

SHIFTING THE FOCUS OF ATTENTION -
THE WAY AGATHA CHRISTIE LEADS YOU ON

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ABSTRACT

The paper investigates the interestingness of crime stories by Agatha Christie. The rules governing the plot and the story suggest that the interestingness of these books is based not on the elements of the plot or the story themselves but on the readers' need of creating and updating their belief structures. The readers' limited processing capabilities and their limited memory seems to drive an inference process which is manipulated by the author. Several of the factors that make readers find a book interesting are determined. As for the applicability of formal methods, the paper is rather pessimistic.

I INTRODUCTION

Theories concerning the understanding of stories and the generation/telling of them have developed rapidly in the last few years: terms like "script based" and "goal based" have been initiated and interpreted (Rieger 1976, Schank 1975, Schank 1981), "story telling rules" and "plot units" have been established (Beaugrande 1979, Lehnert 1981), and the notion of "interestingness" has been discussed (Schank 1979). For the type of stories that has been labelled "author intent based" (Dehn 1981) there has been established a differentiation between the "plot" and the "story" (Yazdani 1982).

On the basis of these studies, henceforth by plot we mean the network of events linked by causal links (Schank 1981), as it may be reconstructed after reading the book, a mental record of "what happened and why", while the story is the way the plot is rendered in the book.

According to the mutual belief of author and reader, in each story the elements invoke a larger mutually understood schemata (Bruce 1981) There is a

consensus between author and reader concerning the rules and means that can be applied.

The question we try to answer is the following: what makes Agatha Christie interesting? We have chosen to discuss Agatha Christie's work for the reason that the rules are rather strickt, the means are simple and both are common knowledge.

We are interested in crime stories as far as they meet the following criteria: the intention of the author is to engage the reader's attention, but without involving him emotionally.

The consensus between author and reader includes murder, some "old domestic poisoning drama" (Orwell 1965), as the key element of the plot. According to this consensus the world of the plot should be small-scale and closed; most of the characters must be honest, normal people. Motivation should be proportionate to the deed, plans should contain no alternative courses, etc. There are rules concerning what the detective can or cannot do. The consensus about the way of representation forbids to tell anything but the truth through the narrator, and demands that the amount of unnecessary information should not be more than the minimum what is needed to keep dialogues flowing.

The method we have applied is the following: a reader "well-versed" in Agatha Christie went through one of her works /that our choice should not be arbitrary it was the very first book in which Monsieur Poirot appeared (Christie 1957)/ making plenty of notes while he read. We have neglected the danger inherent in our method, namely, that the conclusions we will arrive at may be valid only for one single book. Hopefully, we shall be able to offer something more enlightening than the common-place claim that reading Agatha Christie is interesting in the same way as riddle-solving is.

II WHAT IS DEFINITELY NOT THE KEY TO AGATHA CHRISTIE'S INTERESTINGNESS?

We cannot agree with propositions attributing much interestingness to factors like the interestingness of the characters or that of the plot itself - we usually forget what happened in a crime story as soon as we shut the book, moreover, the more stories of a certain type we have read the greater is our enjoyment of the next one. It is not the "race with the detective" what makes reading Agatha Christie interesting. The reader may try to guess the murderer earlier than the last chapter when he is told, but Agatha Christie ensures that he should not succeed. Neither does the interestingness lie in the fact that we get convinced of the correctness or the inevitability of the outcome - we seldom re-read any crime stories. It is the process - and not the result - of the reading we enjoy.

111 THE PRESSURE TO INFERE; DELUSIONS

At first, let us consider not the reasons why the reader feels compelled to infer but the nature of his inferences.

If he considers an item to be relevant at all,

/1/ he judges the degree in which it is guaranteed to be true by the rules of the game,

/2/ assigns a degree of normality to it,

/3/ enhances the importance of other items linked conceptually to that particular one, and - if it is possible -

/4/ labels it according to the stereotypes that can occur in connection with crime /the weapon, alibies, etc./,

/5/ fits in into the framework of the "real world" and projects it to the plot-world.

These activities are running parallel and modifying each other all the time, with the application of some contextual production rules (Kayser and Coulon 1981). Besides, he inserts the newly found item into a structure he believes the plot possesses: he interprets it as an element of a particular script or plan, or as something that refers to the motives of certain characters. Thus he enhances the accessibility of the information obtained by his inference process while the original, unprocessed information is thrust into the background.

However, the key question remains: what makes the reader infer and what makes him err? Our proposition is that readers are unable to remember too many unrelated items; if they want to keep in touch with the story they have to risk faulty interpretations, since if they don't, pieces of information, as soon as they occur, may be forgotten once and for all. Readers prefer to base their inferences on "Items in the focus of attention". By items in the focus of attention we mean pieces of information which are either new or have been used many times or which have often changed their credibility. Certain types of inference have a special appeal: these are the ones which

111 are based on surprising, abnormal items,

/2/ seem to support an already existing belief - thus the reader has a "vested interest" in their being the right ones,

/3/ decrease considerably the size of the structure he thinks he has to remember. He may try to guess the size of the plot but he is likely to underestimate it: thus by expecting a simple solution he will aim at an oversimplified one.

Inferences /4/ which produce information connected to what he thinks to be the main-spring of the plot have a special appeal too - although the writer carefully mixes these information into the flow of the story.

IV REVISION OF BELIEFS, THE INTERESTINGNESS OF A CRIME STORY

While reading the story the reader is continually fitting new items into the belief structures he has established already. When in the course of this process he comes across a new item that seems to be contradictory to this structure he is compelled to revise his beliefs. A reader well-informed in AI may attempt to do this in a way suggested by the algorithms of the Truth Maintenance System (Doyle 1978), but he is not too likely to succeed, the less so, since the TMS does not suggest a safe method which could decide which assumption is to be modified.

While backtracking the contradiction, the humble and hasty reader is more likely to consider only those of his beliefs that happen to be in the focus of attention at the moment. What's more, if a belief has just been weakened, he is likely to over-weaken it. These facts, together with certain deliberate deceptions on the author's part, for instance, making the reader feel much more clever than the good Hastings, belong to the stock of methods Agatha Christie frequently applies.

When judging the interestingness of a book he has just finished the reader recalls how he has been compelled to form beliefs and change them, and if he feels that he has been deceived in a degree corresponding to his own expectations and it has been done by the application of "fair" methods he will be satisfied.

If we accept the propositions concerning the process of reading discussed above, then the intelligent Agatha Christie reader should be regarded as someone who is able

- to judge the importance of the items and to generalize their consequences in an appropriate degree (Schank 1980);
- to realize that he has a "belief system" on his hands (Abelson 1979);
- to infer not only in an incremental way, that his inferences should consolidate one of his beliefs;
- to have a breadth-first approach;
- to store in his memory, beside the interpretations, the original items as well in order that they should be accessible for reappraisal for a different inference, too (Kayser and Coulon 1981);
- to store a considerable number of seemingly unrelated items;
- to apply justifications (Doyle 1978) in the proper way when modifying his beliefs.

V CONCLUDING REMARKS

That we could have drawn so few conclusions by analysing a work of marginal literary value may be regarded as a warning against overrating our possibilities in analysing the interestingness of stories. Nevertheless, at last we have suggested a solution of what is happening when you are reading and enjoying Agatha Christie, although, of course, other readers may come across different types of regularity and different values.

Considering how many different effects are mixed in a real crime story it is not too likely that we can verify any propositions concerning the interestingness of crime stories through generating some "artificial" ones - not even in a case when the simplest step, namely the transformation from the plot to a presentation plan would be made by formal means.

The only rule valid for every possible case seems to be that very old one that a story becomes alive if and only if it unsettles some of the accepted rules of story telling pertinent to that type. - but in a purpose-oriented and not in an arbitrary way.

Two suggestions: Agatha Christie's oeuvre is public property: why should we

not use these crime stories as standard works for the analysis of story-generation and telling? Besides, it would be interesting to examine what happens when we enjoy works of other genres unfolding in time, such as, for instance, music, especially the ways interesting structure is created out of elements quite uninteresting in themselves. The reason what makes this phenomenon occur may be the very limitedness of our resources.

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REFERENCES

- [1] Abejson, R. P. "Differences Between Belief and Knowledge Systems", *Cogn. Sci.* 3 [1919] pp.355-366.
- [2] Beaugrande, R. and Colby, B. N. "Narrative Models of Action and Interaction", *Cogn.Sci.* 3 /1979/ pp.43-66.
- [3] Bruce, B. "A Social Interaction Model of Reading", *Disc.Proc.* 4 /1981/ pp.273-311.
- [4] Christie, A. "The Mysterious Affair at Styles", Pan Books, London, 1957
- [5] Dehn, N. "Story Generation After Tale-Spin", in *Proc.IJCAI-81*, pp.16-18.
- [6] Doyle, J. "Truth Maintenance Systems for Problem Solving", MIT AI-TR-419 /1978/
- [7] Kayser, D. and Coulon, D. "Variable-Depth Natural Language Understanding" in *Proc.IJCAI-81*, pp.64-66.
- [8] Lehnert, W. G. "Plot Units and Narrative Summarization", *Cogn. Sci.* 4 /1981/ pp.293-331.
- [9] J Orwell, G. "Decline of the English Murder", Penguin Books /1965/
- [10] Rieger, C. "An Organization of Knowledge for...", *Artif.Int.* 1_ /1976/ pp.89-127.
- [11] Schank, R. C. "Conceptual Information Processing", North-Holland, Amst./1975/
- [12] Schank, R. C. "Interestingness: Controlling Inferences", *Artif. Int.* 12 [1919] pp.273-297.
- [13] Schank, R. C. "How Much Intelligence is...", *Intelligence* 4/1980/ pp.1-14.
- [14] Schank, R. C, Riesbeck C. K. "Inside Computer Understanding", Lawrence Erlbaum Associates, Hillsdale /1981/
- [15] Yazdani, M. "How to Write a Story", in *Proc.ECAI-82*. DD.16-18.