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 loanwords even in present-day Hinglish.

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

Contents

1 Overview
   1.1 Hindi and Urdu .............................. 4
   1.2 What counts as an adposition in Hindi–Urdu? 4
   1.3 Background ............................. 5
   1.4 Organisation ............................. 6
2 Circumstance 8
2.1 Temporal ................................. 9
  2.1.1 Time ................................. 9
  2.1.2 Frequency ............................. 11
  2.1.3 Duration .............................. 11
  2.1.4 Interval .............................. 11
2.2 Locus .................................... 12
  2.2.1 Source ................................. 13
  2.2.2 Goal ................................. 14
2.3 Path .................................... 14
  2.3.1 Direction ............................... 15
  2.3.2 Extent ................................. 16
2.4 Means .................................. 17
2.5 Manner .................................. 17
2.6 Explanation .............................. 18
  2.6.1 Purpose ................................. 18
3 Participant 20
  3.1 Case marker: ne .......................... 20
    3.1.1 Ergative .............................. 20
  3.2 Case marker: ko .......................... 23
    3.2.1 Accusative (and kā, par) .......... 23
    3.2.2 Dative ............................... 25
  3.3 Topic: ke_bāre_mem, etc. ............... 27
  3.4 Case marker: se .......................... 27
    3.4.1 Instrumental (and ke_zariye etc.) 27
    3.4.2 Ablative .............................. 29
    3.4.3 Comitative (and ke_sāth, ke_binā) 30
    3.4.4 Passive subject (and dvārā) ........ 31
  3.5 Case marker: kā .......................... 32
  3.6 Postposition: ke_liye ..................... 32
  3.7 Postposition: ke_xilāf, ke_viruddh .... 33
  3.8 Postposition: ke_binā ..................... 33
4 Configuration 34
  4.1 Identity ................................. 34
  4.2 Species ................................. 34
  4.3 Gestalt ................................. 35
    4.3.1 Possessor ........................... 36
    4.3.2 Whole ............................... 37
4.3.3 Org .................................................. 38
4.3.4 QuantityItem ................................. 38

4.4 characteristic .................................. 39
4.4.1 Possession ...................................... 41
4.4.2 Portion ........................................... 41
4.4.3 OrgMember ..................................... 43
4.4.4 QuantityValue ............................... 43

4.5 Ensemble ........................................ 45
4.6 ComparisonRef ................................. 45
4.7 RateUnit ......................................... 47
4.8 SocialRel ......................................... 47

5 Context ........................................... 47
5.1 Focus ............................................. 47

6 Special labels ..................................... 48
6.1 Discourse ('d) ................................. 48
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 ki_cārom_or (‘on all four sides’; or ‘side’ < Sanskrit avarā) while Urdu uses ke_ird-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 markers\(^1\) 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), kāl/ke/k (genitive), mem (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 sā (choṭā-sā kamrā 'small-ish room'), and the emphatic particles bh, hī, 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. Archna 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

3Personal communication with Maitrey Mehta.
Hindi syntax: a dependency grammar inspired by the traditional \textit{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 PropBank\(^4\) (Bhatia et al., 2013a; Vaidya et al., 2013), the separate Urdu PropBank (Anwar et al., 2016; Bhat et al., 2014), and Urdu/Hindi VerbNet\(^5\) (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 \textit{Circumstance} and \textit{Configuration} is the same as the English guidelines. For \textit{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 \textit{Participant}. Note that the genitive marker \textit{kā} (§3.5) can nominalise many of these relations.

- \textbf{Causer}: \textit{ne} (§3.1.1)
- \textbf{Agent}: \textit{ne} (§3.1.1), \textit{ko} (§3.2.2), \textit{se} (§3.4.4)
- \textbf{Theme}: \textit{ko}, \textit{kā}, \textit{par} (§3.2.1)
- \textbf{Topic}: \textit{ke}_bāre\_merē etc. (§3.3)
- \textbf{Ancillary}: \textit{se}, \textit{ke}_sāth (§3.4.3), \textit{ke}_binā (§3.8)
- \textbf{Stimulus}: \textit{ko}, \textit{kā}, \textit{par} (§3.2.1), \textit{se} (§3.4.2, §3.4.3)
- \textbf{Experiencer}: \textit{ko} (§3.2.2), \textit{ne} (§3.1.1)
- \textbf{Originator}: \textit{ne} (§3.1.1), \textit{se} (§3.4.2)

\(^4\)The frameset files are available at [http://verbs.colorado.edu/propbank/framesets-hindi/](http://verbs.colorado.edu/propbank/framesets-hindi/).
\(^5\)Urdu/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_xilaf, ke_viruddh (§3.7), ko (§3.2.2)
• **Instrument**: se (§3.4.1)
2 **CIRCUMSTANCE**

| OBL | mem | par/pe | se | tak | ko | ke_lie |
|-----|-----|--------|----|-----|----|--------|
| **CIRCUMSTANCE** | ✓ | ✓ | | | | ✓ |
| **LOCUS** | ✓ | ✓ | | | | |
| **SOURCE** | | | ✓ | | | |
| **GOAL** | ✓ | ✓ | ✓ | | | |
| **EXTENT** | ✓ | ✓ | ✓ | | | |
| **TIME** | ✓ | ✓ | ✓ | ✓ | | |
| **START_TIME** | | | ✓ | | | |
| **END_TIME** | | | ✓ | | | |
| **DURATION** | ✓ | ✓ | ✓ | ✓ | | |

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. **durghaṭnā mem do log ghāyal hue.**
   'Two people were injured in the accident.'

2. **Koronā kāl ke_calte... (CIRCUMSTANCE~TIME)**
   '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. **kāṃ par (CIRCUMSTANCE~LOCUS)**
   '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**

*merī* 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 meřī mileṅge.
    we January LOC meet.FUT
    ‘We will meet in January.’

b. kam umr meřī
    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 kā ardhrātri ke_samay šahar ke logoṁ ko ek dhāmāke kī āvāz ne ḍarā diyā.

Relative time markers such as *ke ābad* “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 ābad
    December after
    after December

(10) disambar ke_ do mahīne bād (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_daurăn “during”, ki_avdhi_men “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 ṭhand 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.7

(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.

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_lie**, **Frequency** is used:

(14) tisri bār **ke_lie**
    third time for
    for the third time

2.1.3 **Duration**

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

(15) a. kitne din **meṁ** likh pāoge?
    how many days LOC write be.able.FUT
    ‘In how many days will you be able to write it?’

    b. do sāl **meṁ** do bār kiyā.
    two years LOC two times do.PFV
    ‘I did it twice in two years.’

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

(16) a. kitne din **ke_lie** 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 **bād** ‘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_änder* ‘inside of’ functions similarly.

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

b. us badse meṁ kyā hai?  
    that box LOC what be.PR.S  
    ‘What is in that box?’

(19) bare-bare desṁ meṁ aisi choṭi-choṭi bātem hotī rahtī hain, Senyoritā!

(20) badse *ke_änder*

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. badse *par*

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

(22) zamīn *ke__ëpar*  
(23) āsmān *ke_nice*  
(24) gāṛi *ke_pās* do log khaṛē haiṁ  
(25) uskī cā roam 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 ṣahar dikhtā hai (*Locus~ SOURCE*)  
    roof ABL full city be.seen.HAB be.PR.S  
    ‘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) nava 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 dili se nikli.
    3SG yesterday EMPH Delhi ABL leave.PFV
    ‘She left Delhi just yesterday.’

    This scene also covers initial states before a transformation.

(31) maiṁne māti se banayā.
    1SG.ERG clay ABL make.PFV
    ‘I made it out of clay.’
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) maiṁ dilli (ko) gayā.
    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) nāv ko peṛ se bāṁdho.
    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) railī dilli se guzrī thī.
    rally Delhi PERL pass.PFV COP.PST
    ‘The rally passed through Delhi.’

(35) a. havāi-jahāz mere_ūparLOCUS se gayā.
    airplane 1SG.above via go.PFV
    ‘The plane flew over me.’
    b. vo şaitān mere_pīcheLOCUS se bhāg gayā!

**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_tarafa, ki_or*, and *ki_ disa*, all grammaticalised from the literal meaning ‘in the direction of’.

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

Like in English, some motion adverbs⁸ 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_bis* kilomītar _dūr* hai.
   Delhi 1PL.GEN town ABL twenty kilometres far  COP.PRS
'Delhi is ten kilometres away from our town.'

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⁸Unlike 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.

| Hindi  | English   |
|--------|-----------|
| āge    | ahead     |
| sâmne  | in front  |
| ūpar   | up        |
| dāyem, dāhine, sidhe | right    |
| sidhe  | straight  |
| dūr    | far       |
| piche  | behind    |
| bāhar  | outside   |
| nice   | down      |
| bāyem, ulṭe | left  |
| ulṭe   | backwards |
| pās, qarib, nazdīk | near |

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) hameṁ miloṁ 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 pratiśat]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.  

sā  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 COMPARISONRef.

(45) acchā sā ādīmī
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 instru-
mental argument marked with se to a verb is MEANS.

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

(47) zyādā tez bhāgne se tāṅg tor 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. galtī se
zar
pyār

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

b. ham gujarāṭī mem bāt kar rahe hai mān.

(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.
2.6 **Explanation**

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

(52) a. merī _vajah se_ sab ġarbar huā.
    1SG.because everything messed.up COP.PFV
    'Everything went wrong because of me.'

   b. uske na jāne ke _kāraṇ_ main ghar pe rahā.

(53) ġusse _se_ rūḍhnā (Explanation~→Source)

(54) aur _dambh se_ phūlā rahtā 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 *kisliye* ‘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 _bhaśan dene_ ke _liye_ uṭhī.
    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.
Alternations between kā and ke_liye. There are many cases where ke_liye and kā are interchangeable. In such cases, it is important to check if syntactic differences arise by the exchange: kā can form a genitive PP that is a constituent of an NP, but ke_liye obligatorily marks an adjunct. Compare:

(58) pīne  kā  pāṇi  (CHARACTERISTIC; cf. (56))
drink.INF.OBL GEN water
'drinking water'

(59) a.  [āne    ke_liye]  [samay niścit hai].  (PURPOSE)
come.INF.OBL for time fixed COP.PRS
'For arriving, the time is fixed.'

b.  [āne    kā  samay]  niścit 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**

| Verb type | Agent  |
|-----------|--------|
| Intransitive | NOM    |
| Transitive | NOM, ne |
| Experiencer | ko     |
| [Passive] | se     |
| [Modal] | ko     |
| [Nominalised] | kā     |

**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 kapṛe 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’, kahānā ‘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’, mahsūs 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. kis ne sansār ko THEME banāyā?
   c. maiṁne āpko RECIPIENT tohfā diyā.

(64) EXPERIENCER~AGENT:
   a. hamne khelte hue baccomī 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 šādī karnī hai.
**Bodily emission verbs.** There is a set of ‘bodily emission’ verbs (de Hoop and Narasimhan, 2005), such as chĩ˙mkã ‘to sneeze’, khã̀rnã ‘to cough’, mûtnã ‘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.⁹

(67)  

| Case | Verb | Translation |
|------|------|-------------|
| a. | usne | sneeze.PFV |
| 3SG.OBL.ERG | chĩ˙mkã | 'He sneezed [on purpose].' |
| b. | vo | sneeze.PFV |
| 3SG | chĩ˙mkã | '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 khã̀nã ‘to eat’ behave this way, apparently with a figurative extension of ‘eat’ to ‘receive’ or ‘bear’.

(68)  

| Case | Verb | Translation |
|------|------|-------------|
| maihmne | usse | beating eat.PFV |
| 1SG.ERG | 3SG.OBL.ABL | mãr khãyi. |
| I took a beating from him. |

Since we annotate source domain of metaphors, the subject should be annotated **Recipient**→**Agent** here.¹⁰

**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.

---

⁹ This specific example doesn’t work for Aryaman, but e.g. cĩkhnã ‘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. \[mez \text{ ko} \] THEME sāf karo.
   b. \[bis mez] THEME sāf karo.

(70) Dative (dropping ko changes the role):
   a. us\text{ ko} \text{RECIPENT} dikhō.
   b. vah\text{ STIMULUS} \text{ THEME} dikhō.

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(ā) (mujhe, tujhe, hameñ, use, etc.), which are all treated the same as ko.

(71) a. mez \text{ ko} sāf karo.
   table \text{ ACC} clean do.IMP
   ‘Clean the table.’
   b. mez kī safāī karo.
   table \text{ GEN} cleaning do.IMP
   ‘Do the cleaning of the table.’

(72) usne bacce \text{ ko} sulāyā.
   3SG.ERG child.OBL \text{ ACC} sleep.CAUS.PFV
   ‘(S)he made the child sleep.’
(73) arjun ne mahābhārat mein karna ko parajit kiyā.

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

(75) maiṁne use dākghar bhejā.

(76) uski pīṭāi

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 dekhā 'to see', sunnā 'to hear'. Some verbs (samajhnā 'to understand', mānnā '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 baccaṁ ko dekh ā thā.
      1SG child.PL.OBL ACC see CONT COP.PST
      'I was watching a movie.'

(80) Topic~Theme:
   a. jīvan ko samajhnā muṣkīl hai.
      life ACC understand.INF difficult be.PRS
      'Understanding life is difficult.'
   b. kyā tum mujhīe 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 xarīdūngā!
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. gilās ko pāṇi se\(^{\text{ THEME~\text{--~INSTUMENT}}}\) bharo. (GOAL~THEME)
glass ACC water INS fill.IMP
‘Fill the glass with water.’

b. gilās meṁGOAL~LOCUS pāṇi bharo.
glass ACC water INS fill.IMP
‘Fill the water in the glass.’

c. pāṇi ko gilās meṁGOAL~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) maiṁme apne dost ko kitāb dī.
1SG.ERG REFL.GEN friend DAT book give.PFV
‘I gave my friend the book.’

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

\(^{11}\)This 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\%).

\(^{12}\)In Universal Dependencies (Nivre et al., 2020), the RECIPIENT is the argument to the verb that has an iobj relation.
(86) Suṣmītā ko kitne pāṭh parhāoge?
Sushmita DAT how many lessons teach FUT
‘How many lessons will you teach to Sushmita?’

(87) tumko ek cīz dikhānā cáhtā hūṁ. (EXPERIENCER→RECIPIENT)

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

(88) EXPERIENCER→RECIPIENT:
   a. Sunītā ko buxār hai.
      Sunita DAT fever COP.PRS
      ‘Sunita has a fever.’
   b. mujhko Hindi nahīṁ āṭī.
      1SG.DAT Hindi NEG come.HAB
      ‘I don’t know Hindi.’
   c. rājā ko duḥkh huā.
   d. mujhko tum pasand ho.
   e. ek ām ko dūsre ām se HAB STIMULUS→ANCILLARY pyār huā.
   f. usko acānak se MANNER āvāz sunāi dī.
   g. mujhe dūshī kitāb cāhiye.
   h. Amerikā koī aitrāz nahīṁ hai.

(89) BENEFICIARY→RECIPIENT:
   a. mujhe koī fāydā nahīṁ huā.
      1SG.DAT any benefit NEG COP.PFV
      ‘I got no benefit.’
   b. kampanī ko munāfā hogā.
   c. māṅg ko Kāṁgres kā samarthan hai.

(90) GESTALT→RECIPIENT:
   a. āṁ ādmī ko haq hai.
      common man DAT right COP.PRS
      ‘The common man has the right.’
   b. mujhko bahut kāṁ hai.

(91) SOCIAL REL→RECIPIENT:
a. Rām ko do beṭiyām 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 pānī pīnā cāhiye. (Agent~Recipient)
   3SG.OBL.DAT water drink.INF should
   'He should drink water.'

(93) rām ko kitāb band karī paṛī. (Agent~Recipient)
   Ram DAT book close.do.INF be.obliged.PFV
   'Ram had to close the book.'

3.3 Topic: ke_बāre_मेम, etc.

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

(94) tumhāre_बारे_मेम bāt 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 bāt 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 căqū se sabzī ko kāṭā.
   1SG.ERG knife INS vegetable ACC cut.PFV
   'I cut the vegetables with a knife.'
(99)  
\[
gārī se  ghar  jāũṅgā.  
\]
\[
car  INS  home  go.FUT
\]
'I’ll go home by car.'

(100)  
\[
tohfe ko ḍåk  se  bhejo.
\]
(101)  
\[
us  rāste  se  jāo.  \text{(PATH}$$\text{)}$$\text{~}$$\text{INSTRUMENT})
\]
(102)  
\[
gilās  ko  pānī  se  bharo.  \text{(THEME}$$\text{~}$$\text{~}$$\text{INSTRUMENT},  \text{from}  \text{(82a)})
\]

The postpositions \text{ke\_zariye}  ‘via, through’ and \text{ke\_mādhyam\_se}  ‘by means of’ (in Sanskritised Hindi) also mark \text{INSTRUMENTs}.

(103)  
\[
Gūgal \text{ ke\_zariye}  khoj  lo.
\]
(104)  
\[
Hindī  bhāsā  \text{ ke\_mādhyam\_se}  ham  logoṁ  tak  pahurǐc  sakte  haṁṁ.
\]

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

(105)  
\[
maiṁne  bāĩ  se  bacce  ko  sulvāyā. 
\]
\[
1SG.ERG  maid  INS  child.INS  ACC  sleep.CAUS2.PFV  
\]
\[
(\text{AGENT}$$\text{~}$$\text{INSTRUMENT})
\]
'I made the maid put the child to sleep.'

(106)  
\[
tumne  mujhse  khānā  banvāyā \text{(ORIGINATOR}$$\text{~}$$\text{INSTRUMENT})
\]

\textit{Discussion}. One possible change to this is to create a new function for animate instruments: \text{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 \text{CAUSER} and animate \text{AGENT} in the hierarchy (Bhatia, 2016; Begum and Sharma, 2010), thus it seems strange to say these are still morphosyntactic \text{INSTRUMENTs}.

An alternative is to treat this as an \text{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.\textsuperscript{a}

\textsuperscript{a}Personal communication.
3.4.2 Ablative

The ablative sense of se (ABL) takes the function \textit{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 \textit{Theme}; refer to the English guidelines (Schneider et al., 2020) for more on this.

(107) adhya\textsuperscript{\textbf{p}}ak ne l\textsuperscript{\textbf{r}}\textsuperscript{\textbf{k}}\textsuperscript{\textbf{o}}m \textit{k\textsubscript{THEME}} l\textsuperscript{\textbf{r}}\textsuperscript{\textbf{k}}\textsuperscript{\textbf{y}}\textsuperscript{\textbf{o}}\textsubscript{\textbf{m}} \textit{se} alag kiy\textsuperscript{\textbf{a}}.
teacher \textit{ERG boy.PL.OBL ACC} girl.PL.OBL ABL separate do.PFV
(\textit{THEME} \textit{\rightarrow} \textit{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 \textit{Recipient\textit{\rightarrow}Source} frames the \textit{Recipient} of a ‘request’-type verb as the \textit{Source} of a response.

(108) \textit{Stimulus\textit{\rightarrow}Source}:
  a. tum\textit{se} ďar lag\textit{t}ā hai.
      2PL.ABL \textit{fear feel.HAB COP.PRS}
      ‘I feel scared of you.’
  b. tumh\textit{āre} bart\textit{āv} se mai\textit{ṁ}i\textit{ṁ} guss\textit{ā} h\textit{ū}ṁ.
  c. mai\textit{ṁ}i\textit{ṁ}n\textit{ē} ā\textit{p}se um\textit{m}īd rakh\textit{ī}.
  d. py\textit{ār} hu\textit{ā}, iqr\textit{ār} hu\textit{ā} hai, py\textit{ār} se phir kyo\textit{ṁ} d\textit{a}rt\textit{ā} hai d\textit{il}?

(109) \textit{Recipient\textit{\rightarrow}Source}:
  a. mai\textit{ṁ} ā\textit{p}se bh\textit{īk} m\textit{ā}ṅgt\textit{ā} h\textit{ū}ṁ.
      1SG 2PL.ABL \textit{alms ask.for.HAB COP.PRS}
      ‘I beg of you.’
  b. usne muj\textit{h}se pra\textit{ś}n p\textit{ū}ch\textit{ā}.

(110) \textit{Originator\textit{\rightarrow}Source}:
  a. ky\textit{ā} tumh\textit{ā}r\textit{ē}n us\textit{se} kuch mil\textit{ā}?
      \textit{what 2PL.DAT 3SG.ABL anything receive.PFV}
      ‘Did you get anything from them?’
  b. dost se pat\textit{ā} cal\textit{ā}.\footnote{But note that an inanimate provider of information (like a book) is just \textit{Source}. See issue \#20.}

(111) \textit{Causer\textit{\rightarrow}Source}:
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 (śādī 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 karti 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 karogi beγaṁ? (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. main tumse ṭarūṅā. (Agent~Ancillary)

1SG 2PL.COM fight.FUT

‘I will fight you.’

b. main tumhāre_sāth ṭarūṅā. (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 guṛi yı se khel rahā hūṁ.  
    1SG doll with play CONT COP.PRS
    ‘I am playing with a doll.’

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

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

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

Only ke_sāth is grammatical for an animate.4 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.

4Based on native speaker judgement. See this Twitter poll: n = 48, ke_sāth is preferred by 92% for an animate, but only 52% for an inanimate.

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 śiśā tūṭ gayā. (AGENT)  
    child.OBL INS mirror break go.PFV
    ‘The mirror was broken by the child.’

(120) Rām dvārā likhit (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
instrumental and genitive being used in a similar way with participles historically. Given these facts, we elected to make **AGENT** a valid function for **se**.

### 3.5 Case marker: का
The main use of का to mark a **PARTICIPANT** is in nominalisations of verb phrases, in which it marks arguments to the verb.

(122) Sachin Tendulkar का 200 ran कीDENTITY rikard (AGENT~GESTALT) Sachin Tendulkar GEN 200 run GEN record ‘Sachin Tendulkar’s 200 run record’

(123) tumhārā uskो THEME mārnā (AGENT~GESTALT)

(124) merī samajh merī āyā (EXPERIENCER~GESTALT) 1SG.GEN understanding LOC come.PFV ‘I understood.’

(125) tumhārā yah likhnā तीक मधिम thā. (ORIGINATOR~GESTALT) 2PL.GEN 3SG write.INF proper NEG COP.PST ‘You writing this was not okay.’

(126) Sītā की हामī (ORIGINATOR~GESTALT) Sītā GEN assent ‘Sītā’s assent.’

### 3.6 Postposition: ke_liye
**ke_liye** when marking something animate it indicates a **BENEFICIARY**.

(127) maināne tumhāre_liye kiyā. 1SG.ERG 2PL.for do.PFV ‘I did it for you.’

It is similar to English *for*, it can also indicate purposes (see **PURPOSE**), sufficiency/excess comparisons (see **COMPARISONRef**), and costs.

(128) iske_liye do rupaye lageṅge. (COST) 3SG.for two rupee.PL apply.FUT ‘This will cost two rupees.’

It is also used in a manner similar to the English *from the perspective of*, where it licenses **EXPERIENCER~BENEFICIARY**.

(129) mere_liye bahut āsān kām hai. (EXPERIENCER~BENEFICIARY)
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 be.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* kisī kī madad _ke (Manner)

(137) *binā* ghaṭṇā _ke (Manner)
4 Configuration

4.1 Identity

\( \text{kā} \) (GEN) can be used to categorise or equate, thus being labelled Identity.

(138) use maut \( \text{kī} \) sazā milegi.
3SG.DAT death GEN punishment receive.FUT
'(S)he will be sentenced to death.'

(139) cār sāl \( \text{kī} \) umr
(140) ānand ṭelifon ōpreṭar \( \text{kā} \) kām kartā hai.
Anand telephone operator GEN work do.HAB COP.PRS
'Anand works as a telephone operator.'

\textit{ke_rūp_mēm}, analogous to the English construction \( \text{as} \), takes an object (core argument) of a predicate and categorises it with a label that bears the postposition.

(141) Yuvaraj acchī kriķeṭar \textit{ke_rūp_mēm} 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' \textit{ke_rūp_mēm} manāyā jātā hai.

4.2 Species

\textit{Species} is rare in Hindi. The main instance of this is when the governor of the \( \text{kā} \)-marked NP is a word like \textit{misāl} or \textit{udāhraṇ} 'example'.

(143) Bhārāṭīy kalā \( \text{kā} \) udāhraṇ
Indian art GEN example
'an example of Indian art'

Confusion with Characteristic. Semantically, the usual translation equivalent of English \textit{type of X} into Hindi is \textit{tarah kā X}. Note, however, that the head of this NP is opposite in Hindi: it is \textit{X} rather than \textit{type}. That construction with \( \text{kā} \) 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 tariqā
(147) ve TV ke_sāth apnā samay bitāte haiṁ 3PL TV with REFL.GEN time spend.HAB COP.PRS
'They spend their time with the TV.'

(148) dūdh kī miṭhās 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) parḥai 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 mem, when applied to a subject of a verb, can indicate a GESTALT→LOCUS, the possessor of a property (Kachru, 1970).

(150) a. lar ke kā sāhas (GESTALT)
    boy.OBL GEN courage
    ‘the courage of the boy’

    b. lar ke mem sāhas hai (GESTALT→LOCUS)
    boy.OBL LOC courage COP.PRS
    ‘The boy is courageous.’

(151) meriAGENT→GESTALT harkato mem pyār hai. (GESTALT→LOCUS)

(152) mere_pās mām hai. (SOCIALREL→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 cīṭṭhī ayī thī
    yesterday you.OBL.GEN.sg letter come.PERF.PST COP.PST
    ‘Your letter had arrived yesterday.’

(155) lar ke_pās paise nahin hai. (POSSESSOR→LOCUS)
    boy.OBL near money NEG COP.PRS
    ‘The boy does not have money.’
merā ċiṅgā 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 merī 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) ādmī ċhar ke chat par baįṭhā hai (Whole)
     man house GEN roof LOC sit.PFV COP.PRS
     ‘The man is seated on the roof of the house.’

(158) merī āṃkhēṁ (Whole)

(159) āṃkh ke kone seLOC→SOURCE (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 merī darvāze haiṁ. (Whole→Locus)

Sets. Both merī se (lit. ‘LOC ABL’) and merī (LOC) are used to denote sets that form a Whole. merī se is construed as Whole→Source since it is more literally locative in nature, while merī is Whole→Locus.

(161) in donōṁ merī_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 merī sirī 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_bíc ‘between, among’ postposition combines two or more entities into one argument to a verb (Schneider et al. 2020):

(163) laṛaĩ in donomi ke_bíc 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) amerikā ke sarinyaukt rājya ke rāstrāpaṭi (ORG~GESTALT)
      America GEN United States GEN President
‘the President of the United States of America’

(165) vah chote axbār mem kāṁ kartā hai (ORG~LOCUS)
      3SG small newspaper LOC work do.HAB COP.PRS
‘He works at a small newspaper.’

(166) Gügal ke_dvāra_se āpko pradat koī salāḥ ya jānkāri koī Google by 2.DAT provide.PP any advice or information any vārantī nahin 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) Gügal ke_sāṭh āpka sambandh ṣṭet āf Kailiforniyā ke qānūn dvāra sarīncālit hogā. (ORG~ANCILLARY)

(168) maiṁ sarkār ke_liye kāṁ 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) davāoṁ kī kamī
      medicine.PL.OBL GEN lack
‘a lack of medicines’
Collective nouns. The treatment of collective noun governors and their governees, follows that of Schneider et al. (2020) and is labeled **QUANTITY**~**ITEM**~**STUFF**:  

4.4 **Characteristic**  
Characteristics is expressed through का and वाला. The difference between the two is that the वाला tends to emphasise that its object is only one property (of many) of the governor. While वाला is not a standard postposition, it mediates between nouns and noun-phrases, assigning one as a Characteristic of the other.
b. nilā vālā ghar
   blue ADJ house
   'a house that is blue'

c. do sāl kīIDENTITY umr vālā kuttā

d. āpar vālā kamrā (LOCUS~CHARACTERISTIC)

e. pīne vālā sāf pānī (PURPOSE~CHARACTERISTIC)

(177) rāy meṁ fark
      opinion LOC difference
      'a difference in opinion'

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

(179) khilāṛi vazan ke_hisāb_se cune gaye.

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

(180) pānī kī botal 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 kapṛom 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 rākṣasom ke_liye kamre kīTHME 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 Paṅjābī meṁ hai.
      book Punjabi LOC COP.PRS
      'The book is in Punjabi.'

(184) vah kis āḥal meṁ hai?

(185) acambhe meṁ

(186) trikoṇ ke_rūp_mem
4.4.1 **Possession**

The genitive *kā* and adjectival *vālā* 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 $kā$ mālik hai.
3SG house GEN owner COP.PRS 'He is the owner of the house.'

(188) vah kāfī paise *vālā* thā.
3SG quite money ADJ COP.PST '(Possession→Characteristic) 'He was quite rich.'

(189) binā paise $kā$ ādmī without money GEN man 'a man without money'

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

(190) unhone pāksāstrā ki kitāboṁ $par$ khūb xarc kiyā hai
3PL.ERG cooking GEN book.PL.OBL LOC lot spend do.PFV COP.PRS 'He has spent a lot on cookbooks.'

(191) mārin us khilaune *ko* xarīdnā cāhtā hūṁ!

4.4.2 **PartPortion**

(192) nāī injan vālī gārī (**PartPortion~Characteristic**) new engine ADJ car 'a car with a new engine'

(193) do darvāzoṁ *vālā* kamrā (**PartPortion~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 pūri-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 ballebāzī 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 kanekśan baṛh 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, Āsā Bhosle to niyamit āvāze thīṁ hī, inke_atirikt He-mant Kumār, Talat Mahmūd bhī**  
jaīsā ‘such as’ can also mark set members.

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

(202) **hōkī, futbōl, 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 botal (CHARACTERISTIC~STUFF)  
beer GEN bottle  
‘bottle of beer’

(205) vrksorī kā jhun (QUANTITYITEM~STUFF)  
(206) logoī kī bār (QUANTITYITEM~STUFF)  
(207) chātronī 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) coromin kī dhāṛ (OrgMember~STUFF)  
thief.PL.OBL GEN gang  
‘gang of thieves’

(211) merī kāmpanī (OrgMember~Possessor)  
1SG.GEN company  
‘My company.’

4.4.4 **QuantityValue**  
**QuantityValue** is uncommon, but is indicated by genitive kā.

(212) ek kīlō 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. unk̕i kampanī Dilli ke *lagbhag* ek karo̱t garibon̕ tak
      3SG.GEN company Delhi GEN around one crore pauper.PL.OBL to
      bijli pahurinchātī hai
      electricity deliver.PRS COP.SG
      'His company provides electricity to around 10 million of Delhi's poor'
   b. gāv ke *lagbhag* chār sau log

(214) *qarīb* 'nearly, almost':
   a. Eyar Indiyā ke *qarīb* ā dhe pāylaṭoṁ kī harṭāl
      Air India GEN nearly half pilot.PL.OBL GEN strike
      'the strike of nearly half of Air India's pilots'
   b. urṭān bharne ke *qarīb* 20 minat bād

(215) *ke_adhik, se_adhik, se_zyādā* 'over, greater than':
   a. 70 fisādī *ke_adhik*
      70 percent greater.than
      'greater than 70 percent'
   b. jodhpūr ke 1200 *se_adhik* dāktar harṭal 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 ṭeṣṭ 300 *ke_adhik* antar se jītā

(216) *ke_bīc* 'between':
   a. ummīd hai ki hum pānc se chaḥ hazār *ke_bīc* nayī hope COP.SG COMP 3.PL five COM six thousand between new
      logom kī bhartī kareṅge
      person.PL GEN recruit do.PL.FUT
      'The hope is that we will recruit between five to six thousand new
      recruits'

(217) *ke_āspās* 'close to, near':
   a. dālar ke mukābale rūpyā 52 rūpye *ke_āspās* pahuṇcā
      dollar compared to rupee 52 rupees close to reach.PFV
      'The Rupee reached close to 52 rupees (compared) to the Dollar'
   b. gyārah baje *ke_āspās* vah dillī pahunchī
      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 pārīc se ṭā kē 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) ūṁchāǐ 5 mītār se kām nāṁì honī cāhīye
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 kē sāth dāl cāhīye. (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_tarah* and *kī_bhānti*.

(221) dahī cāval se acchā koī khānā nāṁì hai.
curd rice ABL good any food NEG COP.PRS
'There is no food as good as curd–rice.'
(222) ek citra hazār śabdoṁ se bahtar hai.  
one picture thousand word.PL.OBL ABL beter COP.SG  
‘A picture is better than a thousand words.’

(223) mujh jaisā ādmī  

(224) mere_jaisā ādmī  

(225) uski_jagah yah cāhiye.  
3SG.in.place.of 3SG wanted  
‘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).

(226) skūl jāne ke_liye vah kāfī baṛa hai (COMPARISONRef→PURPOSE)

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.

(227) THE[1]ME→COMPARISONRef:  
a. aisā lagā jaise vah jhūṭ bol rahā hai.  
like.this feel.PFV like 3SG lie say CONT COP.PRS  
‘It seemed like he was lying.’  
b. lagā ki vah jhūṭ bol rahā hai.

(228) MANNER→COMPARISONRef:  
a. aisā lagā jaise pūre deś kā khānā khā liyā  
like.this feel.PFV like whole.OBL country GEN food eat take.PFV  
hai.  
cop.PRS  
‘It felt like I ate the whole country’s food supply.’

b. #lagā ki pūre deś kā khānā khā liyā hai.
Implicit comparison. Implicit comparison (instead of a direct comparison of an attribute) is also indicated COMPARISONREF (Bhatia et al., 2013b).

\[(229)\] us nibandh ke_muqâble ye nibandh lambâ hai.
\[3SG \text{ essay against } 3SG \text{ essay long COP.PRS}\]

‘In comparison to that essay, this essay is longer’

\[(230)\] zindagi ke_banisbat ġulâmî pyâri 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 śaxs

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 abhi bākī hai mere dost!
\[(235)\] merī jān sabse pyâri hai.

5 Context

5.1 Focus

The traditional emphatic particles (hi ‘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.

\[(236)\] mainh hi ghar jāûngā.
\[(237)\] tū to ghar nahiin jāegā.
\[(238)\] Rāhul, nām to sunā hī hogā.
6 Special labels

6.1 DISCOURSE (\textasciitilde d)

When used quotatively, \texttt{ko} and \texttt{ke\_liye} are labelled \textasciitilde d. These are equivalent to the English infinitival \texttt{to}, hence we agree with the labelling of Schneider et al. (2020).

(239) usne jåne \texttt{ko} kahå.
\begin{tabular}{l}
3SG.ERG go-INF.OBL DAT say.PFV
\end{tabular}
\begin{tabular}{c}
‘He said to go.’
\end{tabular}

(240) vah tumse båt karne \texttt{ke\_liye} bolå.

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Index

äge, 16
ūpar, 16

AGENT, 6, 20–22, 27, 28, 30–33, 36, 38
Ancillary, 6, 13, 14, 26, 30, 31, 33, 38, 45
Approximator, 44, 44, 45

bād, 11
bāhar, 15, 16
bāyem, 15, 16
Beneficiary, 7, 26, 30, 32, 33, 38
bhi, 47
binā, 33, 42

Causer, 6, 20, 28, 29
Characteristic, 16, 19, 33, 34, 39, 39–43
Circumstance, 6, 8, 8, 33
ComparisonRef, 16–18, 32, 45, 45–47
Configuration, 6, 34
Context, 4, 47
Cost, 7, 32

dāhine, 16
dāyem, 15, 16
dūr, 16
Direction, 8, 15, 15
Duration, 8, 10, 11, 11
dvārā, 2, 31

EndTime, 8, 10, 10
Ensemble, 45, 45
Experiencer, 6, 21, 26, 32
Explanation, 18, 18
Extent, 8, 16, 16, 17

fī, 47
Focus, 47, 47
Frequency, 11, 11

Gestalt, 19, 26, 35, 35, 36, 38, 43, 47
Goal, 8, 10, 13, 14, 14, 25

hi, 47
Identity, 16, 32, 34, 34, 40
Instrument, 7, 15, 25, 27, 28, 31
Interval, 8–10, 11
isliye, 18

jaisā, 42, 45, 46
jaise, 17, 45, 46
jītnā, 16

kī, 35, 37, 43
kī_avdhi_mem, 10
kī_bhāmīti, 45
kī_cāroūn_or, 4, 12
kī_disā, 15
kī_jagah, 46
kī_or, 15
kī_taraf, 15
kī_tarah, 18, 45
kī_vajah_se, 18
kā, 2, 6, 16, 19, 20, 23, 24, 27, 32, 34–43, 47

ke, 38
ke_āspās, 44
ke_ūpar, 12, 14
ke_adhik, 44
ke_alāvā, 42
ke_andar, 12
ke_atirikt, 42

53
ke_bic, 38, 44, 45
ke_bad, 9
ke_bare_men, 2, 6, 27
ke_banisbat, 47
ke_bin, 2, 6, 17, 30, 33, 42
ke_calte, 8
ke_dur, 15
ke_dauran, 10
ke_dvara_se, 38
ke_hisab_se, 40
ke_ird-gird, 4
ke_jaisa, 45, 46
ke_jaise, 45, 46
ke_karan, 18
ke_lie, 8, 9, 11
ke_liye, 2, 7, 18, 19, 32, 38, 40, 46, 48
ke_madhyam_se, 28
ke_muqable, 47
ke_nice, 12
ke_piche, 14
keパス, 12, 36
ke_rup_men, 34, 40
ke_sath, 2, 6, 30, 31, 33, 38, 45
ke_samay, 9
ke_sath, 31
ke_viruddh, 2, 7, 33
ke_xilaf, 2, 7, 33
ke_zariye, 2, 27, 28
kisliye, 18
ko, 2, 6–10, 14, 18, 20, 23–27, 29, 32, 41, 48
lagbhag, 44
liye, 18
LOCUS, 4, 8, 12, 12–15, 25, 36–38, 40, 45
MANNER, 17, 17, 18, 21, 26, 33, 46
men, 8, 9, 11, 12, 17, 25, 27, 36–38, 40
men_se, 37
MEANS, 17, 17
nice, 16
nazdi, 16
ne, 2, 6, 7, 20–22
Org, 38, 38
OrgMember, 43, 43
Originator, 6, 21, 22, 25, 28, 29, 32
piche, 16
パス, 16
pahle, 11
par, 2, 6, 8, 9, 12, 23, 24, 27, 41
PARTICIPANT, 5, 6, 20, 30, 32
PARTPORTION, 41, 41, 42
PATH, 14, 14, 15, 28
pe, 8, 9, 12
Possession, 24, 33, 41, 41
Possessor, 35, 36, 36, 41, 43
prati, 47
Purpose, 18, 18, 19, 32, 40, 46
qrıl, 16, 44
QuantityItem, 38, 38, 39, 43
QuantityValue, 43, 43
RateUnit, 47
Recipient, 7, 21–23, 25–27, 29
sidhe, 15, 16
sā, 17
sámne, 16
se, 2, 6–8, 10, 12–14, 17, 18, 20, 22, 25, 27–32, 45, 46
se_adhik, 44
sādur, 15
se_hokar, 14
se_kam, 45
se_pahle, 9
se_zyādā, 44
SocialRel, 21, 26, 30, 36, 47, 47
Source, 8, 12, 13, 13, 18, 21, 22, 29,
31, 37
Species, 34, 34
StartTime, 8, 10, 10
Stimulus, 6, 23, 24, 26, 29, 30
Stuff, 39, 40, 43, 43
tak, 8, 10, 13, 14, 16, 47
Temporal, 9
Theme, 6, 21–25, 28–30, 32, 40, 41,
ulte, 16
utnā, 16
vālā, 39–42
vāpas, 15
Whole, 37, 37–39
### Index of Construals by Scene Role

| Construal by Scene Role | Count |
|--------------------------|-------|
| **AGENT**~**Ancillary**, 30 | OrgMember~**Gestalt**, 43 |
| **AGENT**~**Beneficiary**, 33 | OrgMember~**Possessor**, 43 |
| **AGENT**~**Gestalt**, 32, 36 | OrgMember~**Stuff**, 43 |
| **AGENT**~**Instrument**, 28 | Org~**Agent**, 38 |
| **AGENT**~**Recipient**, 27 | Org~**Ancillary**, 38 |
| **AGENT**~**Whole**, 38 | Org~**Beneficiary**, 38 |
| **Beneficiary**~**Ancillary**, 30 | Org~**Gestalt**, 38 |
| **Beneficiary**~**Recipient**, 26 | Org~**Locus**, 38 |
| **CAUSER**~**Source**, 29 | Originator~**Agent**, 21 |
| **Characteristic**~**Beneficiary**, 33 | Originator~**Gestalt**, 32 |
| **Characteristic**~**Extent**, 16 | Originator~**Instrument**, 28 |
| **Characteristic**~**Locus**, 40 | Originator~**Source**, 21, 22, 29 |
| **Characteristic**~**Stuff**, 40, 43 | PartPortion~**Characteristic**, 41, 42 |
| **Circumstance**~**Locus**, 8 | **Path**~**Instrument**, 15, 28 |
| **Circumstance**~**Time**, 8 | **Possession**~**Ancillary**, 33 |
| **ComparisonRef**~**Locus**, 45 | **Possession**~**Characteristic**, 41 |
| **ComparisonRef**~**Purpose**, 46 | **Possession**~**Theme**, 24, 41 |
| **Duration**~**StartTime**, 10 | **Possessor**~**Locus**, 36 |
| **EndTime**~**Interval**, 10 | **Purpose**~**Characteristic**, 40 |
| **Ensemble**~**Ancillary**, 45 | **QuantityItem**~**Stuff**, 39, 43 |
| **Experiencer**~**Agent**, 21 | **QuantityItem**~**Whole**, 39 |
| **Experiencer**~**Beneficiary**, 32 | **Recipient**~**Agent**, 21, 22 |
| **Experiencer**~**Gestalt**, 32 | **Recipient**~**Source**, 29 |
| **Experiencer**~**Recipient**, 21, 26 | **SocialRel**~**Agent**, 21 |
| **Explanation**~**Source**, 18 | **SocialRel**~**Ancillary**, 30 |
| **Extent**~**Identity**, 16 | **SocialRel**~**Gestalt**, 47 |
| **Gestalt**~**Locus**, 36 | **SocialRel**~**Locus**, 36 |
| **Gestalt**~**Recipient**, 26 | **SocialRel**~**Recipient**, 26 |
| **GOAL**~**Ancillary**, 14 | **StartDate**~**Recipient**, 26 |
| **GOAL**~**Locus**, 25 | **Stimulus**~**Ancillary**, 26, 30 |
| **GOAL**~**Theme**, 25 | **Stimulus**~**Source**, 29 |
| **LOCUS**~**Ancillary**, 13 | **Stimulus**~**Theme**, 23, 24 |
| **LOCUS**~**Characteristic**, 40 | **Theme**~**Ancillary**, 30 |
| **LOCUS**~**Direction**, 15 | **Theme**~**ComparisonRef**, 46 |
| **LOCUS**~**Goal**, 13 | **Theme**~**Instrument**, 25, 28 |
| **LOCUS**~**Source**, 12, 37 | **Theme**~**Source**, 29 |
| **MANNER**~**ComparisonRef**, 18, 46 | **Theme**~**Source**, 29 |
| Time ~ Characteristic, 39 | Topic ~ Theme, 24 |
|--------------------------|-------------------|
| Time ~ Goal, 10          | Whole ~ Locus, 37 |
| Time ~ Interval, 9       | Whole ~ Source, 37 |
Index of Construals by Function

Experiencer~Agent, 21
Org~Agent, 38
Originator~Agent, 21
Recipient~Agent, 21, 22
SocialRel~Agent, 21
Agent~Ancillary, 30
Beneficiary~Ancillary, 30
Ensemble~Ancillary, 45
Goal~Ancillary, 14
Locus~Ancillary, 13
Org~Ancillary, 38
Possession~Ancillary, 33
SocialRel~Ancillary, 30
Stimulus~Ancillary, 26, 30
Theme~Ancillary, 30
Agent~Beneficiary, 33
Characteristic~Beneficiary, 33
Experiencer~Beneficiary, 32
Org~Beneficiary, 38
Locus~Characteristic, 40
PartPortion~Characteristic, 41, 42
Possession~Characteristic, 41
Purpose~Characteristic, 40
Time~Characteristic, 39
Manner~ComparisonRef, 18, 46
Theme~ComparisonRef, 46
Locus~Direction, 15
Characteristic~Extent, 16
Agent~Gestalt, 32, 36
Experiencer~Gestalt, 32
Org~Gestalt, 38
OrgMember~Gestalt, 43
Originator~Gestalt, 32
SocialRel~Gestalt, 47
Locus~Goal, 13
Time~Goal, 10
Extent~Identity, 16
Agent~Instrument, 28
Originator~Instrument, 28
Path~Instrument, 15, 28
Theme~Instrument, 25, 28
EndTime~Interval, 10
StartTime~Interval, 10
Time~Interval, 9
Characteristic~Locus, 40
Circumstance~Locus, 8
ComparisonRef~Locus, 45
Gestalt~Locus, 36
Goal~Locus, 25
Org~Locus, 38
Possessor~Locus, 36
SocialRel~Locus, 36
Whole~Locus, 37
OrgMember~Possessor, 43
ComparisonRef~Purpose, 46
Agent~Recipient, 27
Beneficiary~Recipient, 26
Experiencer~Recipient, 21, 26
Gestalt~Recipient, 26
SocialRel~Recipient, 26
Causer~Source, 29
Explanation~Source, 18
Locus~Source, 12, 37
Originator~Source, 21, 22, 29
Recipient~Source, 29
| Relation          | Source/Theme/Whole/Time/Character/Quantity | Reference |
|-------------------|-------------------------------------------|-----------|
| Stimulus~Source   | 29                                        |           |
| Theme~Source      | 29                                        |           |
| Whole~Source      | 37                                        |           |
| Duration~StartTime| 10                                        |           |
| Characteristic~Stuff | 40, 43                               |           |
| OrgMember~Stuff   | 43                                        |           |
| QuantityItem~Stuff| 39, 43                                    |           |
| Goal~Theme        | 25                                        |           |
| Possession~Theme  | 24, 41                                    |           |
| Stimulus~Theme    | 23, 24                                    |           |
| Topic~Theme       | 24                                        |           |
| Circumstance~Time | 8                                         |           |
| Agent~Whole       | 38                                        |           |
| QuantityItem~Whole| 39                                        |           |