

Semantic Role Assignment: Between Verb and Context

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- ▶ In particular, I intend to highlight the interplay between lexical and compositional factors in the determination of whether an argument of a sentence will be interpreted as an Agent.

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 - ▶ The grammatical construction in which the verb and the NPs co-occur;
 - ▶ Other compositional variables, such as adverbials, tense and aspect, etc.
- ▶ I will present and discuss some empirical evidence which supports this claim.

- ▶ The notion of Agent has been traditionally described in terms of semantic role or thematic relation assigned by V to syntactic/argument positions (Gruber 1965, Fillmore 1968, Katz 1972, Jackendoff 1976, Foley and van Valin 1984, Dowty 1991 among others).

Semantic Roles as argument positions in verb lexical representation

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- ▶ In the Role and Reference Grammar framework (Van Valin and Lapolla 2006), semantic roles are derived from argument positions in verb decompositional representation (following the general approach in Gruber 1965 and Jackendoff 1976).
- ▶ Agent is the first argument of the abstract operator DO.

Lexical representation for *Aktionsart* classes (Van Valin 2005, 45)

Verb (<i>Aktionsart</i>) class	Logical Structure
STATE	predicate' (x) or (x, y)
ACTIVITY	do' (x, [predicate' (x) or (x, y)])
ACHIEVEMENT	INGR [predicate' (x) or (x, y)], or INGR do' (x, [predicate' (x) or (x, y)])
SEMELFACTIVE	SEML predicate' (x) or (x, y) SEML do' (x, [predicate' (x) or (x, y)])
ACCOMPLISHMENT	BECOME predicate' (x) or (x, y), or BECOME do' (x, [predicate' (x) or (x, y)])
ACTIVE ACCOMPLISHMENT	do' (x, [predicate ₁ ' (x), (y)]) & INGR predicate ₂ ' (z, x) or (y)
CAUSATIVE	CAUSE , where , are LSs of any type

Thematic relations as LS argument positions in RRG

Arg of DO	1st arg of do' (x, ...	1st arg of pred' (x,y)	2nd arg of pred' (x,y)	Arg of state pred' (x)
AGENT	EFFECTOR MOVER ST-MOVER L-EMITTER S-EMITTER PERFORMER CONSUMER CREATOR SPEAKER OBSERVER USER	LOCATION PERCEIVER COGNIZER WANTER JUDGER POSSESSOR EXPERIENCER EMOTER ATTRIBUTANT IDENTIFIED VARIABLE	THEME STIMULUS CONTENT DESIRE JUDGMENT POSSESSED SENSATION TARGET ATTRIBUTE IDENTITY VALUE PERFORMANCE CONSUMED CREATION LOCUS IMPLEMENT	PATIENT ENTITY

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- ▶ "In predicates with grammatical subject and object, the argument for which the predicate entails the greatest number of Proto-Agent properties will be lexicalized as the subject of the predicate; the argument having the greatest number of Proto-Patient entailments will be lexicalized as the direct object." (Dowty 1991).

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- ▶ "Luca ha divorato un panino".
divorare, sense 'eat eagerly' (x: Animate, y: Food)
divorare, sense 'eat eagerly' (x: Agent, y: Patient)

Derived Agency

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- ▶ For the current purposes, I will refer to these verbs as *unmarked verbs*. Equivalent terms are *context-dependent* or *underspecified verbs*.

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- ▶ For the current purposes, I will refer to these verbs as *unmarked verbs*. Equivalent terms are *context-dependent* or *underspecified verbs*.
- ▶ Unmarked verbs can be identified empirically, i.e. by examining the argument fillers that they exhibit in subject position in the corpus (BNC, ItWaC) using the Sketch Engine (Kilgarriff et al. 2004).

▶ *hit*

Unmarked verbs

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- ▶ "John hit the ball"

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- ▶ "shots hit the wall"
- ▶ "a violent storm hit me" (different sense?)

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- ▶ *disappear* (Wechsler 2005)

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- ▶ "la nube lascerà i cieli italiani alle 8"

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- ▶ It follows that being an Agent is not solely a verbal property. Many verbs are simply unmarked for Agency.
- ▶ Agency is not entirely a lexical property of a particular verb and the scheme in theories like RRG that attributes the property of Agency entirely to the verb is not correct.

Human as Agent

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- ▶ "What the computer is doing is calculating the correlation coefficient".

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Human as Agent

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- ▶ *hit*
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- ▶ Additional properties are relevant to determine whether an animate will be interpreted as Agent.

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- ▶ human: $anim \otimes_{A,T}(e,e')$.

What determines Agent Interpretation with unmarked predicates?

- ▶ In the presence of an unmarked predicate, what determines whether a human subject will be interpreted as an Agent?

Role of Context in licensing Agency

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- ▶ "The thief broke the glass" (default intentional)
- ▶ (van Valin and Wilkins 1996).

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Role of Context in licensing Agency

- ▶ Adverbial.
- ▶ "John rolled down the hill"
- ▶ "The ball rolled down the hill"
- ▶ "John rolled down the hill as fast as he could"
- ▶ (Pustejovsky 2010).

- ▶ Tense and Aspect.

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Role of Context in licensing Agency

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- ▶ "Luca indossò la divisa e gli stivali e uscì"

What determines Agent Interpretation?

- ▶ In the presence of an unmarked predicate, what determines whether a human subject will be interpreted as an Agent in absence of an explicit indicator to force an interpretation one way or another?

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- ▶ he could intentionally have done something and intended for his action to lead to the breaking of the glass.

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- ▶ Bill → undergoer.

Intransitive Subjects in Tsova-Tush

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- ▶ In this language, Ergative is the case of transitive actors, while Nominative is the case of transitive undergoers.

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 1. nominative is the norm and ergative is unusual;
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- ▶ with ergative suffix → *slide* (controlled event)
- ▶ with nominative suffix → *slip* (uncontrolled event)

Agent as a pragmatic implicature

- ▶ According to Holinsky 1987, Agent interpretation often arises from the intersection of the semantics of the clause (the semantics of both the NP and the predicate) and general principles of conversations (in terms of Grice). In particular, the interpretation of an argument as an agent derives from the following pragmatic principle.

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- ▶ Pragmatic principle: You may interpret effectors and effector themes which are humans as agents, in absence of any information to the contrary (p. 118-119).

kill (Van Valin and Wilkins 1996)

- ▶ "Larry killed the deer" (according to the principle of pragmatic implicature, default reading is that of an Agent).

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- ▶ "The explosion killed the deer".

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- ▶ *kill* (x: event, y: animate)

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- ▶ "John's pulling the trigger killed Mary".
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- ▶ The Agentive NP stands in for the whole causing-event sequence.

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- ▶ English appears to have few verbs which have obligatory agentive arguments, whereas many Japanese verbs whose English counterparts are unmarked for Agency do indeed require an Agent argument (van Valin LaPolla 1996, 120).

- ▶ Verbs which select an agent.

- ▶ Verbs which select an agent.
- ▶ Verbs which select a patient.

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- ▶ Verbs which select a patient.
- ▶ Verbs which are unmarked.

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- ▶ Modifiability by agent-oriented adverbials (intentionally, deliberately, carefully).
- ▶ Modifiability by patient-oriented (agent-cancelling) adverbials (accidentally, unintentionally, inadvertently).
- ▶ Do-test (What x did was/What happened to x was that; Cruse 1973).

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- ▶ They select a Subject which is an Agent (not simply a Human).

Verbs with Lexical Agents

Verbs with lexical agents (big DO in RRG) do not exhibit inchoative alternation.

- ▶ Luisa ha foderato la gonna *La gonna si è foderata
'Luisa lined the skirt' 'The skirt has lined'

Verbs with Lexical Agents

Verbs with lexical agents (big DO in RRG) do not exhibit inchoative alternation.

- ▶ Luisa ha foderato la gonna *La gonna si è foderata
'Luisa lined the skirt' 'The skirt has lined'
- ▶ Luisa ha lucidato le scarpe *Le scarpe si sono lucidate
'Luisa polished her shoes' 'The shoes have polished'

Shadowing Lexical Agents

A lexical agent can never be shadowed (=demoted), except in passives:

- ▶ Luca ha lavato i piatti *i piatti si sono lavati i piatti sono stati lavati
'Luca washed the dishes' the dishes washed 'the dishes were washed'

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'Luca washed the dishes' the dishes washed 'the dishes were washed'
- ▶ Luca ha rotto i bicchieri i bicchieri si sono rotti i bicchieri sono stati rotti
'Luca broke the glasses' 'the glasses broke' 'the glasses were broken'

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- ▶ "This is the way our law is. You cannot kill a man deliberately".
- ▶ "If a person kills someone accidentally..."

Unmarked Verbs

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- ▶ "Luisa ha macchiato il vestito" "il vestito si è macchiato"
'Luisa stained the dress' 'The dress got stained'

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- ▶ "The window was closed *in the wind" (passive subsumes a human volitional agent).

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Wechsler 2005

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- ▶ "Bush spoke about a new program to put the elderly back to work"

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Pustejovsky 2007

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Summing up

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Summing up

- ▶ Agency is better interpreted as a derived notion, resulting from the interplay of lexical and compositional factors.
- ▶ Further empirical work is needed in order to clarify and model the actual contribution of compositional variables to the overall interpretation (in terms of informativeness, cancellation, redundancy etc.).
- ▶ The criteria that allow us to draw a distinction between underspecified forms and forms that give rise to default readings need to be stated more clearly.

Acknowledgments

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