IPP PROGRAM DESCRIPTION

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IPP (the Integrated Partial Parser) is a complete understanding system that reads news stories and records them in a long-term episodic memory. IPP learns about the world by reading stories taken from newspapers and the UPI news wire, adding information from these stories to memory, and making generalizations that describe specific situations. Its primary domain is international terrorism. IPP uses the generalizations that it has made to help in understanding future stories. A complete description of IPP can be found in [1],

As IPP adds stories to memory, it looks for similar events and attempts to make generalizations that describe the world. Such generalizations form the basis for organizing events in memory and understanding later stories.

As a story understander, IPP makes extensive use of top-down, predictive processing. As it processes a story, IPP accesses memory In an attempt to identify generalizations describing stereotypical situations that can provide predictions to be used in understanding, yielding a a robust and efficient understanding system that has been used to understand over 300 news stories.

The overall design of IPP, involving the integration of parsing, memory update/generalization, and generalization-based memory is shown in Figure 1.

Figure 1: Overall IPP Structure

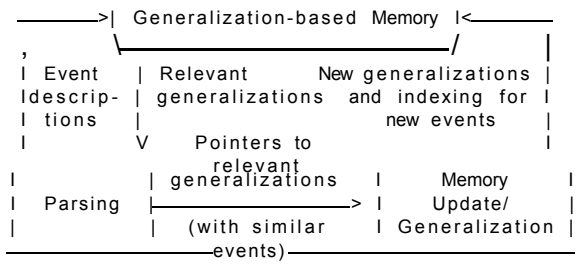

Figure 2 illustrates IPP reading a typical terrorism story and generalizing that terrorist attacks in Spain are often Basque ambushes (having read a similar story previously).

Figure 2: An IPP Example

*(PARSE EX1)

Story: EX1 (7 29 80)

(BASQUE TERRORISTS AMBUSHED A CAR CARRYING AN ARMY GENERAL THROUGH DOWNTOWN MADRID TUESDAY SLIGHTLY WOUNDING THE GENERAL BUT KILLING HIS BODYGUARD AND SERIOUSLY INJURING HIS DRIVER *COMMa* POLICE SAID)

Feature analysis: EV7 (S-ATTACK-PERSON)

RESULTS	HEALTH	-7
	HEALTH	-10
	AU	HURT-PERSON
	HEALTH	-3
VICTIM	ORG	ARMY
ACTOR	NATIONALITY	BASQUE
METH0D6	AU	$AMBUSH
LOCATION	NATION	SPAIN

Creating more specific S-ATTACK-PERSON with features:

RESULTS	AU	HURT-PERSON
ACTOR	NATIONALITY	BASQUE
METHODS	AU	$AMBUSH
LOCATION	NATION	SPAIN

REFERENCE

1. Lebowitz, M. Generalization and memory in an integrated understanding system. Tech. Rept. 186, Yale University Department of Computer Science, 1980. PhD Thesis