

Unaccusativity and Underspecification in Urdu¹

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1. Introduction

- There is no clear-cut Unaccusativity/Unergativity distinction in Urdu intransitive verbs.
- The absence of clear-cut distinction for other languages is already pointed out by Perlmutter (1978), Van Valin (1990) and Keller and Sorace (2003).
- We propose that there is no single distinguishing criterion for Urdu intransitive verbs.
- We propose that semantic features: animacy, volitionality, telicity and humanness accounts for differing behavior in constructions like impersonal passive, inability construction etc.

2. Unaccusativity Hypothesis and Tests

Questions: What is Unaccusativity?

What are the tests for unaccusative/unergative distinctions?

- Intransitive verbs are traditionally classified as unergative and unaccusative.
- This distinction is based on the Unaccusative Hypothesis that states that single argument/subject of some intransitive clauses acts like a theme/patient (Perlmutter 1978).
- *Burn, fall, drop, sink* etc. are examples of unaccusative verbs. *Work, play, speak, smile* etc. are examples of unergative verbs.
- Burzio (1981) stated that the sole argument of unaccusative verbs is an internal argument, while unergatives have external argument.
- There exist tests for unaccusativity/unergativity.
- The main tests are impersonal passive, auxiliary selection and participle formation. (Perlmutter 1978)
- For Urdu/Hindi, Bhatt (2003) proposed the following tests
 - (i) The past participle of unaccusatives can be used in a reduced relative, but past participle of unergatives can not be used.
 - (ii) Unaccusatives can never form impersonal passives, while unergatives can.
 - (iii) Only unaccusatives form an inabilitative construction, unergatives (and transitives) require passive morphology to do so.
- The examples of these tests on Urdu unergative and unaccusative verbs are shown in (1)-(3).

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(1) Reduced Relative

- a. *haNs-aa (hu-aa) laRkaa
laugh-Perf.M.Sg be-Perf.M.Sg boy.M.Sg
'the laughed boy' (Unergative)
- b. kat.-e (hue) phal
cut-Perf.M.Pl be-Perf.M.Pl fruit.M.Pl
'the cut fruit' (Unaccusative)

(2) Impersonal Passive

- a. cal-o daur-aa jaa-ye
come-Perc.M.Sg run-Perf.M.Sg go-Subj.M.Sg
'Come on, let it be run (let us run)' (Unergative)
- b. *cal-o kat.-aa jaa-ye
come-Perc.M.Sg cut-Perf.M.Sg go-Subj.M.Sg
'Come on, let it be cut (let us cut)' (Unaccusative)

(3) Inability Construction

- a. us larke=se daur-aa nahiiN jaa-taa
that boy.M.Sg=Inst run-Perf.M.Sg not go-Hab.M.Sg
'That boy is not able to run.' (Unergative)
- b. *us phal=se kat.-aa nahiiN jaa-taa
that fruit.M.Sg=Inst cut-Perf.M.Sg not go-Hab.M.Sg
'That fruit is not able to cut.' (Unaccusaative)

- Two of these tests are the classical cross-linguistically used tests. Only, the inability construction test is specially devised for Urdu.
- Miriam Butt (p.c.) emphasized on finding Urdu-specific tests for unaccusativity/unergativity distinction. She proposed acceptance of *jaanaa* 'go' light verb after root form of the main verb as a test for unaccusativity.² It follows unaccusative verbs, but it can not follow unergative verbs.

- (4) a. g^har ban ga-yaa
house.M.Sg make go-M.Sg
'The house built.'
- b. *larkaa haNs ga-yaa
boy.M.Sg laugh go-M.Sg
'The boy laughed.'

3. "Irregular" behavior of intransitive verbs

Question: Do the unaccusativity tests hold for Urdu? And cross-linguistically?

3.1. Revisiting Urdu the Tests

- When applying Bhatt's tests, we find examples where an unergative verb can have both animate and inanimate subjects. The clause with animate subjects shows

² The light verb *jaanaa* 'go' is used in different constructions for different meaning. For example, in passive and ability constructions, it follows the perfective form of the verb. These different usages are not related to each other.

volitionality and pass unergativity tests, while the clause with inanimate subject pass unaccusativity tests.

(5) Reduced Relative

- a. *uR-ii (hu-ii) ciRyaa
 fly-Perf.F.Sg be-Perf.F.Sg bird.F.Sg
 ‘the flown bird’ (Unergative)
- b. uR-ii (hu-ii) patang
 fly-Perf.F.Sg be-Perf.F.Sg kite.F.Sg
 ‘the flown kite’ (Unaccusative)

(6) Impersonal Passive

- a. *cal-o uR-aa jaa-ye
 come.Perc.F.Sg fly-Perf.M.Sg go-Subj.M.Sg
 ‘Come on, let it be flown (let us fly)’ (Unaccusative)
- b. *cal-o uRaa jaa-ye
 come.Perc.F.Sg fly-Perf.M.Sg go-Subj.M.Sg
 ‘Come on, let it be flown (let us fly)’ (Unaccusative)

(7) Inability Construction

- a. ciRyaa=se uR-aa nahiiN ga-yaa
 bird.F.Sg=inst fly-Perf.M.Sg not go-Perf.M.Sg
 ‘The bird is not able to fly.’ (Unergative)
- b. *patang=se uR-aa nahiiN ga-yaa
 kite.F.Sg=inst fly-Perf.M.Sg not go-Perf.M.Sg
 ‘The kite was not able to fly.’ (Unaccusative)

- On the other hand, the subject of an unaccusative verb can have a volitional subject. With volitional agents, these verbs can pass the unergativity test too. Consider the example of *utarnaa* ‘descend’ that can have both a sentient and insentient subject.

- (8) a. laRkaa paani=meiN utr-aa
 boy water=in descend-perf
 ‘The boy descended in the water.’
- b. kaStii paani=meiN utr-ii
 boat water=in descend-perf
 ‘The boat descended in the water.’

- Applying the unergativity test on *utarnaa* ‘descend’ with sentient subject gives positive results.

(9)

a. Reduced Relative

- paani=meiN utr-aa (hu-aa) laRkaa
 water.M.Sg=in descend-Perf.M.Sg be-Perf.M.Sg boy.M.Sg
 ‘the boy descended in water’ (confirm Unaccusativity criteria)

b. Impersonal Passive

- cal-o paani=meiN utr-aa jaa-ye
 come-Perc.Sg water.F.Sg=in descend-Perf.M.Sg go-Subj.M.Sg
 ‘Come on, let us descend in water.’ (confirm Unergativity criteria)

c. Inability

laRke=se paani=meiN utr-aa nahiiN ga-yaa
boy.M.Sg=inst water.M.Sg=in descend-Perf.M.Sg not go-Perf
'That boy could not descend in the water.' (confirm Unergativity criteria)

- *bannaa* 'make', *baRhnaa* 'increase', *uThnaa* 'stand' etc. behave similarly.
- The other test available i.e. Butt's *janaa* (after root form of the main verb) test gives consistent results without distinguishing between sentient and insentient subject. The unaccusative verb *utarnaa* allows *ga-yaa* with both types of the subjects.

(10) a. kaStii paanii=meiN utar ga-yii
 boat.F.Sg water.M.Sg=in descend go-Perf.F.Sg
'The boat had descended in the water.'

 b. laRkaa paani=meiN utar ga-yaa
 boy.M.Sg water.M.Sg=in descend go-Perf.M.Sg
'The boy had descended in the water.'

- But, the *ga-yaa* test classify few verbs like *uRnaa* 'fly', *bhaag* 'run' (commonly considered as unergative) as unaccusative verbs.

(11) ciRyaa uR ga-yii
 bird.F.Sg fly go-Perf.F.Sg
'The bird had flown.'

(12) laRkaa bhaag gay-aa
 boy.M.Sg run go-Perf.M.Sg
'The boy had run.'

- Both (11) and (12) have agentive subject, but they show bounded event.
- Another candidate for distinguishing unergative and unaccusative verbs is ergative case marker *ne*. It is used optionally with few intransitive subjects and is attributed with volitionality (Butt and King 1991).

(13) a. raam khaaN-s-aa
 Ram.M.Sg cough-Perf.M.Sg
'Ram coughed.'

 b. raam=ne khaaN-s-aa
 Ram.M.Sg=Erg cough-Perf.M.Sg
'Ram coughed (intentionally).'

- Ergative *ne* is only used with some bodily function verbs. (Davison 1999). It cannot be used as a test of unergativity.

3.2. Cross-linguistic Scenario

- The failure of unaccusativity tests and the absence of clear-cut distinction between unaccusative and unergative verbs is not clear-cut is already reported for other languages e.g. German, Dutch, Italian etc.
- In Italian, unergative verbs allow *avere* (have) and unaccusative allows *essere* (be). But, there is a class of verbs that allow both *avere* and *essere*. The verbs include *correre* 'run', *saltare* 'jump', *volare* 'fly', *fiorire* 'bloom'. (Van Valin 1990)

- Sorace (2000), Keller and Sorace (2003) have shown that there is no two-way distinction in Germanic and Romance language for auxiliary selection.
- The German motion verbs allow both *haben* ‘have’ and *sein* ‘be’ depending upon presence or absence of bounding PP. (Keller and Sorace 2003)

- (14) a. Die Frau hat/?ist im Fluss geschwommen.
 the woman has/is in-the river swum
 ‘The woman swam in the river.’
- b. Die Frau ist/*hat ans Ufer geschwommen.
 the woman is/has to-the shore swum
 ‘The woman swam to the shore.’

- They show that there is gradient of auxiliary selections with seven classes of intransitive verbs.
- Perlmutter (1978), in his paper introducing unaccusative hypothesis, gives example from English.

- (15) a. Marcia fell from the second-story window.
 b. Marcia fell right on cue in the second act.

- Perlmutter classified (15) a as unaccusative clause and (15) b as unergative clause.
- It is commonly assumed that unergative verbs have volitional agents and unaccusative verbs have non-volitional themes. But (15) b contradicts this assumption.

Preliminary Result: There is no clear-cut distinction between Urdu unaccusative/unergative verbs. This observation seems to be cross-linguistic.

4. Proposals and Debate

Questions: Should we drop the idea of unaccusative/unergative distinction?

Is there a way to save the idea of the distinction?

Should we search the undiscovered Urdu-specific unaccusativity test?

4.1. Unaccusative/Unergative distinction works

- People have given the proposals that maintains unaccusative/unergative distinction and solves the “irregular” behavior of the verbs (mentioned in the above section).
- Rosen (1984) classified the verbs, that show both unaccusative and unergative characteristics, as an idiosyncratic class.
- Burzio (1981, 1986) proposed two verbs corresponding to each of Italian verbs *correre* ‘run’, *saltare* ‘jump’, *volare* ‘fly’ etc. The subject of one verb is A while the subject of the other (same form) verb is O.
- Zaenen (1993) discussed unaccusativity in Dutch in LFG terminology and proto-role properties introduced by Dowty 1991. If a participant has more proto-patient properties than proto-agent properties, it is marked as –r (unrestricted). If it has more proto-agent properties than proto-patient properties, it is marked as –o (not objective).
- Zaenen proposed two different lexical entries for Dutch *lopen* ‘run’ selecting *hebben* ‘have’ (related to unergative) and *naar X lopen* ‘run to X’ selecting *zijn*

‘be’ (related to unaccusative) as they have semantic differences and different number of grammatical roles.

4.2. Unaccusative/Unergative can not work

- Contrary to the proposals given above, it is also argued that tests like impersonal passive, perfect participle and auxiliary selection depends on semantic factors and not on two way unergative/unaccusative distinction.
- Perlmutter (1978), in his pioneering paper on Unaccusative Hypothesis, discussed unaccusative and unergative clauses (not the verbs).
- Zaenen (1998) in another version of her 1993 paper proposed the following lexical entries.

hebben = - telic
zijn =c + telic
naar huis = - telic

- Lexical entry of *naar huis* shows that other (than verb) elements of a clause can contribute in its boundedness and auxiliary selection.
- As referred to earlier, Sorace found a gradient of auxiliary selections with seven classes of intransitive verbs.

(16) a. Die Blume hat geblüht
the flower has bloomed
‘The flower blossomed.’

b. Die Blume ist verblüht
the flower is bloomed
‘The flower finished blossoming.’

- Kaufmann (1995) has proposed different semantic features responsible for governing different syntactic tests of unaccusativity. She associated perfect participles and nominals with dynamic D-predicates.
- Van Valin (1990) rejects two lexical entries for the verbs like *run*. He pointed out that there are two different LS (logical structures) corresponding to *run* (an activity) and *run to house* (an accomplishment i.e. activity + achievement).

4.3. Conclusion of the debate

- Concluding the above discussion, we agree with the proposals that the simple idea of unaccusativity/unergativity does not work.
- Only the verb cannot decide the syntactic properties of the clauses. The other parts of the clause also contribute to grammatical validity/invalidity of the sentences (related to syntactic tests of unaccusativity.)
- We disagree with the proposals of introducing two lexical entries for “irregular” verbs. Not only, it is not an elegant solution, but also it will not end on only two entries based on boundedness. For motion verbs like *run*, *swim* and *dance*, we need entries for *verb*, *verb to X*, *verb for X minutes/hours* (deciding boundedness) and *verb* with inanimate subject.
- As attempts to model the “irregular” behavior of intransitive verbs fail crosslinguistically, we have little hope for finding or waiting for an Urdu-specific unaccusativity test.

- Following Kaufmann (1995) and Zaenen(1998), we propose different semantic features for modeling different constructions involving Urdu intransitive verbs.

5. Semantic features for Urdu

- In previous sections, we have observed and concluded that unergative/unaccusative verb or agent/theme subject distinction cannot explain the grammatical validity/invalidity of different sentences used in examples/counter-examples of unaccusativity tests.
- Assigning thematic roles like agent and theme/patient to the argument (in lexical entry of the verb) is also not possible because subject of an intransitive verb can have both agentive properties e.g. volitional action and patient properties like boundedness and incremental theme. See the examples in (17) and (18).

(17) vo saahil=tak tair-aa
 3P.Sg bank.M.Sg=till swim-Perf.M.Sg
 ‘He swam to the bank.’

(18) vo paani=meN utr-aa
 3P.Sg water.F.Sg=in descend-Perf.M.Sg
 ‘He descended into the water.’

- We present semantic features and sample lexical entries that can model the phenomena related to unergativity/unaccusativity debate of Urdu.
- As we have rejected the availability of agent or patient thematic roles in the lexical entry of the verb, we will use Ramchand’s (2006) *init* (initiator), *undr* (undergoer) and *init-undr* in the argument structure of the verb.
- Coming to the semantic features, a verb specifies the selection restriction about its subject. A group of (intransitive) verbs can have only animated subject (Anim = +) e.g. *marnaa* ‘die’, *khaNsnaa* ‘cough’.
- Another group of verbs can only have inanimate subject (Anim = -) e.g. *paknaa* ‘ripe’, *katnaa* ‘cut’. Another group of verbs can have both animate and inanimate subjects e.g. *uRnaa* ‘fly’, *utarnaa* ‘descend’. The Anim feature for last class of verbs is underspecified.
- In an ideal lexicon, we need more fine grained features than animate. All inanimates cannot be the subject of *ripe*, and similarly all the animates cannot cough. But, one can add these in lexicon after thorough analysis.
- The (intransitive) verb needs features for telicity too, A definitely bounded verb has feature *telic* = + e.g. *girnaa* ‘fall’, *marnaa* ‘die’ etc. A definitely unbounded verb has feature *telic* = - e.g. *k^hansnaa* ‘cough’, *muskuraanaa* ‘smile’ etc.
- The verb that do not always need telic interpretation (but allow it by introduction of adjuncts or context) are underspecified for this feature. Examples of these verbs are *utarnaa* ‘descend’, *bhaagna* ‘run’ etc.
- A verb can put constraint about volitionality on an animate subject. For example, *marnaa* ‘die’ cannot have volitional subject.
- Few sample lexical entries of verbs using these feature are:

kaT : V, ‘cut<undr>, TELIC = +, ANIM =c -.

k^haNs: V, ‘cough<init>, TELIC = -, ANIM =c +.

mar: V, 'die<undr>', TELIC = +, ANIM =c +, VOL = -.

uR: V, 'fly<undr>' .

utar: V, 'descend<undr>'.

- In Ramchand's (2006) framework, we suggest that animate subject can add an initiator projection of any 'X<undr>' verb like uR 'fly'. The projection will however be not compatible/possible with a verb that has VOL = + feature like *marnaa* 'die'.

5.1. Inability Construction

- The lexical entry of *se* (for modeling inability construction) will be:

se: K, ANIM =c +, VOL = +.

- Here we propose that ability is related to the volitionality of (animate) subjects. If not specified by the verb (as *marnaa* specifies involition) or discourse, the animate subject will be considered as volitional.
- Sentences of (19) show examples of the above model.

(19)

- a. draxt kaT-aa
tree.M.Sg. cut-Perf.M.Sg
'The tree cut.'
- b. *draxt=*se* kaT-aa nahiiN ga-yaa
tree.M.Sg=Inst cut-Perf.M.Sg not go-Perf.M.Sg
'The tree was not able to cut.'
(ANIM constraint of *se* fails.)
- c. ciRyaa=*se* uR-aa nahiiN ga-yaa
bird.F.Sg=Inst fly-Perf.M.Sg not go-Perf.M.Sg
'The bird was not able to fly.'
- d. *patang=*se* uR-aa nahiiN ga-yaa
kite.F.Sg=Inst fly-Perf.M.Sg not go-Perf.M.Sg
'The kite was not able to fly.'
(ANIM constraint of *se* fails.)
- e. *ciRyaa=*se* mar-aa nahiiN ga-yaa
bird.F.Sg=Inst die-Perf.M.Sg not go-Perf.M.Sg
'The bird was not able to die.'
(VOL feature of *se* and *mar* conflicts.)
- f. laRkaa paani=*meN* utr-aa
boy.M.Sg water.F.Sg=in descend-Perf.M.Sg
'The boy descended in the water.'
- g. laRke=*se* paani=*meN* utraa nahiiN ga-yaa
boy.M.Sg=Inst water.F.Sg=in descend-Perf.M.Sg not go-Perf
'The boy was not able to descend in the water.'
- h. kaStii paanii=*meN* utr-ii
boat.F.Sg water.F.Sg=in descend-Perf.F.Sg
'The boat descended in the water.'

- i. *kaStii=se paani=meN utraa nahiiN ga-yaa
 boat.F.Sg=Inst water.F.Sg=in descend-Perf.M.Sg not go-Perf
 ‘The boat was not able to descend in the water.’
 (ANIM constraint of *se* fails)

- It is to be noted that volitionality that introduces agentivity is also underspecified. An inanimate thing is –VOL, but an animate is underspecified for it. The underspecified animate being is considered as volitional, unless it is defined as –VOL in some other way, as in the lexical entry of *mar* ‘die’.

5.2. Optional Ergative Marker *ne*

- The ergative marker *ne* appears only with few verbs. The verbs e.g. *k^haaNsnaa* ‘cough’ (having sample lexical entry above) are always atelic and always need animate subject.
- We propose that *ne* appears only with always-animate and always-atelic verbs.
- It is to be noted that sentience and volitionality are two of Dowty’s proto-agent properties, Boundedness and incremental theme are two of the proto-patient properties.
- The presence of proto-agent properties and absence of proto-patient properties make the (allowed) subject of these verb more agentive, hence these verb allow *ne* that is associated with agency and volition.
- The lexical entry of *ne* (for intransitive constructions) is:
ne : K, ANIM =c +, TELIC =c -.
- The sentences of (20) show examples of our proposal.

(20)

- a. laRke=ne k^haaNs-aa
 boy.M.Sg=Erg cough-Perf.M.Sg
 ‘The boy coughed.’
- b. *laRke=ne mar-aa
 boy.M.Sg=Erg die-Perf.M.Sg
 ‘The boy died.’
 (TELIC constraint of *ne* fails.)
- c. *ciRyaa=ne uR-aa
 bird.F.Sg=Erg fly-Perf.M.Sg
 ‘The bird flew.’
 (TELIC constraint of *ne* fails.)

- It is to be remembered that the sample lexical entries of *ne* and *se* are for intransitive verbs only. These case markers have multiple usages and an entry covering all those will consist of more than one lists of conditions/constraints ORed with each other.

5.3. *jaanaa* following the verb

- The *jaanaa* light verb test depends upon telicity. The lexical entry *gayaa* (perfective form of *jaanaa* ‘go’) will be:
ga-yaa: LV, TELIC = +.
- We have examples of *ga-yaa* usages in (21).

(21)

- a. * laRkaa khaaNsga-yaa
boy.M.Sg cough go-Perf.M.Sg
'The boy got coughed.'
(TELIC features of *khaaNs* and *ga-yaa* cannot be unified.)
- b. draxt kat ga-yaa
tree.M.Sg cut go-Perf.M.Sg
'The tree got cut.'
- c. ciRyaa uR ga-yii
bird.F.Sg fly go-Perf.M.Sg
'The bird flew.'

- (21) c shows that intransitive verbs with agentive subject can also pass the *jaanaa* test, if they are underspecified for telicity. The sentences mean that the bird was not flying first, and then went to the state of flying.
- The perfect participle seems to have same semantic condition as of *jaanaa* light verb. The perfective participle is a state and only telic verbs or clauses can have a resulting state.

5.4. Impersonal Passive

- Bhatt's examples of impersonal passive suggest that the subject must be human and volitional.

(24)

- a. aa-o haNs-aa jaa-ye
come laugh-Perf.M.Sg go-Perf.M.Pl
'Come, let it be laughed (let us laugh).'
- b. *aa-o uR-aa ja-ye
come fly-Perf.M.Sg go-Perf.M.Pl
'Come, let it be flown (let us fly).'

- Kaufmann suggested that an important feature for impersonal passive of German is human. It also seems to play a central role in similar constructions of Urdu too.

6. Conclusion

- We found that we cannot define a two-way unaccusativity/unergativity distinction to explain all the syntactical construction involving intransitive verbs.
- We gave the examples in which a supposed unaccusative verb has an agentive subject and supposed unergative verbs has a patient subject.
- We propose that semantic features can handle validity of different syntactical constructions like impersonal passive, perfect participle and inability constructions.
- The features proposed for modeling above mentioned constructions are animacy, human-ness, telicity and volition.
- We provide a single lexical entry with underspecified features for the verbs that show hybrid behavior.

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