Schema: Pichert and Anderson

Under conditions in which the influence of world knowledge, interest, and perspective are less restricted, these reader characteristics may be more important than text structure in determining what a reader learns and remembers from a passage.

In support of this position, Pichert and Anderson (1977) have presented the results of a study demonstrating the effect of reader perspective on rated importance and recall of idea units from stories. Subjects who read stories from one of two different perspectives or from no directed perspective were asked to rate the importance of idea units from their assigned perspective. In a second experiment, a different group of subjects read the same stories from one of two different perspectives or no directed perspective and then recalled the stories. Not only did perspective affect rated importance, but the importance ratings from a given perspective were also found to be the best predictors of recall for subjects who read each story from that perspective.

Although the Pichert and Anderson study clearly demonstrated the influence of reader perspective on recall of information from texts, it failed to specify the mechanism by which reader perspective has its effect. From their results, it is difficult to determine whether important elements are remembered better because they are most likely to be encoded during reading, less susceptible to loss through forgetting, or easier to retrieve at the time of recall.

In a later study, Anderson and Pichert (1978) presented evidence for the effect of reader perspective on retrieval processes. Subjects who shifted to the alternate perspective after recalling a story once were able to recall information important to their new perspective but unimportant to their old perspective. Since the shift in perspective occurred after the passage was read, these results must be attributed to a retrieval process. Anderson and Pichert consider three possible retrieval mechanisms; output-editing, inferential reconstruction, and the retrieval-plan hypothesis. Based on the results of interview protocols obtained in their study, Anderson and Pichert conclude that the retrieval-plan hypothesis provides the best account of their results.

According to the retrieval-plan hypothesis, readers use the perspective operative during reading as a plan for searching memory. Memory search is assumed to proceed from the general concepts incorporated in the schema (i.e., perspective) to the particular information related to these concepts that was stored when the text was read. According to this view, the perspective-guided search provides access to information important to the operative perspective but cannot turn up information unrelated to that perspective.

Half the participants were given the schema of a burglar and the other half was given the schema of a potential house-buyer.

Participants then heard a story which was based on 72 points, previously rated by a group of people based on their importance to a potential house-buyer (leaky roof, damp basement) or a burglar (10speed bike, colour TV).

Participants performed a distraction task for 12 minutes, before recall was tested.

After another 5 minute delay, half of the participants were given the switched schema. Participants with burglar schema were given house-buyer schema and vice versa.

The other half of the participants kept the same schema.

All participants’ recalls were tested again.

Shorter Method:

Participants read a story from the perspective of either a burglar or potential home buyer. After they had recalled as much as they could of the story from the perspective they had been given, they were shifted to the alternative perspective (schema) and were asked to recall the story again.

Participants who changed schema recalled 7% more points on the second recall test than the first.

There was also a 10% increase in the recall of points directly linked to the new schema.

The group who kept the same schema did not recall as many ideas in the second testing.

Research also showed that people encoded different information which was irrelevant to their prevailing schema (those who had buyer schema at encoding were able to recall burglar information when the schema was changed, and vice versa).

This shows that our schemas of “knowledge,” etc. are not always correct, because of external influences.

Summary: On the second recall, participants recalled more information that was important only to the second perspective or schema than they had done on the first recall.