Spatial Sources of Case

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1. Introduction

- This paper discusses the extension of spatial markers to structural case markers and non-spatial usages.

- In section 2, we give examples of (structural) case markers that have either originated from a spatial marker, or they have spatial usage in the same language, or their cognate is a spatial marker in another related language.

- In section 3, we introduce features *Source, Via, End, Static* and *Dynamic* to model spatial meaning of case markers.

- Section 3 and 4 discuss the non-spatial semantic usages of originally spatial markers. We especially focus on Urdu/Hindi *se* and Manipuri *daa* that have different spatial as well as structural uses.

- Section 3 and 4 discuss different syncretism patterns, and suggest that these are not accidental, but are based on semantic reasons and can be explained by semantic features.

2. Spatial Origin of Case Markers

Question: It is claimed that case markers (often) have spatial origins. Do we find its evidence from South Asian languages?

- We provide few examples to establish the diachronic and synchronic relation of spatial markers and structural case.

- A diachronic analysis of history of development of case markers in South Asian languages show that many case markers originate from a locative.

- A synchronic analysis of case markers and locatives in South Asian languages show that locatives have other (non-locative) semantic and similarly.

- Similarly, we find that cognates of locative of one language have non-locative semantic and structural usages in other related language(s).

2.1. ko/kuuN/k^{h}e/kii

- The dative/accusative marker in many Indo Aryan languages begins with *k/k^h*. Examples are Urdu/Hindi *ko*, Siraiki *kuuN*, Bengali *ke*, Oriya *kuu* and Sindhi *k^{h}e*.

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- Beames (1872) proposed that the origin of these case markers is Sanskrit locative *kaakSe* 'in the armpit'.

- Pashto, an Iranian language, has *kii/ke* for locative. Hewson and Bubenik (2006:150) proposed that it is derived from Avesta locative *kaaSe*, a locative of *kaaSa* 'armpit'.

- A non-standard dialect of Nepali uses *k^{h}aiN* for marking locative and speech object. (Tikaram Poudel p.c.)

- The armpit becomes the locative in Pashto, and got 'towards' and goal meaning in Indo Aryan languages.

2.2. kan^{d}hi/kane

- Haryani is spoken around and near Delhi. Many Urdu/Old Urdu case markers have locative cognates in Haryani.

- Haryani *kan^{d}hi* is used for 'towards' and 'at'.

(1) ao bhaajya bhaam;aaN **kan^{d}hi**
3P run Brahmin **towards**
'He ran to/towards Brahmin.' (Singh 1970:162) <Haryani>

(2) phuNglaa **kan^{d}hi**
outer-end **at**
'at outer end' (Singh 1970:184) <Haryani>

- *kane* is used in Old Urdu and in one of its "non-standard" dialects.

- In Old Urdu, *kane* is a synonym of *paas* 'near'. (Insha 1808:306)

- *kane* is used in Karbal Katha published in 1732-33 .

(3) cacaa buzurgavaar **kane** ga-yaa
uncle honorable **to** go-Perf.M.Sg
'Went to the uncle.' (KK:106 c.f. Narang 2007: 240) <Urdu>

(4) tum koN soNpaa haq **kane**
2P Acc hand-over truth **to**
'Handed over you to God.' (KK: 99 cf. Narang 2007: 240) <Urdu>

- In old Nepali, *kana* is used as dative marker. (Tikaram Poudel p.c.)

- *Kana/kane* originated from Sanskrit *karna* meaning 'ear'.

- The *kane/kan^{d}hi* examples shows that static locative markers get additional usages as 'towards' marker and goal/dative marker.

2.3. taaNhi/taiiN

- In Haryani, *taaNhii* has spatial and dative usages.

(5) raajaa **taaNhi** … paoNcya
king **at** reached
'reached raja.' (Singh 1970: 166) <Haryani>

(6) bannI nae … sao rapie ….. bahman **taaNhi** diwaa diye
grocer-wife Erg 100 rupees Brahmin **Dat** give-caus gave
'Grocer's wife offered 100 rupees to the Brahmin.' (Singh 1970:162)
<Haryani>

- In Punjabi and Sindhi *taaiiN* is used as locative 'till' (but not as dative).

- In (Old) Urdu, it has locative and dative usages.

(7) laayaa na t^{h}aa tuu aaj **taiiN** haat^{h} suue teG
take.Perf not be.Past 2P.Sg today **till** hand towards sword
'You did not took your hand towards the sword, till now.'
(Dard 1996:42) <old Urdu>

(8) mujh **taiiN** is baat kii kiyaa xabar
1P.Obl **Dat** this matter Gen what news
'To me, this matter is not known.'/ 'I do not know this matter.'
(Insha 1808:44) <Old Urdu>

- The cognates of *taanhii/taaiiN/taiiN* again show that locative endpoint and dative have common markers or originate from common roots.

2.4. te/toN/taaN

- *te* is used as locative 'on' in Sindhi and Punjabi.

(9) kitaab mez **te** ae
book.F.Sg table.F.Sg **on** be
'The book is on the table.' <Punjabi>

- Punjabi has the ablative inflection *-oN* that is used only for source of the motion.

- It has the ablative clitic *toN* that has extended usages too.

- Similarly, Sindhi have non-productive inflection *–aaN* and clitic *taaN* (see Ahmed (2007) for details).

- The Punjabi and Sindhi ablative inflection is appended to *te* 'on' for an ablative case marker.

te (on) + *-oN* (ablative) = *toN* (ablative 'from') <Punjabi>

te (on) + *-aaN* (ablative) = *taaN* (ablative 'from on') <Sindhi>

- Divan-e-Hasan Shauqi (1564), written in Deccan, has *te* in sense of 'on'. (Jalibi 1973:53)

- In Old Urdu, *te/tii* is used as ablative.

(10) teraa maqsuud kiyaa hai tu kaaN **te** aa-yaa
2P.Gen goal what be.Pres 2P where **Abl** come-Perf.M.Sg
'What is your goal? From where you have came?' (Vajhi 1932:44)

- We can guess a relation between *taiiN* in 2.3 and *te* discussed here. A locative *te* got ablative sense (*te/tii*) in Old Urdu; and endpoint sense in Punjabi, Sindhi and Old Urdu (*taaiiN/taiiN*).

3. Semantic Features for Spatial Markers

Question: In the above section, we show a relation of structural case markers and the spatial marker. Can we provide a spatial analysis of case markers?

- In the literature, spatial markers are generally modeled by using different features and structures (Ostler 1979, Jackendoff 1980, Kracht 2004).
- Butt (2006) proposed that case markers have space and control dimensions.
- Here, we concentrate mainly on the space dimension only and devise a semantic model based on relevant features found in different spatial models.
- We introduce the following features into which a spatial marker can be decomposed.

  Source = Starting point of a path

  End = End point of a path

  Via = The path that does not include Source or End point

  Loc = The location/place (that does not have path in it)

- The spatial markers can be decomposed into these features. Following are the few examples from English spatial markers.

  From = + Source + Via

  Through = - Source + Via

  To = + Via + End

  At = + Loc-at

- The feature set can model different types of locatives e.g. [+ Loc-in] for English *in* and [+ Loc-on] for English *on*.
- The above analysis, differentiate between English *from* and *through*.
- English *from* has a starting point [+Source] while English *through* does not have starting point [-Source].
- Otherwise both have [+Via] feature that is related to path.

- The analysis of Nepali case markers give two more features to the model.

- In Nepali, we find two ablatives that encode static path and the motion of a body on the path. See the following examples.

(11) us=le dilli=**dek^{h}i** kathmandu=samma baaTo banaa-yo
3P=Erg Delhi=**Abl** Kathmandu=Loc-till street make.Perf
'He built a street from Delhi to Kathmandu.' <Nepali>

(12) u dilli=**baaTa** kathmanDu=samma kud-yo
3P Delhi=**Abl** Kathmandu=Loc-till ran-Perf
'He ran from Delhi to Kathmandu.' <Nepali>

- Jackendoff (1980:43) introduced the structure *ORIENT* (which has the path component) for sentences like following.

(13) The sign points towards New York. <English>

(14) The road goes from New York to San Francisco. <English>

- The semantic structure of the preposition *from* in (13) of English is different from the preposition *from* in (14).

(15) John came from New York.

- Hence, we introduce the features *Static/Dynamic* to differentiate a static path as in (10) and (13) from the dynamic path as in (11) and (14).

- The Nepali ablatives can be decomposed into features as following.

dekhii = + Source + Via + Static

baaTaa = + Source + Via + Dynamic

4. Instrumentals

- In the previous section, we introduced semantic features into which a spatial marker can be decomposed.

- In this section, we explore the relationship of spatial markers and instrumentals and model it via our proposed features.

- As a starting point, we list semantic usages of Urdu/Hindi *se*. Then, we give a cross-linguistic analysis of markers in other languages marking the same semantic usages.

4.1. Urdu/Hindi *se*

4.1.1. **Semantic Usages**

- Urdu/Hindi *se* has following important semantic usages.

(16) vo karaacii=**se** aa-yaa (Source Of Motion)
3P Karachi=**Abl/Inst** come-Perf.M.Sg
'He came from Karachi.' <Urdu/Hindi>

(17) vo baaG=**se** guzr-aa (Path)
3P garden=**Abl/Inst** pass-Perf.M.Sg
'He passed through the garden.' <Urdu/Hindi>

(18) us=ne mazduroN=**se** g^{h}ar ban-vaa-yaa (Causee)
3P=Erg laborer.Pl=**Abl/Inst** house build-Caus-Perf.M.Sg
'He caused the laborers to buith the house.' <Urdu/Hindi>

(19) vo saaNp=**se** dar-taa hai (Stimulus)
3P snake=**Abl/Inst** fear-Imp.M.Sg be.Pres
'He fears sankes.' <Urdu/Hindi>

(20) us=ne caabi=**se** darvaazaa khol-aa (Instrument)
3P=Erg key=**Abl/Inst** door.M.Sg open-Perf.M.Sg
'He opened the door with the key.' <Urdu/Hindi>

(21) vo tezii=**se** bhaag-aa (Manner)
3P fast-ness=**Abl/Inst** run-Perf.M.Sg
'He ran fastly.' <Urdu/Hindi>

(22) sigret piine=**se** vo biimaar ho gayaa (Reason)
cigarette drink.Inf=**Abl/Inst** 3P sick be go.Perf.3P.Sg
'He got sick by smoking cigarettes.' <Urdu/Hindi>

(23) vo mujh=**se** laR-aa (Reciprocal Object)
3P 1P.Obl=**Abl/Inst** fight-Perf.M.Sg
'He fought me.' <Urdu/Hindi>

(24) vo mujh=**se** piyaar kar-taa hai (Emotion Object)
3P 1P.Obl=**Abl/Inst** love do-Imp.M.Sg be.Pres
'He loves me.'

4.1.2. Cross-linguistic Comparison

- Table 1 gives the case markers marking semantic usages of Urdu/Hindi *se* in four different South Asian languages.

Table 1: Cross-linguistic distribution of semantic usages of Urdu/Hindi *se*

	Nepali	**Pashto**	**Manipuri**	**Punjabi**
Source	*baaTa* (Abl)	*na* (Abl)	*dagi* (Abl)	*toN* (Abl)
Path		*pa* (Loc-Inst)		*toN* (Abl)
Causee	*baaTa* (Abl)	*pa* (Loc-Inst)	*daa* (Loc-Dat)	*toN* (Abl)
Stimulus	*dekhi* (Abl)	*na* (Abl)	(Nom)	*toN* (Abl)
Instrument	*le* (Erg-Inst)	*pa* (Loc-Inst)	*naa* (Erg-Inst)	*naal* (Com-Inst)
Manner		*pa* (Loc-Inst)	*naa* (Erg-Inst)	*naal* (Com-Inst)
Reason	*le* (Erg-Inst)	*pa* (Loc-Inst)	*naa* (Erg-Inst)	*naal* (Com-Inst)
Reciproc. Obj	*sanga* (Com)	*sara* (Com)	*gaa* (Com)	*naal* (Com-Inst)
Emotion Obj	*sanga* (Com)	*sara* (Com)	(Nom)	*naal* (Com-Inst)

- Table 1 shows that the semantic usages of Urdu/Hindi *se* are cross-linguistically distributed among ablative, instrument and comitative markers.

- It shows that the important syncretism patterns related to instrumentals are ergative-instrument, comitative-instrument, locative-instrument and locative-dative.

Question: Can we model the syncretism patterns and structural usages of spatial markers identified in table 1 by using our spatial features?

4.2. Spatial Origin of Instrumentals

- We focus on three important syncretism patterns (comitative-instrument, locative-instrument and ablative-instrument) used for instrumentals, and model those by using feature based analysis.

- We also identify the metaphors that are responsible for the non-spatial usages of spatial markers.

4.2.1. Companion Metaphor and Instrument

- Lakoff and Johnson (1980) proposed that instruments are conceptualized as companions.

- Sindhi, Siraiki, Punjabi and Balochi have the same form for both comitative and instrument usage.

(25) maiN o=de **naal** baazaar gayaa
1P.Sg 3P.Sg=Gen **com** market.M.Sg go.Perf.M.Sg
'I went to the market with him.' <Punjabi>

(26) o=ne caabi **naal** buuhaa k^{h}ol-iaa
3P.Sg=Erg key.F.Sg **inst** door.M.Sg open.Perf.M.Sg
'He opened the door with the key.' <Punjabi>

- We propose that accompaniment is a locative relation.

- In Punjabi and Sindhi, the comitative-instrument marker also has a locative usage 'beside'.

(27) maiN kampiutar=de **naal** kitaab rak^{h}-ii
1P.Sg computer.M.Sg=Gen **beside** book.F.Sg put.Perf.F.Sg
'I put the book alongwith/near the computer.' <Punjabi>

- The features of Punjabi *naal* will be

naal = + Loc-beside

- The feature(s) proposed above models all usages of *naal* (i.e. instrument, comitative and beside) as a location.

4.2.2. Ablative marking Source/Path

- The ablative marker marks the source of the motion.
- In South Asian languages, it also marks: the causee; agent of the so-called "inability construction"; and stimulus.
- These semantic usages of the ablative marker are either modeled as source 'from' or path 'through'.
- Punjabi *toN* marks the spatial usages 'from' and 'through'. We suggest its feature(s) as:

  toN = + Via

- Compare it with English 'from' and 'through' repeated above.

  From = + Source + Via

  Through = + Via

- The feature set of Punjabi *toN* is underspecified for the feature [Source] that allows it to encode both 'from' and 'through'.
- Ablative marker also marks the stimulus of the verb 'fear'.

(28) menuuN saaNp=toN Dar lag-yaa
1P.M.Sg.dat snake.M.Sg=abl fear.noun stick.M.Sg.perf
'I feared the a/the snake.' <Punjabi>

(29) u sarpa=deki daraauuN-cha
3P snake=Abl fear-NonPast
'He fears snakes.' <Nepali>

- As discussed in section 3, Nepali differentiates between static path *dekhii* and dynamic path *baaTaa*.
- The stimulus in Nepali is marked by point ablative *dekhi*, as the action does not flow from the stimulus.
- The agents, as in (29), are marked by the Nepali dynamic path ablative *baaTa*.

4.2.3. Instrument as Path

- In 4.2.1, we find that the companion metaphor is responsible for comitative-instrument syncretism.

- Comitative-Instrument syncretism is not the only syncretism pattern available for instrument marker.

- Urdu/Hindi and Pashto provides other important syncretism pattern for the instrument.

- Urdu/Hindi *se* is used for 'from' and instrument as in (30) and (31).

(30) ahmad karaachii **se** aayaa
Ahmad Karachi **from** came
'Ahmad came from Karachi.' <Urdu/Hindi>

(31) asad ne chure **se** rassi kaaTi
Asad Erg knife **inst** rope cut
'Asad cut the rope with a knife. <Urdu/Hindi>

- Pashto preposition *pa* is used for 'at/on' and instrument as in (32) and (33).

(32) ahmad **pa** cawkey kenast-o'
Ahmad **on** chair sat down
'Ahmad was sitting down on a chair.' <Pashto>

(33) asad paray **pa** chaara prekaR
Asad rope **inst** knife cut
'Asad cut the rope with a knife.' <Pashto>

Questions: How the locative-instrument syncretism found in Pashto can be explained? Why the instrument is marked by ablative in one language and locative in the other?

- The semantic usage 'through' is the solution of this puzzle.

- Both Urdu/Hindi *se* and Pashto *pa* are also used for the sense 'through' as in (34) and (35).

(34) hamid bagh **se** guzra
Hamid garden **through** passed
'Hamid passed through the garden.' <Urdu/Hindi>

(35) hamid **pa** bagh tiir sho
Hamid **through** garden passed
'Hamid passed through the garden.' <Pashto>

- Instruments are conceptualized as abstract paths. (Ostler 1979)

- The syncretism of the instrument in (31) and (33) with 'through' usages (34) and (35) suggests that the markers *se* and *pa* denote a spatial path that has been metaphorically reanalyzed as an abstract path for the instrumental reading.

- As Urdu/Hindi *se* marks 'from' and 'through'/instrument usages, its feature(s) will be

se = + Via

- It is same as Punjabi *toN*. The only difference is that Punjabi use companion metaphor and Urdu/Hindi use path metaphor for instrument.

- The feature(s) of Pashto *pa*, having 'through'/instrument and locative usages are:

  pa = - Source

- Pashto *pa* is underspecified for the feature [Via]. It can have any usage that does not require [source] feature.

- Compare it with the feature set of Pashto *na* that marks the usage 'from'.

  na = + Source + Via

- We have explained Pashto locative-instrument and Urdu/Hindi ablative-instrument syncretism pattern by highlighting the common semantic usage 'through'.

- Torwali, an Indo-Aryan language, gives another example of this Path-as-Instrument metaphor.

- In Torwali, the form *de*/*te* marks both 'through' and (instrumental) 'with'.

(36) jaan pan **de** lhengi
snake way **over** passed
'The snake passed over the way.'

(37) ahmad baagh **te** lhangu
Ahmad garden **through** passed
'Ahmed passed through the garden.'

(38) ahmad-e kera **de** bhowai chi ki
Ahmad-Erg knife **with** apple cut did
'Ahmed cut the apple with the knife.'

- The feature(s) Torwali *de*/*te* is similar to English *through*.

  de/*te* = - Source + Via

4.2.4. Summary of the proposed model

- In 4.2.1-4.2.3, we model the instrumentals of Punjabi, Urdu/Hindi, Pashto and Torwali.

- The following table summarizes our proposal for English, Punjabi, Urdu/Hindi, and Pashto instrumentals.

Table 2: Semantic model of instrument of different languages

	'From'	**'Through'**	**Instrument**	**Location**
English	from	through	with	
Punjabi	toN		naal	
Urdu/Hindi	se			$saat^h$
Pashto	na	pa		

- It is important to note that the column 'Location' in the above table does neither list all the locatives nor the fine-grained differences among those.

5. Locations and Recipients: Manipuri *daa* as Case Study

- After analyzing different semantic usages and syncretism pattern of instrument, we focus on location and its extended usages.

- We take Manipuri *daa*/*taa* as a case study that has varying semantic usages. We explain all the usages by using semantic features introduced in section 3.

- The Manipuri case marker -*daa* is usually analyzed as a locative and dative marker (Bhat and Ningomba 1995, Chelliah 1997 and others).

- A close survey of modern Manipuri text reveals that -*daa* has other semantic functions too. It not only marks adjuncts, but the mandatory arguments too.

- -*daa* marks a stative locative ('in', 'on', 'at') argument as in (39).

(39) laairik tebal mathak-taa lai
book table top-Loc Cop.Real
'The book is on the table.' <Manipuri>

- We propose that -*daa* marks location and is expressed as:

-*daa* = + Loc

- -*daa* also marks the object of contact verbs like *theng*- 'touch', *phu*- 'beat', *phaa*- 'catch' as in (40). As the object is treated as a location, it is marked by the locative marker.

(40) tomba-naa chaoba-daa phu-i
Tomba-Erg Chaoba-Loc beat-Real
'Tomba beat Chaoba.

- The dative marked argument is a location/place too (Butt 2006). It is marked by the locative marker –*daa*.

(41) tomba-naa chaoba-daa laairik amaa pi-i
Tomba-Erg Chaoba-Loc book one give-Real
'Tomba gave Chaoba a book.' (Dative usage)

- Similarly, the *-daa* marks the addressee that is a recipient like dative argument of the verb 'give'.

(42) saatra-naa oja-daa wahang hang-i
student-Erg teacher-Loc question ask-Real
'The student asked question to the teacher.'

- We find few alternations of locative *–daa* with bare nominative that need explanation.

- If the marker *–daa* is not present after the object of a contact verb, the sentence implies that the object is intensively and heavily affected. Compare (43) and (44).

(43) tomba-naa chaoba-daa phu-i
Tomba-Erg Chaoba-Loc beat-Real
'Tomba beat Chaoba.

(44) tomba-naa chaoba phu-i
Tomba-Erg Chaoba beat-Real
'Tomba beat Chaoba (intensilvely).'

Question: If *–daa* marks a location in (43), why it is not allowed with the object of (44).

- The accusative case is defined as a path (e.g. Butt 2006).

- It suggests that the (prototypical) affected object in (44) is a path and hence does not get the locative marker *–daa*.

- The undergoer objects of causative verbs like *thong* 'cook' are never case marked in Manipuri because they are affected. (Poudel 2008)

(45) tomba-naa caak thong-ae
Tomba-Erg food cook-CAUS-Ant.real
'Tomba cooked the food.'

- On the other hand, the agentive object of causative verb e.g. *nok-han-* 'make laugh') is marked with *–daa.* (Poudel 2008)

(46) tomba-naa ojaa-daa nok-han-le
Tomba-Erg teacher-Loc laugh-CAUS-Ant.real
'Tomba made the teacher laugh.'

- It is similar to the location vs. path conceptualization of (43) and (44).

- The object of (45) is a (protypical) affected object. It is treated as a path.

- The object of (46) is agentive and hence it is not a prototypical object. It is marked as a location that receives the action.

- We conclude that the varied usages of Manipuri *–daa* (location, dative, addressee and causee) can easily be explained by treating it as location [+Loc].

6. Conclusions

- We find examples of case markers that originate from spatial markers.

- We introduced a feature based system having features *Source*, *End*, *Loc*, *Via* and *Static/Dynamic*.

- We represent case markers as a single set of the above features. The features can be underspecified.

- The syncretic case markers e.g. locative-instrument marker *pa* of Pashto are also represented by a single set of features.

- The model proposed here does not say anything about control dimension of the case markers. It is a matter of further investigation.

- We guess that we will need only few features e.g. *control* and *affected.* The fine-grained difference is degree of affectedness can be explained by the nature of location feature e.g., Loc-beside (comitative) signals different degree of affectedness than the Loc-on.

7. Selected References

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