1999

P8v8
WFC

Artificial Intelligence Question 1. WFC

The following stories are adapted from P. Winston's textbook *Artificial Intelligence* (2nd edition,1984):

Thomas and Albert

Thomas and Albert respected each other's technical judgement and decided to form a software company together. Unfortunately, Thomas learned that Albert was notoriously absentminded, whereupon he insisted that Albert have nothing to do with the proposed company's finances. This angered Albert so much that he backed out of their agreement, hoping Thomas would be disappointed.

John and Mary

John and Mary loved each other and decided to be married. A month before the wedding, John discovered that Mary's father was secretly smuggling stolen art through Venice. After struggling with his conscience for days, John reported Mary's father to the police. Mary understood John's decision, but she despised him for it nonetheless, and she broke off their engagement knowing he would suffer.

For each story, devise a semantic network to represent the characters and events in the story [10 points].
Show how a correspondence may be made between the semantic networks to represent the abstract similarity between these stories [10 points].

Solution guidelines.

The stories are given in Winston as an example of using Lehnert's Abstraction Units. We did not cover Abstraction Units in the course, but we did cover how to use semantic nets for problems like these. A useful answer will define the elements of the net in a way that makes the comparison clear.

The relevant points to make in the comparison are as follows: Both stories involve a proposed partnership, followed by a resolution which leads to a retaliation leading eventually to a loss of the partnership. The loss leads to success for both parties in different ways. One party gains revenge. Even though the other party is upset at the loss, it is in their favour because the partnership would not have been a good one.

Once the abstration is clear, the point of the semantic net is to name the characters and events involved in the abstractions.