

Accounting for the Importance of Changes in Event Actuality in the Representation of Narrative



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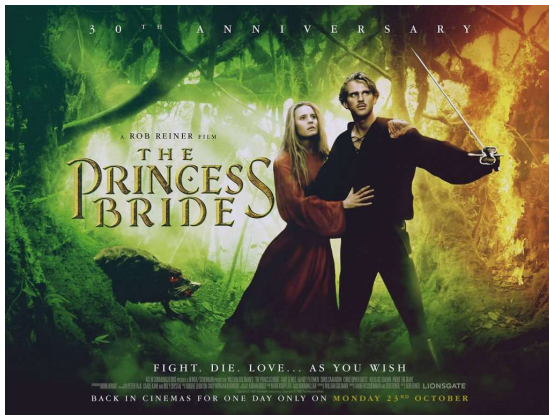
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Introduction

The mainstay of any story is the sequence of events that has happened to the characters involved in it. However, stories often mention events that have not happened – wishes, dreams, duties, beliefs, plans – that are sometimes extremely important for the plot as readers understand it. These events subsequently either become true, or the hope of their ever becoming true is dashed by circumstances. The initial mentions of such non-actual events very often act as drivers of the plot, or establish some of the conflicts that are essential to the story. When it happens, the change in truth status of those statements tends to operate as partial closure for the plot. In those cases, understanding the plot of the story involves being able to represent not only the events themselves but how the initial views on these events evolve throughout the story towards a resolution of the conflict. The present paper proposes a representation of narrative that includes means for identifying non-actual events of this kind, and for keeping track of when their non-actual status changes and what it evolves to. This representation is shown to capture important aspects of narratives with complex structure in terms of shifting views on the truth value of statements fundamental to the plot, such as whether the hero is alive or whether the heroine is married to the villain or not.



Features for Representing Potentiality

The representation for potentiality has been extended to include the following categories:

- **Assertive:** Statements that declare information or describe facts.
- **Subjunctive:** Statements corresponding to sentences in subjunctive mode.
- **Imperative:** Statements corresponding to sentences in imperative mode.
- **Modal:** Expressions that convey possibility, necessity, or hypothetical situations.
- **Conditional:** Dialogue lines that establish conditions or hypothetical premises (e.g., "If you wish. . .", "Should you decide. . .").
- **Result:** Statements that capture the outcome or consequence that follows from a Conditional or Modal expression.
- **Purpose:** Statements that describe the purpose or reason for doing something
- **Interrogative:** Questions that seek information or clarification.
- **Exclamatory:** Emphatic expressions that convey strong emotions.
- **Mental Scenario:** Statements that refer to mental constructs being held in mind by one of the characters.

Example of Annotation in Movie

Action Unit ID	Character	On Screen Action Dialogue Line Action	Assertive	Subjunctive	Imperative	Modal	Conditional	Result	Purpose	Interrogative
1083	Buttercup	If we surrender,					yes	yes		
1084	Buttercup	and I return with you,	Yes							
1085	Buttercup	will you promise				will				yes
1086	Buttercup	not to hurt this man?								yes
1087	Humperdinck	May I live a thousand years and				may				
1088	Humperdinck	never hunt again.	Yes							

Figure 1: Buttercup negotiates Westley's release in exchange of marrying Humperdinck

It shows:

- a conditional statement by Buttercup (action units 1083-1086) describing the conditions of her proposal ("If we surrender and I return to you", action units 1083-1084, marked as Conditional),
- a request for a promise on what Humperdinck will do in the future ("will you promise not to hurt this man?", action units 1085-1086, marked as Modal of type will), and
- a description by Humperdinck of the penalties he is willing to suffer if he defaults on his promise ("May I live a thousand years and never hunt again", action units 1087-1088, marked as Modal of type may) which carries an implicit commitment to the promise.

Example: Westley's view

Action Unit ID	Character	On Screen Action Dialogue Line Action	Truth Validation Status	Verifying Lapse	Conflicting AUD
110 Narrator	Grandfather	Westley had no money for marriage.			
111 Narrator	Grandfather	So he packed his few belongings and			
112 Narrator	Grandfather	left the farm to	127	19	
113 Narrator	Grandfather	seek his fortune across the sea.			
118 Buttercup		I fear I'll never see you again.	-912	799	
119 Westley		Of course you will.	912	798	
120 Buttercup		But what if something happens to you?	-912	797	
121 Westley		Hear this now:			
122 Westley		I will always come for you.	912	795	
127 Westley		Westley leaves the farm			
128 Narrator	Grandfather	Westley didn't reach his destination.	129	6	
129 Narrator	Grandfather	His ship was attacked by the Dread Pirate Roberts.	878	754	
130 Narrator	Grandfather	who never left captives alive.	-987	862	
131 Narrator	Grandfather	When Buttercup got the news			
132 Narrator	Grandfather	that Westley was murdered	-912	785	
135 Narrator	Grandfather	She went into her room and			
136 Narrator	Grandfather	shut the door.			
137 Narrator	Grandfather	And for days, she neither slept			
138 Narrator	Grandfather	nor ate			
141 Buttercup		I will never love again.	-912	778	
853 Buttercup		You're the Dread Pirate Roberts;			
854 Man in black		With pride.	854	2	
858 Man in black		Why loose your venom on me?	859	2	
859 Buttercup		You killed my love.	-912	54	
865 Buttercup		A farm boy, poor, poor and perfect,			
866 Buttercup		with eyes like the sea after a storm.	878	13	
867 Buttercup		On the high seas, your ship attacked,			
		and the Dread Pirate Roberts never	-987	121	
		takes prisoners.			
877 Man in black		I remember this farm boy of yours, I			
		think.			
908 Buttercup		You can die too, for all I care!	911	4	
909 Buttercup		Buttercup push Man in Black down			
910 Man in black		hill			
911 Man in black		Man in Black fall down hill			
912 Buttercup		As you wish.	910	0	
913 Buttercup		Buttercup realize Man in Black's			
		identity			
913 Buttercup		Oh, my sweet Westley; what have I	909	-3	
		done?			
914 Buttercup		Buttercup throws herself down hill			
928 Buttercup		You're alive.	912	-15	
932 Westley		I told you,	122	-808	
933 Westley		"I would always come for you."	122	-809	
984 Westley		Finally, Roberts decided something.			
985 Westley		He said,			
986 Westley		"All right, Westley, I've never had a			
987 Westley		valet.			
988 Westley		You can try it for tonight.	0		
		I'll most likely kill you in the			
		morning."	-989	3	
1017 Westley		Once the crew believed,			
1018 Westley		he left the ship and			
1019 Westley		I have been Roberts ever since.	533	-484	
1020 Westley		Except, now that we're together,			
1021 Westley		I shall retire and	2105	1086	
		hand the name over to someone			
		else.	2105	1085	
1090 Buttercup		Promise	1092	4	
1091 Buttercup		to return him to his ship.	1092	3	
1092 Humperdinck		I swear	-1119	29	
1093 Humperdinck		it will be done.	-1119	28	
1094 Humperdinck		Once we're out of sight,	1119	27 1092, 1093	
1095 Humperdinck		take him back to Florin and	1119	26 1092, 1094	
1096 Humperdinck		throw him in the Pit of Despair.	1119	25 1092, 1095	
1099 Buttercup		I thought	141	-956	
1100 Buttercup		you were dead once,	141	-957	
1101 Buttercup		and I almost destroyed me.	141	-958	
1102 Buttercup		I could not bear it	1990	830	
1103 Buttercup		if you died again	1859	758	
1104 Buttercup		not	1990	828	
1105 Buttercup		when I could save you.	1106	3	
1119 Count Rugen		Count Rugen knock out Westley			
1119 Albino		Albino enter chamber			
1120 Westley		Westley lie on table			
1531 Inigo, Fezzik		Inigo, Fezzik find Westley			
1532 Fezzik		He's dead.	-1629	101	
1732 Westley		Westley swallow miracle pill			
1733 Fezzik		How long do we have to wait	1736	7	
		before we know if the miracle			
		works?	1736	6	
1734 Fezzik		Your guess is as good as mine.			
1735 Inigo		Westley revives			
2026 Humperdinck		I killed you too quickly the last time,	1485	-537	
2102 Inigo		I don't know what			
2103 Inigo		to do with the rest of my life.			
2104 Westley		Have you ever considered piracy?	2105	5	
2105 Westley		You'd make a wonderful Dread Pirate			
		Roberts.	0		

Example: Buttercup's view

Action Unit ID	Character	On Screen Action Dialogue Line Action	Truth Validation Status	Verifying Lapse	Conflicting AUD
147 Humperdinck		On that sundown, I shall marry a lady	-2002	1860	
Grandfather		Buttercup and Humperdinck were			
1154 Narrator		married.	-1212	60	
1160 The kid		hold it. Hold it, Grandpa.	1161	3	
1161 The kid		You read that wrong.	-1177	18	
1162 The kid		She doesn't marry Humperdinck,	2002	842	
1163 The kid		she marries Westley.	2128	967	
1164 The kid		I'm just sure of it.	2128	966	
1165 The kid		After all that Westley did for her,	967	-196	
1166 The kid		if she didn't marry him,	-2128	964	
1167 The kid		it wouldn't be fair.	2128	963	
1206 Buttercup		Buttercup wake up from dream			
1207 Buttercup		Buttercup sit up in bed			
1215 The kid		Didn't I tell you she'd never marry			
		that rotten Humperdinck?	1162	-50	
1817 Buttercup		I do not marry tonight.	2002	189	
1818 Buttercup		My Westley will save me.	1931	117	
1866 Clergyman		And do you, Pwinceess Buwvercup?	1867	5	
1867 Humperdinck		Man and wife, say man and wife.	1868	5	
1868 Clergyman		Man and wife.			
		Escort the bride to the Honeymoon			
1869 Humperdinck		Suite	1871	6	
1870 Humperdinck		I'll be there shortly.	2005	139	
1986 Buttercup		I got married.			
1987 Buttercup		I didn't want to.	1860	-123	
1996 Westley		Did you say,	1998	6	
1997 Westley		"I do"?	1998	5	
1998 Buttercup		Well, no,			
2000 Westley		Then you're not married	-1986	-15	
2001 Westley		if you didn't say it	1999	3	
2002 Westley		you didn't do it	-1986	-17	

The movie in two predicates

Sequence of revisions on the actuality of two main driving statements for the plot of The Princess Bride.

Plot Point	Buttercup marries Humperdinck	Westley is dead
Buttercup and Westley consider marriage	false	false
Buttercup receives news of Westley's demise	false	believed
Humperdinck announces his marriage to Buttercup	planned	believed
The man in black reveals himself to be Westley	planned	false
Buttercup and Westley reconcile	false	false
Buttercup negotiates marriage with Humperdinck	planned	false
Buttercup dreams she is married	nightmare	true
Westley killed in the Pit of Despair	false	true
Westley's friends revive him	planned	true
Buttercup and Humperdinck marry	true	false
Westley tells Buttercup her marriage is not valid	invalid	false

Conclusions

This paper addresses the problem of representing events mentioned in a story as potential, and providing the means of tracking changes in their actuality that may be relevant to the plot of a story. The proposed representation captures a set of explicit linguistic markers used in narrative discourse to introduce potentiality of events. Additional mechanisms have been proposed to cross reference additional points in the narrative discourse that challenge the truth or actuality value of the statements recorded.

An important challenge in this task is the fact that potential events of this type are more often implied – via common sense inferences to be made by the reader/spectator – rather than explicitly reported. For this reason, an effort has been made to refrain from including in the representation features requiring inferences by the annotator that may not be warranted by the discourse under different possible interpretations.

Further work is required for establishing manageable heuristics that may serve to estimate non-controversial contextual inferences of the type required: from particular combinations of linguistic markers onto established descriptions of potentiality. To inform this process we contemplate a substantial effort of annotating a larger set of movies with a set of annotators trained for the task. We will also consider an additional task of asking human volunteers to estimate the type of inferences on actuality that we would like a fully developed system to make. Based on detailed analysis of the results of such experiments, we hope to establish the feasibility of automating parts of the annotation process.

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