

CS 182 Spring 2004. Assignment 7 Solution.

Frame Semantics, Metaphor, Aspect

The solutions here are model answers only. There are a number of equally good answers to these questions.

Part 1. Frame semantics

1. Briefly describe the frame semantics of the concept Journey:
 - List the semantic roles, and any constraints on or properties of those roles.
 - Describe the basic scenario structure.
 - List any relationships that hold among the semantic roles.
 - List any presuppositions.

JOURNEY frame

A **Traveler** departs from a **Source** and travel along a **Path** to a **Destination** (or multiple Destinations), using some **Mode_of_Transportation**. Optionally, he may have some **Baggage**, and an **Itinerary** and **Co-Traveler(s)**. He may also encounter **Obstacles** along the way.

Frame Elements

Traveler	An animate agent.
Source	Place
Destination	Place
Path	
Itinerary	
Mode_of_Transportation	
Baggage	
Obstacle	Can be either anticipated or unanticipated (accidents).
Co-Traveler	An animate agent.

Presuppositions

The traveler takes on the journey voluntarily (self-propelled motion), i.e. not being transported or escorted around.

2. Briefly define the following words or phrases with respect to your Journey frame:
set out, back on track, roadblock, ahead of schedule, crossroads, reorient, detour

set out: Start of the journey, departing from the **Source**.

back on track: Resuming the journey, possibly after encountering an **Obstacle**, which caused a delay in **Itinerary**.

roadblock: **Obstacle** that is very hard to overcome and forces alternate path.

ahead of schedule: Traveling along the **Path** at a faster rate than planned in the **Itinerary**.

crossroads: Choice of multiple **Paths**.

reorient: Re-planning the **Path** towards the **Destination**, possibly after getting lost.

detour: **Obstacle** along intended **Path** and choosing an alternative **Path**, usually a longer route.

Part 2. Event Structure Metaphor

1. Show how the ESM maps the Journey frame onto the domain of events: take the Journey frame you described for Part I and show the target domain frame that results from applying the Event Structure Metaphor. (That is, the frame of Events as structured by the ESM.)

Source Domain	Target Domain
Journey	Task
Traveler	Agent
Source	Initial State
Destination	Goal State
Path	Means of getting from Initial to Goal State
Itinerary	Schedule / Plan
Mode_of_Transportation	Tools to assist execution of plan
Baggage	Useful resources brought to the task; but can also be extra weight, increasing difficulty of execution of plan
Obstacle	Difficulties
Co-Traveler	Agent / Teammates

2. Which of the words from Part I have meanings that derive from the ESM? Show for three of those terms how source domain entailments are mapped onto the target domain of events. Also note for each term whether any entailments are not mapped.
 - *set out*: Begin a task. (Preparations such as reserving hotels or packing are not mapped.)
 - *back on track*: Resuming the task, being on time with respect to the plan.
 - *roadblock*: Difficulty in performing the task, forcing an alternative plan / strategy. Authorities who set up the roadblocks map to agents who cause difficulties. (The shape of the roadblock is not mapped.)
 - *ahead of schedule*: Achieving goals sooner than planned.
 - *crossroads*: Options of multiple means of accomplishing the task.
 - *reorient*: Re-plan the steps to accomplish task. Maps and compass map to tools for re-planning directions. Informed persons can provide correct directions.
 - *detour*: Encountering some difficulty and taking extra steps to get around it. (Road signs for detour are not usually mapped.)
3. The following sentences use two variations on the ESM (that is, other metaphors that overlap with the ESM in some submappings). State the two metaphors and briefly describe the relevant mappings. Make sure to state how they are variants of the ESM, and tell which sentences fit with each.

Variant 1: Processes are the moving objects (and causers supply force to move them)
Example:

- The economy is crawling along.
- They have kick-started the project.
- The new housing project has hit a brick wall.
- They're reorienting the project in a different direction now.
- The impending budget crisis has sapped the government's drive.

Variant 2: Processes are locations (in some cases, bounded locations, as in containers)
Example:

- Rice was pushed hard to testify before Congress.
- He's on the verge of victory.
- She came close to joining the protest movement.
- She jumped into the project enthusiastically.
- He's taking concrete steps towards becoming a certified accountant.

Part 3: Aspect

1. Consider the following sentences:

- John walked./ John is walking./John has been walking.
- Jan is rubbed her shoulder./Jan is rubbing her shoulder.
- Dave climbed the mountain./Dave is climbing the mountain.
- Mary kicked the ball./ Mary is about to kick the ball.

a. Based on these sentences, give aspectual analyses of the following verbs: *walk*, *rub*, *climb*, *kick*.

walk: inherent aspect is imperfective and atelic. It can be perfectivized, as in *John walked*, or made telic (goal-oriented), as in *John walked to the store*.

rub: inherent aspect is perfective and punctual, but is often iterated (e.g. *Jan is rubbing her shoulder*).

climb: inherent aspect is imperfective and atelic, but often perfectivezed and made telic, as in *Dave climbed the mountain*. The progressive form turns it back into an imperfective reading.

kick: inherent aspect is perfective and punctual. However, one can look at the internal stages of kick (represented through x-schema embedding).

b. Now consider the sentences: *Mary pulled the chair in*. / *Mary is pulling the chair in*.

In *pull in*, specify which part of the aspectual structure is assigned to *pull* and which to *in*.

pulled in marks the done state of the pull x-schema, whereas *pulling in* marks the ongoing state of the pull x-schema. *pull* specifies the structure of the entire x-schema, and *in* characterizes the resulting state.

2. Consider your definitions of *set out* and *roadblock* from Part 1. How can these definitions be recast in terms of the aspectual structure of the Journey domain?

set out: start transition in the journey x-schema

roadblock: interrupt transition in the journey x-schema

3. Give an example each of:

a. a verb with inherent perfective aspect in a sentence in which the aspect has been changed to imperfective

Jan is jumping up and down.

b. a verb with an inherent inceptive (starting) aspect in a sentence in which the aspect has been changed to perfective

The movie has begun.

c. a sentence in which the adverbial phrases *for a minute* changes aspectual interpretation

He tapped his finger for a minute.

d. a sentence in which the adverbial phrases *in a minute* changes aspectual interpretation

She walked from the classroom to the BART station in a minute.

4. Give an example of an aspectually ambiguous sentence: describe the ambiguity, give contexts that resolve the ambiguity (one for each interpretation), and explain why the contexts work as they do

I have had a great evening – Thank you.
I have had a great evening – but this wasn't it.

The ambiguity is in whether the event (having a great evening) precedes the speech time immediately. *Thank you* identifies an immediately preceding event, which *a great evening* resolves to, whereas *this wasn't it* identifies another event in the past that *a great evening* resolves to, i.e. not the preceding one.