructions must similarly be viewed as monoclausal, a conclusion I am not prepared to accept because there are two important differences between the LDA family and the permissive. For one, the former allow the infinitive clause to be realized as a finite clause ((7)), but the permissive does not ((9)). For another,

the LDA family does not show invariant oblique marking on the infinitive while the permissive does. I believe that these differences are significant and therefore propose an alternative perspective on NPI in Urdu/Hindi by which NPI is possible across clauses when the embedded clause is a VP. In some respects, this is in line with Bhatt (2005), who assumes with Wurmbrand (2001) that restructuring can only take place when the embedded clause does not project a subject.⁶ If an embedded clause is headed by a complementizer or a case marker, additional structure above the VP is assumed to be projected and restructuring cannot take place. In Bhatt's system, this explains why the in-structive does not show LDA and why it does not give rise to NPI.

However, rather than tying the absence or presence of an invisible subject to different types of phrase structure realization, I propose that NPI in Urdu/Hindi is not sensitive to deep functional structure, but operates on surface constituency relations. Thus, in my system, the VPs do not act as a barrier for NPI interpretation, but other types of constituents, such as KPs (Case Phrases), CPs or IPs do. This does not necessarily reflect underlying complex predication or restructuring, as assumed by Bhatt, but, as in Bhatt's analysis, it does reflect the presence of more syntactic structure than that projected by a VP and that blocks NPI from applying.

3.2.4 The Lexical Case Condition

A strong argument that Davison puts forward in favor of a control analysis of the permissive is the *Dative Restriction*. The observation is that “in contexts of obligatory control, the embedded verb may not assign its (null) subject dative case” (Davison, 2008, 34). Davison shows that the permissive indeed does not allow embedding of verbs that require a dative subject (Davison's (17c)).

A close look at the data, however, suggests a potentially different understanding of the Dative Restriction, namely one in terms of lexical semantic compatibility. Dative subjects in Urdu/Hindi tend to contrast with ergative/nominative subjects in that they express lack of control over an action. Consider the pair in (30), where the finite verb (30a) is agentive and requires ergative case marking on the subject.⁷ In contrast, in (30b), the *a* ‘come’ requires a dative subject and the reading is one of lack of control over the event.

⁶ Bhatt works with Wurmbrand's (2001) notion of restructuring, which covers several phenomena that are actually quite different. She makes a distinction between two types of restructuring: 1) Functional Restructuring (basically clauses with auxiliaries); 2) Lexical Restructuring (basically phenomena otherwise known as complex predication or clause union; Aissen and Perlmutter 1983; Alsina 1997). However, the bulk of her argumentation pertains to German *coherent* verbs, which are actually neither complex predicates in the Romance sense (and the sense used here), nor auxiliary constructions, but some kind of special raising or control construction. See Reis and Sternefeld (2004) for a comprehensive discussion of the German data with respect to Wurmbrand (2001).

⁷ Hindi/Urdu is a split-ergative language whereby the ergative marks subjects of (di)transitive agentive verbs when the verb carries perfect morphology, as in (1). A handful of intransitive unergative verbs also optionally allow for the ergative (Davison, 1999).

- (30) a. *nadya=ne kahani yad k-i*
 N.F=Erg story.F.Sg.Nom memory.F.Sg.Nom do-Pf.F.Sg
 ‘Nadya remembered a/the story (actively).’
- b. *nadya=ko kahani yad a-yi*
 N.F=Dat story.F.Sg.Nom memory.F.Sg.Nom come-Pf.F.Sg
 ‘Nadya remembered a/the story (involuntarily).’

Davison’s discussion contains several alternations of agentive (ergative subject) vs. non-agentive verbs (dative subject): ‘anger do’ vs. ‘anger come’; ‘take money’ vs. ‘receive money’. The rough generalization for the use of the ergative vs. the dative in Urdu/Hindi is that the ergative marks actors whereas the dative marks experiencers and recipients/goals. Given the tight connection between lexical semantics and case marking (cf. Butt and King 2004; Butt and Ahmed 2011), I suggest that the Dative Restriction is not about control per se, but about an underlying lexical semantic incompatibility. Consider (31a,b) (based on Davison’s (14a) and (15a)).

- (31) a. **vo pesa mil-na cah-ta*
 Pron.3.Sg.Nom money.3.Sg.Nom get-Inf.M.Sg want-Inf.M.Sg
 ‘He wants to get money.’
- b. *vo pesa le-na cah-ta*
 Pron.3.Sg.Nom money.3.Sg.Nom take-Inf.M.Sg want-Inf.M.Sg
 ‘He wants to take money.’

The verb *cah* ‘want’ in Urdu/Hindi is a volitional type of wanting. It is not the kind of wanting which involves uncontrollable needs (a better translation might be *desire*). In the perfect the subject is required to be ergative (cf. (4)). I propose that the lexical semantics of this verb require an actor as subject and that this is incompatible with the lexical semantics of an embedded verb requiring a subject who has no control over the action, as in (31a). The two subjects are identified with one another in the syntax, but as the constraints imposed by the lexical semantics of the verbs clash, the result is illformed. Given that this is a clash at the level of lexical semantics and not at the level of syntax, an incompatibility in lexical semantics leads to illformedness either in the context of a control construction as in (31) or in the context of complex predicate formation as with the permissive. From this perspective, the Dative Restriction is not applicable as a test for control vs. complex predication.⁸

⁸ Davison notes that the Dative Restriction also applies to participles as in (i) and takes this as further evidence of the syntactic nature of this constraint. However, consider (ii), which is grammatical. The difference is that the noun ‘man’ that is non-nominative in (ii) and as such no clash ensues. So it is not a restriction on dative PRO per se.

- (i.) **[— krod^h a-ya hu-a] admi*
 anger.M.Sg.Nom come-Pf.M.Sg become-M.Sg man.M.Sg.Nom
 ‘the man who got angry’
- (ii.) *[— krod^h a-ye hu-e] admi=ko*
 anger.M.Sg.Nom come-Pf.M.Obl become-M.Obl man.M.Sg=Dat
 ‘(to) the man who got angry’

As Davison (her section 4) points out, there are instances in which a verb requiring a dative subject can be embedded in the permissive and in other constructions. She argues that in these cases raising must have taken place. This fits in nicely with my perspective, as raising presupposes that there is no argument licensed by the matrix verb that leads to a lexical semantic clash. Indeed, Davison herself points out that contextual factors appear to play a role in the interpretative possibilities and that when a verb that generally does not imply control over an action (e.g., getting beaten, see her example (40)) is used in a context in which control over the action is implied (e.g., at a political demonstration where demonstrators let themselves be beaten on purpose to make a point), the Dative Restriction is not enforced.

3.2.5 Control

The final piece of evidence Butt (1995) adduced in favor of a complex predicate analysis of the permissive had to do with control as well. It is generally assumed that embedded infinitives and participles must be controlled by the subject in Urdu/Hindi. An example with a simplex verb is shown in (32).

- (32) **anjum=ne_i saddaf=ko_j** [_{*i,*j*} darvaza k^hol kar]
 A.F=Erg S.F=Acc door.M.Sg.Nom open having
 andar bul-a-ya
 inside speak-Caus-Pf.M.Sg
 ‘Anjum, having opened the door, called to Saddaf to come in.’

Again, the instructive and the permissive show a difference with respect to control possibilities. The instructive in (33) differs from the simplex verb in (32) in that both the matrix subject *Anjum* and the indirect object *Saddaf*, which is also an embedded PRO subject, are possible controllers. In contrast, the permissive is exactly parallel to the simple case in (32). As in (32), the object *Saddaf* cannot be a possible controller of the participial adverbial in (33). In effect, there is no evidence for an embedded subject that is licensed by the infinitive (*Saddaf* cannot be such an embedded subject).

- (33) **anjum=ne_i saddaf=ko_j** [_{*i,j*} darvaza k^hol kar]
 A.F=Erg S.F.Sg=Dat door.M.Sg.Nom open having
 saman=ko kamre=mẽ rak^h-ne=ko kah-a
 luggage.M=Acc room.M.Sg=in put-Inf.Obl=Acc say-Pf.M.Sg
 ‘Anjum told Saddaf to put the luggage in the room, after having opened the door.’

- (34) **anjum=ne_i saddaf=ko_j** [_{*i,*j*} darvaza k^hol kar]
 A.F=Erg S.F=Dat door.M.Sg.Nom open having
 saman=ko kamre=mẽ rak^h-ne di-ya
 luggage.M=Acc room.M.Sg=in put-Inf.Obl give-Pf.M.Sg
 ‘Anjum, having opened the door, let Saddaf put the luggage in the room.’

Davison’s informants confirm these judgements, indicating that there is a contrast that needs to be accounted for. Davison also points out that data with control are tricky as they are subject to pragmatic factors. I absolutely agree with this and note that linear order also appears to play a role (Butt 1995, Footnote 3). However, these caveats should not distract from the basic fact that there is a robust contrast between the permissive and the instructive.

4 Accounting for the Permissive

In this section, I analyze both versions of the permissive as complex predicates. This does justice to the data adduced in section 3. However, the ‘allow-to-happen’ version differs from the ‘allow-to-do’ version in that it involves Argument Raising rather than Argument Fusion, mirroring the control vs. ECM contrast Davison proposes, but at a different level of representation.

4.1 Linking Theory and Complex Predication

In LFG, the correspondence between a-structure and f-structure is determined by Mapping or Linking Theory. For the purposes of this paper, I work with a simplified version and base myself on the principles as set out in Bresnan (2001). In the standard account, an a-structure consists of a predicator and the arguments it predicates. The arguments are ordered, reflecting a relative prominence that is determined by the Thematic Hierarchy in (35).⁹ As shown in (36) for a transitive verb, the arguments are classified according to two features [$\pm r$ (estricted)] and [$\pm o$ (bjective)]. These features provide the link to the grammatical relations (or grammatical functions in LFG), as shown in (37).

(35) Thematic Hierarchy

agent > *beneficiary* > *experiencer/goal* > *instrument* > *patient/theme* > *locative*

(36) *pound* < agent theme >
 [−o] [−r]

(37) SUBJ OBJ OBJ_θ OBL_θ
 [−r, −o] [−r, +o] [+r, +o] [+r, −o]

In addition to the standard grammatical relations SUBJ and OBJ, LFG also posits OBJ_θ and OBL_θ. The θ subscript on the latter two indicates that these are semantically restricted, the θ stands for a particular semantic/thematic role. For example, in the f-structures encountered so far, ditransitive predications

⁹ This thematic hierarchy is based on original observations by Kiparsky (1987). As Bresnan (2001, 321) points out, the ordering of the arguments might also be derived from semantic primitives in lexically decomposed structures, as in Jackendoff’s (1990) proposals, for example. Another option is the type of lexical semantic decomposition practiced in First Phase Syntax, for example, Ramchand (2008).

have included a OBJ_{go} . This indicates an object that is placed in correspondence with a goal argument (an indirect object).

In my work, I additionally assume a tight coupling of case with a-structure and take a lexical semantic approach to case (Butt and King, 2004; Butt and Ahmed, 2011). For example, in Urdu, goals are always associated with dative case; agents with an ergative or a nominative (according to the appropriate morphosyntactic context) or an instrumental in the passive; themes/patients with the accusative or nominative (depending on whether the referent is specific and/or animate, the precise distribution of the accusative in Urdu/Hindi is quite complex, see Dayal (2011) for some discussion).

Argument Merger is triggered by the presence of so-called *light verbs* (Butt, 2010) or morphological marking such as causative morphology. The argument structure of such items is posited to be incomplete in the sense that another predicate is necessary to complete the predication (Alsina, 1996). Sample entries for the permissive *de* and the Urdu causative morpheme *-a* are in (38).

- (38) a. *de* GIVE/LET < agent goal %Pred >
 b. *-a-* CAUSE < agent %Pred >

In Butt (1995) I referred to this missing predicate as a *transparent Event*. In the above representations, I have instead used the XLE grammar development platform’s (Crouch et al., 2013) notation for a variable: %. The %Pred indicates that there is a variable in this argument structure which needs to be filled by another predicate’s argument structure. This %Pred can be supplied either as part of the morphological component (in the case of morphological causatives), or within the syntax (in case of the periphrastic permissive). Argument Merger works the same way in either case as a-structure abstracts away from how the predicates are represented on the surface (Alsina, 1997).

(39)

	Control	Raising	Complex Predicate
syntax (f-structure)	PRO controlled	Exceptional Case Marking	No
a-structure	argument controlled (fusion)	arguments unified (raising)	Yes

Butt (1998) further posits some constraints on argument merger. Two different types of merging separate argument domains are provided for. One is *Argument Fusion*, by which the highest embedded argument is identified with the lowest matrix argument. This is analogous to what happens with syntactic control. The other is *Argument Raising*, whereby the arguments of the matrix a-structure are merged into one domain together with the arguments of the embedded a-structure, but no merging of individual argument roles takes place.¹⁰ As shown in (39) (from Butt (1998)), this is analogous to raising.

¹⁰ Both Argument Fusion and Raising are independently documented. Baker and Harvey (2010) provide a crosslinguistic survey of complex predication and conclude that there are two major types: coindexation (my Fusion) and merger (analogous to Argument Raising).

4.2 The Allow-to-Do Permissive

The ‘allow-to-do’ permissive is lexically specified as having the a-structure in (41). This is an incomplete a-structure which is looking for another predicate. In example in (40), this other predicate is *paɾʰ* ‘read’ ((42)).

(40) *nadya=ne bacce=ko kitab paɾʰ-ne d-i*
 N.F=Erg child.M.Sg.Obl=Dat book.F.Sg.Nom read-Inf.Obl give-Pf.F.Sg
 ‘Nadya let the child read a/the book.’

(41) *de* GIVE/LET < agent goal %Pred >

(42) *paɾʰ* READ < agent theme >

These two a-structures are combined via Argument Merger, as part of which the lowest matrix argument (the goal) is coindexed with the highest embedded argument (the agent). This results in the complex a-structure in (43), which is linked to f-structure via the general mapping principles of LFG.

(43)	GIVE/LET <	agent	goal	READ < agent	theme	>>
		[-o]	[+o]		[-r]	
		SUBJ	OBJ /OBJ _{go}		OBJ	
		Erg/Nom	Dat		Acc/Nom	
		Nadya	child		book	

The coindexed arguments can only be linked once — they are considered one entity with respect to linking. With its [+o] specification, this entity could in principle be linked to either an OBJ or an OBJ_θ. However, the only option for the embedded theme is the OBJ and as the clause can only have one OBJ, the fused argument is linked to OBJ_θ (to be precise, to an OBJ_{go}).

These grammatical functions in turn are compatible with case marking as also shown in (43). The matrix agent is realized as ergative when the verb has perfect morphology, otherwise as nominative. The goal argument licenses the dative and the theme is either accusative if it is specific and/or animate, otherwise it is nominative. (43) is a concrete analysis of (40).

4.3 The Allow-to-Happen Permissive

In the ‘allow-to-happen’ reading of the permissive, exemplified here by (44) (Davison’s (35a)), there is nobody who is allowed to perform a certain action, rather, a certain action is allowed to happen (or not). This version does not differ syntactically from the ‘allow-to-do’ version except with respect to the embedding of experiencer verbs, cf. the discussion in section 3.2.4 on the Dative Restriction). Given that I see the Dative Restriction as arising out of a lexical semantic clash and given that there are otherwise no significant morphosyntactic differences between the ‘allow-to-do’ and the ‘allow-to-happen’ readings, I propose a complex predicate analysis for both versions. However, the fact that there is no permittee needs to be taken into account.

- (44) *ḍaḡṭar=ne mariz=ko buxar a-ne naḥĩ*
 doctor.Sg=Erg patient.Sg=Dat fever.M.Sg.Nom come-Inf.Obl not
di-ya
 give-Pf.M.Sg
 ‘The doctor did not let the patient get a fever.’

Within the framework sketched above, there are two possible avenues to pursue. One option is to posit the same underlying entry as for the ‘allow-to-do’ permissive, but to optionally suppress the goal argument in conjunction with relevant lexico-pragmatic factors. This option is attractive in light of the fact that, as Davison points out, the ‘allow-to-happen’ reading is subsumed by the ‘allow-to-do’ reading.

There are two problems with this analysis. One is that standard Mapping Theory would need to be extended to allow for goal suppression. The other is that Argument Fusion does not yield the right results. As shown in (45) for (44), the matrix agent would have to be identified with the highest embedded argument, which is not in line with the meaning of the sentence. Also, the patient argument is left unlinked.¹¹

- | | | | | | | | |
|------|------------|--------|------|--------|---------|-------|----|
| (45) | GIVE/LET < | agent | goal | COME < | goal | theme | >> |
| | | [−o] | | | | [−r] | |
| | | | ∅ | | | | |
| | | SUBJ | | | OBJ | | |
| | | doctor | | | patient | fever | |

An alternative approach is to posit a second a-structure associated with *de* ‘let’, a two-place one without a goal argument, as in (46). These two a-structure options have already been posited for causatives in Chicheŵa, Marathi, Malayalam and Urdu/Hindi (Alsina and Joshi, 1991; Butt, 1998).

- (46) *de* GIVE/LET < agent %Pred >

The two different a-structures further come with lexical specifications as to what kind of argument merger they engage in: Argument Fusion (with a coindexation of two arguments) or Argument Raising (merging of two argument domains without any coindexation). Given that the property of being a control or a raising verb must also be lexically specified, this appears to be a reasonable way to proceed.

The three-place version is used in the ‘allow-to-do’ reading and triggers Argument Fusion. The two-place version is used when there is no concretely specified person, thing or institution being allowed to do something, giving rise to the ‘allow-to-happen’ reading. (47) provides an analysis of (44) under this scenario. The merging of argument domains involves no coindexation of individual arguments. Linking and case marking works out just right: three arguments are linked, there is an ergative subject (doctor), a nominative object (fever) and an indirect dative object (patient).

¹¹ The verb ‘come’ here is in its version as an experiencer verb. Note that I do not distinguish between beneficiaries, goals and experiencers, but use ‘goal’ as a single cover term.

(47)	GIVE/LET <	agent	COME <	goal	theme	>>
		[-o]		[+o]	[-r]	
		SUBJ		OBJ _{go} / OBJ	OBJ	
		doctor		patient	fever	
		Erg/ Nom		Dat	Nom/Acc	

Davison points out that while *ko* marked objects look similar on the surface, they mark both indirect objects and direct objects. This is illustrated in (48) (based on Davison's (24) and (25)), where both sentences contain an intransitive infinitive which licenses a theme object. In (48a) this object is marked with *ko* (a specific moment is being referred to), while in (48b) the object 'darkness' is nominative (the object is non-specific). The point is that the *ko* marked argument is a direct object and not an indirect object as in (44). This is captured correctly by the analysis in (49).

- (48) a. kacce lamhe=ko fak^h=par pak-ne
 unripe.M.Obl moment.M.Sg.Obl=Acc branch.M.Sg=on ripen-Inf.Obl
 d-o
 give-Imp.Fam
 'Let the tender moment ripen on the bough.'
- b. age b^hi ho-ne de ād^hera
 ahead also be-Inf.Obl give-Imp.Fam darkness.M.Sg.Nom
 'Let there be darkness ahead.'
- (song, Majrooh Sultanpuri, translation by Philip Lutgendorf)

(49)	GIVE/LET <	agent	RIPEN/BE <	theme	>>
		[-o]		[-r]	
		SUBJ		OBJ	
		(pro)		moment (48a)/darkness (48b)	
				Acc (48a)/Nom (48b)	

Now further consider (50) (version of Davison's (10)), an 'allow-to-do' permissive. As Davison points out, the 'child' in (50) must be an indirect object as it cannot be a direct object: it cannot be subject to the nominative/accusative differential object marking, nor does it become nominative under passivization, as is generally the case for direct objects. These facts fall out from my analysis, as shown in (51), where the 'child' is an indirect object.

- (50) mā=ne bacce=ko ja-ne di-ya
 mother.F.Sg=Erg child.M.Obl=Dat go-Inf.M.Sg give-Pf.M.Sg
 'The mother let the child go.'
- (51) GIVE/LET < agent goal GO < theme >>
 [-o] [+o]
 | |
 SUBJ OBJ_{go}
 mother child
 Erg Dat

4.4 Discussion

Like Davison, I come to the conclusion that there is an underlying difference between the ‘allow-to-do’ and the ‘allow-to-happen’ reading of the permissive. Unlike Davison, I take this to be a reflex of the semantics of the underlying argument structure. Within LFG it is possible to distinguish between argument merger/raising at a-structure vs. argument control/raising at f-structure. I claim that this finer distinction of different types of structure sharing is necessary for a comprehensive account of the permissive, especially in contrast to uncontroversial control constructions. In Davison’s system, some of the properties and contrasts remain unaccounted or only partially accounted for.

5 Degrees of Clausal Cohesion

A reviewer suggests that both papers need to acknowledge that the overall crosslinguistic evidence so far points not just to a bifurcation between complex predicates and control/raising, but to a more complex situation in which the four structures in (52) can be distinguished. I fully agree with this assessment but would like to add that these four types do not as yet capture the full range of attested ways of combining clauses. Or, to put it differently: there are more options for relating different events to one another. The typology in (51) covers the Urdu and Romance style complex predicates (IV), the German coherent verbs (III) as well as control/raising (II) and finite complementation (I). Another type of clausal cohesion is furnished by serial verbs.

- (52)
- I. Finite Complementation: Embedding of full finite TP/CP.
 - II. Control/Raising: Embedding of full TP complement containing a position for subject, but non-finite so that it has no temporal anchoring information.
 - III. Restructuring Predicate: Embedding of a “small” complement which lacks its own higher functional structure to a greater or lesser degree, in particular, lacks a TP which could introduce a subject (either overt or covert). This could be as small as VP, although it may be as large as vP or AspP.
 - IV. Complex Predicate: No embedding — one continuous functional sequence, but with complex decomposition within vP.

The literature involving serial verbs and complex predicates is plagued with terminological confusion (cf. Seiss 2009; Butt 2010), but the prototypical serial verb (e.g., Baker 1989; Crowley 2003), as exemplified by (53) is morphosyntactically and semantically very different from that of a prototypical complex predicate. One hallmark of a serial verb construction is that each verb carries its own temporal and agreement information — this contrasts with complex predicates, in which only one of the predicative elements carries tense/aspect.

- (53) iire rehe-sooni vakilii rehe-haa
 1Pl.Incl 1Pl.Incl-Distant.Throw canoe 1Pl.Incl-Distant.Go
 ‘We will go, putting (throwing) our canoe to sea.’ (Paamese)
 (Crowley, 1987, 47)

Prototypical serial verbs combine two separate events (e.g., ‘going’ and ‘throwing’ in (53)). However, there is evidence that one cannot combine just any two events in a serial verb, but that they must together form a “construable (super)event” (Durie, 1997). For example, in Alambalak one can perfectly well serialize ‘climb tree, find insects’ but not ‘climb tree, look at stars’. The former is an event that is deemed to be one construable, cohesive complex event (something one does normally) by Alambalak speakers, the latter is not.

Note that the typology in (52) does not talk about events per se. One key to understanding degrees of event cohesion is a better understanding of the semantics of events and subevents so that a typology as in (52) (including a characterization of serial verbs) can follow naturally. This in turn should be correlated with the morphosyntactic reflexes that signal the various degrees of event cohesion. Recall that the permissive has an invariant oblique *-e* on the infinitive and does not allow for finite complements. This stands in contrast to other infinitive constructions such as the instructive and the LDA constructions. I suggest that the invariant oblique *-e* of the permissive is significant, but that it signals a special type of event cohesion, namely one of complex predication.

6 Conclusion and Discussion

Davison (this volume) raises a number of interesting issues with respect to the Hindi/Urdu permissive. In this paper, I have put forward arguments that reconfirm my claim in Butt (1995) that the permissive is a complex predicate that is syntactically distinct from control or ECM/raising constructions. The arguments involve data from agreement, anaphora, control, embedding of dative subjects, NPI, finite complements and the invariant morphological marking on the infinitive.

I also extended my original analysis to include the new cases of the ‘allow-to-happen’ permissive. Like Davison, I take the ‘allow-to-do’ reading to involve the identification of two arguments, but see this as happening at a-structure in terms of Argument Fusion. In contrast, the ‘allow-to-happen’ reading is analyzed as Argument Raising, but again at a-structure, not in the syntax. There are thus parallels in the analysis — the major difference lies in the more fine-grained approach to understanding domains of argument predication and how they relate to different degrees of event cohesion.

Acknowledgements Thanks go to Gillian Ramchand for judicious application of the carrot-and-stick method, to Alice Davison, Rajesh Bhatt, Gillian Ramchand and two anonymous reviewers for extremely interesting discussions of the subject matter and the data at hand. Many thanks also to Tafseer Ahmed, Ashwini Deo, Ghulam Raza and Qaisar Abbas for providing data judgements, sometimes at very short notice. And finally, to Tom McFadden and Sandhya Sundaresan helping me along the final stretch in their role as editors.

References

- Adger, David. 2007. Three domains of finiteness: a minimalist perspective. In *Finiteness: Theoretical and empirical foundations*, ed. Irina Nikolaeva, 1–22. Oxford: Oxford University Press.
- Aissen, Judith, and David Perlmutter. 1983. Clause reduction in Spanish. In *Studies in relational grammar 1*, ed. David Perlmutter, 360–403. Chicago: The University of Chicago Press.
- Alsina, Alex. 1996. *The role of argument structure in grammar*. Stanford: CSLI Publications.
- Alsina, Alex. 1997. A theory of complex predicates: evidence from causatives in Bantu and Romance. In *Complex predicates*, eds. Alex Alsina, Joan Bresnan, and Peter Sells, 203–246. Stanford: CSLI Publications.
- Alsina, Alex, and Smita Joshi. 1991. Parameters in causative constructions. In *Papers from the 27th Regional Meeting of the Chicago Linguistic Society*, eds. Lisa Dobrin, Lynn Nichols, and Rosa M. Rodriguez, 1–16.
- Asudeh, Ash, and Ida Toivonen. 2009. Lexical-Functional Grammar. In *The Oxford handbook of linguistic analysis*, eds. Bernd Heine and Heiko Narrog, 425–458. Oxford: Oxford University Press.
- Baker, Brett, and Mark Harvey. 2010. Complex predicate formation. In *Complex predicates: a cross-linguistic perspective*, eds. Mengistu Amberber, Brett Baker, and Mark Harvey, 13–47. Cambridge: Cambridge University Press.
- Baker, Mark. 1989. Object sharing and projection in serial verb constructions. *Linguistic Inquiry* 20: 513–553.
- Bayer, Josef. 1999. Final complementizers in hybrid languages. *Journal of Linguistics* 35: 233–271.
- Bhatt, Rajesh. 2005. Long distance agreement in Hindi-Urdu. *Natural Language and Linguistic Theory* 23: 757–807.
- Bhatt, Rajesh, Tina Bögel, Miriam Butt, Annette Hautli, and Sebastian Sullger. 2011. Urdu/Hindi modals. In *Proceedings of the LFG11 Conference*, eds. Miriam Butt and Tracy Holloway King, 47–67. Stanford: CSLI Publications.
- Bresnan, Joan. 1982. Control and complementation. In *The mental representation of grammatical relations*, ed. Joan Bresnan, 282–390. Cambridge: MIT Press.
- Bresnan, Joan. 2001. *Lexical-Functional Syntax*. Oxford: Blackwell.
- Butt, Miriam. 1993. Hindi-Urdu infinitives as NPs. *South Asian Language Review* III (1): 51–72. Special Issue on Studies in Hindi-Urdu.
- Butt, Miriam. 1994. Complex predicate scrambling in Urdu. In *Theoretical perspectives on word order in South Asian languages*, eds. Miriam Butt, Tracy Holloway King, and Gillian Ramchand, 67–90. Stanford: CSLI Publications.
- Butt, Miriam. 1995. *The structure of complex predicates in Urdu*. Stanford: CSLI Publications.
- Butt, Miriam. 1998. Constraining argument merger through aspect. In *Complex predicates in nonderivational syntax*, eds. Erhard Hinrichs, Andreas

- Kathol, and Tsuneko Nakazawa, 73–113. New York: Academic Press.
- Butt, Miriam. 2006. *Theories of case*. Cambridge: Cambridge University Press.
- Butt, Miriam. 2010. The light verb jungle: Still hacking away. In *Complex predicates in cross-linguistic perspective*, eds. Mengistu Amberber, Mark Harvey, and Brett Baker, 48–78. Cambridge: Cambridge University Press.
- Butt, Miriam, and Tafseer Ahmed. 2011. The redevelopment of Indo-Aryan case systems from a lexical semantic perspective. *Morphology* 21 (3): 545–572.
- Butt, Miriam, and Tracy Holloway King. 2004. The status of case. In *Clause structure in south asian languages*, eds. Veneeta Dayal and Anoop Mahajan, 153–198. Berlin: Kluwer Academic Publishers.
- Butt, Miriam, and Tracy Holloway King. 2006. Restriction for morphological valency alternations: The Urdu causative. In *Intelligent linguistic architectures: Variations on themes by Ronald M. Kaplan*, eds. Miriam Butt, Mary Dalrymple, and Tracy Holloway King, 235–258. Stanford: CSLI Publications.
- Butt, Miriam, and Gillian Ramchand. 2005. Complex aspectual structure in Hindi/Urdu. In *The syntax of aspect*, eds. Nomi Ertischik-Shir and Tova Rapoport, 117–153. Oxford: Oxford University Press.
- Butt, Miriam, and Jafar Rizvi. 2010. Tense and aspect in Urdu. In *Layers of aspect*, eds. Patricia Cabredo-Hofherr and Brenda Laca, 43–66. Stanford: CSLI Publications.
- Butt, Miriam, Tracy Holloway King, and John Maxwell III. 2003. Complex predication via restriction. In *Proceedings of the LFG03 Conference*, eds. Miriam Butt and Tracy Holloway King, 92–104. Stanford: CSLI Publications.
- Butt, Miriam, María-Eugenia Niño, and Frédérique Segond. 2004. Multilingual processing of auxiliaries in LFG. In *Projecting morphology*, eds. Louisa Sadler and Andrew Spencer, 11–22. Stanford: CSLI Publications. Reprinted Version of a 1996 COLING proceedings paper.
- Choi, Seongsook. 2005. Multiple verb constructions in Korean. PhD diss, University of Sussex.
- Crouch, Dick, Mary Dalrymple, Ron Kaplan, Tracy King, John Maxwell, and Paula Newman. 2013. XLE documentation. <http://www2.parc.com/isl/groups/nltt/xle/doc/xle>.
- Crowley, Terry. 1987. Serial verbs in Paamese. *Studies in Language* 11 (1): 35–84.
- Crowley, Terry. 2003. *Serial verbs in oceanic: A descriptive typology*. Oxford: Oxford University Press.
- Dalrymple, Mary. 1993. *The syntax of anaphoric binding*. Stanford: CSLI Publications.
- Dalrymple, Mary. 2001. *Lexical Functional Grammar*. New York: Academic Press.
- Davison, Alice. 1985. Case and control in Hindi-Urdu. *Studies in the Linguistic Sciences* 15 (2): 9–23.

- Davison, Alice. 1988. Constituent structure and the realization of agreement features. In *Papers from the 24th Regional Meeting of the Chicago Linguistics Society (cls)*, eds. Lynn Macleod, Gary Larson, and Diane Brentari, 41–53.
- Davison, Alice. 1991. Finiteness and case in Hindi-Urdu complements. Paper presented at the Eleventh South Asian Languages Analysis Roundtable, University of Illinois, Urbana-Champaign.
- Davison, Alice. 1999. Ergativity: Functional and formal issues. In *Functionalism and formalism in linguistics, volume I: General papers*, eds. Michael Darnell, Edith Moravcsik, Frederick Newmeyer, Michael Noonan, and Kathleen Wheatley, 177–208. Amsterdam: John Benjamins.
- Davison, Alice. 2008. A case restriction on control: Implications for movement. *Journal of South Asian Linguistics* 1: 29–54.
- Dayal, Veneeta. 2011. Hindi pseudo-incorporation. *Natural Language and Linguistic Theory* 29 (1): 123–167.
- Durie, Mark. 1997. Grammatical structures in verb serialization. In *Complex predicates*, eds. Alex Alsina, Joan Bresnan, and Peter Sells, 289–354. Stanford: CSLI.
- Gurtu, Madhu. 1985. Anaphoric relations in Hindi and English. PhD diss, Central Institute of English and Foreign Languages.
- Hook, Peter Edwin. 1974. *The compound verb in Hindi*. Center for South and Southeast Asian Studies: The University of Michigan.
- Kiparsky, Paul. 1987. Morphology and grammatical relations. Stanford University.
- Mahajan, Anoop. 1989. Agreement and agreement phrases. In *MIT working papers in linguistics*, eds. Itziar Laka and Anoop Mahajan, Vol. 10, 217–252.
- Mohanan, Tara. 1994. *Argument structure in Hindi*. Stanford: CSLI Publications.
- Nikolaeva, Irina, ed. 2007a. *Finiteness: Theoretical and empirical foundations*. Oxford: Oxford University Press.
- Nikolaeva, Irina. 2007b. Introduction. In *Finiteness: Theoretical and empirical foundations*, ed. Irina Nikolaeva, 1–22. Oxford: Oxford University Press.
- Ramchand, Gillian. 2008. *Verb meaning and the lexicon: A first phase syntax*. Cambridge: Cambridge University Press.
- Reis, Marga, and Wolfgang Sternefeld. 2004. Review article of Susanne Wurmbrand, *Infinitives. Restructuring and Clause Structure*. *Studies in Generative Grammar* 55. Berlin: Mouton de Gruyter. 2001. *Linguistics* 42 (2): 469–508.
- Rizzi, Luigi. 1982. *Issues in Italian syntax*. Dordrecht: Foris Publications.
- Rosen, Sara. 1989. Argument structure and complex predicates. PhD diss, Brandeis University.
- Seiss, Melanie. 2009. On the difference between auxiliaries, serial verbs and light verbs. In *Proceedings of the LFG09 Conference*, eds. Miriam Butt and Tracy Holloway King. Stanford: CSLI Publications.
- Wurmbrand, Susanne. 2001. *Infinitives: Restructuring and clause structure*. Berlin: Mouton de Gruyter.