

Valence-changing derivations and actionality: The case of Balkar passive

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1. Introduction

In Turkic languages, the 'passive' morpheme affects not only argument structure of a verb and a way arguments are mapped into the syntactic structure, but also actional characteristics of the verb

(1) the verb *zirt* 'tear', NON-DERIVED

a. fatima xali-ni zirt-a-di.
Fatima thread-ACC tear-PRS-3

1. *Fatima is tearing a thread.* {progressive}
2. *Fatima (normally) tears a thread.* {habitual}

b. fatima xali-ni zirt-ti.

Fatima thread-ACC tear-PST

1. *Fatima tore a thread (in five minutes)* {telic, perfective}
2. *Fatima tore a thread (for five minutes)* {atelic, perfective} ('Fatima spent five minutes attempting to tear a thread')

- The Present of *zirt* 'tear' allows both progressive ('Fatima is performing activity that will result in tearing a thread') and habitual readings (e.g. 'Fatima does not use scissors when she need to cut a thread; she always tears a thread').
- The Preterite of *zirt* 'tear' is ambiguous between telic and atelic interpretations. Under the telic interpretation, (1b) implies that the situation referred to attained its resultant state 'the thread is torn'. Under the atelic interpretation, (1b) only implies that the Agent ('Fatima') has performed some tearing-a-thread activity without attaining the resultant state.

(2) the verb *zirt* 'tear', PASSIVE

a. xali (fatima-ni kücü-bla) zirt-i-l-a-di.
thread Fatima-GEN by tear-ST-PASS-PRS-3

1. *A thread is (normally) torn (by Fatima)* {habitual}.
2. **A thread is torn (by Fatima)* {progressive}.

b. xali (fatima-ni kücü-bla) zirt-i-l-di.
thread Fatima-GEN by tear-ST-PASS-PST

1. *A thread was torn (by Fatima) (in five minutes)* {telic, perfective}.
2. **A thread was torn (by Fatima) (for five minutes)* {atelic, perfective}. ('There were attempts to tear a thread lasting for five minutes')

(2) differs from (1) in two significant respects (see Table 1):

- ☞ no progressive reading of the Present
- ☞ no atelic interpretation of the Preterite

	Present		Preterite	
	Progressive	Habitual	Telic	Atelic
<i>zirt</i> (1)	+	+	+	+
<i>zirtil</i> (2); PASSIVE	—	+	+	—

Table 1. Aspectual and actional interpretation of some tense forms of the verb 'zirt'

Given data like that in (1)-(2), the following questions are bound to arise:

- ☞ When does the progressive reading disappear and why?
- ☞ When does the atelic reading disappear and why?
- ☞ Generally, how do aspectual and actional properties of a predicate change and why?

To answer these questions we need:

- (i) a complete characterization of actional properties of a given language,
- (ii) a complete characterization of the passive marker,
- (iii) a set of generalizations capturing relations between actionality and passive,
- (iv) explanations for these generalizations.

2. Actionality

Actionality (a.k.a Aktionsart, aspectual class, aspectual character (Lyons 1977), situation type (Smith 1991), eventuality type (Bach 1986, Filip 1999), action (Bache 1995a, b), state of affairs (Dik 1989), taxonomic category (Paduceva 1996)) is a semantic characteristic of a predicate in terms of stativity/dinamicity, telicity, and punctuality.

The most popular actional classification: Vendler's (1967) states, accomplishments, activities and achievements.

2.1. Aspectual classes

Turkic languages possess a rich system of aspectual classes including those that are not normally recognized in English and other well-studied European languages. We use S.Tatevosov's (2002) procedure of identifying aspectual classes.

➤ Balkar: an average Turkic system of aspectual classes.

I. *Strong telic verbs*: <ES; P>. Perfective forms of strong telic verbs indicate that a situation terminated producing a resultant state. Atelic reading is not available. Imperfective forms have progressive (and habitual) readings.

- (3) a. alim kerim-ni öltür-dü.
 Alim Kerim-ACC kill-PST
 *Alim killed Kerim (in two minutes/*for two minutes). <quantized direct object>*
- b. alim kerim-ni öltür-e-dî
 Alim Kerim-ACC kill-PRS-3
 Alim is killing Kerim.

II. *Weak telic verbs*: <ES,P; P>. Perfective forms allow for two readings. One is similar to that of strong telic verbs — 'a situation attains a resultant state' (i.e. Alim ploughed the kitchen garden to completion) ; another one is atelic — 'Alim was involved in the ploughing activity'. Imperfective forms are similar to those of strong telic verbs.

- (4) alim baxça-sî-n sür-dü.
 Alim kitchen_garden-3-ACC plough-PST
 Alim ploughed the kitchen garden (in 2 hours / for 2 hours). <quantized direct object >

Examples of strong telic verbs: 'let fall', 'enter', 'explode', 'finish', 'die', 'kill', 'put'...

Examples of weak telic verbs: 'write', 'plough', 'dig', 'eat', 'paint', 'swell', 'rot', 'gather', 'melt'...

III. *Punctual verbs*: <ES; ->.

- (5) kerim axca tap-a-dî.
 Kerim money find-PRS-3
 Kerim (regularly) finds money.

IV. *Inceptively stative verbs*: <ES,S; S>. Perfective verbs refer to the inception of state and to the resultant state.

- (6) alim fatima-nî kör-dü.
 Alim Fatima-ACC see-PST
 1. *Alim caught sight of Fatima (in 2 minutes).*
 2. *Alim saw Fatima (for 2 minutes).*

Imperfective forms refer to a resultant state:

- (7) alim fatima-nî kör-e-dî.
 Alim Fatima-ACC see-PRS-3
 Alim sees Fatima.

V. *Ingressive-atelic verbs*: <EP,P; P>. Same as inceptively stative except for one thing: eventuality that starts after the culmination point attained, is not a state but a process: the perfective forms of 'boil' can describe entry into an atelic process ('start boiling') or a part of this process ('boiled'), imperfective forms refer to a process ('boil').

VI. *Atelic verbs*: <P;P>. All the verbal forms refer to an atelic process in which no participant attains a resultant state.

- (8) a. alim fatima-nî izle-dî.
 Alim Fatima-ACC look_for-PST
 *Alim looked for Fatima (for 5 minutes / *in 5 minutes).*
- b. alim fatima-nî izle-j-dî.
 Alim Fatima-ACC look_for-PRS-3
 Alim is looking for Fatima.

VII. *Stative verbs*: <S;S>. All the verbal forms refer to a state, e.g. 'live', 'keep in mind'

VIII. *Multiplicative verbs*: <ES,MP; MP>

- (9) alim zötel et-di.
Alim cough-PST
1. *Alim coughed (once).*
2. *Alim coughed (for some time).*

⇒ Partition of verbs into classes involves the following condition: arguments of verbs are countable NPs in the singular (Tatevosov 2002). For certain aspectual classes, changing reference properties of arguments results in a change of aspectual properties of a clause according to the rules of aspectual composition (see section 2.2).

2.2. Aspectual composition

⇒ Krifka 1989a-b, 1992, 1998; Dowty 1991; Filip 1999: mereological approach to aspectual composition.

⇒ The difference between telic and atelic predicates is captured by the notions of cumulativity and quantization which characterize both nominal and verbal predicates.

➤ A predicate P is **cumulative** iff whenever it applies to entities x and y, it also applies to the sum of x and y (provided that it applies to at least two distinct entities) <additivity>.

➤ A predicate P is **quantized** iff whenever it applies to x and y, y is not a proper part of x. <antisubdivisibility>

Examples from English: *a cup, an apple, three cups, die, ate an apple* are quantized; *cups, apples, juice, walk, ate apples* are cumulative.

Properties of arguments do not affect the range of actional interpretations of verbs that are members of stative, atelic, multiplicative, inceptively-stative, and ingressive atelic aspectual classes.

Properties of arguments do affect the range of actional interpretations of strong telic verbs, weak telic verbs, and punctual verbs.

- (10)a. alim qoj-lar-ni eki saḡat-ḡa aša-dī.
Alim ram-PL-ACC two hour-DAT eat-PST
1. **Alim ate up rams in two hours.* <cumulative direct object>.
2. *Alim ate up the rams in two hours.* <quantized direct object>
- b. alim qoj-lar-ni eki saḡat aša-dī.
Alim ram-PL-ACC two hour eat-PST
1. *Alim ate rams for two hours.* <cumulative direct object>.
2. *Alim ate the rams for two hours.* <quantized direct object>
- (11)a. alim qoj-lar-ni eki saḡat-ḡa öltür-dü.
Alim ram-PL-ACC two hour-DAT kill-PST
1. **Alim killed rams in two hours.* <cumulative direct object>.
2. *Alim killed the rams in two hours.* <quantized direct object>
- b. alim qoj-lar-ni eki saḡat öltür-dü.
Alim ram-PL-ACC two hour kill-PST
1. *Alim killed rams for two hours.* <cumulative direct object>.
2. *Alim killed the rams for two hours.* <quantized direct object>

⇒ Denotation of arguments is mapped into the structure of an event under appropriate conditions.

⇒ Cumulative arguments yield cumulative (that is, atelic) verbal predicates.

⇒ Quantized argument is compatible with both cumulative and quantized (that is, telic) readings of the verbal predicate.

3. The “passive” morpheme *-l* in Balkar

3.1. Voice or valence decreasing?

In most Turkic studies, it has been assumed that the morpheme *-l* is a passive marker, whose function is to form a passive voice of the verb. Yet, there are a number of reasons to treat *-l* as a valence-decreasing derivational morpheme:

⇒ *-l* applies to verbs of different syntactic and semantic classes (not only to transitives);

⇒ *-l* allows multiple occurrence;

⇒ *-l* is not in complementary distribution with other “voice” morphemes;

⇒ *-l* frequently produces idiosyncratic syntactic and semantic effects;

⇒ *-l* applies not only to verbal, but also to nominal stems.

Passive voice and valence-decreasing derivation, however, are often related diachronically. It has been indicated in a variety of studies (Kemmer 1993, Haspelmath 1990) that derivations of this type are often a source of passive morphology; see Fig. 1.

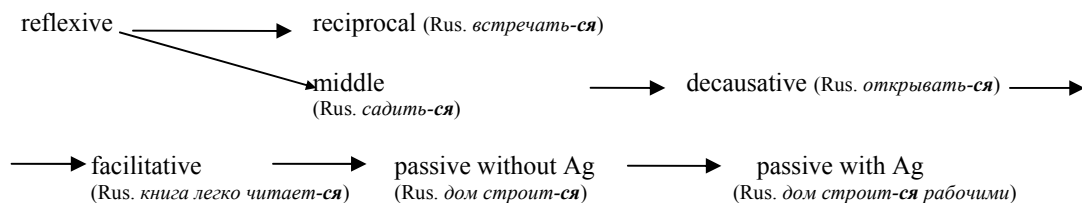


Figure 1. Diachronic relations between valence-decreasing and passive morphemes.

Not surprisingly, many languages comprise the voice and valence-decreasing derivation under the same morpheme. This is exactly the case with the morpheme *-l* in Balkar.

3.2. Range of uses of the ‘passive’ marker *-l*

⇒ Passive proper

- (12) it-xe taş (alim-den) siz-i-l-di.
 dog-DAT stone Alim-ABL throw-ST-PASS-PST
The stone has been thrown to the dog (by Alim).

⇒ Potential Passive (Facilitative)

- (13) ol zoruq igi añıla-n¹-a-di.
 this rule easily understand-PASS-PRS-3
This rule is easy to understand (lit. is understood easily).

⇒ Decausative

- (14) işik (kesi) aç-i-l-di.
 door itself open-ST-PASS-PST
The door opened (by itself).

⇒ Middle

- (15) marat zuwurgan bla zab-i-l-di.
 Marat blanket with cover-ST-PASS-PST
Marat blanketed himself.

⇒ “Causal” passive

The causal passive introduces the external cause for a situation described by an unaccusative verb.

- (16) a. suwu suu-du.
 water cool(intr.)-PST
The water cooled down.
 b. tişin-da asiri suuq-dan, suwu terk suu-l-du.
 outside-LOC so cool-ABL water quickly cool(intr.)-PASS-PST
It was so cool outside, that the water cooled down quickly (=Because of the cool outside, ...).

⇒ Experiential passive

- (17) a. ol maña büsüre-di.
 he I.DAT like-PST
He liked me.
 b. ol maña büsüre-l-di.
 he I.DAT like-PASS-PST
He pleased me.

¹ In Balkar, *-n* is used instead of *-l* if the verb stem has already the segment *-l*.

Language	Range of uses of <i>-l</i>						
	Passive uses			Experiential passive	Valence-changing uses		
	Passive with Ag	Passive without Ag	Potential passive		Decausative	Middle	Causal
Balkar	+	+	+	+	+	+	+
Tatar	+	+	+	-/+	+	+	-
Chuvash (-l/-n)	-	-/+	+	-	+	+	-
Khakass	+	+	+	+	+	+	?

Table 2. Range of uses of the 'passive' morpheme *-l* in four Turkic languages

4. Mutual integration of actionality and "passive"

4.1. Middle, causal passive, experiential passive

No change of actional characteristics in whatever aspectual class is attested.

4.2. Decausative and Passive

⇒ The decausative/passive marker *-l* changes actional characteristics of a number of weak and strong telic verbs.

⇒ Actional characteristics of other aspectual classes are not affected.

Changes in aspectual/actional characteristics (see Table 3):

⇒ both strong and weak telic verbs lose episodic interpretation of the present form in passive;

⇒ some weak telic verbs lose atelic interpretation of the perfective form both in passive and decausative.

		Present (Imperfective)		Preterite (Perfective)	
		Episodic (Progressive)	Habitual	Telic	Atelic
Strong telic verbs	non-derived	+	+	+	-
	decausative	+	+	+	-
	passive	-	+	+	-
Weak telic verbs	non-derived	+	+	+	+
	decausative	+	+	+	+/-
	passive	-	+	+	+/-

Table 3. Aspectual and actional characteristics of the present and preterite forms of strong and weak telic verbs and their derivatives.

We assume that the two observed regularities are of different nature: only the latter has to do with actionality, whereas the former is due to the interaction between voice and aspect, a category which is distinct from actionality, as the proponents of the so called bi-dimensional approach tend to assume.

In what follows we are going to discuss the interaction of the decausative/passive and actionality, affecting atelic interpretation of some weak telic verbs.

5. Decausative/passive and atelicity

⇒ The decausative from the weak telic verb *zirt* 'tear' in (18a), unlike the non-derived verb, allows for the telic interpretation only.

⇒ The decausative from the same verb in (18b) is not different from the non-derived verb, possessing two interpretations, telic and atelic.

(18) a. xali zirt-i-l-di.
thread tear-ST-PASS-PST

1. The thread tore (in two minutes) {telic}.

2. lit. *The thread tore (for two minutes) {atelic} ('the thread was about to tear for five minutes')

b. zijriq zirt-i-l-di.
dress tear-ST-PASS-PST

1. The dress tore. (in two minutes) {telic}.

2. lit. The dress tore (for two minutes) {atelic} ('a hole appeared in the dress, and its size increased for two minutes'; no indication that the dress has been completely torn)

The verb *oj* ‘break’ exhibit the same range of possibilities:

- (19) a. terek oj-u-l-du.
 tree break-ST-PASS-PST
 1. *The tree broke (in two minutes)* {telic}
 2. **lit.** **The tree broke (for two minutes)* {atelic} (‘the tree was about to break for five minutes’)
- b. üj oj-u-l-du.
 house break-ST-PASS-PST
 1. *The house went to ruin (in two years)* {telic}
 2. **lit.** *The house went to ruin (for two years)* {atelic} (‘the process of destruction lasted for two years’; no implication that the house is completely destroyed)

The same range of interpretations obtains with passive uses of the morpheme *-l*.

- (20) a. xalı (fatima-ni kücü-bla) zirt-i-l-di.
 thread Fatima-GEN by tear-ST-PASS-PST
 1. *The thread has been torn (by Fatima) (in two minutes)* {telic}.
 2. **lit.** **The thread has been torn (by Fatima) (for two minutes)* {atelic} (‘for two minutes, the thread was affected by the agent’s activity that aimed to tear it’)
- b. zıjriq (fatima-ni kücü-bla) zirt-i-l-di.
 dress Fatima-GEN by tear-ST-PASS-PST
 1. *The dress has been torn (by Fatima) (in two minutes)* {telic}.
 2. **lit.** *The dress has been torn (by Fatima) (for two minutes)* {atelic} (‘the dress was affected by the agent’s activity resulting in that the a hole appeared in the dress, and its size increased for two minutes’)

The passive of the verb *ujat* ‘wake’(see (21)) patterns with ‘tear a thread’, while the passive of *sür* ‘plough’ with ‘tear a dress’ (see (22)).

- (21) madina (fatima-ni kücü-bla) ujat-i-l-di.
 Madina Fatima-GEN by wake-ST-PASS-PST
 1. *Madina has been woken up (by Fatima) (in two minutes)* {telic}.
 2. **lit.** **Madina has been woken up (by Fatima) (for two minutes)* {atelic}. (‘for two minutes, Madina was affected by the agent’s activity who tried to wake her up’)
- (22) baxça (alim-ni kücü-bla) sür-ü-l-di.
 kitchen garden Alim-GEN by plough-ST-PASS-PST
 1. *The kitchen garden has been ploughed (by Alim) (in two hours)* {telic}.
 2. **lit.** *The kitchen garden has been ploughed (by Alim) (for two hours)* {atelic}. (‘the kitchen garden underwent the process of ploughing that lasted for two hours’; no implication that the garden has been ploughed to completion)

Generalization 1. Whether or not the atelic interpretation is available for the decausative/passive, depends on the relation between the argument and the event referred to, namely, on the incremental relation.

5.1. Incrementality

The incremental relation satisfies the following conditions (Krifka 1992, 1998):

a. *Mapping to subobjects:*

θ shows mapping to subobjects iff $\forall x, e, e' [\theta(x, e) \ \& \ e' < e \rightarrow \exists x' [x' < x \ \& \ \theta(x', e')]]$

‘‘If x has the role θ with respect to an e and e' is a proper part of e , there is x' , a proper part of x , that has the role θ with respect to e' .’’

b. *Mapping to subevents:*

θ shows mapping to subevents iff $\forall x, x', e [\theta(x, e) \ \& \ x' < x \rightarrow \exists e' [e' < e \ \& \ \theta(x', e')]]$

‘‘If e is an event, and x' is a proper part of x , and x has the role θ with respect to e , there is e' , a proper part of e , and x' has the role θ with respect to e' .’’

c. *Uniqueness of objects:*

θ is unique for objects iff $\forall x, x', e [\theta(x, e) \ \& \ \theta(x', e) \rightarrow x = x']$

‘‘If x has the role θ with respect to an event e , and x' has the same role with respect to e , then $x=x'$.’’

Strictly incremental relation satisfies the Uniqueness of events as well (e.g. *write*, as opposed to *read*):

d. *Uniqueness of events:*

θ is unique for events iff $\forall x, e, e' [\theta(x, e) \ \& \ \theta(x, e') \rightarrow e = e']$

‘‘If e is an event and e' is an event, and x has the role θ with respect to e and e' , then $e=e'$.’’

⇒ Arguments that stand in the incremental relation to events are called Incremental Theme. Incrementality guarantees transfer of reference properties from the Incremental Theme to the verbal predicate. Predicates like ‘eat an apple’ take the Incremental Theme proper. Predicates like ‘cross the desert’ takes a special case of the Incremental Theme, the Incremental Path Theme.

Generalization 2. Whenever an argument of a verb is linked to the Incremental Theme or to the Incremental Path Theme, this verb allows for the atelic reading.

⇒ Incrementality entails membership in weak telic aspectual class. The predicates ‘tear a dress’ in (18b) and (20b), ‘ruin a building’ in (19b), ‘plough a kitchen garden’ in (22) are incremental: for example, the more one ploughs a kitchen garden, the larger part of the kitchen garden is ploughed. In contrast, ‘tear a thread’ in (18a) and (20a), ‘break a tree’ in (19a), ‘wake up a person’ in (21) are non-incremental: it is not the case that the more one wakes up a person the more this person is awake. Evidently, the relation between the event and the internal argument is preserved in the derived environment; whenever a non-derived predicate entails the incremental relation, so does a predicate derived from it with *-l*. Accordingly, the generalization 2 captures not only properties of decausatives and passives, but general properties of any predicates in Balkar regardless of whether they are derived or not.

The Incremental relation obtains between the cumulative argument of a strong telic verbs and the event referred to, e.g. ‘kill rams’: indeed, the more one kills rams, the more rams are killed. In contrast, strong telic verbs with quantized arguments, e.g. ‘kill a ram’, are non-incremental. Accordingly, as soon as the incremental relation is established, strong telic verbs acquire atelic interpretation.

Generalization 2 is not predicted by Krifka’s theory. So the question is:

⇒ why it is that the incremental verbal predicates with the quantized incremental theme can be either telic and atelic?

5.2. Incrementality, quantized arguments and (a)telicity: Sketch of the analysis

To account for the above data let us assume the change in the nominal predicate that allows it to refer to parts of entities in its original extension. This amounts to the claim that the phonologically empty partitive operator $PART = \lambda P \lambda y \exists x [P(x) \ \& \ y \leq x]$ (Krifka 1992) applies to the nominal predicate in (19b) yielding the predicate in (23b):

(23) a. $[[\ddot{u}j]] = \mathbf{house}$; b. $[[\ddot{u}j]] = \lambda x \exists y [\mathbf{house}(y) \ \& \ x \leq y]$

Unlike the predicate **house**, which is quantized, the predicate $\lambda x \exists y [\mathbf{house}(y) \ \& \ x \leq y]$ is cumulative: if the individual x is a part of the object y , and the individual x' is also a part of y , then their sum $x \oplus x'$ is a part of y . It is equally easy to see that this predicate is divisible. Due to the fact that $\ddot{u}j$ is the Incremental Theme, its referential properties are mapped into the verbal predicate. Accordingly, the verbal predicate in (19b) can be represented as in (24a-b):

(24) a. $[[\ddot{u}j \text{ oj-u-l}]] = \lambda e \exists x [\mathbf{ruin}(e) \ \& \ \mathbf{IncrTheme}(x, e) \ \& \ \mathbf{house}(x)]$
 b. $[[\ddot{u}j \text{ oj-u-l}]] = \lambda e \exists x \exists y [\mathbf{ruin}(e) \ \& \ \mathbf{IncrTheme}(x, e) \ \& \ \mathbf{house}(y) \ \& \ x \leq y]$

It is easy to see that whereas (24a) is quantized, that is, telic, (24b) is not.

⇒ Crucially, membership in the weak telic aspectual class does not entail incrementality: there are non-incremental predicates that fall under this class, e.g. ‘tear a thread’, ‘break a tree’, ‘wake up a person’.

⇒ What is the source of atelicity of such verbs and why their atelicity is affected by the decausative and passive?

5.3. Non-incremental weak telic verbs: Source of atelicity

ujat ‘wake up (tr)’, *ajilat* ‘explain’, *ac* ‘open (tr)’, *sindir* ‘break (tr)’...

Atelic interpretation of the perfective form corresponds to the Agent’s delimited activity insufficient for the resultant state to come to existence:

(25) marat fatima-ni ujat-ti.
 Marat Fatima-ACC wake_up-PST
 Marat woke up Fatima (in 5 minutes / for 5 minutes).

Relevant Agent’s property: control (the Agent is able to interrupt the situation before the resultant state is achieved.)

cf. the atelic interpretation is not available with inanimate subject:

(26) tauš fatima-ni ujat-ti.
 noise Fatima-ACC wake_up-PST
 The noise woke up Fatima (in 5 minutes / *for 5 minutes).

5.4. Agent's activity and (a)telicity: Sketch of the analysis

Assuming the decompositional analysis of the verbal predicate 'wake up' into the causing activity subevent and the resultant state 'be awoken', as in (27), let's apply the phonologically empty partitive operator to the activity subevent, as in (28). (28) predicts correctly that if the Agent's activity is less than necessary for obtaining the resultant state, the sentence in (25) denotes unsuccessful attempts and the predicate is atelic.

(27) $\| \text{marat fatimani ujat} \| = \lambda e \exists s [\text{wake} (e) \ \& \ \text{Agent} (\text{Marat}, e) \ \& \ \text{cause} (e, s) \ \& \ \text{become} [\text{awaken} (s)] \ \& \ \text{Holder} (\text{Fatima}, s)]$

(28) $\| \text{marat fatimani ujat} \| = \lambda e \exists e' \exists s [e \leq e' \ \& \ \text{wake} (e') \ \& \ \text{Agent} (\text{Marat}, e') \ \& \ \text{cause} (e', s) \ \& \ \text{become} [\text{awaken} (s)] \ \& \ \text{Holder} (\text{Fatima}, s)]$

Telic interpretation: $e = e'$, *atelic interpretation:* $e < e'$.

5.5. Atelicity and Passive / Decausative. Summary

	+ Agentivity		- Agentivity	
	+ incrementality	- incrementality	+ incrementality	- incrementality
	<i>oj</i> 'ruin (a house)' also: 'tear a dress', 'plough a garden'	<i>ujat</i> 'wake up (a person)' also: 'tear a thread', 'break a tree'	<i>eri</i> 'melt.intr' (also: 'ruin a house', 'tear a dress' with inanimate subjects)	<i>šin</i> 'break.intr' (also: 'wake up a person', 'break a tree' with inanimate subjects)
Non-derived verb	telic/atelic	telic/atelic	telic/atelic	telic
Passive/ Decausative	telic/atelic	telic	telic/atelic	telic

Table 4. Two sources of atelicity: interpretation of perfective forms

Generalization 3.

- Atelicity resulting from the **internal** argument (= its incremental relation to event) survives.
- Atelicity resulting from the **external** argument (= activity performed by the Agent) disappears: If the Agent is demoted by the decausative or passive, no atelic reading is further available.

6. Conclusion

Voice (particularly, the passive) and actionality has mostly been studied in isolation from one another. The set of generalizations accounting for properties of the passive, both intra- and cross-linguistically, typically concerns the argument structure of a predicate and characterizes the contribution of the passive in terms of what happens to the central arguments of the predication (Comrie 1977, Frajzyngier 1982, Shibatani (ed.) 1988, Haspelmath 1990). Observations about how the passive affects the eventuality type of a verbal predicate normally do not go beyond mentioning that passive markers tend to produce a stativizing effect (Keenan 1985, Siewierska 1984, Kratzer 2000). On the other hand, in the studies of actionality, the eventuality type of a predicate is either lexically specified (Vendler 1967, Comrie 1976, Smith 1991/1997, Breu 1994, Bach et al. (eds.) 1994, Paducheva 1995, Delfitto, Bertinetto 1995) or derived compositionally by integrating contribution of reference properties of the arguments (Krifka 1992, 1998, Verkuyl 1993, 1999). Again, no account for the interaction between the eventuality type and valence-changing and voice morphemes is provided.

In this paper we capture regularities in how the actional properties of a predicate are affected by the decausative/passive morpheme *-l*. In particular, we offer an explanation for the atelic interpretation obtaining with the incremental predicates; under this explanation the decausative and passive uses of the morpheme *-l* are subsumed as a special case.

A number of puzzles remains, however. The problem that has been mentioned but has not been discussed extensively in this paper concerns interaction between the voice and aspect, a category which is distinct from actionality, as the proponents of the so called bi-dimensional approach tend to assume. In particular, the fact that in the imperfective the progressive reading is available for the decausative use of *-l* but not available for its passive use (see (2a)) requires comprehensive explanation. Presumably, this problem is not easily dealt with within the vast majority of current approaches to aspect and argument structure.

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