

Event Representations for Automated Story Generation with Deep Neural Nets

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INTRODUCTION

Automated story generation: automatically selecting a sequence of events, actions, or words that can be told as a story

Open story generation: automatically generating a story about any domain without a *a priori* manual knowledge engineering

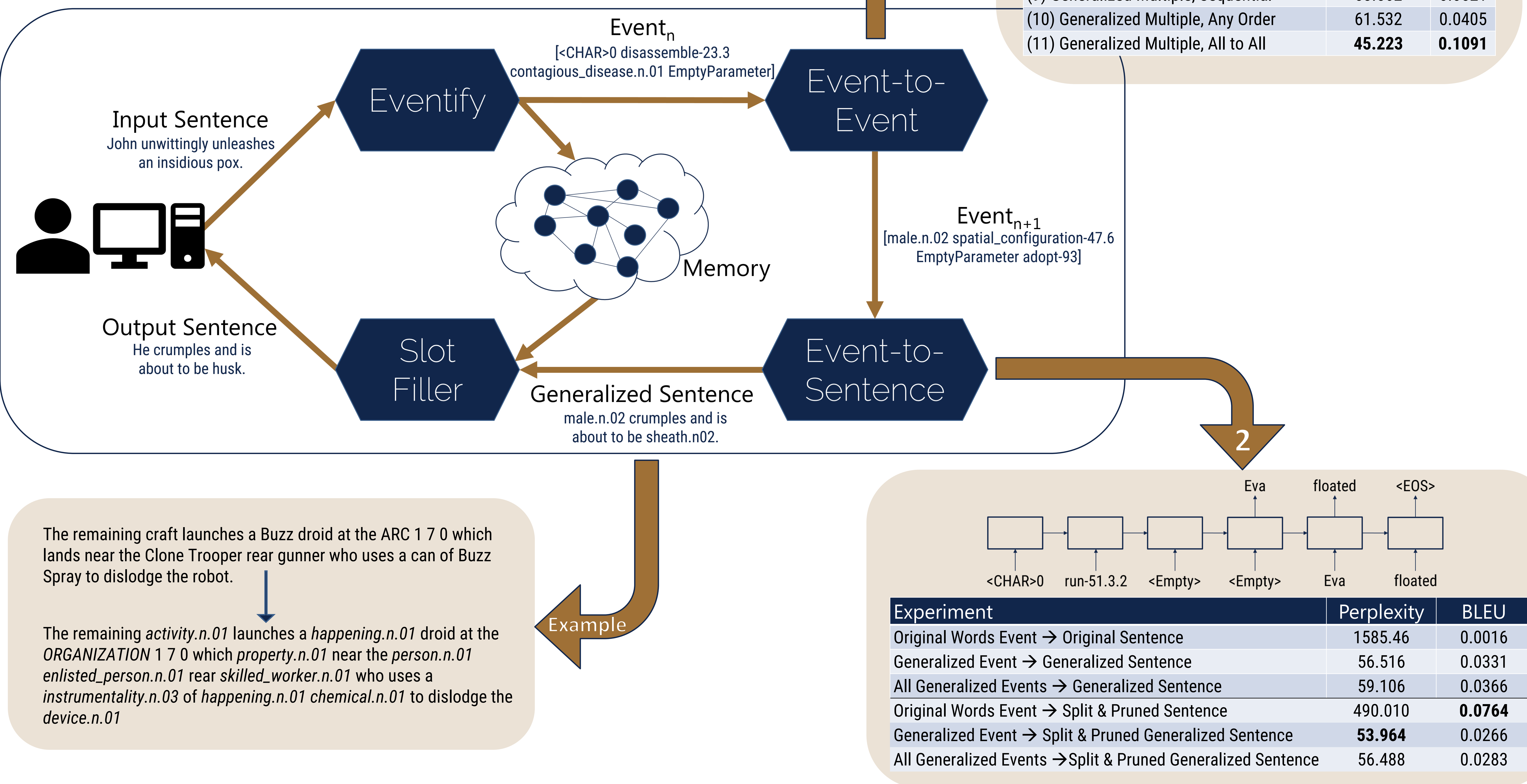
We convert sentences into **events** (a unit of story featuring a world state change) of the structure:

[subject, verb, direct object, modifier]

*The modifier can be a propositional object, an indirect object, a causal complement, or an unclassified dependency on the verb.

Using this basic format as our template, we experimented on:

- different event representations that could be manipulated in order to yield the best results for predicting the subsequent event (**event-to-event**).
- ways of translating the event representation back into a reasonable English sentence (**event-to-sentence**).



The remaining craft launches a Buzz droid at the ARC 1 7 0 which lands near the Clone Trooper rear gunner who uses a can of Buzz Spray to dislodge the robot.

The remaining *activity.n.01* launches a *happening.n.01* droid at the *ORGANIZATION 1 7 0* which *property.n.01* near the *person.n.01* *enlisted_person.n.01* rear *skilled_worker.n.01* who uses a *instrumentality.n.03* of *happening.n.01* *chemical.n.01* to dislodge the *device.n.01*

Example

END-TO-END EXAMPLES

Experiment	Input	Extracted Event(s)	Generated Next Event(s)	Generated Next Sentence
All Generalized Events & Generalized Sentence	He reaches out to Remus Lupin, a Defence Against the Dark Arts teacher who is eventually revealed to be a werewolf.	[male.n.02, get-13.5.1, \emptyset , <CHAR>0] [ORGANIZATION, say-37.7-1, monster.n.01, \emptyset]	[monster.n.01, amuse-31.1, sarge, \emptyset] [monster.n.01, amuse-31.1, realize, \emptyset] [monster.n.01, conjecture-29.5-1, \emptyset , \emptyset] [male.n.02, conduit.n.01, entity.n.01, \emptyset] [male.n.02, free-80-1, \emptyset , penal_institution.n.01]	When monster.n.01 nemesis.n.01 describes who finally realizes male.n.02 can not, dangerous entity.n.01 male.n.02 is released from penal institution.n.01.
Generalized Event & Generalized S+P Sentence	John unwittingly unleashes an insidious pox that rapidly spreads across the Caribbean.	<CHAR>0, disassemble-23.3, contagious_disease.n.01, \emptyset	[male.n.02, spatial_configuration-47.6, \emptyset , adopt-93]	male.n.02 crumples and is about to be sheath.n.02.
Original Words Event & S+P Sentence	He thinks he's on a top secret spying mission.	[he, think, \emptyset , \emptyset]	[she, come, know, truth]	She has come to the truth.

Examples come from synopses of *Harry Potter and the Prisoner of Azkaban*, *Tales of Monkey Island* (with Guybrush changed to John), and *Carry On Regardless*, respectively.

