Computational Modeling of Narrative Texts, Films and Games

Course 4 - Plot and Story Grammars

Rémi Ronfard, April 2016

Story/Plot grammars

- Aristotle' Poetics
- Freytag's triangle
- Propp's functions
- Todorov's grammar of the decameron
- Bremonds's logic of narrative possibilities

- Thomas Pavel's move grammars
- Lehnert's plot units
- Rumelhart's story grammar
- Screenplay theory
- Blake Snyder's beat sheet

- Oxford English Dictionary: A narrative (or story) is any fictional or nonfictional report of connected events, presented in a sequence of written or spoken words, and/or in a sequence of (moving) pictures.
- Aristotle: A story (mythos) must have a beginning, a middle, and an end, and the events must causally relate to one another as being either necessary or probable. Stories arouse emotion in the psyche of the audience.
- Russian formalists: The fabula ("Story") is what happened in chronological order. The syuzhet ("Plot") is the sequence of discourse that was sorted out by the (implied) author. That is, the syuzhet consists of picking up the fabula events in non-chronological order; e.g., Fabula=<a1, a2, a3, a4, a5, ..., an>, Syuzhet=<a5, a1, a3>.

Marie-Laure Ryan:

- 1. Story takes place in a world populated with individuated agents (characters) and objects. (Spatial dimension).
- 2. This world must undergo not fully predictable changes of state that are caused by non-habitual physical events: either accidents ('happenings') or deliberate actions by intelligent agents. (Temporal dimension).
- 3. In addition to being linked to physical states by causal relations, the physical events must be associated with mental states and events (goals, plans, emotions). This network of connections gives events coherence, motivation, closure, and intelligibility and turns them into a plot. (Logical, mental and formal dimension)

- McKee: A story is a series of acts that builds to a climax which brings about absolute and irreversible change.
- Syd Field: a story is a three act structure. In the first act, the main character protagonist experiences a 'plot point' that provides a goal to achieve. In the second act, the character struggles to achieve this goal. The third act depicts the final struggle by the protagonist to finally achieve (or not achieve) his or her goal and the aftermath of this struggle.

- Todorov: A story is composed of actions performed by characters, as perceived and told by a « narrator ».
- Bremond: the registration of a change or continuation of the status quo ante. A story is a combination of narrative atoms, which are triads of goals, actions and outcomes.
- Hierarchical structure of stories within stories.

Story vs. plot (Forster)

- Story: King dies and queen dies
 - Event follows Events
- Plot: King dies then queen dies of grief
 - Event causes Emotion causes Event ...

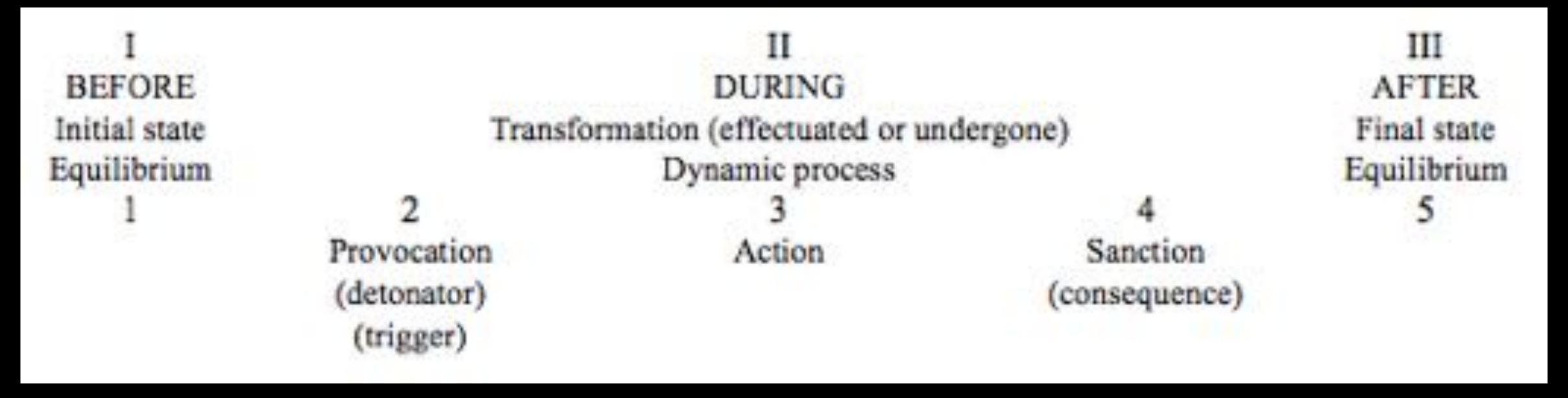
Aristotle's poetics

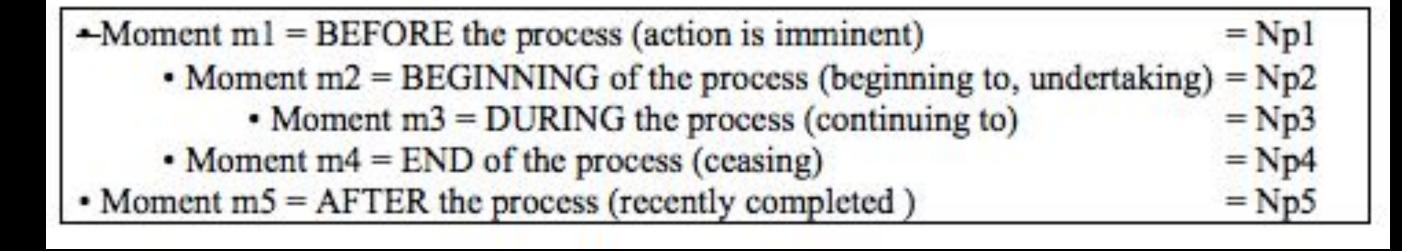
- Plot (mythos) = sequence of events linked by necessity or probability
- The Odissey
- Common patterns
 - Recognition (ignorance to knowledge)
 - Reversal of fortune (peripeteia)
 - Complication + Turning point + Unraveling

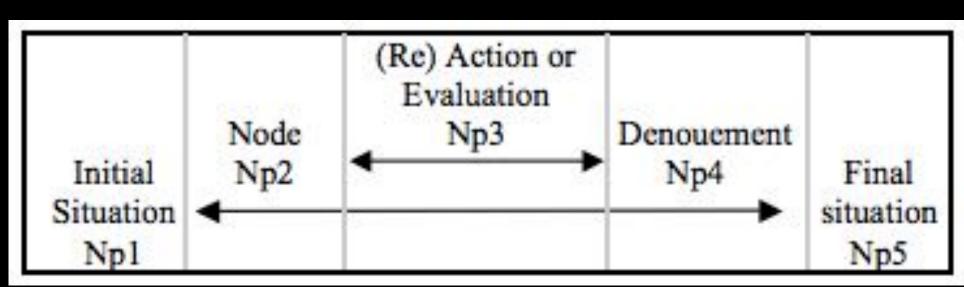
Freytag's triangle

- 1.Exposition
- 2. Rising action
- 3.Climax
- 4. Falling action
- 5.Denouement / Catastrophe

Jean-Michel Adam: general narrative sequence







Propo's functions

- I. absentation: a family member absents him/herself from home (beta)
- II. interdiction: an interdiction is addressed to hero (gamma)
- III. violation: interdiction is violated (delta); a paired element
- IV. reconnaissance: villain makes an attempt at reconnaissance (epsilon)
- V. delivery: villain receives information about his victim (zeta); a paired function
- VI. trickery: villain attempts to deceive his victim in order to take possession of him or his belongings (eta) [at this point the villain may assume a disguise]
- VII. complicity: victim submits to deception and thereby unwittingly helps his enemy (theta); subfunction: preliminary misfortune (lamda) wherein villain deliberately causes the difficult situation
- VIII. villainy: villain causes harm or injury to a family member (A); crucial function by means of which the actual movement of the tale is created; the complication is begun by an act of villainy

Propp's functions

- IX. mediation, the connective incident: misfortune or lack is made known; hero is approached with a request or command; he is allowed to go or he is dispatched (B)
- X. beginning counteraction: seeker agrees to or decides upon counteraction (C)
- XI. departure: hero leaves home (arrow/up)
- XII. the first function of the donor: hero is tested, interrogated, attacked, etc., which prepares the way for his/her receiving either a magical agent or helper (D)
- XIII. the hero's reaction: hero reacts to the actions of future donor (E)
- XIV. provision or receipt of a magical agent: hero acquires the use of magical agent (F)
- XV. spatial transference between two kingdoms, guidance: hero is transferred, delivered, or led to the whereabouts of an object of search (G)

Propp's functions

- XVI. struggle: hero and villain join in direct combat (H)
- XVII. branding, marking: hero is branded (J)
- XVIII. victory: villain is defeated (I)
- XIX. liquidation of misfortune or lack: the initial misfortune or lack is liquidated (K); this function, together with villainy (A), constitutes a pair: the narrative reaches its peak here
- XX. return: hero returns (arrow/down)
- XXI. pursuit, chase: hero is pursued (Pr)
- XXII. rescue: rescue of hero from pursuit (Rs)
- XXIII. unrecognized arrival: hero, unrecognized, arrives home, or in another country (o)

Propp's functions

- XXIV. unfounded claims: a false hero presents unfounded claims (L)
- XXV. difficult task: a difficult task is proposed to hero (M); one of the tale's favorite elements
- XXVI. solution: the task is resolved (N)
- XXVII. recognition: hero is recognized (Q); complements function XVII
- XXVIII. exposure: false hero or villain is exposed (Ex)
- XXIX. transfiguration: hero is given a new appearance (T)
- XXX. punishment: villain is punished (U)
- XXXI. wedding: hero is married and ascends the throne (W)

Part 1: Introduction

- Steps 1 to 7 introduces the situation and most of the main characters, setting the scene for subsequent adventure.
- 1. Absentation: Someone goes missing
- 2. Interdiction: Hero is warned
- 3. Violation of interdiction
- 4. Reconnaissance: Villain seeks something
- 5. Delivery: The villain gains information
- 6. Trickery: Villain attempts to deceive victim
- 7. Complicity: Unwitting helping of the enemy

Part 2: Body of the story

- The main story starts here and extends to the departure of the hero on the main quest.
- 8. Villainy and lack: The need is identified
- 9. Mediation: Hero discovers the lack
- 10. Counteraction: Hero chooses positive action
- 11. Departure: Hero leave on mission

Part 3: Donor sequence

- In the third sphere, the hero goes in search of a method by which the solution may be reached, gaining the magical agent from the Donor. Note that this in itself may be a complete story.
- 12. Testing: Hero is challenged to prove heroic qualities
- 13. Reaction: Hero responds to test
- 14. Acquisition: Hero gains magical item
- 15. Guidance: Hero reaches destination
- 16. Struggle: Hero and villain do battle
- 17. Branding: Hero is branded
- 18. Victory: Villain is defeated
- 19. Resolution: Initial misfortune or lack is resolved

Part 4: Hero's return

- In the final (and often optional) phase of the storyline, the hero returns home, hopefully uneventfully and to a hero's welcome, although this may not always be the case.
- 20. Return: Hero sets out for home
- 21. Pursuit: Hero is chased
- 22. Rescue: pursuit ends
- 23. Arrival: Hero arrives unrecognized
- 24. Claim: False hero makes unfounded claims
- 25. Task: Difficult task proposed to the hero
- 26. Solution: Task is resolved

- 27. Recognition: Hero is recognised
- 28. Exposure: False hero is exposed
- 29. Transfiguration: Hero is given a new appearance
- 30. Punishment: Villain is punished
- 31. Wedding: Hero marries and ascends the throne

Example: the swan geese

- Introduction: Once there was a couple who had both a daughter and a son. They left their daughter in charge of her younger brother, but one day she **lost track** of him and the magic swan geese **snatched** him away.
- Body: The daughter **chased** after him and came upon an oven that **offered to tell** her if she ate its rye buns; she **scorned** them, saying she doesn't even eat wheat buns. She also scorned similar offers from an apple tree, and a river of milk.
- Donors: She came across a little hut built on a hen's foot, in which she found Baba Yaga with her brother; Baba Yaga set her to spin flax and left. A mouse scurried out and said it would tell her what she needed to know if she gave it porridge; she did, and it told her that Baba Yaga was heating the bath house to steam her, then she would cook her. The mouse took over her spinning, and the girl took her brother and fled.
- Return: Baba Yaga **sent** the swan geese after her. The sister begged the river for aid, and it insisted she eat some of it first; she did, and it sheltered her. When she ran on, the swan geese followed again, and the same happened with the apple tree and the oven. Then she **reached home** safely.

Example: the swan geese

- Absence
- Interdiction
- Violation
- Villainy
- Departure

- Presents refused (x3)
- Guidance
- Pursuit
- Return
- Presents accepted (x3)

Propp's morphology as a grammar of folk tales

```
FULKTALE
                    - COMPLICATION DONOR COUNSE OF ACTION CLOSUME
                      COMPLICATION DONOR COURSE_OF_ACTION
FOLKTALE
                    - COMPLICATION COURSE OF ACTION CLOSURE
POLKTALE
                    - COMPLICATION COUNSE_OF_ACTION
POLKTALE
                       * DONOR T COMPLICATION DONOR COURSE_OF_ACTION CLOSURE
POLKTALE
COMPLICATION
                       THE COEM
                       THICCOOK MEDIATION #
COMPLICATION
COMPLICATION
                      TRICCEN MEDIATION
COMPLICATION
                    - TRICCER M MEDIATION
TRICCER
TRICCIDS
                      B C
```

Propp's morphology as a grammar of folk tales

```
DONOR.
DONOR.
DOSCS.
DOSOR.
DOSOR.
DONCE.
COUNSE_OF_ACTION

    TASK

COURSE_OF_ACTION
                       4 PUMSUIT
COURSE OF ACTION
                       E + PURSUIT
COUNSE_OF_ACTION
                    = 4 PUMSUIT o
                       o DOSOR K T PURSUIT
COURSE OF ACTION
COURSE OF ACTION
                       CONFRONTATION E. 4
COUNSE_OF_ACTION
                       CONFRONTATION E 4 PURSUUT
COURSE OF ACTION
COUNSE_OF_ACTION
                       COMPNIONTATION
COUNSE OF ACTION
                       COMPSIONTATION E
```

Propp's morphology as a grammar of folk tales

```
PURSUIT
PURSUIT
CONFRONTATION
CONFRONTATION
TASK
CLOSURE
CLOSURE
CLOSUKE
CLOSUME
CLOSUNE
```

Rumelhart: story grammars

- Story -> Setting + Episode (Setting ALLOWS Episode)
- Setting -> State
- Episode -> Event + Emotion (Event CAUSES Emotion)
- Event -> Event + Event (Event CAUSES Event)
- Event -> Episode
- Event -> Action

Rumelhart: story grammars

- 1. Althea was in the playroom.
- 2. She sat on the balloon.
- 3. It popped.
- 4. She was pleased.

Story

Setting ALLOWS Episode

State ALLOWS Episode

1 ALLOWS Episode

1 ALLOWS (Event CAUSES Emotion)

1 ALLOWS ((Event CAUSES Event) CAUSES Emotion)

1 ALLOWS ((Action CAUSES Action) CAUSES Emotion)

1 ALLOWS ((2 CAUSES 3) CAUSES 4)

Althea was in the playroom ALLOWS ((She sat on the balloon CAUSES It popped) CAUSES She was pleased)

BUILD TALE by Correira

- Story -> Setting + Episode
- Episode -> Episode + Interlude + Episode
- Episode -> Complication + Episode
- Episode -> Complication + Resolution

- Using macrostructures (Van Dijk)
- Hard to maintain coherence in the story
- Add parameters and constraints

Todorov: grammar of the decameron

- Narrative categories: Nouns, adjectives and verbs
- Nouns X,Y for characters in the story
- Adjectives A,B for states (happy/unhappy), properties (good/bad, intelligent/stupid) and status (husband/wife/lover, noble)
- Verbs a,b for actions: disguise, joke, attack, calling for help, traveling, giving and taking, buying and selling, infraction/ punishment, etc.

Todorov: Relations

- Emphasis/repetition Xa + Xa
- Inversion Xa + X-a
- Modification Xa -> Xb
- Desire X opt A

- Motivation Xa -> P
- Result P -> Xa
- Punishment Xa -> YbX
- Hypothesis (XA -> XB)cond + XA >>

Todorov: modes

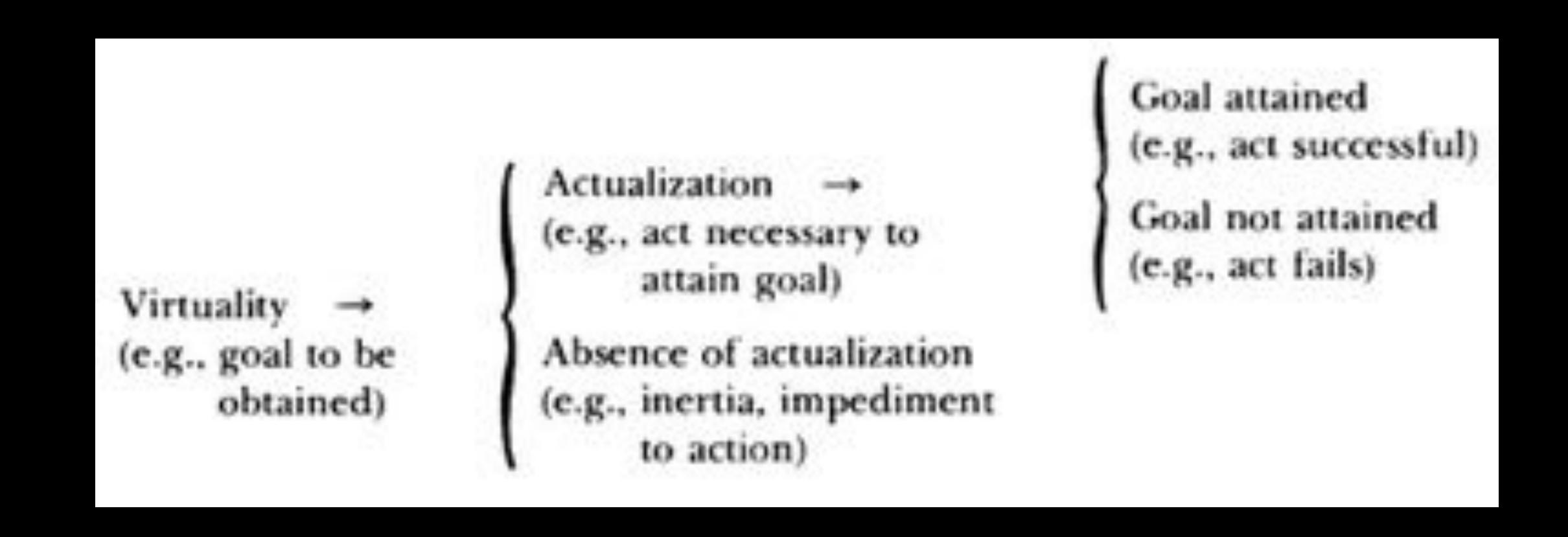
- Assertive
- Obligative (law, punishment)
- Optative (desire)
 - X opt a, X opt Y opt a

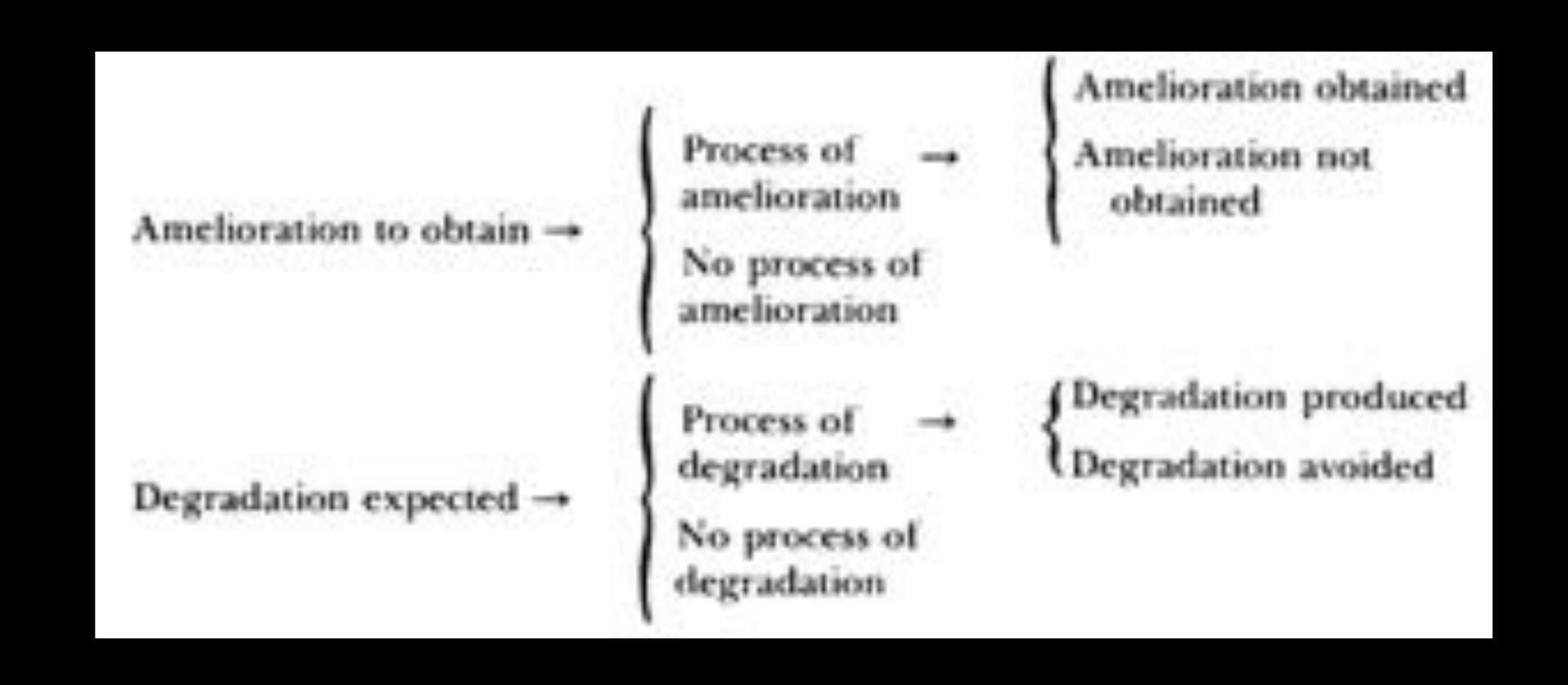
- Vision (belief)
 - X (Ya)
- Conditional (test, promise)
 - X cond (Yb -> Xc)
- Predictive (supposition)
 - X pred (Yb -> Yc)

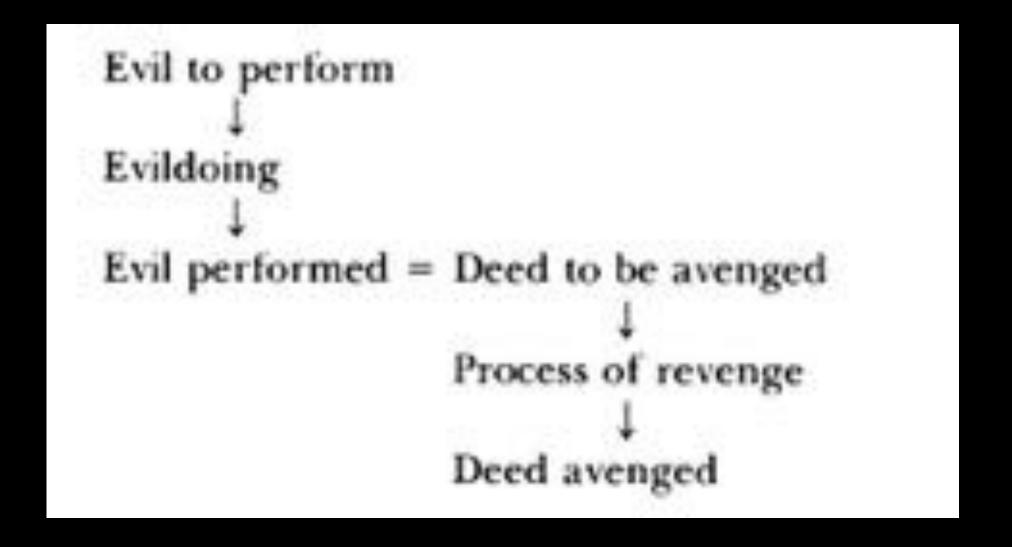
Todorov: grammar of the decameron

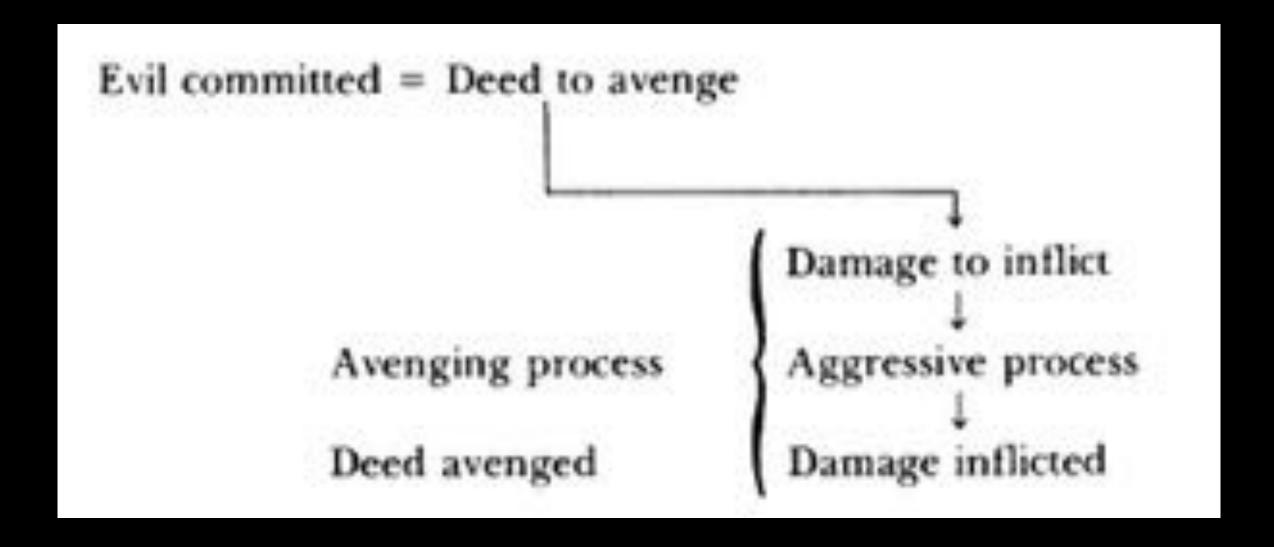
- Two obligatory relations: Desire and modification
- Any number of auxiliary relations
- Combination of story lines
 - sequential A + B
 - embedded A + B + A
 - alternating A + B + A + B

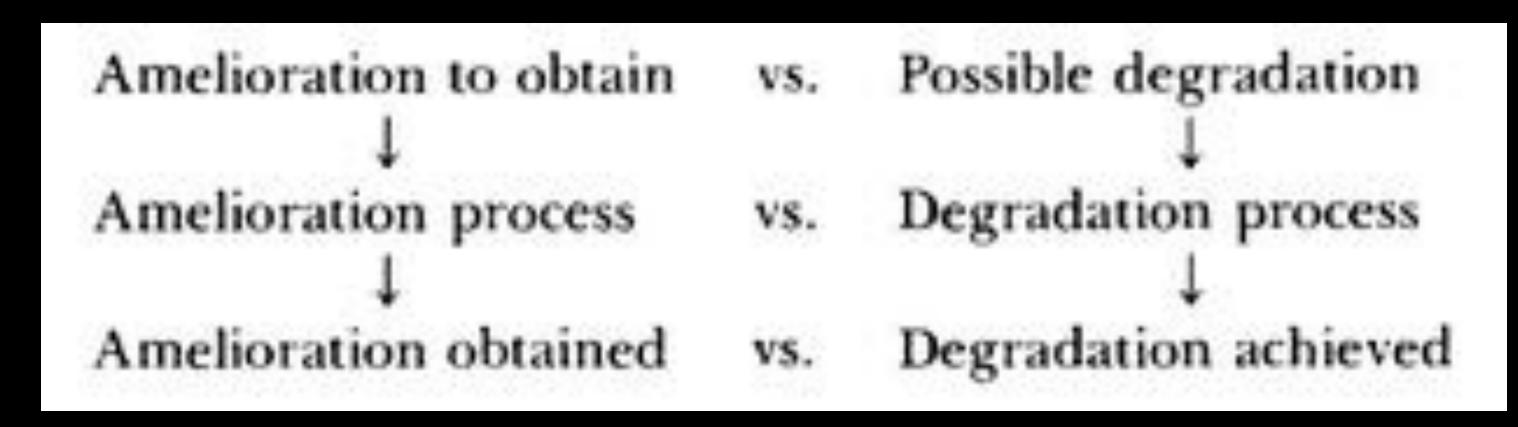
- Narrative atom: goal + action + outcome
- Amelioration or degradation
- Interactions: agression, assistance, intervention of ally, negotiation, elimination of the adversary, retribution
- Combinations: end-to-end or enclave or coupling











Thomas Pavel: Move grammars

- Narrative sequence: Problem + Auxiliary Event + Solution
- Organized into a tree
- Grammar of the fabula, not discourse!

Lehnert: Plot units

- + (Positive Event) Events that please
- (Negative Event) Events that displease

M (Mental State) Mental states (w/ neutral affect)

• Motivation, actualization, termination, equivalence

	M	М	М	†.	- ·	+	-	+	-
	M	+	-	M	M	-	1 *	*	-
m	*			*	*		-		
а		*	*						=
t	*					*	*	*	*
e	*					*	*	*	*

Lehnert: Plot units

MOTIVATION	SUCCESS	FAILURE
M 2 m	*2°	_5~
CHANGE OF MIND	LOSS	MIXED BLESSING
M 5 t	* 5 t	- 5 e
PERSEVERENCE	RESOLUTION	HIDDEN BLESSING
M 5 e	- 5 t	-5 e
ENABLEMENT	NEG. TRADE-OFF	COMPLEX POS. EVENT
* 2 m	_ 5 t	; 5 e
PROBLEM	POS. TRADE-OFF	COMPLEX NEG. EVENT
# 5m	+ 5 t	_ 5 e

PROBLEM: You get fired and need a job.

You bounce a check and need to deposit funds.

Your dog dies and you long for companionship.

SUCCESS: You ask for a raise and you get it.

You fix a flat tire.

You need a car so you steal one.

FAILURE: Your proposal of marriage is declined.

You can't find your wallet.

You can't get a bank loan.

RESOLUTION: Your broken radio starts working again.

They catch the thief who has your wallet.

You fix a flat tire after a blow out.

LOSS:
Your big income tax refund is a mistake.

The woman you love leaves you.

The car you just bought is totaled.

POS. TRADE-OFF: You buy a new Toyota and then inherit a

Porsche.

You take a day off and then realize it's a holiday.

You get a raise and then win the Irish Sweep-

stakes.

NEG. TRADE-OFF:

You get fired so you don't have to take a lousy job assignment.

Your car blows up so you don't have to make the next insurance payment.

You lose the election so you don't have to placate demanding voters.

PERSEVERENCE:

You want to get married (again).

You reapply to Yale after being rejected.

You want to ski again after a bad skiing acci-

dent.

HIDDEN BLESSING: You get audited and they owe you.

You sprain an ankle and win damages.

Your mother dies and you inherit a million.

MIXED BLESSING: You buy a car and it turns out to be a lemon.

You fall in love and become insanely jealous.

Your book is reviewed but they hate it.

CHANGE OF MIND: You apply to Harvard and then to Yale.

You want to buy a car but decide against it.

You want to see a movie until a friend pans it.

MOTIVATION: You need advice so you decide to ask a friend.

You want to buy a car so you apply for a loan.

You want to reach a client so you call him.

ENABLEMENT: You decide to celebrate after a raise.

You receive a book and decide to read it.

You get a loan and have to pay it back.

COMPLEX POS: A gift is indicative of close friendship.

Your raise signifies recognition.

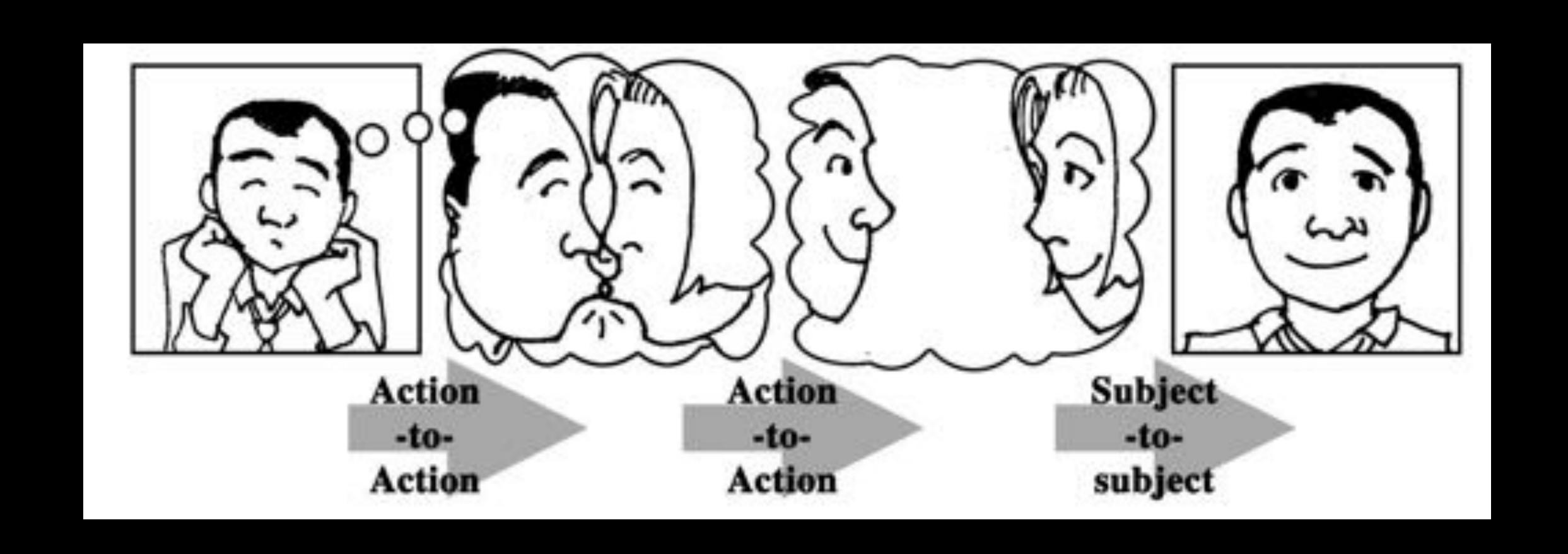
You win respect by getting a rolls royce.

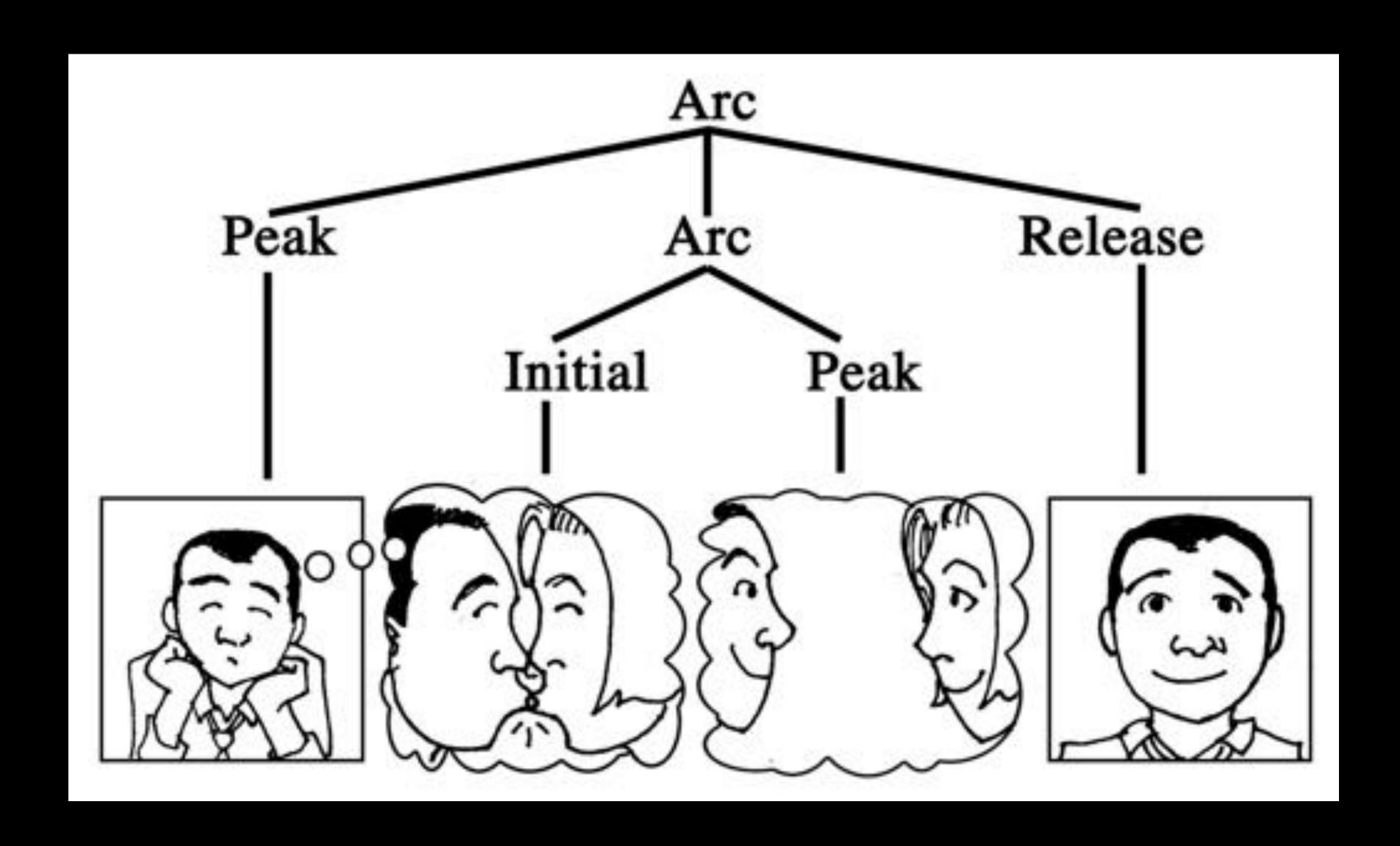
COMPLEX NEG: You lose \$100 when your wallet is stolen.

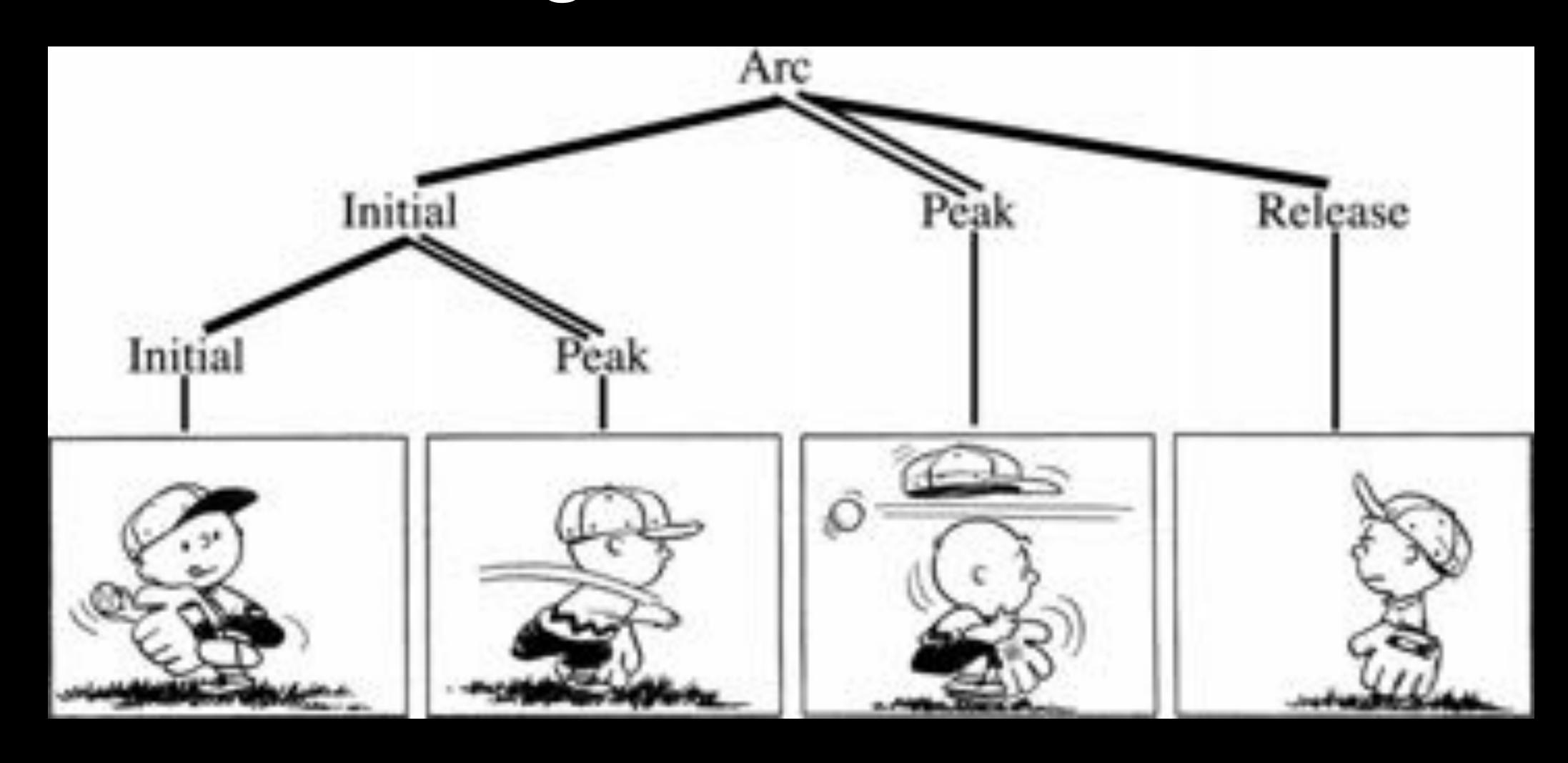
You break an arm in a car accident.

Your house burns down and you aren't covered.

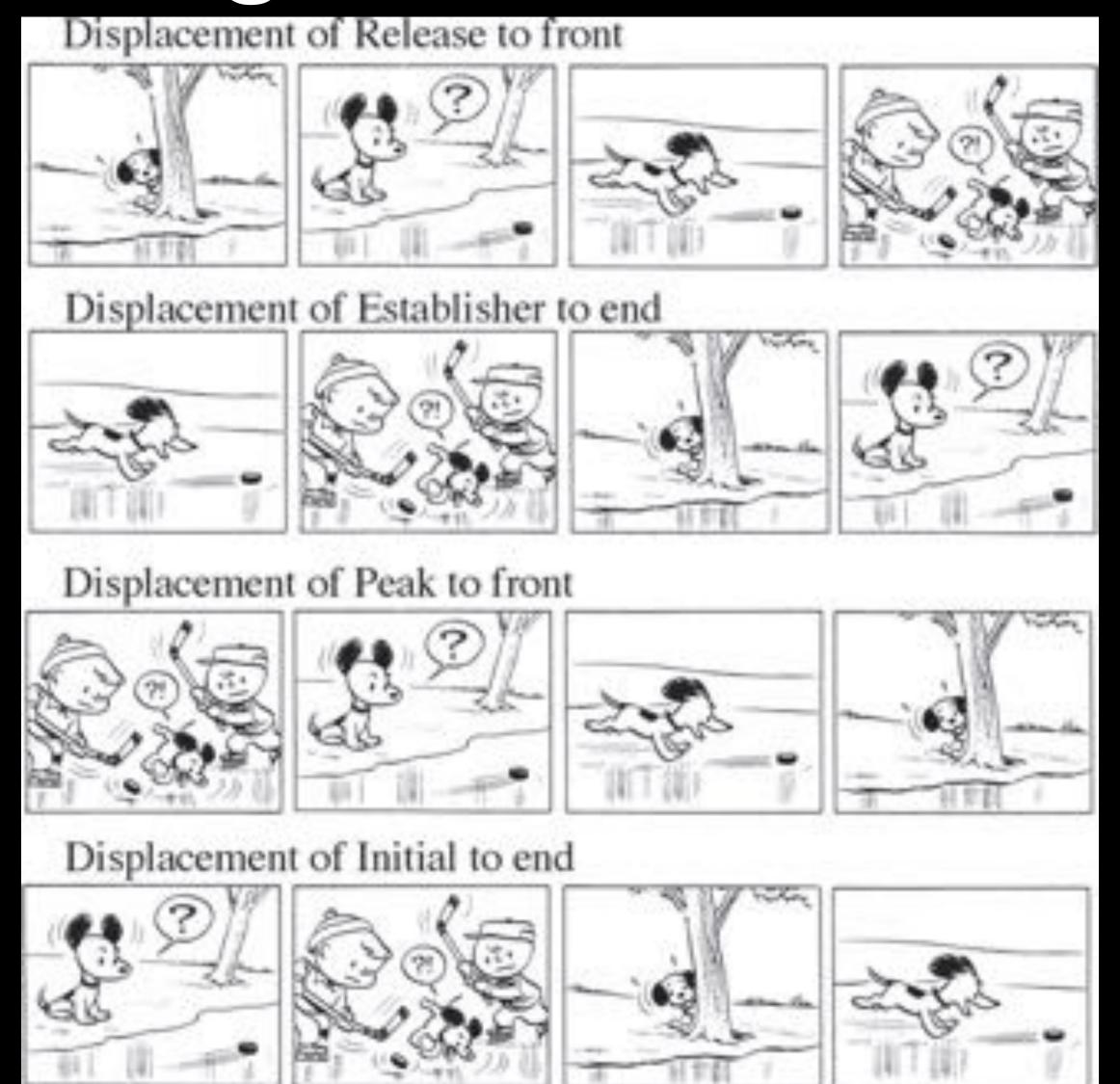
INTENTIONAL FORTUITOUS SUCCESS BORN PROBLEM RESOLUTION PROBLEM RESOLUTION OF ADVERSITY problem = problem = problem & resolution success success resolution











(a) Reversal of Establisher and Initial









(b) Reversal of Establisher and Peak









(c) Reversal of Establisher and Release









(d) Reversal of Initial and Peak







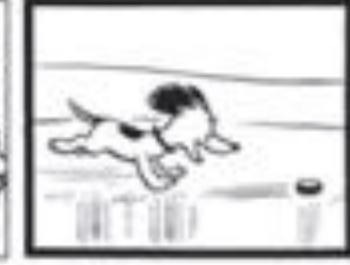


(b) Reversal of Initial and Release









(b) Reversal of Peak and Release

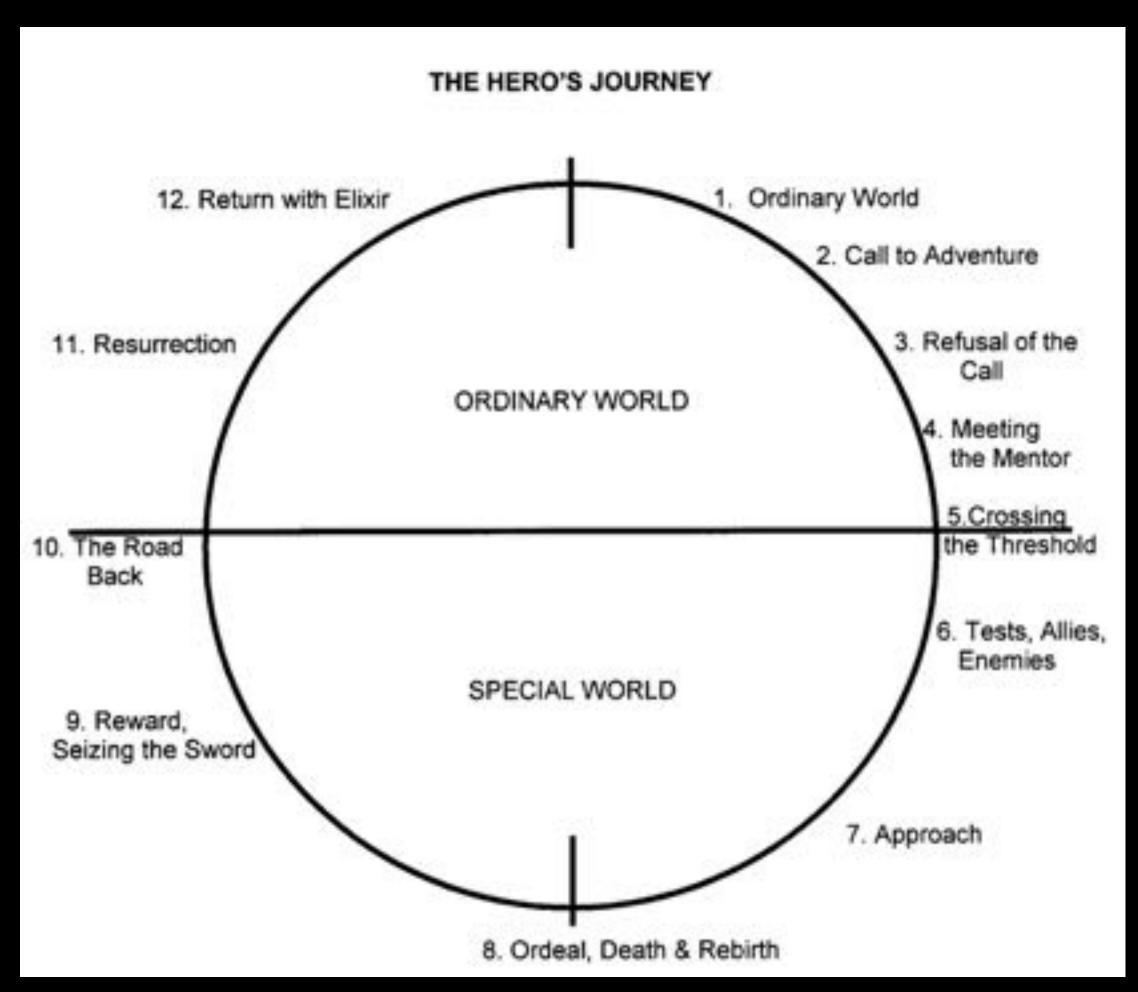


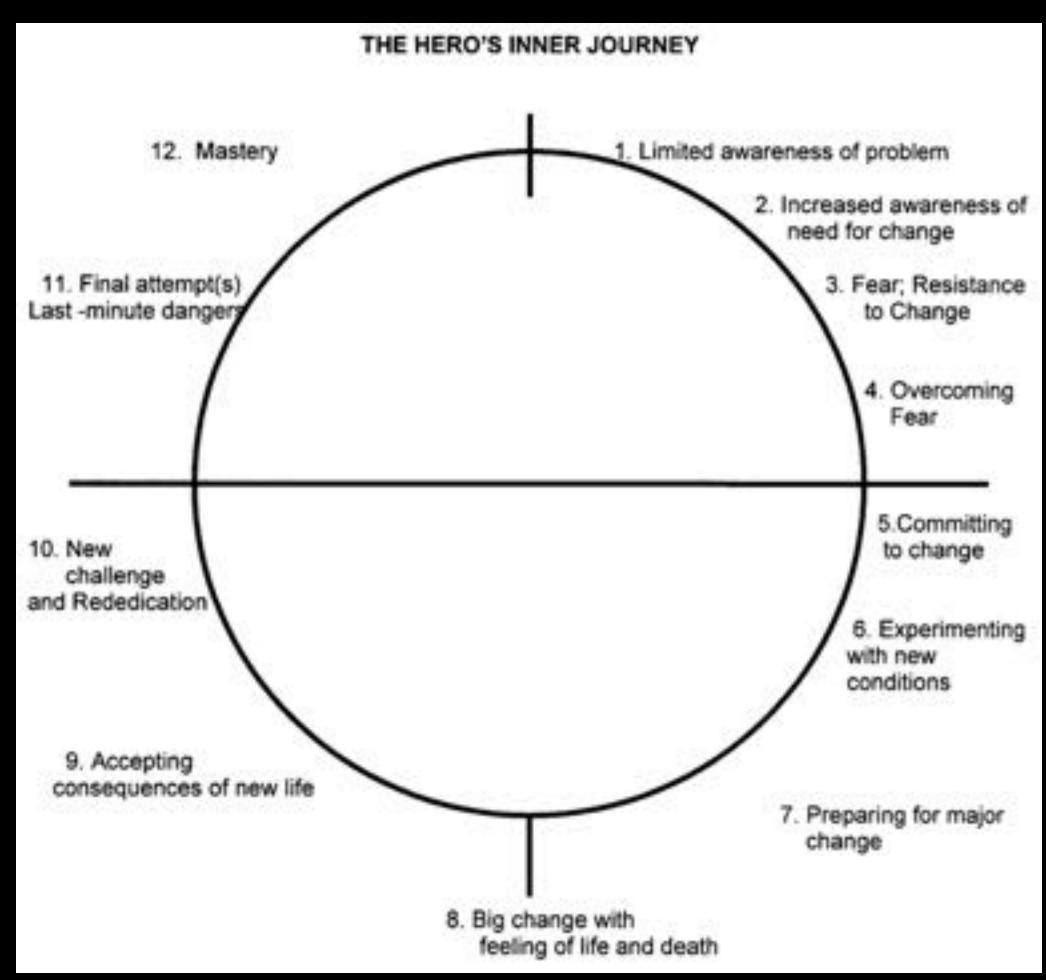






Dorothy's journey





• Based on Joseph Campbell, The hero's journey

1. Ordinary World

 In Wizard of Oz, Dorothy, the hero, is introduced as a girl who feels she doesn't belong in her small town in Kansas. One of the main reasons for that is that she's the only one who's not an adult; thus, she's underestimated. She never has anything to do because of being doubted by others, so she just relies on her companion Toto for her happiness. Plus, she lives with her uncles, so she doesn't feel like she has a real "home" without her parents. Overall, it makes her feel extremely alienated, so it makes her desire to be in a place where she feels more understood.



2. Call to adventure

Since her only companion is Toto, she feels even more isolated when Miss Gulch convinces her uncles to take him away because of his mischievious behavior. Because of Miss Gulch's actions, making her the Herald, she runs away and on her way back home she is impacted by the tornado. The house landing on the land of Oz is the point in which her adventure begins, since she has to find a way back home. Also, the house landed on the Wicked Witch of the East, so that becomes a problem because she has to keep an eye out for the Wicked Witch of the West.



3. Refusal of the Call

 Dorothy doesn't know what to do after because she's in an unknown place. She wanted to go back home, but she had no idea where to even begin her adventure, thus she was refusing to believe she was "over the rainbow » even though she had yearned for it for so long. From living on a farm to arriving in a magical place, she was completely lost because it was a new environment. Consequently, she immediately wanted to go back home, so she became a bit more appreciative of her family unlike before.



4. Meeting the Mentor

 Her mentor in the story, Glinda arrives and tells Dorothy all about Munchkin Land and how, in order to go back home, she has to see the wizard to get help. The Wicked Witch of the West warned Dorothy she'd get her for keeping her sister's ruby slippers, but Glinda relaxes her by saying the slippers have powers that will make her arrive home safe. Glinda also tells Dorothy to simply "follow the yellow brick road" and leaves. She was being encouraging and acted mother-like by letting her know everything would turn out fine as long as she kept those slippers on and followed the road.



5. Crossing the Threshold

• From this point forward, Dorothy is fully committed to following the yellow brick road as instructed by Glinda. The land of Oz is completely different from Dorothy's farm, which fills her with joy and curiosity. She is experiencing something she had always dreamt of doing and we as well feel her excitement about making her dream a reality. What she doesn't know is that along the way she'll come across problems, which will make her realize that her uncles' intentions of not letting her be too adventurous were just to protect her from danger .Even though her new world is bright, bold, and the opposite of Kansas, she'll come to a realization that she took too much for granted in Kansas.



6. Tests, Allies, and Enemies

Since the witch is jealous of Dorothy for not possessing the power of the ruby slippers, she gives her trouble such as setting the scarecrow on fire in the beginning and making her fall asleep with the sleepy poppies before reaching Emerald City. Fortunately, Dorothy overcame those challenges by using her own intelligence and getting help from her mentor and allies. One of her allies though, Toto, acted as a trickster because of the trouble he caused, such as barking at the lion for being mean. However, if it weren't for Toto she wouldn't have realized the lion was only pretending to be mean and in need of courage, so he could've been another shadow to her. In addition, another problem faced is when they do reach Emerald City, for the Wizard, whom is also the gatekeeper and in the end an ordinary human, refuses to grant the characters' wishes. He will only do so if they bring to him the witch's broom.



7. Approach

Dorothy does reach the witch's castle, but only because the witch ordered her monkeys to do so- she's trapped in danger of dying. The witch shows her a glimpse of her Aunt Em worrying about her, making Dorothy regret leaving. Even though the glimpse causes her pain, it gives her the strength to get the broom one way or another in order to be home with everyone she made suffer in effect of her rebellious act. That strength will be put to the test once her allies are able to get in the castle without being caught by the sentries, the threshold guardians.



8. Ordeal, death and rebirth

Her allies find a way to reach her by disguisng as sentries, but it puts them all in danger once the witch sees them. She set the scarecrow on fire again, but Dorothy threw a bucket of water to turn the fire out, which accidentally fell on the witch and melted her. The fact she felt a close bond to her allies helped her because she killed the witch in an attempt to save her friend. The sympathy shown helped her unconsciously realize how important family is.



9. Reward

After the witch is dead, there is no longer an enemy in her way. She asks the threshold guardians if she could have the broom, and they unresistantly obeyed and cheered her on. Since they didn't hesitate Dorothy's question, it shows her reward isn't just the broomstick, her ticket home. Part of her reward is realizing she is capable of something beyond what she thinks, which she hadn't realized while doing nothing productive back in Kansas.



10. Road Back

She has done as the wizard said so, but the wizard is refusing to help them. The reason for that is becase he's just an ordinary person and the shapeshifter in the story, which is revealed to them by Toto, the trickster. She refuses to stay there because of the lying "wizard", so she and her friends demand he keeps his promise. This, again, characterizes Dorothy as more sympathetic because she came to the realization that her family is much more important than anything else. In the end he's unable to take her, but Glinda arrives and tells her she's had the power to go home all along by simply tapping her shoes three times and confessing that "there's no place like home".



11. Resurrection

When she was defending the scarecrow during the supreme ordeal, she was doing it because he had a special place in her heart, as did the tinman, scarecrow, and Glinda. In the beginning of the story, she had been feeling misunderstood by everyone, the reason she had left the house. However, she didn't know how big the problems she'd face in Oz would be like, such as facing the probability of not being able to go back home. Facing a problem like that made her realize her problems in Kansas were minor conflicts that could be resolved by a small conversation. Conflict or no conflict, she knew they loved her no matter what. Overall, she realized her home is irreplaceable and nothing compares to it.



12. Return with Elixir

Once she opens her eyes, she tells everyone right away how much she loves them. Not even all the gold and glitter from the world would convince her to leave her town and family now. She had been treated like family and cared for by everyone in her dream, so she did the same with those in the room, even the ones that weren't her family, such as the three hired hands and the traveling psychic. It's because of that everyone in the room felt more connected as if they were all family. Even though it was all a dream, it still had a massive impact on her by making her realize something she had been blinded about: "there's no place like home".



Next week: Story annotation

