Hindi–Urdu Adposition and Case Supersenses
v1.0

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Abstract

These are the guidelines for the application of SNACS (Semantic Network of Adposition and Case Supersenses; Schneider et al. 2018) to Modern Standard Hindi of Delhi. SNACS is an inventory of 50 supersenses (semantic labels) for labelling the use of adpositions and case markers with respect to both lexical-semantic function and relation to the underlying context. The English guidelines (Schneider et al., 2020) were used as a model for this document.

Besides the case system, Hindi has an extremely rich adpositional system built on the oblique genitive, with productive incorporation of loan-words even in present-day Hinglish.

This document is aligned with version 2.5 of the English guidelines.

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1 Overview

This document is supplementary to the SNACS v2.5 guidelines for English (Schneider et al., 2020). It focusses on phenomena specific to Hindi–Urdu, while also attempting to give illustrative examples of the whole inventory of supersenses. We hope this will be useful in annotating typologically similar languages of South Asia, as well as a contribution to the literature on case in Hindi–Urdu.

Taking a page from the Korean guidelines (Hwang et al., 2021), we also cover a new top-level supersense group CONTEXT.

1.1 Hindi and Urdu

Hindi and Urdu are two Indo-Aryan-family lects that share a nearly identical grammar, and are best characterised as two diverging registers of one pluricentric language (Kachru, 2009). The combined language is generally called Hindi–Urdu or Hindustani in linguistic literature. While the corpus that was annotated during the creation of these guidelines was written in literary Hindi in the Devanagari script, this document aims to cover both Hindi and Urdu.

To that end, all examples are given in transliteration using a system inspired by the International Alphabet of Sanskrit Transliteration (IAST), similar to the rule-based transliteration algorithm used on the English Wiktionary.

Hindi and Urdu diverge lexically even in postposition choice, especially in formal or literary contexts. For example, for the LOCUS postposition meaning ‘around’, Hindi generally uses kiçãom_or (‘on all four sides’; or ‘side’ < Sanskrit avarā) while Urdu uses keird-gird (< Persian gird ‘round’). An attempt is made to give examples from both registers.

1.2 What counts as an adposition in Hindi–Urdu?

Following Masica (1993), we annotated the Layer II and III function markers in Hindi. These include all of the simple case markers¹ and all of the adpositions.² Our guidelines on the differentially-marked ergative and accusative cases are also applicable to unmarked verbal arguments, but these were not annotated in the first corpus.

We also decided to annotate the suffix vālā when used in an adjectival sense (e.g. choṭā-vālā kamrā ‘the room that is small’), the comparison terms jaisā and

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¹ ne (ergative), ko (dative-accusative), se (instrumental-ablative-comitative), kal kel k (genitive), meni (locative-IN), tak (allative), par (locative-ON). Declined forms of the pronouns (including the reflexive apnā) were also included.
² An open class, given the productivity of the oblique genitive ke as a postposition former.
jaise, the extent and similarity particle sū (choṭā-sū kamrā 'small-ish room'), and the emphatic particles bh, hi, to (Koul, 2008, 137–156). All of these modify the preceding token and mediate a semantic relation between their object and the object’s governor, just as conventionally-designated postpositions do.

1.3 Background

This section covers some of the literature and past work we broadly relied on in constructing these guidelines. The main Hindi grammar we referenced was Koul (2008).

SNACS. There has been a great deal of work on SNACS across many languages. Those there were generally relevant to this whole document are Schneider et al. (2018, 2020). For annotating verbal arguments, we started with Shalev et al. (2019) which established a baseline for dealing with subjects and objects. Archana Bhatia did some initial work on annotating The Little Prince in Hindi in a much earlier SNACS standard.

Comparisons with Korean (Hwang et al., 2021, 2020), German (Prange and Schneider, 2021), and Gujarati3 were especially useful in formulating these guidelines. Discussions with the CARMLS research group (particularly Jena Hwang and Vivek Srikumar) and reviewer comments on our work at SIGTYP and SCiL (Arora and Schneider, 2020; Arora et al., 2021) were also instrumental for this work.

Spatial expressions and motion. Making sense of the locative cases and their roles as verbal arguments has relied largely on Khan (2009) (to disentangle the various functions of locatives) and Narasimhan (2003) (to understand the framing of motion events).

Verbal arguments. Much of the guidelines on annotating PARTICIPANT-type roles deal with verbal argument structure. There is a great deal of work on this issue in both linguistics and computational linguistics for Hindi. In theoretical linguistics, there is Mohanan (1994), Butt (1993).

Work on case in Hindi includes general work on differential argument-marking (de Hoop and Narasimhan, 2005), dative subjects (Butt et al., 2006; Mohanan and Verma, 1990), and typology (Khan, 2009).

The Hindi–Urdu Treebank Project has dominated work on verbal argument structure in computational linguistic work on Hindi. It utilises two models of

3 Personal communication with Maitrey Mehta.
Hindi syntax: a dependency grammar inspired by the traditional kāraka system (Vaidya et al., 2011), and a modern phrase-structure grammar (Palmer et al., 2009; Bhatt et al., 2013). Bhatt says that the two annotations are analogous to Lexical-Functional Grammar (LFG)’s f-structure and c-structure (when traces are removed from the PSG parse).

Other projects in this field are the Hindi–Urdu PropBank4 (Bhatia et al., 2013a; Vaidya et al., 2013), the separate Urdu PropBank (Anwar et al., 2016; Bhat et al., 2014), and Urdu/Hindi VerbNet5 (Hautli-Janisz et al., 2015).

**Force dynamics.** Some of the biggest issues in porting SNACS to Hindi have been in the realm of force dynamics. Constructions with modal auxiliaries, causatives (Begum and Sharma, 2010), and forced actors are still issues in the guidelines. These are common constructions in South Asian languages, so a resolution to these issues will be necessary as annotation work moves ahead on other languages (e.g. Gujarati).

1.4 Organisation

All examples are written in transliterated form using the International Alphabet of Sanskrit Transliteration (IAST), approximating the spoken pronunciation (i.e. schwa deletion is accounted for). We provide glosses and translations only for illustrative examples in an effort to keep the document concise.

The structure of Circumstance and Configuration is the same as the English guidelines. For Participant, each subsection is a case marker or postposition (instead of a supersense) given the varied functions and scene roles taken on by each marker.

For reference, below is a supersense index for Participant. Note that the genitive marker kā ($§3.5$) can nominalise many of these relations.

- **Causer:** ne ($§3.1.1$)
- **Agent:** ne ($§3.1.1$), ko ($§3.2.2$), se ($§3.4.4$)
- **Theme:** ko, kā, par ($§3.2.1$)
- **Topic:** ke bāre merī etc. ($§3.3$)
- **Ancillary:** se, ke sāth ($§3.4.3$), ke binā ($§3.8$)
- **Stimulus:** ko, kā, par ($§3.2.1$), se ($§3.4.2, §3.4.3$)
- **Experimenter:** ko ($§3.2.2$), ne ($§3.1.1$)
- **Originator:** ne ($§3.1.1$), se ($§3.4.2$)

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4The frameset files are available at [http://verbs.colorado.edu/propbank/framesets-hindi/](http://verbs.colorado.edu/propbank/framesets-hindi/).

5Urdu/Hindi VerbNet took a more SNACS-like approach to annotating lexical semantics of verbal arguments, but was not pursued to make a large resource for verb frames.
• **Recipient**: ko (§3.2.2), ne (§3.1.1)
• **Cost**: ke-liye (§3.6)
• **Beneficiary**: ke-liye (§3.6), ke-xilāf, ke_viruddh (§3.7), ko (§3.2.2)
• **Instrument**: se (§3.4.1)
2 Circumstance

<table>
<thead>
<tr>
<th>OBL</th>
<th>mem</th>
<th>par/pe</th>
<th>se</th>
<th>tak</th>
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Table 1: Functions for some of the basic spatio-temporal postpositions and case markers. Note that the Locus scene is permissible for se and tak in fictive motion, and that mem and par/pe can take a Goal scene when licensed by a motion verb. Direction and Interval are spatio-temporal parallels, but are not in this table because they are marked by several idiosyncratic postpositions.

Circumstance is used directly as a scene role when some additional information is added to contextualize the main event. These tend to involve locative postpositions: mem, par, etc.

1. durghatnā mem do log ghāyal hue. accident LOC two people injured be.PFV 'Two people were injured in the accident.'

2. Koronā kāl ke_calte... (Circumstance~Time) coronavirus epoch during 'As the Age of Coronavirus continued…'

It is used for setting events, often construed as a Locus and perhaps serving as an answer to a location-based question, but the postposition itself does not give an explicit location.

3. kām par (Circumstance~Locus) work LOC 'at work'

It is also used for occasions, when the event is only the background for the action (rather than a cause).
(4) janamdin **ke_lie** kyā kiyā?
    birthday for what do.PFV
    ‘What did you do for your birthday?’

(5) āpne lañc **meñ** kyā khāyā?
    you.ERG lunch LOC what eat.PFV
    ‘What did you eat for lunch?’

2.1 **TEMPORAL**

Not used directly so far.

2.1.1 **TIME**

**meñ** indicates temporal placement in the context of some span of time (e.g. a day, a month, a century). **ko**, **par**, and **pe** are optionally used in a similar manner (Koul, 2008). Note that these fixed time postpositional markers are often optional.

(6) a. ham jānvari **meñ** mileṅge.
    we January LOC meet.FUT
    ‘We will meet in January.’

   b. kam umr **meñ**
    less age LOC
    ‘at a young age’

(7) kaun jāne kal **ko** kyā hogā?
    who know tomorrow DAT what be.FUT
    ‘Who knows what will happen in the future?’

(8) 2012 kī ardhṛātri **ke_samay** šahar ke logoṁ ko ek dhamāke kī āvāz ne ċārā diyā.

    Relative time markers such as **ke_bād** “after” and **se_pahle** “before” are also included. However, if the difference in time is explicitly stated that the construal **TIME~INTERVAL** is used.

(9) disambar **ke_bād**
    December after
    after December

(10) disambar **ke_do mahine bad (TIME~INTERVAL)**
    December GEN two months after
    two months after December
Finally, adpositions that pick out an arbitrary point in time from a duration such as ke_daurān “during”, ki_avdhi_mem “in the interval of” also take this as scene role and function.

Discussion. This is the only context in which ko would create an adverb. It doesn't fit under any other function very well. TIME~GOAL was considered at some point but the grammatical functions are entirely different.

It was elected to not mix time and location in construals, following the precedent of Schneider et al. (2020).

**START TIME**  The prototypical postposition is se.

(11) mujhe kal se ōhand lag rahī hai.
    I.DAT yesterday ABL coldness feel CONT be.PRS
    ‘I have been feeling cold since yesterday.’

Unlike the equivalent English since, se can also be used to delineate the beginning of an interval of time. In this sense, it was decided the construal START-TIME~INTERVAL is appropriate; the interval is not specified to have an endpoint so it does not fit the definition of DURATION.

(12) barsoṁ se yuddh ho rahī hai
    years ABL war be CONT be.PRS
    ‘The war has been raging since years ago.’

**END TIME**  The prototypical postposition is tak. START TIME is an exact counterpart of this, and the END TIME~INTERVAL construal applies for a durative use.

(13) kal se kal tak
    yesterday ABL tomorrow ALL
    ‘from yesterday until tomorrow’

Discussion. For the durative uses of se and tak it was difficult to come to a consensus on the label; the alternative option (e.g. for se) was DURATION~START TIME.

We felt that the difference between durative and non-durative was morphosyntactic rather than semantic.

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6 This difference is especially apparent in Indian English, where even the formal register permits constructions like since two years for standard since two years ago.

7 Goel et al. (2020), in Hindi TimeBank, classify this as a DURATION, on the basis that an interval of time is referred to (regardless of whether the END TIME is known).
2.1.2 **Frequency**

The prototypical examples for **Frequency** are expressed through reduplication (e.g. *kabhi-kabhi* 'sometimes') rather than a postposition.

For iterations marked ordinally with *ke_li*, **Frequency** is used:

(14) tisri bār ke_li
    third time for
    for the third time

2.1.3 **Duration**

**Duration** covers two types of postpositions that are distinct in Hindi. *meri* focuses on the duration involved in achieving some outcome.

(15) a. kitne din meri likh pāoge?
    how many days LOC write be.able.FUT
    'In how many days will you be able to write it?'
    b. do sāl meri do bār kiyā.
    two years LOC two times do.PFV
    'I did it twice in two years.'

    *ke_li* focuses on the duration over which an action occurs. The action occurs continuously over that span.

(16) a. kitne din ke_li likh pāoge?
    how many days for write be.able.FUT
    'For how many days will you be able to write? [e.g. said to a journalist]'

2.1.4 **Interval**

This role is fulfilled by plain *pahle* 'ago' and *bad* 'later' when they are attached to a unit of time. Note that by themselves they are adverbs meaning ‘earlier’ and ‘later’.

(17) do sāl pahle
    two years ago
    'two years ago'
2.2 **Locus**

*Locus* is prototypically used to indicate a static location, whether literal or abstract (e.g. location on the Internet).

For *meṁ* ‘in’, this is within some enclosing entity (e.g. a geographical area, a container, a building). It cannot be a point location. *ke_andar* ‘inside of’ functions similarly.

(18) a. maiṁ mumbai *meṁ* rahtā hūṁ.  
    1SG Mumbai LOC stay.PRS.HAB be.PRS  
    ‘I live in Mumbai.’

   b. us bakse *meṁ* kyā hai?  
    that box LOC what be.PRS  
    ‘What is in that box?’

(19) bare-bare desōṁ *meṁ* aisī choṭī-choṭī bāteṁ hoṭī rahtī haim, Senyoritā!  
(20) bakse *ke_andar*

For *par* and *pe*, on the other hand, the location may be a point, but it has to be an entity on top of or over which something can be placed.

(21) a. ghar *pe*  
    home at  
    ‘at home’

   b. bakse *par*

All the other various relative static location adpositions are treated as *locus* as well.

(22) zamin *ke_upar*
(23) āsmān *ke_nice*
(24) gārī *ke_pās* do log khaṛe hain
(25) uskī cāroṁ_or pānī thā  
    3SG.GEN.around water be.PST  
    ‘There was water all around her.’

Hindi also can express static locations using dynamic postpositions, a phenomenon called *fictive motion*.

(26) chat *se* pūrā sahar dikhtā hai  
    roof ABL full city be.seen.HAB be.PRS  
    ‘The whole city is visible from the roof.’
(27) sarak nadi tak jati hai. (Locus→Goal)

Connection verbs. Various verbs that indicate connection and take an argument in the comitative, when dealing with static events, are labelled Locus→Ancillary.

(28) navi per se bandhi hai.
    boat tree COM be.tied.PFV COP.PRS
    ‘The boat is tied to the tree.’

These also have motion equivalents when licensed by a non-stative verb. See under Goal.

Discussion. It is unclear how to treat habitual tense verbs that can be ambiguously construed as static or dynamic.

(29) nadi samundar tak bahti hai.
    river ocean ALL flow.HAB COP.PRS
    The river flows till the ocean.

Is this a statement of fact about where the river ends (thus Locus→Goal), or is it the present flowing of the river to that endpoint (thus Goal)? We fall back on the most literal reading (so Goal) in case of ambiguity. This is part of an open issue cross-lingually, see #120en.

2.2.1 Source

The prototypical postposition for this is se, which often takes on the Source function even in other roles. In this function it is comparable to English from.

(30) vah kal hī dilli se nikli.
    3SG yesterday EMPH Delhi ABL leave.PFV
    ‘She left Delhi just yesterday.’

This scene also covers initial states before a transformation.

(31) maiṇne mati se banayā.
    1SG.ERG clay ABL make.PFV
    ‘I made it out of clay.’

13
2.2.2 **Goal**

**Goal** indicates a final location or state. Many motion verbs do not explicitly mark the endpoint of motion, instead treating it as a direct object. The case markers **ko** and **tak** do have prototypical **Goal** functions, and can be optionally used to mark those objects.

(32) main dilli (ko) gaya.
    1SG Delhi to go.PFV
    ‘I went to Delhi.’

All of the locative postpositions and case markers can take on a **Goal** scene role if licensed by a motion verb. Hindi syntactically patterns with verb-framed languages, but path is usually lexicalized in postpositions (Narasimhan, 2003).

**Connection verbs.** Various verbs that indicate connection and take an argument in the comitative, when dealing with dynamic events, are labelled **Goal~Ancillary**.

(33) nav ko perse se bandho.
    boat ACC tree COM tie.IMP
    ‘Tie the boat to the tree.’

These also have static senses. See under **Locus**.

2.3 **Path**

This is traditionally called the perlative case, which is expressed with the ubiquitous **se**. Unlike English, there is not much variety in **Path** adpositions (**over, across, through**, as well as uses of static location markers), but postposition stacking is permissible with **se**.

(34) raili dilli se guzri thi.
    rally Delhi PERL pass.PFV COP.PST
    ‘The rally passed through Delhi.’

(35) a. havai-jahaz mere utpar LOCUS se gaya.
    airplane 1SG.above via go.PFV
    ‘The plane flew over me.’

b. vo saitana mere piche LOCUS se bhag gaya!

**se_hokar** also marks a **Path** (Narasimhan, 2003, p. 150).
Discussion. There is a **PATH**~**INSTRUMENT** construal in English for e.g. “escape by tunnel”, but there does not seem to be anything instrumental about the equivalent Hindi construction, so we just treat it as a **PATH**.

2.3.1 **DIRECTION**

**DIRECTION** is the static or dynamic orientation of something. The prototypical markers for this are **ki_taraf**, **ki_or**, and **ki_disa**, all grammaticalised from the literal meaning ‘in the direction of’.

(36) maiṁ darvāze **ki_taraf** cal rahā thā.
    1SG door.OBL in.direction.of walk CONT COP.PST
    ‘I was walking towards the door.’

Like in English, some motion adverbs\(^8\) satisfy the definition of **DIRECTION** and thus are fair game for annotation. A list of these is in table 2.

(37) maiṁ **bāhar** jāne kā soc rahā thā.
    1SG outside go.INF.OBL GEN think CONT COP.PST
    ‘I was thinking of going outside.’

(38) vo **sidhe** calā.
    dāyēm
    bāyēm
    vāpas

**Distance.** Static distance uses the construal **LOCUS**~**DIRECTION**, since it refers to a fixed point in space but in a way as to emphasise the distance is movement away from another point. **se_dūr** and **ke_dūr** are used in this way.

(39) dillī hamāre gāṁv **se_bīs** kilomēṭar **dūr** hai.
    Delhi 1PL GEN town ABL twenty kilometres far COP.PRS
    ‘Delhi is ten kilometres away from our town.’

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\(^8\)Unlike in English, where words like *behind*, *up*, etc. can also be analysed as intransitive prepositions or particles, there is generally no disagreement in Hindi grammar on the status of motion adverbs as adverbs. They are formed from the oblique case of nouns, like many other non-motion adverbs.
Table 2: Some motion adverbs in Hindi.

<table>
<thead>
<tr>
<th>Hindi</th>
<th>English</th>
</tr>
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<tbody>
<tr>
<td>āge</td>
<td>ahead</td>
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<tr>
<td>sāmne</td>
<td>in front</td>
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<td>up</td>
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<td>dūr</td>
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<td>backwards</td>
</tr>
<tr>
<td>pās, qarib, nazdik</td>
<td>near</td>
</tr>
</tbody>
</table>

2.3.2 Extent

When referring to scalar values or changes on a scale, tak has the role of EXTENT. kā can function similarly, but take a construal EXTENT~IDENTITY since it equates two things.

(40) hameĩ miloĩ tak bhāgnā parā.
1PL.DAT miles.OBL ALL run.INF have.to.PFV
'We had to run for miles.'

(41) sau rupaye kā munāfā (EXTENT~IDENTITY)
hundred rupees GEN profit
'a profit of 100 rupees'

Often, this kind of semantic relation is not marked by an adposition or case marker, and is instead a core argument of the verb.

(42) dām [das pratišat]EXTENT barhā.
price ten percent increase.PFV
'The price increased by 10%.'

jitnā ... utnā  Hindi’s jitnā ... utnā construction functions exactly the same as the English as ... as (except reversed) and is annotated on the same semantics.

(43) vo jitnāCOMPARISONREF kar saktā thā utnāEXTENT usne kiyā.
3SG as.much do can.HAB COP.PST that.much 3SG.ERG do.PFV
(S)he did as much as (s)he could.

(44) jagah jitniCOMPARISONREF sundar hai utniCHARACTERISTIC~EXTENT xatarnāk hai.
The postposition **sā** is difficult to translate succinctly into English, but in that sense that it means ‘rather’ or ‘pretty’ (when modifying an adjective) it is best labelled by **EXTENT**. The other sense of it is covered under **COMPARISON Ref**.

(45) acchā **sā** ādmī
    good rather man
    ‘a rather good man’

### 2.4 **MEANS**

**MEANS** describes a secondary action or event utilised towards performing the verb at hand. A gerund (or other nominal that refers to an action) as an instrumental argument marked with **se** to a verb is **MEANS**.

(46) unhoṁne golibārī **se** badlā liyā.
    3PL.ERG shooting INS revenge take.PFV.
    ‘They retaliated with shootings.’

(47) zyādā tez bhāgne **se** ṭāṅg toṛ dī.

### 2.5 **MANNER**

The **how** of a situation, usually an adverbial phrase.

(48) a. merī bāt dhyān **se** suno.
    1SG.GEN talk care INS list.IMP
    ‘Listen to me carefully.’

b. ġaltī **se**
    zor
    pyār

(49) a. usne ġusse **mem** kah diyā.
    3SG.ERG anger LOC say give.PFV
    ‘He rashly said it in anger.’

b. ham gujarātī **mem** bāt kar rahe haiṁ.

(50) agar āp **binā_** ovan _ke_ kek banā rahī hai
    if 2PL without oven GEN cake make CONT COP.PRS
    ‘if you are making a cake without an oven’

When a comparison postposition is used adverbially (e.g. **jaise**) it also gets the scene role of **MANNER**.
(51) **Manner~ComparisonRef:**

a. tū jānvar ki_tarah khātā hai.
   2SG animal like eat.HAB COP.PRS.
   ‘You eat like an animal.’

### 2.6 **Explanation**

The *why* of a situation. The instigating event of another event is an **Explanation**.

(52) a. merī vajah se sab gāṛbaṛ huā.
   1SG.because everything messed.up COP.PFV
   ‘Everything went wrong because of me.’

b. uske na jāne ke_kāraṇ maiṁ ghar pe rahā.

(53) ġusse se rūṭhṇā (Explanation~SOURCE)

(54) aur dambh se phūḷā raḥtā hai. (Explanation~SOURCE)
   and pride ABL swell.PFV CONT.HAB COP.PRS
   ‘And he is always swelled with pride.’

**Fossilised uses of liye**  The postposition liye ‘because’ by itself is very uncommon in modern Hindi, but its more common derivatives isliye ‘for this reason’ and kislīye ‘why?’ are still labelled Explanation or **Purpose**.

#### 2.6.1 **Purpose**

**Purpose** is the motivation behind an action performed (or intended to be performed) by an animate entity. ke_liye is the prototypical adposition that takes this label. The intended outcome of an action is a **Purpose**.

(55) vo bhāsān dene ke_liye uthī.
   3SG speech give.INF.OBL for rise.PFV
   ‘She rose to deliver a speech.’

Intended use of something.

(56) a. pīne ke_liye kyā cāhiye?
   drink.INF.OBL for what want
   ‘What do you want to drink?’

b. pīne ko kyā cāhiye?

Something on which an action is contingent.
(57)  a.  sone ke\_liye ko\=i jagah hai?
    sleep.INF.OBL for any place COP.PRS
    'Is there any space to sleep?'
  b.  film dekhne ke\_liye pa\=i\=se nah\=in\=i hai.

**Alternations between k\=a and ke\_liye.** There are many cases where ke\_liye and k\=a are interchangeable. In such cases, it is important to check if syntactic differences arise by the exchange: k\=a can form a genitive PP that is a constituent of an NP, but ke\_liye obligatorily marks an adjunct. Compare:

(58) p\=i\=ne k\=a p\=\=ani (CHARACTERISTIC; cf. (56))
    drink.INF.OBL GEN water
    'drinking water'

(59)  a.  [\=ane ke\_liye] [samay ni\=scit hai]. (PURPOSE)
    come.INF.OBL for time fixed COP.PRS
    'For arriving, the time is fixed.'
  b.  [\=ane k\=a samay] ni\=scit hai. (GESTALT)
    come.INF.OBL GEN time fixed COP.PRS
    'The arrival time is fixed.'

Or analysed using Bhatt et al. (2013)'s phrase-structure grammar:
3 **Participant**

<table>
<thead>
<tr>
<th>Verb type</th>
<th>Agent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intransitive</td>
<td>NOM</td>
</tr>
<tr>
<td>Transitive</td>
<td>NOM, ne</td>
</tr>
<tr>
<td>Experiencer</td>
<td>ko</td>
</tr>
<tr>
<td>[Passive]</td>
<td>se</td>
</tr>
<tr>
<td>[Modal]</td>
<td>ko</td>
</tr>
<tr>
<td>[Nominalised]</td>
<td>kā</td>
</tr>
</tbody>
</table>

**Table 3:** The various markers used for the proto-Agent argument to a verb in Hindi. The verb “classes” in brackets are grammatical alternants of any of the verbs.

3.1 **Case marker: ne**

As Hindi is a split-ergative language, showing both nominative–accusative and ergative–absolutive alignment, there are two primary ways to mark a canonical subject: the ergative marker ne (when the verb is in perfective aspect) or the unmarked nominative (in all other instances).

3.1.1 **Ergative**

*CAUSER* is an inanimate instigator or force. Only ergative case marker ne really applies this supersense, since the kinds of entities that act as CAUSERS are generally not subject to obligation, necessity, or any other modal framings that cause differential subject marking in Hindi.

(60) āg ne ghar ko naṣṭ kiyā. (CAUSER)  
fire erg house acc destroyed do.PFV  
‘The fire destroyed the home.’

*AGENT* is the animate (or construed as such) performer of an action. The AGENT argument to a verb can be expressed with a variety of case markers depending on how the scene is to be framed.

(61) usne kapre dhoye.  
3sg.erg clothes.pl wash.PFV  
‘(S)he washed clothes.’
Verbs involving producing or creation of something (banānā ‘to make’), communication (batānā ‘to tell’, kahnā ‘to say’), and the giving of a possession (denā ‘to give’) take the role ORIGINATOR→AGENT for their ergative argument.

Verbs that involve a volitional experience (dekhnā ‘to see’, maḥsūs karnā ‘to feel’) take the ergative. Note that these often have dative equivalent that take EXPERIENCER→RECIPIENT as their proto-Agents, e.g. dikhāī denā ‘to see’.

Verbs in which the ergative subject ends up with possession of an item (lenā ‘to take’, xarīdnā ‘to buy’) take this role.

(63) ORIGINATOR→AGENT:
   a. maiṁne patra likhā. 1SG.ERG letter write.PFV
      ‘I wrote a letter.’
   b. kisne sansār ko THEME banāyā?
   c. maiṁne āpko RECIPIENT tohfā diyā.

(64) EXPERIENCER→AGENT:
   a. hamne khetle hue baccom ko dekhā. 1PL.ERG play.HAB COP.PFV children.OBL ACC see.PFV
      ‘We saw children playing.’
   b. maiṁne dhyān se MANNER sunā.

(65) RECIPIENT→AGENT:
   a. Rām ne mujhse ORIGINATOR→SOURCE kitāb le lī. Ram ERG 1SG.ABL book take take.PFV
      ‘Ram took the book from me.’

(66) SOCIAL.REL→AGENT:
   a. maiṁne tumse śādī karnī hai.
Bodily emission verbs. There is a set of ‘bodily emission’ verbs (de Hoop and Narasimhan, 2005), such as *chîmknâ* ‘to sneeze’, *khârîsnâ* ‘to cough’, *mûtnâ* ‘to urinate’, that can optionally take the ergative marker (sometimes with light verb constructions) for their subject. The presence of the marker indicates greater agency, so we treat it as AGENT (the lack of the marker would make it a THEME). Note that this alternation is not permissible for every speaker.  

(67) a. usne_AGENT  chîmkâ 3SG.OBL.ERG sneeze.PFV  
           ‘He sneezed [on purpose].’  

b. vo_THEME chîmkâ 3SG sneeze.PFV  
           ‘He sneezed [involuntarily].’  

Non-agentive ergatives. There is also a set of verbs that obligatorily take the ergative (as well as the usual modal alternations) even when forming inherently non-agentive compound verbs. Noun-verb concatenations with *khânâ* ‘to eat’ behave this way, apparently with a figurative extension of ‘eat’ to ‘receive’ or ‘bear’.

(68) maiûne usse_ORIGINATOR~SOURCE mûr khâyî. 1SG.ERG 3SG.OBL.ABL beating eat.PFV  
       I took a beating from him.

Since we annotate source domain of metaphors, the subject should be annotated RECIPIENT~AGENT here.  

Discussion. In the differentially-marked subjects for obligation, necessity, and ability, the AGENTS do not have volition, so that scene role for them is uncertain. This is part of the broader problem of SNACS’s treatment of force dynamics cross-lingually, and will not be easily resolved with the current hierarchy.  

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9. This specific example doesn’t work for Aryaman, but e.g. *cîkhnâ* ‘to yell’ does.  
10. This is an open issue, #1.
3.2 Case marker: ko

Like in most Indo-Aryan languages, ko is a dative–accusative marker. Both senses seem to constitute a single entry in the lexicon; the difference between a dative ko and an accusative ko is not readily known to a non-linguistically-informed native speaker.

**Syntactic tests for ascertaining function.** The dative ko is obligatory while the accusative ko marks animacy, definiteness, and/or salience. Thus, one can use an indefinite (e.g. a plural) and/or inanimate substitution to test if the ko can be dropped; if it can be, then it is an accusative.

(69) Accusative:
   a. [mez ko] THEME sāf karo.
   b. [bis mez] THEME sāf karo.

(70) Dative (dropping ko changes the role):
   a. usko RECIPIENT dikhāo.
   b. vah STIMULUS THEME dikhāo.

See also Bhatt et al. (2013, 72–76).

3.2.1 Accusative (and kā, par)

The various accusative markers are all annotated THEME. A THEME undergoes an action, nonagentive motion, a change of state, or transfer. It is a broad category, best signified by the differentially marked (generally on animate or specific objects) accusative ko. Some compound verbs favour kā or par as their object markers.

The pronouns have special accusative forms suffixed with -e(ṁ) (mujhe, tu-jhe, hameṁ, use, etc.), which are all treated the same as ko.

(71) a. mez ko sāf karo.
   table ACC clean do.IMP
   `Clean the table.´
   b. mez kī safāī karo.
   table GEN cleaning do.IMP
   `Do the cleaning of the table.´

(72) usne bacce ko sulāyā.
3SG.ERG child.OBL ACC sleep.CAUS.PFV
`'(S)he made the child sleep.'
(73) arjun ne mahābhārat meṁ karṇ ko parājit kiyā.

(74) usne kitāb ko becā.  
3SG.ERG book ACC sell.PFV  
'(S)he sold the book.'

(75) maiṁne use dākghar bhejā.

(76) uskī pīṭāī 
Some verbs use par.

(77) hamne tum par hamlā kiyā.  
1PL.ERG 2PL on attack do.PFV  
'We attacked you.'

(78) maiṁne is deś par rāj kiyā.

   Other examples of ko marking verbal arguments are below. Stimulus→Theme marks the source of a volitional experience, such as dekhnā 'to see', sunnā 'to hear'. Some verbs (samajhnā 'to understand', mānṇā 'to accept', etc.) license a Topic→Theme for their objects (#3). This includes the adjective–verb compound use of samajhnā.

(79) Stimulus→Theme:
   a. maiṁ baccom ko dekh thā.  
1SG child.PL.OBL ACC see CONT COP.PST  
'I was watching a movie.'

(80) Topic→Theme:
   a. jīvan ko samajhnā muśkil hai.  
life ACC understand.INF difficult be.PRS  
'Understanding life is difficult.'
   b. kyā tum mujhe ullū samajhte ho?  
what 2PL 1SG.ACC owl understand.HAB COP.PRS  
'Do you think I’m stupid?'

(81) Possession→Theme:
   a. is gande kele ko nahīṁ xaridūṅgā!
Spray–load alternation. Like English (and many other languages), Hindi exhibits a spray–load alternation that allows ko to take the construal GOAL~ THEME.11

(82) a. gīlās ko pānī se THEME~ INSTRUMENT bharo. (GOAL~ THEME)
glass ACC water INS fill.IMP
‘Fill the glass with water.’
b. gīlās merī GOAL~ LOCUS pānī bharo.
glass ACC water INS fill.IMP
‘Fill the water in the glass.’
c. pānī ko gīlās merī GOAL~ LOCUS bharo. (THEME)
water ACC glass LOC fill.IMP
‘Fill the water in the glass.’

Discussion. THEME-type markers are often used to mark the object of a verb (such as a causative) with force-dynamic properties.

(83) aurat ne bacce ko sulāyā.
woman ERG child, OBL ACC sleep, CAUS, PFV.
‘The woman made the child sleep.’

THEME is perhaps not the best label for this, but since there is no special handling of force dynamics, this is the best option in the current hierarchy.

3.2.2 Dative

The function for this case is RECIPIENT. The canonical example of the dative is an indirect object to which the direct object (THEME) is transferred by the subject (ORIGINATOR).12

(84) maiśme apne dost ko kitāb di.
1SG.ERG REFL. GEN friend DAT book give, PFV
‘I gave my friend the book.’

(85) mujhe ek bāt batāo.
1SG.DAT one talk tell.IMP
‘Tell me one thing.’

11This informal Twitter poll (n = 45) finds that 29% of respondents think the alternation means different things, with the form marking the container with the accusative implying ‘filling to the top’. The form marking the liquid with the accusative is greatly preferred (62%).

12In Universal Dependencies (Nivre et al., 2020), the RECIPIENT is the argument to the verb that has an iobj relation.
(86) Susmita ko kitne paath parhao?  
Sushmita DAT how.many lessons teach.FUT  
'How many lessons will you teach to Sushmita?'

(87) tumko ek cis dikhana chahta hoon. \textit{(EXPERIENCER}$\rightarrow$\textit{RECIPIENT)}

Dative subject. The dative subject (sometimes narrowly called the experiencer subject) is a common construction with some verbs in Hindi. Besides \textit{EXPERIENCERS}, it also marks some idiosyncratic verbs.

(88) \textit{EXPERIENCER}$\rightarrow$\textit{RECIPIENT}:
   a. Sunita ko buxar hai.  
      Sunita DAT fever COP.PRS  
      'Sunita has a fever.'
   b. mujhko Hindi nahin ati.  
      1SG.DAT Hindi NEG come.HAB  
      'I don’t know Hindi.'
   c. raj ko dukh hua.  
   d. mujhko tum pasand ho.  
   e. ek am ko duse am se \textit{STIMULUS}$\rightarrow$\textit{ANCILLARY} pyar hua.  
   f. usko acanak se \textit{MANNER} avaz sunai di.  
   g. mujhe dusre kitab cahiye.  
   h. Amerikko ko aitraz nahin hai.

(89) \textit{BENEFICIARY}$\rightarrow$\textit{RECIPIENT}:
   a. mujhe koii fayda nahin hua.  
      1SG.DAT any benefit NEG COP.PFV  
      'I got no benefit.'
   b. kampani ko munafa hog.  
   c. manging ko Karmges ka samarthan hai.

(90) \textit{GESTALT}$\rightarrow$\textit{RECIPIENT}:
   a. am admi ko haq hai.  
      common man DAT right COP.PRS  
      'The common man has the right.'
   b. mujhko bahut kam hai.

(91) \textit{SOCIAL.REL}$\rightarrow$\textit{RECIPIENT}:
a. Rām ko do beţiyaṁ hui.
Ram DAT two daughter.PL be.PFV.
‘Two daughters were born to Ram.’

Modal subject. In conjunction with some modal light verbs, the dative case marker ko marks the AGENT. These, however, have force dynamic issues.

(92) usko pāṇī pīnā cāhiye. (AGENT~RECIPIENT)
3SG.OBL.DAT water drink.INF should
‘He should drink water.’

(93) rām ko kitāb band karnī paṛī. (AGENT~RECIPIENT)
Ram DAT book close do.INF be.obliged.PFV
‘Ram had to close the book.’

3.3 Topic: ke_bāre_mem, etc.

Topic primarily refers to information content (especially in cognition event) or communication. The prototypical adposition for this is ke_bāre_mem, but the locative markers mem, par and genitive kā mark Topics as well.

(94) tumhāre_bāre_mem bāṭ kar rahe the.
2PL.about talk do CONT COP.PST
‘We were talking about you.’

(95) uskī tasvīr dikhāo.
3SG.GEN picture show.IMP
‘Show the picture of him.’

(96) terā kyā hogā?
2SG.GEN what COP.FUT?
‘What will become of you?’

(97) is bāṭ par carcā hui.

3.4 Case marker: se

3.4.1 Instrumental (and ke_zariye etc.)

The instrumental case (INS) of se takes the function INSTRUMENT.

(98) maiṁne cāqū se sabzī ko kāṭā.
1SG.ERG knife INS vegetable ACC cut.PFV
‘I cut the vegetables with a knife.’
(99) gārī se ghar jūngā.
car INS home go.FUT
'I’ll go home by car.'

(100) tohfe ko ḍāk se bhejo.

(101) us rāste se jāo. (PATH~INST)

(102) gilāś ko pāni se bharo. (THEME~INST, from (82a))

The postpositions ke_zariye ‘via, through’ and ke_mādyam_se ‘by means of’ (in Sanskritised Hindi) also mark INSTRUMENTS.

(103) Gūgal ke_zariye khoj lo.

(104) Hindī bhāṣā ke_mādyam_se ham logon tak pahurāc sakte hain.

Animate instruments. Indirect causative verbs in Hindi (e.g. khulvānā ‘to make X open Y’) can take an animate instrument which exhibits AGENT-like properties (Ramchand, 2011). Currently we annotate these as their predicate-licensed scene role construed as INSTRUMENT.

(105) maiṁne bāi se bacce ko sulvāyā.
1SG.ERG maid INS child.OBL ACC sleep.CAUS2.PFV
(AGENT~INST)

'I made the maid put the child to sleep.'

(106) tumne mujhse khānā banvāyā (ORIGINATOR~INST)

Discussion. One possible change to this is to create a new function for animate instruments: AIDER. Animate instruments can control adverbial phrases while inanimate instruments cannot, animate instruments can control instruments of their own, and a similar distinction already exists between inanimate CAUSER and animate AGENT in the hierarchy (Bhatia, 2016; Begum and Sharma, 2010), thus it seems strange to say these are still morphosyntactic INSTRUMENTS.

An alternative is to treat this as an AGENT and make a new supersense for the initiator of the action (which is a volition entity but not an actor itself). This approach is taken by Bill Croft.\(^a\)

\(^a\)Personal communication.
3.4.2 **Ablative**

The ablative sense of *se* (ABL) takes the function **SOURCE**. (For the literal meaning of motion away, see that section.)

Some of the literal ablative uses to mark verbal arguments get the scene role **THEME**; refer to the English guidelines (Schneider et al., 2020) for more on this.

(107) adhyāpak ne larkom koTHEME larkiyom se alag kiyā.  
  teacher  ERG boy.PL.OBL ACC girl.PL.OBL ABL separate do.PFV  
  (THEME→SOURCE)

‘The teacher separated the boys from the girls.’

Here are some of the more grammaticalised uses of ablative *se* to mark verbal arguments, classified as such based on typological considerations given in (Khan, 2009). The counter-intuitive **RECIPIENT→SOURCE** frames the **RECIPIENT** of a 'request'-type verb as the **SOURCE** of a response.

(108) **STIMULUS→SOURCE:**
  a. tumse ċar lagtā hai.  
     2PL.ABL fear feel.HAB COP.PRS  
     ‘I feel scared of you.’
  b. tumhāre bartāv se maiṁ ġussā hūṁ.  
  c. maiṁne āpse ummīd rakhī.  
  d. pyār huā, iqrār huā hai, pyār se phir kyoṁ ċartā hai dil?

(109) **RECIPIENT→SOURCE:**
  a. maiṁ āpse bhīk māṁgtā hūṁ.  
     1SG  2PL.ABL alms ask.for.HAB COP.PRS  
     ‘I beg of you.’
  b. usne mujhse praṁ pūchā.

(110) **ORIGINATOR→SOURCE:**
  a. kyā tumheṁ usse kuch milā?  
     what 2PL.DAT  3SG.ABL anything receive.PFV  
     ‘Did you get anything from them?’
  b. dost se patā calā.13

(111) **CAUSER→SOURCE:**

13But note that an inanimate provider of information (like a book) is just **SOURCE**. See issue #20.
a. vah zukāṃ se pīrīt hai.
   3SG cold ABL. suffering COP.PRS
   'He is suffering from the cold.'

3.4.3 Comitative (and ke_sāth, ke_binā)

The comitative sense of se (COM) takes the function Ancillary and usually a
non-matching scene role falling under Participant. Verbs, pertaining to social
relations (śādi karnā) and emotional stimuli (pyār/nafrat karnā), as well as more
literal verbs involving association or joining, license the comitative se for the
secondary participant:

(112) vah tumse pyār kartī hai. (Stimulus→Ancillary)
   3SG 2PL.COM love do.HAB COP.PRS
   'She loves you.'

(113) ham unse ṭakrāye. (Theme→Ancillary)
   1PL 3PL.COM collide.PFV
   'We collided with them.'

(114) kyā tum mujhse śādī karogī beḡam? (SocialRel→Ancillary)
   Just like English has a distinction between accompaniers (together with) and
   secondary participants in a scene (with), Hindi distinguishes ke_sāth and the
   comitative sense of se. For example:

(115) a. maiṁ tumse larūṅā. (Agent→Ancillary)
   1SG 2PL.COM fight.FUT
   'I will fight you.'

   b. maiṁ tumhāre_sāth larūṅā. (Ancillary)
   1SG 2PL.with fight.FUT
   'I will fight with you.'

Behaviour. The postposition ke_sāth can be used with certain predicates to
indicate the target of behaviour. Following the main guidelines, we label this
Beneficiary→Ancillary (see #9).

(116) tumne mere_sāth burā bartāv kiyā.
   2PL.ERG 1SG.with bad behaviour do.PFV
   'You behaved poorly with me.'
Discussion. There are some cases where ke_sāth and se are interchangeable, probably given the relatively recent grammaticalisation of ke_sāth as a comitative. One instance is the second argument to khelnā ‘to play’, which can take either case if the argument is inanimate:

(117) a. maiṁ gurīyā se khelā rahā hūṁ.
   1SG doll with play CONT COP.PRS
   ‘I am playing with a doll.’

b. maiṁ gurīyā ke_sāth khelā rahā hūṁ.
   1SG with play CONT COP.PRS
   ‘I am playing with a doll.’

(118) a. *maiṁ dost se khelā rahā hūṁ.

b. maiṁ dost ke_sāth khelā rahā hūṁ.
   1SG friend with play CONT COP.PRS
   ‘I am playing with a friend.’

Only ke_sāth is grammatical for an animate. For an inanimate participant, arguably the scene role AGENT is impossible (and there is no personification at play), so we label ke_sāth as ANCILLARY and se as INSTRUMENT.

3.4.4 Passive subject (and dvārā)

A verb in a passive construction (with the light verb jānā “to go”) marks the AGENT (with appropriate predicate-licensed scene role) with the instrumental case marker se. This can also be a debilitative construction when negated.

The postposition dvārā also marks a passive subject in some dialects and literary Hindi.

(119) bacce se šīsā tūt gayā. (AGENT)
   child.OBL INS mirror break go.PFV
   ‘The mirror was broken by the child.’

(120) Rām dvārā likhī (AGENT)
   Ram by written
   ‘written by Ram’

(121) mujhse nā kiyā jāyegā. (AGENT)
   ho pāyegā

Discussion. Given that the passive is thoroughly grammaticalised into Hindi, it is not apparent which canonical case it belongs under. The most likely candidates are the ablative (SOURCE) or the instrumental (INSTRUMENT); compare the Sanskrit

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instrumental and genitive being used in a similar way with participles historically.
Given these facts, we elected to make \textit{AGENT} a valid function for se.

3.5 \textbf{Case marker: kā}

The main use of \textit{kā} to mark a \textit{PARTICIPANT} is in nominalisations of verb phrases, in which it marks arguments to the verb.

\begin{enumerate}
\item[(122)] Sachin Tendulkar \textit{kā} 200 ran k\text{\texttt{\textbf{\textup{I}}}IDENTITY} rikard\text{\texttt{\textbf{\textup{I}}}}} (AGENT\texttt{\textbf{\textup{I}}}\texttt{\textbf{\textup{I}}}\texttt{\textbf{\textup{I}}}GESTALT)
\hfill Sachin Tendulkar gen 200 run gen record
\hfill ‘Sachin Tendulkar’s 200 run record’
\item[(123)] tumhārā usko\text{\texttt{\textbf{\textup{I}}}THEME} mārnā (AGENT\texttt{\textbf{\textup{I}}}\texttt{\textbf{\textup{I}}}\texttt{\textbf{\textup{I}}}GESTALT)
\item[(124)] merī samajh merī āyā (EXPERIENCER\texttt{\textbf{\textup{I}}}\texttt{\textbf{\textup{I}}}\texttt{\textbf{\textup{I}}}GESTALT)
\hfill 1SG.gen understanding loc come.PFV
\hfill ‘I understood.’
\item[(125)] tumhārā yah likhnā thik nahīṁ thā. (ORIGINATOR\texttt{\textbf{\textup{I}}}\texttt{\textbf{\textup{I}}}\texttt{\textbf{\textup{I}}}GESTALT)
\hfill 2PL.gen 3SG write-INF proper neg cop.pst
\hfill ‘You writing this was not okay.’
\item[(126)] Sītā kī hāmī (ORIGINATOR\texttt{\textbf{\textup{I}}}\texttt{\textbf{\textup{I}}}\texttt{\textbf{\textup{I}}}GESTALT)
\hfill Sītā gen assent
\hfill ‘Sītā’s assent.’
\end{enumerate}

3.6 \textbf{Postposition: ke_liye}

\textit{ke_liye} when marking something animate it indicates a \textit{Beneficiary}.

\begin{enumerate}
\item[(127)] mair̄hne tumhāre_liye kiyā.
\hfill 1SG.ERG 2PL.for do.PFV
\hfill ‘I did it for you.’
\hfill It is similar to English \textit{for}; it can also indicate purposes (see \textit{Purpose}), sufficiency/excess comparisons (see \textit{ComparisonRef}), and costs.
\item[(128)] iske_liye do rupaye lage̲nge. (Cost)
\hfill 3SG.for two rupee.PL apply.FUT
\hfill ‘This will cost two rupees.’
\hfill It is also used in a manner similar to the English \textit{from the perspective of}, where it licenses EXPERIENCER\texttt{\textbf{\textup{I}}}\texttt{\textbf{\textup{I}}}\texttt{\textbf{\textup{I}}}BENEFICIARY.
\item[(129)] mere_liye bahut āsān kām hai. (EXPERIENCER\texttt{\textbf{\textup{I}}}\texttt{\textbf{\textup{I}}}\texttt{\textbf{\textup{I}}}BENEFICIARY)
\end{enumerate}
3.7 Postposition: ke_xilāf, ke_viruddh

The postpositions ke_xilāf and ke_viruddh (in Sanskritised Hindi) indicates a maleficary, which is classified as a type of Beneficiary in SNACS. They are similar to English against.

(130) paramparā ke_viruddh
(131) kis deś ke_xilāf yuddh hogi? (AGENT~Beneficiary) which country against war be.FUT 'Against which country will the war be fought?'
(132) faisle ke_xilāf honā (Characteristic~Beneficiary)

3.8 Postposition: ke_binā

When marking an animate NP and as an adjunct to a verb, ke_binā ‘without’ is labelled Ancillary (i.e. it is the negation of ke_sāth. It also has a unique syntactic variant that is circumpositional: binā__ke, which is generally utilised with inanimates. See #23 for some corpus examples.

(133) kyā tum mere_binā dukān jā sakte ho? what 2PL 1SG.without store go able.HAB COP PRS 'Can you go to the store without me?'

For inanimates, it is labelled Possession~Ancillary. To check for this, you may test if the opposite meaning with the conjunctive verb lekar is valid (e.g. āp vīzā lekar...).

(134) āp binā_ vīzā_ ke nahīn jā sakte. 2PL without vise GEN NEG go be.able.HAB 'You cannot go without a visa.'

When the object is an action (whether nominal or verbal), then ke_binā could be labelled either Circumstance or Manner. If it can answer a kaise? question then it is the latter.

(135) tum binā_ batāye cal gaye? (Circumstance) 2PL without tell.PFV walk go.PFV 'You left without telling?'
(136) binā_ kisi kī madad _ke (Manner)
(137) binā_ ghaṇṭā_ ke (Manner)
4 Configuration

4.1 Identity

κα (gen) can be used to categorise or equate, thus being labelled Identity.

(138) use maut kī sazā milegī.  
3SG.DAT death GEN punishment receive.FUT  
'(S)he will be sentenced to death.'

(139) cār sāl kī umr

(140) ānand ŋeři ŏpřeřar kā kām kartā hai.  
Anand telephone operator GEN work do.HAB COP.PRS  
'Anand works as a telephone operator.'

ke_rūp_mēn, analogous to the English construction as, takes an object (core argument) of a predicate and categorises it with a label that bears the postposition.

(141) Yuvaraj accḥi kriketar ke_rūp_mēn pari-pakvā ho cuke hai.  
Yuvaraj good cricketer as mature complete.PFV COP.PRS  
'Yuvaraj has matured as a good cricketer.'

(142) 14 sitambar kā din 'hindi-divas' ke_rūp_mēn manāyā jātā hai.

4.2 Species

Species is rare in Hindi. The main instance of this is when the governor of the κα-marked NP is a word like misāl or udāhraṇ 'example'.

(143) Bhārāṭīy kalā κā udāhraṇ  
Indian art GEN example  
'an example of Indian art'

Confusion with Characteristic. Semantically, the usual translation equivalent of English type of X into Hindi is tarah κā X. Note, however, that the head of this NP is opposite in Hindi: it is X rather than type. That construction with κα is labelled Characteristic.
4.3 **GESTALT**

**GESTALT** is the prototypical function of kā, and the genitive forms of pronouns (e.g. merā’1SG.GEN’). Note that the genitives are declined for the gender of their governor.

(144) merā nām Rām hai.
    1SG.GEN name Ram COP.PRS
    ‘My name is Ram.’

(145) ām kā dām
(146) kām karne kā nayā tarīqā
(147) ve TV ke_sāth apnā samay bitāte hain
    3PL TV with REFLE.GEN time spend.HAB COP.PRS
    ‘They spend their time with the TV.’
(148) dūdh kī mīthās acchī hai
    milk GEN sweetness good COP.PRS
    ‘The milk is sweet.’ [lit. ‘The milk's sweetness is good.’]

For **GESTALT**, possession is typically complex or abstract, and usually not alienable (otherwise **POSSESSOR** is used).

As a function, it is also used for nominalisations of verb phrases.
Possessive ke_pās. Like in many Indo-Aryan languages, the postposition for 'near' (ke_pās) has come to have a possessive sense. This is labelled GESTALT~LOCUS (or with a subtype scene role). It was elected not to give the function GESTALT to this since it often implies physical on-person possession when contrasted with the genitive kā.

(149) parhai ke kāraṇ uske_pās samay nahin hai  (GESTALT~LOCUS)
    studies CAUS 3SG.LOC time NEG COP.SG
    'He has no time on account of (his) studies.'

Locative subject alternation. The locative case marker meöm, when applied to a subject of a verb, can indicate a GESTALT~LOCUS, the possessor of a property (Kachru, 1970).

(150) a. larke kā sahas (GESTALT)
    boy.OBL GEN courage
    'the courage of the boy'
    b. larke meöm sahas hai (GESTALT~LOCUS)
    boy.OBL LOC courage COP.PRS
    'The boy is courageous.'

(151) meɪ AGENT~GESTALT harkatori meöm pyār hai. (GESTALT~LOCUS)
(152) mere_pās māṁ hai. (SOCIAL.REL~LOCUS)

4.3.1 Possessor

The Possessor label is again associated with genitive kā. This is only for alienable possessions of property (generally physical item, but also less tangible property like data or Bitcoins).

Like in English, this includes possessions implying but not explicitly stating previous transfer events.

(153) yah kiskā paisā hai
    3SG who.GEN money COP.PRS
    'Whose money is this?'
(154) kal tumhārī chīṭṭhī āyī thi
    yesterday you.OBL.GEN.SG letter come.PERF.PST COP.PST
    'Your letter had arrived yesterday.'
(155) larke ke_pās paise nahīṁ hai. (Possessor~LOCUS)
    boy.OBL near money NEG COP.PRS
    'The boy does not have money.'
merā đīngā ām bahut acchā hai.

4.3.2 **WHOLE**

WHOLE largely follows the English guidelines (Schneider et al. 2020) in its definitions for Hindi, associated chiefly with the genitive kā and the locative merṁ in constructions with the copula (Kachru, 1970).

The possessed entity is well-defined on its own, yet not alienable in the sense of being unable to exist by its own self:

(157) ādmi ghar ke chat par baīṭhā hai (WHOLE)

man house GEN roof LOC sit.PFV COP.PRS

‘The man is seated on the roof of the house.’

(158) merī āmkhēṁ (WHOLE)

(159) āmkh ke kone seLOC−SOU (WHOLE)

eye GEN corner OBL INS

‘from the corner of my eye’

(160) a. kamre ke darvāze (WHOLE)

room OBL GEN doors

‘the room’s doors’

b. kamre merṁ darvāze haiṁ. (WHOLE−LOCUS)

Sets. Both merṁ_se (lit. ‘LOC ABL’) and merṁ (LOC) are used to denote sets that form a WHOLE. merṁ_se is construed as WHOLE−SOURCE since it is more literally locative in nature, while merṁ is WHOLE−LOCUS.

(161) in dononī merṁ_se pehle kaun bolegā? (WHOLE−SOURCE)

3PL.OBL both.OBL LOC.ABL first who speak FUT

‘Who will speak first out of them both?’

(162) sāre baccom merṁ sirf tumhāre bāl lāl haiṁ. (WHOLE−LOCUS)

all child.PL.OBL LOC only 2PL.GEN hair red COP.PRS

‘Out of all the kids only you have red hair.’
‘Between’. The ke_bic ‘between, among’ postposition combines two or more entities into one argument to a verb (Schneider et al. 2020):

(163) laṛai in donom ke_bic hai (AGENT~WHOLE)
    fight 3SG.OBL both.OBL between COP.PRS
    ‘(The) fight is between these two.’

4.3.3 ORG

ORG is not associated in the capacity of a lexical function with any marker, and is indicated by a variety of postpositions and case markers.

(164) ameriκē ke saniyukt rājya ke rāstrāpati (ORG~GESTALT)
    America gen United States gen President
    ‘the President of the United States of America’

(165) vah chote axbār memā kām kartā hai (ORG~LOCUS)
    3SG small newspaper loc work do.hab cop.prs
    ‘He works at a small newspaper.’

(166) Gūgala ke_dvāra_se āpko pradat koī salāh ya jānkāri koī
    Google by 2.DAT provide.PP any advice or information any
    vārantī nahn ut-pann karegī (ORG~AGENT)
    warranty neg create.fut.sg
    ‘Any advice or information provided to you by Google will not create any warranty.’

(167) Gūgala ke_sāth āpκā sambandh șṭe şt Kailiforniyā ke qānūn dvāra sarīncālit
    hocā. (ORG~ANCILLARY)

(168) maiṁ sarkār ke_liye kām kartā hūṁ (ORG~BENEFICIARY)

4.3.4 QUANTITYITEM

Measure and count words (including numerals, ordinals, ordinal + measure, and numeral + measure word combinations) in Hindi largely modify the noun phrase directly, without an intervening postposition (Koul, 2008). The usual marker for QUANTITYITEM is kā, but it is uncommon.

(169) davāorī kī kāmī
    medicine.pl.obl gen lack
    ‘a lack of medicines’
Collective nouns. The treatment of collective noun governors and their governors, follows that of Schneider et al. (2020) and is labeled QUANTITY~ITEM~STUFF:

(170) ām kā ek kilo
mango GEN one kilogram
‘one kilogram of mangoes’

(171) seb kā ādhā (QUANTITY~ITEM~WHOLE)
apple GEN half
‘one-half of the apple’

4.4 Characteristic

Characteristic is expressed through kā and vālā. The difference between the two is the vālā tends to emphasise that its object is only one property (of many) of the governor. While vālā is not a standard postposition, it mediates between nouns and noun-phrases, assigning one as a characteristic of the other.

(174) us tarah kā kām
3SG.OBL type GEN work
‘that kind of work’

(175) ājkal kī duniyā mem log aise hote hain
today GEN people COMP.PL exist.HAB.PL COP.PL
(TIME~CHARTERISTIC)

‘People are like that in today’s world.’

(176) a. Jāpān duniyā ke tisrā sabse baṛa tel khatpat vālā deś
Japan world GEN third largest oil consumption ADJ country hai
COP.SG
‘Japan is the third largest oil-consuming country of the world.’
b. nilā vālā ghar
   blue adj house
   ‘a house that is blue’

c. do sāl kīIDENTITY umr vālā kuttā

d. ūpar vālā kamrā (LOCUS~CHARACTERISTIC)

e. pīne vālā sāf pāni (PURPOSE~CHARACTERISTIC)

(177) rāy meṁ fark
   opinion loc difference
   ‘a difference in opinion’

(178) umr hogī gyārah sāl lekin lambāī meṁ zyādā barā lagtā hai.

(179) khilāri vazan ke_hisāb_se cune gaye.

Containers. Like in English, CHARACTERISTIC construed as STUFF described containers that are filled with something.

(180) pānī kī bottle 20 rūpye kī hai. (CHARACTERISTIC~STUFF)
   water gen bottle 20 rupees gen cop.sg
   ‘The bottle of water costs 20 rupees.’

(181) tumhāre gahne aur kaproṁ kā baksā (CHARACTERISTIC~STUFF)

Examining for an attribute. ke_liye is used in transitive verb contexts where the attribute of the THEME is being examined.

(182) bacce ne rāksasom ke_liye kamre kīTHEME jāmc kī.
   child obl erg demon.pl obl for room gen checking do.pfv
   ‘The child checked the room for monsters.’

States. The state or condition that an entity is in is CHARACTERISTIC~LOCUS.

(183) kitāb Pañjābī meṁ hai.
   book punjabi loc cop.prs
   ‘The book is in Punjabi.’

(184) vah kis hālat meṁ hai?

(185) acambhe meṁ

(186) trikon ke_rūp_mem
4.4.1 **Possession**

The genitive गाँ and adjectival वाला indicate a Possession when its object is the item being possessed and the governor is a possessor (i.e. the reverse of the genitive Possessor).

(187) vah ghar गाँ मालिक hai.
3SG house GEN owner COP.PRS
‘He is the owner of the house.’

(188) vah kाफी paise वाला था. (Possession~Characteristic)
3SG quite money ADJ COP.PST
‘He was quite rich.’

(189) binा paise गाँ अदमी
without money GEN man
‘a man without money’

**Verbal arguments.** The morphosyntactic Theme argument to a verb (marked with an accusative-type postposition or को) dealing with change of possession or transfer of goods and services is labelled Possession~Theme.

(190) unhone पाक्षाध्रण किताबों पर खूब खर्च किया hai
3PL.ERG cooking GEN book.PL.OBL LOC lot spend do.PFV COP.PRS
‘He has spent a lot on cookbooks.’

(191) maiर उस खिलाने को खर्चना cाहटा हुईँ!

4.4.2 **Portion**

(192) नाइ इणजन वाली गारी (Portion~Characteristic)
new engine ADJ car
‘a car with a new engine’

(193) do दरवाजों वाला काम्रां (Portion~Characteristic)
two door.PL.OBL ADJ room
‘a room with two doors’
**binā and kā/vālā.** As a postposition, *ke_binā* can mark an NP as **PARTITION**, indicating an obl argument to a verb.

(194) masālā *ke_binā* pūrī-masālā kyā hai?
spices without puri-spices what COP.SG
‘What is puri-spices without the spices?’

(195) rāhul drāvid *ke_binā* kyā hotā hai bhāratiya ballebāzi kā hāl?
Rahul Dravid without what be.PRS COP.SG indian batting GEN state
‘What is the state of Indian batting without Rahul Dravid?’

As a noun modifier, *binā* is often coordinated with the postpositions *kā* or *vālā*. In these cases, we do not label *binā*, but we label the coordinating postposition **PARTITION**. The reasoning is that when *binā* is dropped, the coordinating postpositions still provide the same semantics (e.g. *cīnī vālī cāy* 'tea with sugar').

(196) *binā* cīnī *vālī***PARTITION***~***CHARACTERISTIC** cāy
without sugar **ADJ** tea
‘tea without sugar’

(197) *binā* cīnī *kā***PARTITION** dūdh

**Sets.** Non-members and members of a set can be marked **PARTITION** by *ke_alāvā* ‘besides, other than’ and *ke_atirikt* (‘in addition to’).

(198) śahr *ke_alāvā* gāvōṁ menī bhī gas kanēkān bārh rahe city other.than village.PL.OBL LOC too gas connection increase CONT hai
COP.PRS
‘Other than in the city, gas installations are increasing in the villages too.’

(199) Smith aur Kailis *ke_alāvā*

(200) Latā Mangeśkar, Āśā Bhosle to niyamit āvāze thirn hī, *inke_atirikt* He- mant Kumār, Talat Mahmūd bhī
jaisā ‘such as’ can also mark set members.

(201) Diwālī aur Holi *jaise* bhāratiya tyauhār manātīṁ haiṁ diwali and holi like **HAB COP.PRS**
‘They celebrate Indian festivals like diwali and holi.’

(202) hōkī, fūtbōl, aur kriket *jaise* pāramparik khel
**STUFF**  
STUFF is marked by the genitive kā, and it is not different from how the English guidelines treat it.

(203) sone kī thālī (STUFF)  
gold.OBL GEN platter  
‘a platter made of gold’

(204) biyar kī bottle (CHARACTERISTIC~STUFF)  
beer GEN bottle  
‘bottle of beer’

(205) vṛkṣorī kā jhunḍ (QUANTITYITEM~STUFF)  
(206) logorī kī bhir (QUANTITYITEM~STUFF)  
(207) chātroī kī kakṣā (ORGMEMBER~STUFF)  
(208) cricket vālorī kī tīm (ORGMEMBER~STUFF)

4.4.3 **ORGMEMBER**  

ORGMEMBER is largely marked by the the genitive kā.

(209) mere beṭe kā parivār (ORGMEMBER~GESTALT)  
1SG.GEN child.OBL GEN family  
‘My child’s family.’

(210) cororī kī dhār (ORGMEMBER~STUFF)  
thief.PL.OBL GEN gang  
‘gang of thieves’

(211) merī kampanī (ORGMEMBER~POSSESSOR)  
1SG.GEN company  
‘My company.’

4.4.4 **QUANTITYVALUE**  

QUANTITYVALUE is uncommon, but is indicated by genitive kā.

(212) ek kilo kā ām  
one kilogram GEN mango  
‘a one-kilogram mango’
**Approximator** is indicated by a number of targets, all dealing with scalar comparisons.

(213) lagbhag 'around, approximately':
   a. unki kampani Dilli ke lagbhag ek karo garibo tak
      3SG.GEN company Delhi GEN around one crore pauper.PL.OBL to
      bijli pahunchati hai
      electricity deliver.PRS COP.SG
      'His company provides electricity to around 10 million of Delhi’s poor'
   b. gav ke lagbhag chaar sau log

(214) qarib 'nearly, almost':
   a. Eyar Indiya ke qarib adhe paylatom ki haratul
      Air India GEN nearly half pilot.PL.OBL GEN strike
      'the strike of nearly half of Air India’s pilots'
   b. uran bharne ke qarib 20 minat bad

(215) ke_adhik / se_adhik, se_zyada 'over, greater than':
   a. 70 fisadi ke_adhik
      70 percent greater than
      'greater than 70 percent'
   b. jodhpur ke 1200 se_adhik dakhtar haratal par the
      jodhpur GEN 1200 more than doctor strike LOC COP.PST
      'More than 1200 doctors from Jodhpur were on strike'
   c. Inglaind ne vah tees 300 ke_adhik antar se jita

(216) ke_bic 'between':
   a. ummida hai ki hum pance se chaah hazar ke_bic nayi
      hope COP.SG COMP 3.PL five COM six thousand between new
      logo ki bharti karenge
      person.PL GEN recruit do.PL.FUT
      'The hope is that we will recruit between five to six thousand new
      recruits'

(217) ke_aspa 'close to, near':
   a. dalar ke mukabale rupyaa 52 rupeye ke_aspa pahunca
      dollar compared to rupee 52 rupees close to reach.PFV
      'The Rupee reached close to 52 rupees (compared) to the Dollar'
   b. gyarah baje ke_aspa vah dilli pahunchi
      eleven time close to 3.SG Delhi reach.PFV
'He reached Delhi close to eleven o’clock'

Confusion with **ComparisonRef~Locus**. The difference between Approximator and the more literal ComparisonRef~Locus can be clearly defined by syntax, although it does have a semantic element.

When the number marked by the approximating postposition is a predicate with the copula, than it is ComparisonRef~Locus (since it is comparing an unknown value to a point or points on a scale). If it is modifying an NP, then it is approximator.

Some examples of ComparisonRef~Locus follow.

(218) iskī qīmat pānīc se sāt lākh ke bīc hai
3SG.GEN cost five ABL seven lakh between COP.SG
'The cost of this is between five to seven lakhs (five to seven hundred thousand).'

(219) āṁchāī 5 mītār se kam nahīṁ honī cāhiye
height 5 metre less than NEG COP.INF ought
'(.The) height should not be less than five metres.'

4.5 **Ensemble**

Ensemble by itself is rare in Hindi, rather expressed through compounding (two adjacent words in one NP) or a conjunction such as aur ‘and’.

Verb arguments that are inanimate and marked with a postposition or case marker similar to English with are Ensemble~Ancillary.

(220) mujhe cāval ke sāth dāl cāhiye. (Ensemble~Ancillary)

If, however, these can be better interpreted as one whole NP (with the postposition-marked term being a UD nmod to the head), then plain Ensemble applies.

4.6 **ComparisonRef**

ComparisonRef is typically marked by se (ABL) ‘than’, jaisā / ke jaisā ('like', comparing NPs), and jaise / ke jaise ('like', adverbial). The latter two are also equivalent to kī tārah and kī bhāṃti.

(221) dāhī cāval se acchā koī kānāh naḥīṁ hai.
curd rice ABL good any food NEG COP.PRS
'There is no food as good as curd–rice.'
A picture is better than a thousand words.

'I want this instead of that.'

Sufficiency/excess. `ke_liye` handles sufficiency/excess comparisons, and is labelled `COMPARISONRef→PURPOSE` in such a usage (Fortuin, 2013, 60).

Adverbial. The adverbial `jaise` / `ke_jaise` can be read as either indicating an analogy (`MANNER→COMPARISONRef`) or a conclusion (`THEME→COMPARISONRef`). The latter reading is especially likely for experiencer verbs (e.g. `lagnā` 'to seem'), in which case one can try paraphrasing with a complementiser: `lagtā hai ki...` If the paraphrase works, then the conclusion reading is more salient.

'It seemed like he was lying.'

'It felt like I ate the whole country’s food supply.'
Implicit comparison. Implicit comparison (instead of a direct comparison of an attribute) is also indicated COMPARISONREF (Bhatia et al., 2013b).

(229) us nibandh ke_muqāble ye nibandh lambā hai.
     3SG essay against 3SG essay long COP.PRS
     ‘In comparison to that essay, this essay is longer’

(230) zindagi ke_banisbat ġulāmī pyāri hai?

4.7 RateUnit

This is rare in Hindi, and is only directly expressed by the high-register prati (in Hindi, a Sanskrit borrowing) and fi (in Urdu, a Perso-Arabic borrowing).

(231) prati vyakti
(232) fi šaxs

4.8 SocialRel

The genitive kā marks SOCIALREL~GESTALT. Note also that some verbs (e.g. dostī karnā ‘to befriend’) license their arguments as SOCIALREL.

(233) ā gayā terā bhāī
come go.PFV 2SG.GEN brother
     ‘Your brother has come.’
(234) pikcar abhī bākī hai mere dost!
(235) merī jān sabse pyāri hai.

5 Context

5.1 Focus

The traditional emphatic particles (hī ‘only’, bhī ‘also’, to contrastive, and some uses of tak ‘even’) are all labelled FOCUS. They are postposition-like, in that they place emphasis on the preceding element in relation to its governor.

(236) māṁ hī ghar jāūṅgā.
(237) tū to ghar nahīn jāegā.
(238) Rāhul, nāṁ to sunā hī hogā.
6 Special labels

6.1 DISCOURSE (`d)

When uses quotatively, ko and ke_liye are labelled `d. These are equivalent to
the English infinitival to, hence we agree with the labelling of Schneider et al.
(2020).

(239) usne jāne ko kahā.
3SG.ERG go.INF.OBL DAT say.PFV
‘He said to go.’

(240) vah tumse bāt karne ke_liye bolā.

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