

Agents are anti-teleic

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Introduction

Common properties used to identify Agents (arguments that bear the Agent θ -role: *volitionality, intentionality, animacy, control*, etc.

These properties are all *intrinsic* to Agents.

A rarely explored way of identifying Agents: through *extrinsic* properties (i.e. distribution, the environments where they appear)

I propose that **anti-telicity** (the impossibility of being licensed in telic predicates) is an extrinsic property of Agents.

- What are θ -roles?

θ -roles are natural classes of arguments that share certain semantic properties.

- Which semantic properties are relevant?

Semantic properties must be *grammatically relevant*.

Auxiliary Selection

(1) **Italian**

a. Luisa **ha** lavorato. *unergative*

Luisa **has** worked

‘Luisa worked.’

b. Luisa **è** morta. *unaccusative*

Luisa **is** died

‘Luisa died.’

The distinction between unergatives and unaccusatives, as diagnosed by auxiliary selection, is predictable from the semantic properties of predicates and their arguments.

The sole arguments of unergatives are mostly *volitional*.

The sole arguments of unaccusatives are mostly *non-volitional*. →

Since auxiliary selection is sensitive to the volitionality of arguments, volitionality is *grammatically relevant* to determining θ -roles.

The sole arguments of unergatives and unaccusatives are typically argued to bear *Agent* and *Theme* respectively.

Many researchers have argued for categorizing **the external arguments of transitives** into distinct classes (Arad 1998; Pylkkänen 2002; Travis 2002; Doron 2003; Folli & Harley 2005, 2007; Alexiadou et al. 2006; Alexiadou & Schäfer 2006; Kallulli 2006; Schäfer 2012; Alexiadou 2014; Tollan 2018; Alexiadou & Anagnostopoulou 2020; Martin 2020, among many others).

The most common distinction is between Agents and Causers.

(2) **Mandarin Coerced Activities from Achievements**

a. Xiaohong yizhayandegongfu jiu zhe-le na gen shuzhi. *telic*

Xiaohong in.an.instant at.once snap-PFV that CL branch

‘Xiaohong snapped that branch in an instant.’

b. dafeng yizhayandegongfu jiu zhe-le na gen shuzhi. *telic*

big.wind in.an.instant at.once snap-PFV that CL branch

‘The big wind snapped that branch in an instant.’

(2) **Mandarin Coerced Activities from Achievements**

c. Xiaohong zhe-le na gen shuzhi haojiu. *atelic*

Xiaohong snap-PFV that CL branch very.long

‘Xiaohong tried to snap that branch for a long time.’

d. *dafeng zhe-le na gen shuzhi haojiu. *atelic*

big.wind snap-PFV that CL branch very.long

Literally: ‘The big wind snapped that branch for a long time.’

Agent Control Hypothesis (ACH) (weak version)

Zero result non-culminating construals require the predicate's external argument to be associated with agenthood properties.

(Demirdache & Martin 2015: 201)

The relevant agenthood property seems to be *volitionality* and it is again grammatically relevant to determining θ -roles.

The *volitional* subjects *Xiaohong* in (2a) and (2c) are typically analyzed as *Agents*.
The *non-volitional* subject 'the big wind' in (2b) is typically analyzed as a *Causer*.

(3) **Mandarin Psych Verbs**

a. Xiaoming anwei-le Xiaohong ban-xiaoshi. *atelic*

Xiaoming comfort-PFV Xiaohong half-an hour

‘Xiaoming comforted Xiaohong for half an hour.’

b. Xiaoming yihuier jiu anwei-**dao**-le Xiaohong. *telic*

Xiaoming in.a.moment at.once comfort-arrive-PFV Xiaohong

‘Xiaoming managed to comfort Xiaohong in a moment.’

(3) **Mandarin Psych Verbs**

c. *na shou ge anwei-le Xiaohong ban-xiaoshi. *atelic*
that CL song comfort-PFV Xiaohong half-an hour

Literally: ‘That song comforted Xiaohong for half an hour.’

d. na shou ge yihuier jiu anwei-**dao**-le Xiaohong. *telic*
that CL song in.a.moment at.once comfort-arrive-PFV Xiaohong

‘That song managed to comfort Xiaohong in a moment.’

When the predicate is *atelic*, the subject must be *volitional*.

When the predicate is *telic*, the subject could be *volitional* or *non-volitional*.

The *volitional* subjects *Xiaoming* in (3a) and (3b) are *Agents*.

The *non-volitional* subject ‘that song’ in (3d) is a *Causser*.

Problems with volitionality

It seems that volitionality is a relevant semantic property in identifying Agents.

However, ...

- The sole arguments of unergatives are not necessarily volitional:
 - unergatives involving involuntary bodily processes such as *sneeze*, *cough*, *yawn*;
 - sound emission verbs such as *whistle*, *hum*, *squeak* (see [Levin & Rappaport Hovav 1995](#))

➤ Volitionality is not an agenthood property referred to in the ACH in Salish languages.

(4) **Comox (a Coast Salish language)**

a. λəpɣ^w-a-t-as-uł ʔiy x^waʔ λəpɣ^w-as *atelic*
break-LV-CTR-3ERG-PST and NEG break-3CNJ

Literally: ‘He broke it, but it did not break.’

b. λəpɣ^w-əx^w-as #ʔiy x^waʔ λəpɣ^w-as *telic*
break-NTR-3ERG and NEG break-3CNJ

Literally: ‘He broke it, but it did not break.’

(5)	t ^ʰ iy-ʔəm_k ^w a	ʔə_k ^w _čəy.čuy'	ʔə_tiʔi
	search-A.INTR_QUOT	OBL_DET_PL-child	OBL_DEM
	'She [The Basket Ogre] looks for kids here.'		
	maʔ-əx ^w -as	k ^w _pi.paʔa	čuy'
	obtain-NTR-3ERG	DET_person-one	child
	'She gets one child.'		

(Watanabe 2003: 212)

As a result, Agents would be identified by different properties in different languages.

Teleological capability

Folli & Harley (2008) also argue against the *volitionality* approach to Agents. They adopt Higginbotham's (1997) *teleological capability* to characterize Agents.

Teleological capability is “the inherent qualities and abilities of the entity to participate in the eventuality denoted by the predicate.”

However, the understanding of this concept largely depends on intuition, and no formal tests have been developed for it, making its practical application challenging.

Relating semantic properties to θ -roles

The relationship between volitionality and Agent varies with its definition.

Three ways of defining Agents, all of which are based on event semantics:

- $\lambda x \lambda e. \exists e'. [\text{INITIATOR}(e, x) \ \& \ \text{CAUSE}(e, e') \ \dots]$

$\lambda x \lambda e. \text{INITIATOR}(e, x) \equiv \lambda x \lambda e. \text{AGENT}(e, x)$ iff x is *volitional*

$\lambda x \lambda e. \text{INITIATOR}(e, x) \equiv \lambda x \lambda e. \text{CAUSER}(e, x)$ iff x is *non-volitional*

Volitionality is a *defining* property of Agents.

see Levin & Rappaport Hovav (2005: 70)

- $\lambda x \lambda e. \exists e'. [\text{AGENT}(e, x) \ \& \ \text{CAUSE}(e, e') \ \dots]$

$\models x$ is *volitional*

Volitionality is an *identifying* rather than a *defining* property of Agents.

Causers are causing events themselves.

see e.g., Pylkkänen 2002; Alexiadou & Schäfer 2006; Schäfer 2012; Alexiadou 2014; Alexiadou & Anagnostopoulou 2020; Martin 2020

- $\lambda x \lambda e. [\text{AGENT}(e, x) \ \& \ \text{ACT}(e) \ \dots]$

$\models x$ is *volitional*

Volitionality is an *identifying* property of Agents.

- $\lambda x \lambda e. \exists e'. [\text{CAUSER}(e, x) \ \& \ \text{CAUSE}(e, e') \ \dots]$

This definition of Agents originates from *lexical semantic representations* of activities in e.g., Ross (1972); Dowty (1979); Pustejovsky (1991, 1995); Levin & Rappaport Hovav (1995); Rappaport Hovav & Levin (1998) and is implicitly assumed in Folli & Harley (2005, 2007).

While the first two definitions limit us to *intrinsic* properties in identifying Agents, the third definition allows us to identify Agents also with their *extrinsic* properties (the environments where they appear).

I argue that act events are uniquely **anti-telic** (the impossibility of being licensed in telic predicates).

$\lambda x \lambda e. [\text{AGENT}(e, x) \ \& \ \text{ACT}(e) \ \dots]$

$\models e$ is anti-telic

If act events are uniquely anti-telic, then an argument that participates in an act event must be an Agent. \rightarrow Agents are anti-telic.

An alternative

Let's revisit (2)

(2) Mandarin Coerced Activities from Achievements

a. Xiaohong yizhayandegongfu jiu zhe-le na gen shuzhi. *telic*

Xiaohong in.an.instant at.once snap-PFV that CL branch

‘Xiaohong snapped that branch in an instant.’

b. dafeng yizhayandegongfu jiu zhe-le na gen shuzhi. *telic*

big.wind in.an.instant at.once snap-PFV that CL branch

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(2) **Mandarin Coerced Activities from Achievements**

c. Xiaohong zhe-le na gen shuzhi haojiu. *atelic*

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‘Xiaohong tried to snap that branch for a long time.’

d. *dafeng zhe-le na gen shuzhi haojiu. *atelic*

big.wind snap-PFV that CL branch very.long

Literally: ‘The big wind snapped that branch for a long time.’

We see two factors at play: the *volitionality* of an external argument and the *telicity* of a predicate

- We can identify Agents with *volitionality* and explore their connections to *telicity*, which has been argued to be problematic.
- Or we can identify Agents with *anti-telicity* (the impossibility of being licensed in telic predicates) and explore their connections to *volitionality*.

Caveat on anti-telicity:

Strictly speaking, *anti-telic* arguments only appear in *atelic* predicates, while *non-anti-telic* arguments can appear in *atelic* or *telic* predicates.

However, (2–3) suggests that the relevant concept of anti-telicity is a special case in the sense that *non-anti-telic* arguments should only appear in *telic* predicates, with *anti-telic* arguments still only appearing in *atelic* predicates.

- Under the volitionality approach to Agents, (2) suggests that the atelic reading of the predicate is only possible when the subject is an Agent, which is the ACH.
- Under the anti-telicity approach to Agents, (2) suggests that Agents must be volitional, while Causers can be volitional or not.

Therefore, the anti-telicity approach to Agents is at least as plausible as the volitionality approach.

(4) **Comox**

- a. $\lambda\text{əp}x^w\text{-a-t-as-uł}$ ʔiy $x^w\text{a}ʔ$ $\lambda\text{əp}x^w\text{-as}$ *atelic*
break-LV-CTR-3ERG-PST and NEG break-3CNJ

Literally: ‘He broke it, but it did not break.’

- b. $\lambda\text{əp}x^w\text{-ə}x^w\text{-as}$ $\#ʔiy$ $x^w\text{a}ʔ$ $\lambda\text{əp}x^w\text{-as}$ *telic*
break-NTR-3ERG and NEG break-3CNJ

Literally: ‘He broke it, but it did not break.’

(Watanabe 2003: 205)

Under the anti-telicity approach, the identifying property of Agents is kept the same across different languages.


The sole arguments of unergatives are also anti-telic, which provides further evidence for the anti-telicity approach.

Besides volitionality, telicity has also been frequently used to classify intransitives (Hoekstra 1984; Van Valin 1990; Dowty 1991; Zaenen 1993; Borer 1994, among many others). Dowty (1991) argues that an atelic intransitive *tends* to be an unergative, while a telic intransitive *tends* to be an unaccusative.

Although the sole arguments of unaccusatives are licensed in either telic or atelic predicates, the sole arguments of unergatives cannot be licensed in telic predicates. →

The sole arguments of unergatives are anti-telic and the sole arguments of unaccusatives are non-anti-telic (in the strict sense).

Sorace (2000:863) proposes a continuum for distinguishing unaccusatives from unergatives.

Sorace's label	Example verbs	Telicity	Unaccusative
Change of Location	come, arrive, fall	telic	
Change of State	begin, rise, die	telic	
Continuation of a Pre-Existing State	remain, last, survive	atelic	
Existence of State	exist, please, belong	atelic	
Uncontrolled Process	cough, laugh, shine	atelic	
Controlled Process (motional)	run, swim, walk	atelic	
Controlled Process (non-motional)	work, play, talk	atelic	

(adapted from Sorace 2000:863)

Further evidence that the sole arguments of unergatives are anti-telic comes from *variable behavior intransitives*.

(6) **Italian**

a. Luisa **ha** corso nel parco per/*in un'ora. *atelic*

Luisa **has** run in.the park for/*in an hour

‘Luisa ran in the park for /*in an hour.’

b. Luisa **è** corsa a casa *per/in un'ora. *telic*

Luisa **is** run to house *for/in an hour

‘Luisa ran home *for /in an hour.’

(adapted from Calabrese and Maling 2009: 8)

(7) **Italian**

- a. La palla **ha** rotolato sotto il tavolo per/*in un secondo. *atelic*
the ball **has** rolled under the table for/*in a second

‘The ball rolled under the table for/*in a second.’

- b. La palla **è** rotolata nella rete *per/in un secondo. *telic*
the ball **is** rolled into.the goal *for/in a second

‘The ball rolled into the goal *for/in an second.’

(adapted from Schäfer 2012: 146–147)

The table below illustrates the difference between the two approaches to identifying Agents. (vol = volitionality, t = telicity, a-t = anti-telicity)

	Subject	Predicate	Old Approach Agent: [+vol]	New Approach Agent: [+a-t]
(2b)	‘the big wind’ [-vol] [-a-t]	‘snap that branch’ [+t]	Causer	Causer
(3d)	‘that song’ [-vol] [-a-t]	‘comfort-arrive X.’ [+t]		
(7b)	‘the ball’ [-vol] [-a-t]	‘roll into the goal’ [+t]		
(2c)	<i>Xiaohong</i> [+vol] [+a-t]	‘snap that branch’ [-t]	Agent	Agent
(3a)	<i>Xiaoming</i> [+vol] [+a-t]	‘comfort X.’ [-t]		
(4a)	‘he’ [+vol] [+a-t]	‘break it’ [-t]		
(6a)	<i>Luisa</i> [+vol] [+a-t]	‘run in the park’ [-t]		

(2a)	<i>Xiaohong</i> [+vol] [-a-t]	‘snap that branch’ [+t]	Agent	Causer
(3b)	<i>Xiaoming</i> [+vol] [-a-t]	‘comfort-arrive X.’ [+t]		
(4b)	‘he’ [+vol] [-a-t]	‘break it’ [+t]		
(6b)	<i>Luisa</i> [+vol] [-a-t]	‘run home’ [+t]		
(7a)	‘the ball’ [-vol] [+a-t]	‘roll under the table’ [-t]	Causer	Agent

Refining anti-telicity

(8) Consumption Verbs

- a. The groom ate the wedding cake for ten minutes. *atelic*
- b. The groom ate (up) the wedding cake in ten minutes. *telic*
- c. *The sea ate the beach. *atelic/telic*
- d. The sea ate *away* the beach. *telic*

(adapted from Folli & Harley 2005: 95–96)

(9) Semelfactives

- John jumped (once) in three seconds. *telic*

(8) and (9) suggest that anti-telicity may not be the right property needed to explain the patterns observed so far. An alternative: *anti-resultativity*

Conclusion

- The volitionality approach fails to explain the ACH in languages like Comox, where the property triggering the zero result non-culminating reading of telic predicates is unrelated to volitionality.
- The volitionality approach also does not account for why volitional and non-volitional arguments of unergatives behave the same.
- In contrast, the anti-telicity approach avoids these issues.

Below is a summary of the advantages and disadvantages of the two approaches. It is apparent that the anti-telicity approach is preferable.

	Activities Coerced from Achievements	Psych Verbs	ACH in Comox	Unergatives
Volitionality	✓	✓	✗	✗
Anti-Telicity	✓	✓	✓	✓

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