

Conflict / Dramatic Situations

Narrative Definition:

<https://www.masterclass.com/articles/what-is-conflict-in-literature-6-different-types-of-literary-conflict-and-how-to-create-conflict-in-writing#how-to-create-conflict-in-your-writing>

All Conflict falls into 2 categories: **internal** , **external**

- Internal: Character struggles with their own opposing desires or beliefs (within)
- External: Set character against something or someone beyond their control

Conflict should be tailored to your **protagonists' desire**

Antagonism has to increase with time

6 Types of literary conflict

- 1 Character vs Self
- 2 Character vs Character
- 3 Character vs Nature
- 4 Character vs Supernatural
- 5 Character vs Technology
- 6 Character vs Society

Dramatic Situations

(17) Modeling and Representing Dramatic Situations as Paradoxical Structures - Nicolas Szilas

Computational model of dramatic situations as 'state' in the fictional world

Dramatic Situation definitions in related works (Hard-coded in System)

- GADIN: 5 Categories of Dilemma (Betrayal, Sacrifice, Greater Good, Take Down, Favour)
- IDTension: Ethical Conflict
- CPOCL: Antagonistic goals

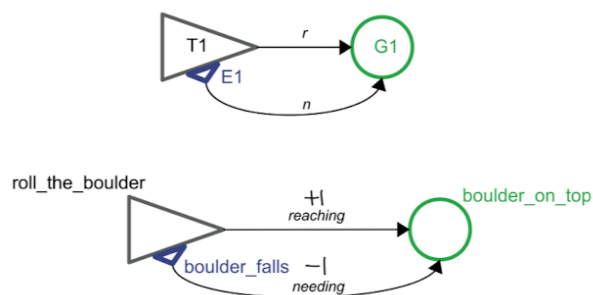
Dramatic Situations as structures in tension

'Chance' of triggering **obstacle** (author-defined)

ulated as follows: a structure is said to be **paradoxical if and only if**

- Its **graph contains a cycle**, regardless of the edges' directions (circularity criterion).
- This **cycle contains two nodes**, the source and the target. While the **source's type** is left **unconstrained**, the **target** is a goal. The strengths of **two paths from the source** to the target have **opposite signs**. These two paths are called the positive route and the negative route (opposition criterion).
- There are **no shortcuts** in the cycle, meaning that two nodes in the cycle are not connected by a path outside the cycle ('no shortcut' criterion).

Relation (edge) weights: predefined



(IEEE-TCIG 09) Generation of Adaptive Dilemma-Based Interactive Narratives (GADIN) - Heather Barber et al.

5 Dilemma Categories: Betrayal, Sacrifice / Greater Good, Take Down/ Favor

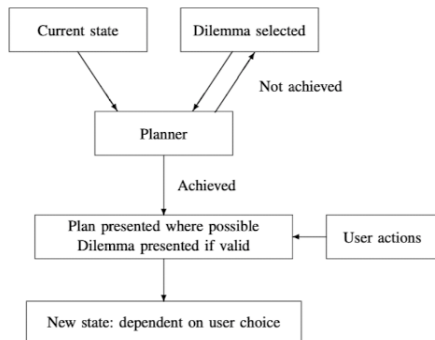
Betrayal: 2 Characters are Friends, Me Best / Other Worst

Sacrifice: 2 Characters are Friends, Me Worst / Other Best

Greater Good: 2 Character Enemies Both Best (Strange gives time stone to thanos)

Take Down: 2 Character Enemies Both Worst

Favor: X: Choose action, no direct utility / $Y+Z-$ or $Y-Z+$



Character Disposition (Traits, Domain Specific features) --> adverb 결정

Category	Trait	Values
Attribute	Attractiveness	-1, 0, 1
Attribute	Gender	male, female
Attribute	Age	child, teen, young, middle aged, old
Attribute	Sexuality	homosexual, heterosexual, bisexual
Characteristic	Generosity	-1, 0, 1
Characteristic	Morality	-1, 0, 1
Characteristic	Selfishness	-1, 0, 1

Character Utility Score: 각 캐릭터가 State에 대해 associate 된 값 (+,- state for character - sentiment?)

Reflects assumed **+** and **- of that state for each character**

여기서는 스토리 도메인 따라서 계산 방식이 다르다: soap opera 경우 fancy가 기준이 됨

StoryWorld: Characters / Locations / Objects

Planner: GraphPlan, STRIPS defined actions

Interactive: Dilemma 관련 가능 액션 2가지 제공 -> User인풋으로 반영

```

Ax: cheat on partner (X)
preconditions: partners(X,Y) ^ fancies(X,Z) ^
fancies(Z,X)
dilemma (to character X): ``Would you like to
cheat on your partner character Y with
character Z who fancies you?``
if X chooses to cheat:
  add to state: cheating(X,Y,Z)
if X chooses not to cheat:
  delete from state: fancies(X,Z)
  
```

```

A possible soap action involves X starting to fancy Y, which
has preconditions:
  fancies(Y,X)
  not(fancies(X,Y))
and effect:
  fancies(X,Y)
  
```

(TIDSE 03) IDtension: a narrative engine for Interactive Drama - Nicolas Szilas

Interactive Drama: combining narrativity & interactivity

Several approach to designing interactive drama:

Character-based / Structuring in macro-elements (scenes) / Focusing on **Narrative Properties**

Focus on Narrative Properties:

IDtension

Nikita Sgourous: calculate successive actions in order to create conflict (IJCAI 97)

Michael Young: focus on suspense

3 Layer of Narrative

Discourse Layer: conveying message (some actions are good, some bad)

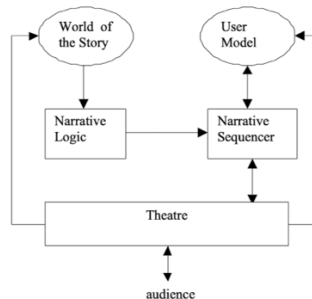
Story Layer: story is described as **succession of events & character actions**

Perception Layer:

Single sequence temporally organised

How sequences work together

One sequence follow certain route



Narrative logic calculates set of all possible actions of chars -> Narrative Sequencer filters & ranks with value
Computer model handles notion of value

Obstacle Modeling: 2 features

Risk that obstacle occurs

Conditions that modify the risk

user **knows**/doesn't know condition exists

If know: I can try to change it -> triggers new wish

If doesn't know: Hearing about is interesting new development

If know obstacle: obstacles have 2 **levels of risk**

Risk **low**: limited **suspense** / Risk **High**:high suspense

HINDER, CAUSE predicates model diversity of obstacles

obstacle o hinder from performing task

condition E cause higher level of risk

- $\text{KNOW}(x, \text{HINDER}(o, \text{CAN}(x, t, p)))$ means that x knows that the **obstacle o hinders him to perform task t** (with parameters p).
- $\text{KNOW}(x, \text{CAUSE}(E, o))$ means that x knows that condition E causes the higher level of risk of occurrence concerning obstacle o
- $\text{KNOW}(x, E)$ means that x knows condition E , which appears to cause an obstacle.

Narrative Effects: IDtension uses 'user model' satisfaction measure

6 criteria -> if a succession of actions is satisfying or not

- **ethical consistency**: The **action is consistent with previous actions** of the same character, with respect to the system of values.
- **motivational consistency**: The action is **consistent with the goals** of the character.
- **relevance**: The action is **relevant** according to the **actions that have just been performed**. This criterion corresponds to one of the **Grice's maxims**.
- **cognitive load**: The action opens or closes narrative processes, depending on the current number of opened processes and the desired number of opened processes (high at the beginning, null at the end). A process is a micro narrative sequence, as defined in [27].
- **characterization**: The action helps the user to understand characters' features.
- **conflict**: The **action** either **exhibits directly some conflict** (like for example an incentive that is in **conflict** with the inciting character's values), or the action **pushes the user towards a conflicting task** (for example by blocking a non-conflicting task, if a conflicting task exists)

(?Conflict가 어떻게 정의?)

Only one emotion (conflict) is modeled

(AIIDE 11) CPOCL: A Narrative Planner Supporting Conflict

Definition 19. A **conflict** in a plan $P = \langle S, B, O, L, I \rangle$ is a four-tuple $\langle a_1, a_2, s \xrightarrow{p} u, t \rangle$ such that:

- a_1 and a_2 are actors, possibly the same
- there exists a causal link $s \xrightarrow{p} u \in L$ threatened by step t
- there exists an intention frame $f_1 = \langle a_1, g_1, m_1, \sigma_1, T_1 \rangle$ such that $u \in T_1$
- there exists an intention frame $f_2 = \langle a_2, g_2, m_2, \sigma_2, T_2 \rangle$ such that $t \in T_2$ and $f_1 \neq f_2$
- either t or u (or both) are non-executed steps

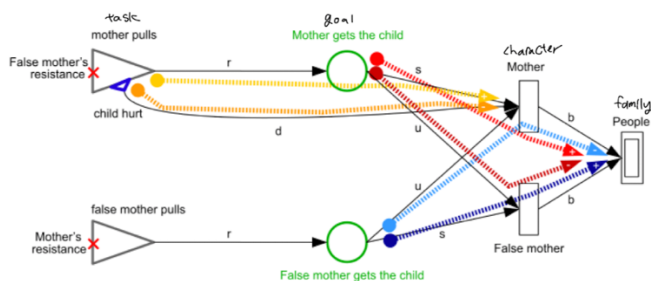
In other words, one actor forms a subplan that threatens a causal link in another actor's subplan, and one of the two subplans fails (or both fail). Conflicts are a subset of threatened causal links which are not flaws because there is no chance that they will prevent the plan from proceeding from initial state to goal.

Internal conflict occurs when $a_1 = a_2$ and a character thwarts its own plans. External conflict with other characters occurs when $a_1 \neq a_2$. Conflict with the environment occurs when $f_1 = f_{env}$ or $f_2 = f_{env}$.

Intention Frame

(ICIDS 16) Qualifying and Quantifying Interestingness in Dramatic Situations - Nicolas Szilas et al.

Computational Model of Dramatic Situations (Dramatic Cycle)



(Situation Graph 설명: (CMN 13) Towards a Computational Model of Dramatic Tension 에 정의됨)
Quantify interest of these kinds of cycles

(ICIDS 18) Automatic Detection of Conflicts in Complex Narrative Structures - Nicolas Szilas et al.

Cluster Analysis -> 3 main conflict groups

Table 1. Various types of conflicts and their computational models

Conflict in narrative theories	Conflict in computational model
Internal moral conflict [12]	IDtension: goals, tasks, and values [18] Conflict of goals and values [2] Dilemma generation models [3, 8] Moral dilemmas [15]
Inner (nonmoral) conflict [12]	Conflict within one character's plans [24]
External conflict: obstacle [9, 23]	IDtension: obstacle [18] Plan failure [4]
External conflict: personal conflicts [12], counter intention [23], conflict with antagonist [5], intercharacter conflict [22, 23]	Conflict between two characters' plans [24]
External conflict: social dilemma	GADIN: betrayal, sacrifice, greater good, take down, favor [1] Generation of dilemma [3]
Paradox [13]	Dramatic situations [19]

Unified Model of Conflict:

Conflict defined by 'dramatic cycle': pattern that corresponds to conflicts

dramatic cycle is subgraph of a situation graph

Within dramatic cycle start & end nodes have 2 distinct path from start -> end, have opposite signs

Strength of path: product of weights of all relations



Different topologies of dramatic cycles that correspond to different types of conflicts.

The **Paradox**: the end node is a goal

2 Opposite paths converge toward a goal (both leads to achievement & prevention)

The **internal** conflict: the end node is a character and connected via 2 satisfying relations

2 Paths of opposite signs lead to same character via 2 different goals

The **intercharacter** (social) conflict: the end node is a set and connected via 2 belonging relations

Task in structure **satisfies one character but not another character**

2 Characters belong to same set

The **internalized** social conflict: the end node is a character, and one incoming relation is a mattering relation

Protagonists themselves don't care about conflict

Processed only at **global** level

Harmful event to group is harmful to character (mattering)

The **authoritative** conflict: the end node is a character and one incoming relation is a domination relation

Conflict between 2 character goals, one character is **dominant (domination)**

Table 2. Extract of conflicts in the example scenario, with plain-text descriptions

Type	Algorithm's output	Plain-text description
Paradox	[takeCareLili, r2, liliCared, i1, liliTooYoung, h, goToOpera, r1, opera, i4, paulPresent, h3, haveAperitif, r3, havePrivacy] vs [takeCareLili, c2, liliPresent, n2, havePrivacy]	On the one hand, if Frank takes care of Lili, his father will go to the opera and not prevent Frank and Julia from having privacy; on the other hand, Lili will be around, and this will prevent them from having privacy.
Internal	[out, s6, Julia] vs [out, x2, juliaNotAvailable, h4, haveAperitif, r3, havePrivacy, s5, Julia]	Julia is satisfied to be out, but this prevents her from having an aperitif with her friend.
Intercharacter	[out, s6, Julia, b4, people] vs [out, x2, juliaNotAvailable, h4, haveAperitif, r3, havePrivacy, s4, Frank, b3, people]	For Julia, being out is good, but for Frank, it is not, because it prevents them from having an aperitif together.
Internalized social	[out, s6, Julia, b4, people, m, Frank] vs [out, x2, juliaNotAvailable, h4, haveAperitif, r3, havePrivacy, s4, Frank]	On the one hand, Frank understands that being out is good for Julia; on the other hand, it prevents them from having an aperitif together.
Authoritative	[takeCareLili, r2, liliCared, i1, liliTooYoung, h, goToOpera, r1, opera, s1, Paul, dml, Frank] vs [takeCareLili, c2, liliPresent, n2, havePrivacy, s4, Frank]	On the one hand, if Frank takes care of Lili, his father will be satisfied to go to the opera, so Frank feels obliged to do that. On the other hand, this would prevent him from having a private aperitif with Julia, because they will have to take care of his sister, Lili.

of conflicts formally found in storyworld is much higher than # of conflicts initially conceived by the creators of the story

Conflict calculation based on paths **Impact** and **Conflict**

Rule1: Impact Init

```

rule "impacts initialization"
when
  $A: Node()
  $B: Node()
  $r: Relation( source==$A , target==$B )
  not Impacts( source==$A, target==$B )
then
  insert( new Impacts( $A , $r , $B , $r.getWeight() ) );
end

```

If 2 nodes have relation between them -> insert impact between nodes

Rule2: Propagates impact with transitivity rule
 If A impacts B & B impacts C -> A impacts C

```
rule "impacts propagation"
when
  $A: Node()
  $B: Node()
  $C: Node()
  $impAB: Impacts( source==$A , target==$B , $strengthAB:strength ,
    $pathAB:ImpactPath )
  $impBC: Impacts( source==$B , target==$C , $strengthBC:strength ,
    $pathBC:ImpactPath , $pathBC.disjoint($pathAB )
  not Impacts( source == $A , target == $nB , ImpactPath.identical( new
    Path( $pathAB , $pathBC ) ) )
then
  Path $pathAC = new Path( $imp12.getImpactPath() , $imp23.getImpactPath() );
  Insert( new Impacts( $A , $C , $path , $impAB.getStrength() *
    $impBC.getStrength() ) );
end
```

*additional condition: second path shouldn't contain element in first one except the one that connects them (?)

Rule3: Calculates conflict by identifying 2 nodes where there are 2 ways in which first one impacts second one
 2 paths are of opposite strength

```
rule "conflict detection"
when
  $source: Node()
  $target: Node()
  $posImpact: Impacts( source==$source , target==$target ,
    strength > 0 , $posPath:impactPath)

  $negImpact: Impacts( source==$source , target==$target ,
    strength < 0 , !$posPath.crosses($posPath) )
Then
  Insert( new Conflict( $posImpact.getPath(), $negImpact.getPath() );
end
```

source 로 부터 target에 positive & negative impact 둘다 가는 경우