

## Spatial, Temporal and Structural Uses of Urdu *ko*

Tafseer Ahmed  
 tafseer@gmail.com  
 University of Konstanz<sup>1</sup>

Stuttgart, January 2007.

### 1 Introduction

- The talk discusses different usages of Urdu case marker *ko*.<sup>2</sup>
- We argue that case markers were originally locative postpositions that extended semantics of cases in an abstract way.
- As a case study, we discuss locative senses in non-spatial usages of Urdu *ko*.
- We are working towards an unifying explanation of the diverse usages of *ko*.

### 2 Urdu *ko*

- Usages of the case marker *ko* are widely discussed in the literature.
  - Most of the examples discussed are related to accusative and dative usages.
  - The following is a survey of usages *ko*.
- (1) anjum=ne                      saddaf=ko                      dekha                      (Accusative Patient/Theme)  
 Anjum.F.Sg=ERG      Saddaf.F.Sg=ko                      see.Perf.M.Sg  
 'Anjum saw Saddaf.'
- (2) anjum=ne                      saddaf=ko                      hAnsvaya                      (Affected Agent/Causee)  
 Anjum.F.Sg=ERG      Saddaf.F.Sg=ko                      laugh.caus.perf.M.Sg  
 'Anjum caused Saddaf to laugh.'
- (3) anjum=ne                      saddaf=ko                      chitthi                      di                      (Dative Recipient/Goal)  
 anjum.F.Sg=ERG      saddaf.F.Sg=ko                      letter.F.Sg                      give.perf.F.Sg  
 'Anjum gave the letter to Saddaf.'
- (4) omair=ko                      inam                      mlla                      (Recipient)  
 Omair.M.Sg=ko      prize.M.Sg      touch.Perf.M.Sg  
 'Omair got the prize'
- (5) jin=ko                      chAsm-e-bina                      hai                      (Possession/State)  
 who=ko                      visionary-eye.M.Sg      be.Pres.Sg  
 'who have vision'
- (6) nadya=ko                      zu      jana                      paRa                      (Involition)  
 Nadya.F.Sg=DAT      zoo      go.inf                      fall-on.pres.Sg  
 'Nadya have to go to the zoo.'

<sup>1</sup> This research is supported by the DFG (Deutsche Forschungsgemeinschaft) via the SFB 471, Project A24.

<sup>2</sup> The author is thankful to Miriam Butt and Scott Grimm for their help in the analysis of data and pointing out the mistakes.

- (7) log                      sair=ko                      gAye                      (Purpose)  
 People.Pl              walk.M.Sg=ko              go.perf.M.Sg  
 'Omair went for a walk'
- (8) nadya              cai                      bAnane=ko              hai                      (Immediate Future)  
 Nadya.F.Sg              tea.F.Sg              be.Inf.OBL=ko              be.pres.Sg  
 'Nadya is about to make tea.' (Lit: 'Nadya is at tea making')
- (9) sAman                      ghAr=ko                      pohoanch              gAya                      (Spatial)  
 Luggage.M.Sg              home.M.Sg=ko              reach              go.perf.M.Sg  
 'The luggage reached home'
- (10) chor                      rat=ko                      aaya                      (Temporal)  
 thief.M.Sg              night.F.Sg=ko              come.Perf.M.Sg  
 'The thief came at night'

### 3 History

#### 3.1 Case in Indo-Aryan Languages

- Old Indo-Aryan used morphology to express case. Sanskrit had eight cases: Nominative, Accusative, Dative, Ablative, Instrumental, Genitive, Locative and Vocative.
- Middle Indo-Aryan lost almost all case inflections.
- Then New Indo-Aryan languages mostly use clitics as case markers. These clitics originated from old Indo-Aryan nouns and verbs, that became postpositions and clitics during the passage of time.

#### 3.2 Origin of *ko*

- *ko* is used in Urdu-Hindi to mark mainly accusative and dative cases.
- According to Beames(1872), Urdu-Hindi *ko* originated from the Sanskrit noun *kakshA* meaning 'armpit, side'.
- The locative of *kakshA* is *kakshe* which means 'in the armpit'. In Old Urdu-Hindi, *kakshA* became *kakhA*. Its accusative was *kakhAm*.
- After a series of changes, it became *ko*.
- Beames(1872) lists early uses of *ko* to mark the recipient goal of ditransitive verbs like *give* and as an object marker of verbs like *seek*.

#### 3.3 More Locatives

- Urdu-Hindi and other Indo-Aryan languages have many case markers derived from old locatives.
- At least four other Indo-Aryan languages: Sindhi (*khe*), Siraiiki (*kon*), Bengali (*ke*) and Oriya (*ku*) have its variants of *kakhAm* as accusative/dative case marker.
- At least four Indo-Aryan languages use words starting with l/n as accusative/dative case markers. These are supposed to be derived from Sanskrit locatives *lage* meaning 'stick' (Beames 1872) or *janniye* meaning 'because of' (Chatterji 1926).
- Urdu-Hindi *ne*, also used in Punjabi and Gujrati, is also derived from the locatives

above.

- Sindhi ablative *khaN* is oblique form of accusative/dative *khe*, derived from the Sanskrit locative meaning 'near' (Beams 1872). Punjabi uses *koloN*, which is derived form of Punjabi word *kol*, meaning 'near'.
- We can speculate that Urdu-Hindi *liye*, Sindhi *lae* and Punjabi *lai* originated from the Sanskrit *lage* meaning 'stick'

#### 4 Questions

- What does *ko* mark? Certainly not one thing.
- Many of the Urdu-Hindi (generally speaking Indo-Aryan) case markers originate from locatives meaning 'near' or 'stick'. Then what is/are the specific properties of *ko*? Or which sense of the fine grained meaning of the original word is represented by *ko*?
- Why do at least eight Indo-Aryan languages use the same form for both accusative and dative case markers? (There must be a close semantic relationship between these two cases.)

#### 5 Analysis of the usages

- Most of the usages of *ko* can be explained by considering different semantic fields like temporal, eventual apart from spatial field.

##### 5.1 Dative Recipient

- One usage of *ko* is to mark indirect objects or OBLique-goals in ditransitive verbs.
- In first of the following examples, the letter reaches the OBLique-goal *Saddaf* marked with *ko*. In the second example, she is the intended goal of object 'letter'.

(11) anjum=ne                      saddaf=ko                      citthi                      di  
 anjum.F.Sg=ERG      saddaf.F.Sg=ko                      letter.F.Sg                      give.perf.F.Sg  
 'Anjum gave the letter to Saddaf.'

(12) anjum=ne                      saddaf=ko                      citthi                      likhi  
 anjum.F.Sg=ERG      saddaf.F.Sg=ko                      letter.F.Sg                      write.perf.F.Sg  
 'Anjum wrote a letter to Saddaf.'

- We propose that *ko* has semantic facets of recipient in this usage.
- Canonical recipients are *sentient*. They undergo a *qualitative change* relative to the state of affairs before the onset of the event (i.e., come into possession of somebody) and they are the *endpoint* of the transfer event, i.e., a direct action.
- Additionally, we will see that for the Urdu usages, whether a recipient desires the event to occur or not, i.e., *volitionality*, is left under-specified.
- Note also the event structure of 'give' situations is roughly that of achievements (one does not generally/prototypically give something in stages) and they are atelic (no 'measuring out' of the given object).
- The recipient is a location which is the goal or destination of the object.
- Dative recipients are not only present in oblique position. Dative Subjects involve both physical receivers/goals and extended usages of experiencer.

- All of the semantic usages of Dative Subject constructions can be explained as locative usage.
- Our proposal is that Dative Subjects are re-analysis of the sentences having sentient (dative) object and non-sentient subject. (Butt, Grimm and Ahmed-2006)
- The processing pressure in human mind favors the subjecthood of the sentient i.e. human argument.
- Examples of sentient dative subjects receiving non-sentient objects are:

(13) omair=ko            inam            mlla.  
 Omair.M.Sg=DAT    prize.M.Sg    touch.Perf.M.Sg  
 'Omair got the prize.'

(14) omair=ko            thApAR/ghuNsa    pARa.  
 Omair.M.Sg.DAT    slap/punch.M.Sg    fall-on.Perf.M.Sg  
 'Omair received a slap/punch.' (Lit: To Omair, slap/punch fell on.)

## 5.2 Extended Dative Recipient Usages

- Semantic properties like experience, (mental) state and involition can be explained as metaphorically extension of the recipient semantics discussed above.

### 5.2.1 Experience

- Landau(2002) proposes that experiencers are (mental) locations and that an experiencer of a psych-predicates is a locative of some sort.
- The reception semantics can be extended to give the notion of experience with human mind as goal. i.e. human (mind) is the location of the experience. Like following examples:

(15) omair=ko            khAbAr            mlli  
 Omair.M.Sg=DAT    news.F.Sg    touch.Perf.F.Sg  
 'Omair got the news.'

(16) omair=ko            bhuk            lAgi  
 Omair.M.Sg=DAT    hunger.F.Sg    stick.Perf.F.Sg  
 'Omair felt hungry.' (Lit: 'Hunger came to Omair.')

- Note that verbs in above sentence are achievements as well.
- The dative subject used with verb *hona* 'be' expresses experience (mental) states.

(17) sadiq=ko            xUshi            hai  
 Sadiq.M.Sg=DAT    happiness.M.Sg    be.pres.Sg  
 'Sadiq is happy.' (Lit: 'To Sadiq, is happiness.')

(18) sadiq=ko            bUxar            hai  
 Sadiq.M.Sg=DAT    fever.M.Sg    be.pres.Sg  
 'Sadiq have fever.' (Lit: 'To Sadiq, is the fever.')

- One can claim that in the above examples, the subject *Sadiq* is location of the happiness or fever. At first, it does not seem to resemble a recipient.
- We can not make a strong point in favor of recipient from examples of Urdu. But we can find help from another Indo-Aryan language Marathi.



going event or not. It is underspecified for volition.

- As Urdu case marker *ne* has agentive reading, it is used to introduce volition or conscious choice.
- Urdu verb *pARna* with nonfinite verb gives the meaning of involition. This type of sentences seems to be metaphorical extension of of example 12 in 5.1.2 having *pARna* verb.

(21) omair=*ko*                      zu            jana                      pARa  
 Omair.M.Sg=DAT    zoo    go.inf                      fall-on.Perf.M.Sg  
 'Omair had to go to the zoo.' (Lit: 'To go to the zoo, fell on to Omair.')

- Involution in this construction is coming from the semantics of the verb.
- Above example has sudden reception of the event that can not be avoided. Hence it shows involition of the subject.

### 5.2.3 Affected Agents (of Causatives)

- Saksena(1982) in her work on causatives introduced the concept of *affected agents*.
- Affected agents are subjects of intransitive and ingestive transitive verbs.
- These subjects are affected by the action or are the recipient of the action when base form of the verb is used.
- Few verbs have the semantics of both affected and un-affected agents. For example, in the following sentences, the affected agent is *learning the lesson*.

(22)a)  
 saddaf=*ne*                      sabaq                      pARha  
 Saddaf.F.Sg=ERG    lesson.M.Sg    learn.Perf.M.Sg  
 'Saddaf learnt the lesson'.

b)  
 anjum=*ne*                      ustad=*se*                      saddaf=*ko*                      sabaq  
 anjum.F.Sg=ERG    teacher.M.Sg=INST                      saddaf.F.Sg=DAT    lesson.M.Sg  
 pArhvaya  
 teach.caus.perf.M.Sg  
 'Anjum caused the teacher to teach the lesson to Saddaf.'

- In the causative sentence above, affected-agent of old sentence is marked with *ko*. The syntax is similar to the OBLique-goal of ditransitive verb. i.e. *ko* is showing receiving of the lesson.
- In Contrast, if *pARhna* has unaffected agent. For Example,

(23)a)  
 saddaf=*ne*                      xabren                      pARheen  
 Saddaf.F.Sg=ERG    news.F.Pl                      read.Perf.F.Pl  
 'Saddaf read the news.'

b)  
 anjum=*ne*                      saddaf=*se*                      (tv=*pAr*)                      xAbreN                      pARhvaaeN  
 anjum.F.Sg=ERG    saddaf.F.Sg=INST    tv=LOC-on    news.F.Sg    read.caus.perf.F  
 'Anjum caused Saddaf to read the news (on TV).'

- In above example, causee with *ko* is not possible.

### 5.3 Real Spatial Usage

- *ko* is used to mark locative ADJuncts to give semantics of 'towards the point' and 'at the point'.

(24) sAman                      ghAr=ko                      pohoanch                      gAya.  
Luggage.M.Sg                      home.M.Sg=AT                      reach                      go.perf.M.Sg  
'The luggage reached (at) home.'

(25) Nadya                      lahore=ko                      gAyi.  
Nadya.F.Sg                      lahore.M.Sg=AT                      go.Perf.F.Sg  
'Nadya went to lahore.'

(26) kamra                      adndar=ko                      hai.  
room.M.Sg                      inside.M.Sg=AT                      be.Pres.M.Sg  
'The room is (towards) inside.'

- The Goal in this (and following) usages is non-sentient, and does not undergo qualitative change. So this usage is not a canonical recipient. It has only endpoint feature.

### 5.4 Purpose/Reason

- *ko* is used with clausal ADJuncts to express purpose/reason of the action.

(27) log                      sair/fAryad/Ayadat=ko                      gAye  
People.Pl                      walk/complaint/visiting-sick-person=AT                      go.Perf  
'People went for a walk/complaint/visiting-sick-person.'

- In the same construction, *ko* can also be used with an infinitival verb phrase or XADJuncts.

(28) log                      Tehelne=ko                      gAye  
People.Pl                      walk.Inf=AT                      go.perf.M.Sg  
'People went for a walk.'

- It is usual crosslinguistically that prepositions/case also take on the function of a conjunction.
- The spatial domain provides a metaphor in which subject is not traveling towards a towards an event. In Urdu, that metaphorical location(event) is marked with *ko*.

### 5.5 Temporal Usage

- Cross linguistically, Spatial prepositions are used to mark temporal usage too.
- Examples of temporal usages in Urdu are:

(29) chor                      mAngAl=ko                      aaya.  
thief.M.Sg                      tuesday.M.Sg=AT                      come.Perf.M.Sg  
'The Thief came on tuesday.'

(30) chor                      rat=ko                      aaya  
thief.M.Sg                      night.F.Sg=AT                      come.Perf.M.Sg  
'The thief came at night.'

- *ko* is used to mark a point of time e.g. Day of the week, or part of the day. (It is not the only word to mark point of time.)

- This (and the following) usages even do not have endpoint property, These have only *point in space* property.

## 5.6 Immediate Future

- *ko* is also used to express immediate future.
- In this construction, *ko* express start of the work in immediate-future. For Example,

(31) nadya           caye                   bAnane=*ko*   hai  
Nadya.F.Sg   tea.F.Sg           make.inf=AT be.pres  
'Nadya will make tea(in immediate future)'(Lit:'Nadya is at/near the act of tea making')

- As *ko* is derived from a sanskrit word having sense 'near', we can say that *ko* is giving near or immedaite future to the above sentence.

## 5.7 More on locative

- By considering all the usages discussed above, we can assume that the isolated semantics of word *ko* is of location or 'at/near the point'. The other semantic properties follow from the verb and the construction. *ko* is compatible to/agree with these properties.
- We find examples of Dative and Locative marking same semantic usages.
- Mohanan(1994) suggested that accusative, dative and locative-*ko* has same semantic configuration but different semantic fields.
- Pandharipande(1990) suggested that the Marathi Dative NP construction discussed in 5.2.1 is locational.
- In many languages, possession and part-whole relationship is expressed by locational preposition.
- Being present at some location is considered as possession. In English, possession can be expressed by locative preposition "in" and verb "be":

(32) There are two windows in the room. (English)

- In Urdu, possession can be expressed with spatial postposition *pas* meaning 'near'. For Example,

(33) Sadiq=*ke*           *pas*   aik   kitab           hai.  
Sadiq.M.Sg=Gen   near   one   book.F.Sg   be.pres.Sg  
'Sadiq have a book' (Lit:'Near Sadiq, is a books.')

- Urdu also have locative usage of this postposition *pas* meaning 'near'.

(34) dArya=*ke*           *pas*   aik   ImarAt           hai.  
river.M.Sg=Gen   near   one   building.F.Sg be.pres.Sg  
'There is a building near the river.'

- In Urdu, dative can be used to show the possession and whole-part relation.

(35) DhAri=*ko*           fauladi           bazoo           lagay   hotay           hein.  
Axle.F.Sg=DAT   steel           arm.M.Pl   stick   be           be.pres  
Axle has steel arms. (Lit: 'Steel arms are stuck to the axle.)  
(Ashyae tamir-31, published in 1948)



- Above example is not a common usage of Dative *ko*. Usually, locative postposition *mein* meaning 'in' is preferred in this construction (just like Marathi example). But having this example in dictionary tells at least some speakers at some time have used *ko* to express possession and part-whole relationship.
- *Part of the day* usage of *ko* can alter with locative postposition "mein" meaning 'in'. For Example:

(36) chor                      rat=mein/ko                      aaya  
 thief.M.Sg      night.F.Sg=LOC-mein/AT      come.Perf.M.Sg  
 'The thief came during night.'

## 5.8 Un-Explained Usages

### 5.8.1 Modal *Cahiye*

- Dative Subject is also used in following sentence to show the need and obligation.

(37) Nadya=ko                      ye      kItab                      cahiye.  
 Nadya.F.Sg=DAT      this      book.F.Sg      want  
 'Nadya need this book.'

(38) bAcon=ko                      bAron=ka      AdAb                      karna                      cahiye.  
 Child.Pl=DAT                      Elder.Pl.Gen      respect.M.Sg                      do.inf                      want.pres  
 'Children should respect the elders.'

- To explain the above example, we have to assume suppose that modal *cahiye* has meaning of obligation.
- The obligation is coming from this modal meaning.

### 5.8.2 Accusative *ko*

- *ko* is used as Accusative case marker to mark object. Allen (1951), McGregor (1972), Butt (1993), Masica (1991), Mohanan (1994) and Singh (1994) discussed this issue in detail.
- Accusative *ko* is connected with a sensitivity to animacy and definite/specific interpretations.

(39)a)  
 anjum=ne                      saddaf=ko                      dekha  
 Anjum.F.Sg=ERG      Saddaf.F.Sg=ACC      see.Perf.M.Sg  
 'Anjum saw Saddaf.'

b) anjum=ne                      kAshTi                      dekhi  
 Anjum.F.Sg=ERG      boat.F.Sg                      see.Perf.F.Sg  
 'Anjum saw a/the boat.'

- The explanation is valid for about all the examples of usages of Accusative *ko* on the object. But, we have examples in which *ko* is optional with specific object.

(40) meN=ne      ye      qAlAm                      xarida.  
 1.Sg=Erg      this      pen.M.Sg                      buy.Perf.M.Sg  
 'I bought this pen.'

(41) meN=ne      is                      qAlAm=ko                      xarida.  
 1.Sg=Erg      this.obl                      pen.M.Sg=Acc                      buy.Perf.M.Sg  
 'I bought this pen.'

- Both of the above sentences are valid in Urdu.
- According to McGregor (1972), accusative *ko* occurs in association with direct objects which are individualized to some extent, and to which a degree of contextual importance is thus attached.
- Behavior of accusative *ko* is somewhat similar to its usages as spatial and dative marker.
- Mohanan (1994) said that accusative *ko* is related to the logical object towards which an action or event is directed.
- Object having *ko* marker is goal of the event in a similar way as location is the goal of subject in spatial usage discussed above.
- The nominative object gets incorporated with the verb. It, like mass nouns, does not bound the event. While accusative *ko* marked objects bound the event or the object is end point of the event. So the specific objects put a bound on the event.
- Objects marked with accusative *ko* are semantically enriched objects (Butt and King 1996).
- Bhatt (1996) proposed an unified treatment of dative *ko* and specificity marking (accusative) *ko*. Both of these are licensed by movement.
- *ko* is preserved in passive sentences (like the dative *ko* marking indirect object) in some dialects of Hindi (Mohanan 1994) or to give subtle semantic contrast (Bhatt 2003).

(42)a) Santi                      mari                      gAya  
 Santi.F.Sg    kill.Perf.F.Sg    Pass.Perf.F.Sg  
 'Santi was killed.' (less intentional)

b) Santi=*ko*                      mara                      gAya  
 Santi.F.Sg=Acc                      kill.Perf.M.Sg    Passive.Perf.M.Sg  
 'Santi was killed.' (more intentional)

- The optionality of *ko* with inanimate and un-specific objects still needs a complete explanation.

## 6 Case markers/Postpositions alternating with *ko*

### 6.1 Instrumental

- Urdu verbs *milna* and *kahna* has OBJ marked by the instrumental case marker *se*.
- We can find old examples having *ko* marking OBJ.
- In the following examples, a) is an example from old literature and b) is its equivalent in current language.

(43)a) bURha    bap                      beTi=*ko*                      mllna                      cahta hai  
 Old                      father.M.Sg    daughter.F.Sg=AT    meet.Inf                      want    pres.Sg  
 'Old father wants to meet the daughter' (Sufaid Khoon- 47- published in 1907)

b) bURha    bap                      beTi=*se*                      mllna                      cahta hai  
 Old                      father.M.Sg    daughter.F.Sg=INST                      meet.Inf                      want    pres.Sg  
 'Old father wants to meet the daughter.'

- One can argue that *se* meaning 'with' has sense of involvement of both subject and object in the event of meeting (as in example b). The locative *ko* give sense of visit (as in example a).

- Another example of this alternation is:

(44)a) ali=ne      beToN=ko              kAha.  
 Ali.M.Sg=ne   son.M.Pl=DAT          say.Perf.M.Sg  
 'Ali said to the sons'              (Urdu ki do QAdim MasnviyaN-Page 137 [Beg])

b) ali=ne      beToN=se              kAha.  
 Ali.M.Sg=ne   son.M.Pl=INST          say.Perf.M.Sg

## 6.2 ke-liye(Purpose)

- Postposition “(ke) liye” can be used in place of *ko*.

(45)a) anjum      sair=ko              gayi.  
 Anjum.F.Sg   walk.F.Sg=AT          go.Perf.F.Sg  
 'Anjum went for a walk'

b) anjum      sair=ke              liye      gayi.  
 Anjum.F.Sg   walk.F.Sg=GEN      for      go.Perf.F.Sg  
 'Anjum went for a walk'

- Both of the above two sentences are semantically equivalent. Similarly, all three of the following sentences means 'Anjum asked Saddaf to come'.

(46)a) anjum=ne      sAddAf=se              ane=ko              kaha.  
 Anjum.F.Sg=ERG   Saddaf.F.Sg=INST      come.Inf=AT          say.Perf.M.Sg

b) anjum=ne      sAddAf=se              ane=ke              liye      kaha.  
 Anjum.F.Sg=ERG   Saddaf.F.Sg=INST      come.Inf=GEN          for      say.Perf.M.Sg

c) Anjum=ne      sAddAf=se              ane=ka              kaha.  
 Anjum.F.Sg=ERG   Saddaf.F.Sg=INST      come.Inf=GEN          say.Perf.M.Sg

- Are *ko* and *liye* have this overlapping semantic usage? Or is there any difference in their semantics? We can not suggest a definite answer of these questions.

## 7 Summary/Conclusion

- Urdu *ko* seems to have a core locative usage meaning.
- The locative usage is expanding towards other usages by involving different semantic fields as space metaphorically.
- Main usages of *ko* are:
  - Point in space for Temporal and Intermediate Future usages.
  - Non-sentient endpoint in space as in Spatial and Purpose usages.
  - Sentient Recipient as in Dative and its extended usages.
- We can speculate two paths from above analysis.
  - *ko* has core semantic properties of a recipient, and loses some of those in other usages.

- *ko* has core semantic property of a point in space, and gains other properties in other usages from verb and the construction.
- Analysis of diachronic data can decide, which usage is introduced first in the language.
- The author is in favor of second path, because it is intuitive to assume that locative got properties of a point first and then it gains other semantic properties.
- Objects having accusative *ko* still needs an explanation.

## 8 References

- Allen, W.S. 1951. A Study in the Analysis of Hindi Sentence-Structure. *Acta Linguistica Hafniensia* 6:68– 86.
- Bashir, Elena. 1999. The Urdu and Hindi Ergative Postposition *ne*: Its changing role in the Grammar. In *The Yearbook of South Asian Languages and Linguistics*, ed. Rajendra Singh. 11–36. New Delhi: Sage Publications.
- Beames, John. 1872–79. *A Comparative Grammar of the Modern Aryan Languages of India*. Delhi: Munshiram Manoharlal. Republished 1966.
- Beg, Mirza Khalil A. 1988. *Urdu Grammar: History and Structure*. New Delhi: Bahri Publications.
- Bhatt, R., and E. Anagnostopoulou (1996) *Object Shift and Specificity: Evidence from *ko*-phrases in Hindi*, in L. M. Dobrin, K. Singer, and L. McNair, eds., *Papers from the 32nd Regional Meeting of the Chicago Linguistics Society*, Chicago Linguistics Society, Chicago.
- Bhatt, Rajesh. 2003. *Passivization, Topics in the Syntax of the Modern Indo-Aryan Languages*, class lectures.
- Butt, Miriam. 1993. Object Specificity and Agreement in Hindi/Urdu. In *Papers from the 29th Regional Meeting of the Chicago Linguistic Society*, 80–103.
- Butt, Miriam, and Tracy Holloway King. 1996. *Structural Topic and Focus without Movement*. Proceedings of LFG96, CSLI Publications.
- Butt, Miriam, and Tracy Holloway King. 2005. The Status of Case. In *Clause Structure in South Asian Languages*, ed. Veneeta Dayal and Anoop Mahajan. Berlin: Kluwer Academic Publishers.
- Butt, Miriam. 2005. The Dative-Ergative Connection, In Patricia Cabredo-Hofherr (ed.) *Proceedings of the Colloque Syntax-Semantique Paris (CSSP) 2005*.
- Butt, Miriam, Scott Grimm and Tafseer Ahmed. 2006. Dative Subjects. Presentation at NWO/DFG Workshop on Optimal Sentence Processing, Nijmegen.
- Landau, Idan. 2002. *The Locative Syntax of Experiencers*. Ms.
- McGregor, R.S. 1972. *Outline of Hindi Grammar: With Exercises*. Oxford: Clarendon Press.
- Mohanan, Tara. 1994. *Argument Structure in Hindi*. Stanford, CA: CSLI Publications.
- Pandharipande, R. 1990. Experiencer (Dative) NPs in Marathi, In M. K. Verma and K. P. Mohanan, eds., *Experiencer Subjects in South Asian Languages*, CSLI, Stanford, CA, 161–180.
- Singh, Mona. 1994. *Perfectivity, Definiteness and Specificity: A Classification of Verbal Predicates in Hindi*. Doctoral dissertation, The University of Texas at Austin.
- Saksena, Anuradaha. 1982. *Topics in the Analysis of Causatives with an Account of Hindi Paradigms*, University of California Press.