

## ON THE PRODUCTIVITY OF FOLKLORE AND MYTHOLOGICAL PLOT ARCHETYPES

**Vadim Smirenski**

*Information Institute of Social Sciences,  
Russian Academy of Sciences, Moscow*

**Abstract:** Formal representation of fairy tale plots described by V. Propp in 1928 is well-known now. Tale plots are simple, rigid and "closed". But the same features are inherent to detective plots. It's possible to reduce their variants. The most famous works by A. Conan Doyle "The Speckled Band", "The Hound of the Baskervilles", and "The Copper Beaches" are based on the same plot of the struggle for inheritance while the criminal used a dreadful beast as a weapon. The formula of this plot repeats all the twelve functions of the so-called "simple" tale of the dragon-slayer. All the functions of the archetypical heroic plot model are successively reproduced in Conan Doyle's stories. Propp's functions denoting events and actions might be quite naturally transformed to knowledge representation units or frames. Their slots function as conceptual cases and represent personage roles and other relevant information of events. The structure of embedded frames allows to represent more explicitly the relationship between a narrative scheme (chronologically ordered sequence of states and events, or "fabula", invented by an author) and a plot presented by a narrator.

**Keywords:** archetypes in literature, detective stories, fairy tales, frames, narrative intelligence, plot model.

## 1. FAIRY TALES AND DETECTIVE STORIES

### 1.1 Heroic subgenre and its plot model

Method of formal representation of folktale plots described by V. Propp seventy years ago (1928) is well-known now. He defined the genre of an analysed corpus of 100 fairy tales as mythical folktales. Now folklorists treat them as the subgenre of heroic fairy tales. It is important that this subgenre has its peculiar plot model (Jason and Segal, 1977), fixed by Propp in the list of 31 functions or plot units (Lehnert, 1981) and seven permanent characters. Tale plots are simple, rigid and "closed". But similar features are inherent to detective plots. Based on events, they are closed to love or social themes (Lotman, 1988). It's possible to reduce their variants. The most famous works by A. Conan Doyle "The Speckled Band" (SB), "The Hound of the Baskervilles" (HB), and "The Copper Beeches" (CB) are based on the same plot of the struggle for inheritance, where the criminal used a dreadful beast as a weapon, and moreover, these stories are built on the archetypal plot, using images of "a dragon", "dragon-slayer" and "a beautiful woman".

### 1.2 Formulae of plot models

As V. Propp stated, "the entire store of fairy tales ought to be examined as a chain of variants" (Propp, 1958). Many scholars, including C. Lévi-Strauss (1960), paid attention to the so called "simple" fairy tale of the struggle with a snake or a dragon, which consists of only 12 functions, but all the rest 100 tales can be morphologically deduced from this "basic" Propp's formula (1):

i e3 b1 A1 B1 C ^ H1 - I1 K4 ! Wo (1).

These symbols are read (numbers designate function variants):

- 1) A king, three daughters (initial situation, i).
- 2) The daughters go walking (absentation, e3).
- 3) They stay late in the garden (violated interdiction, b1).
- 4) A snake (dragon) kidnaps them (villainy, A1).
- 5) The king calls for help (B1).
- 6) Heroes agree to counteract (C).
- 7) They go to search the princesses (departure, ^).
- 8&9) The heroes fight with the snake and win (struggle-victory, H1 - I1).
- 10) They rescue the maidens (liquidation of lack, K4).
- 11) Return (!),
- 12) rewarding (Wo).

Compare this plot with a functionally reduced representation of narrative structures of SB and HB:

- 1) There were heirs after the death of a rich man (i).
- 2) Once an heir went for a walk (absentation, e).
- 3) and was late in the garden (violated interdiction, b1).
- 4) A demonic creature (snake, demon dog) appeared and killed the heir (murder, A14).
- 5) The second heir (a client) called for help (announcement of misfortune, B4).
- 6) A hero (detective) agreed to help (C).
- 7) and went to investigate the case (departure, ^).
- 8&9) Having refused from a false version (false version - abandonment from false version, L - Ex),
- 10) he identified the criminal (recognition, Q) and
- 11&12) solved the crime mystery (problem - solution, M - N).
- 13) The hero joined in combat with the snake or dog and
- 14) won a victory over the "dragon" (H1-I1)

- 15) The criminal perished having become a victim of his scheme (punishment, U).
- 16) The hero rescued the client or "a beautiful woman" (K4),
- 17) returned to Baker Street (!)
- 18) and got a reward (Wo)

It is clear from this schematic representation that on the level of Propp's functions the fairy tale plot on kidnapping of princesses is repeated very closely in Conan Doyle's stories about the struggle for inheritance, though the detective plot differs from its narrative scheme. Detective stories usually begin when a client comes to a detective and calls for help. And from this call for help the readers know about preceding events and their participants. As a rule we don't know till the end, who is the criminal and what is the motive of the crime.

We can see that all the twelve functions of the archetypical heroic plot model (or their variants) are successively reproduced in Conan Doyle's stories. Practically all the rest functions could be found in Propp's full list of 31 functions and the whole formula of Conan Doyle's plot of the dragon-slayer (SB, HB, CB) looks as:

$i \in b A B C \wedge M L Ex Q N H - I U K ! Wo (2).$

In comparison with the "simple" tale the functions "problem - solution" (M - N) play in detective stories no less important role than the "struggle-victory" (H - I). The first step of investigation is designated with the functions "false version - refusal from it" (L - Ex) describing episodes with false criminals - a gypsy "band" (SB) and an escaped convict (HB). These plot units are similar to Propp's functions "L - claims of a false hero" and "Ex - exposure of the false hero". The "recognition" (Q) reminds of an Aristotlean device "anagnorisis" - recognition, which occurs when such events as a secret murder or incest take place in a plot (Cave 1988). The "recognition" means a transfer from ignorance to knowledge and is of great importance: it is necessary to identify a criminal before catching him. Only Sherlock Holmes with his penetrating mind can guess who is hidden under the mask of a criminal. Due to family likeness Holmes recognizes the criminal looking at the picture of Hugo Baskerville or after a narrative of an abnormal cruel child of smiling Rucastle (CB). These functions constitute a basic kernel of the detective plot and symbolise the steps of a mystery solution: M L Ex Q N.

We suppose that the similarity of the formulae (1) and (2) may be explained not by subjective memory of an author, but by objective memory of the genre (Bakhtin, 1972), which causes a stable regeneration of archaic forms (Lotman, 1988), including the preliminary fairy tale functions. We can remember, for example, the "interdiction", repeated again and again in HB: "I counsel you by way of caution to forbear from crossing the moor in those dark hours when the powers of evil are exalted" (an extract from the legend). Then Sir Henry received a letter made of pieces cut from a newspaper: "As you value your life and reason keep away from the moor". Sir Henry immediately "violated" this "interdiction": "There is no devil in hell who can prevent me from going to the home of my own people!"

In SB the "interdiction" is addressed directly to Sherlock Holmes himself. The dreadful Dr. Roylott came to Baker street and with words: "See that you keep yourself out of my grip", he seized the poker, bent it into a curve with his huge hands and hurled the twisted poker into the fireplace. But Holmes, laughing, immediately "violated" this "interdiction": "I might have shown him that my grip was not much more feeble than his own", and with a sudden effort straightened the poker out again. Thus, the mentioned pair of functions ("interdiction" - "violation of interdiction") is expressed not only verbally, but also through actions having symbolic manner.

The circumstances of the murders in HB are no less colourful than in the fairy tales. Firstly, the crime place looks very much like a bewitched kingdom: the long, gloomy curve of the moor, broken by the jagged and sinister hills. "A long, low moan, indescribably sad, swept over the moor. And it must indeed have been a dreadful sight to see that huge black creature,

with flaming jaws and blazing eyes, bounding after his victim. Sir Charles fell dead at the end of the alley from heart disease and terror."

### 1.3 Characters and functions

Just as fairy tales, detective stories also have permanent characters; they are five and very similar to folktale personages: hero - detective, helper - helper, villain - criminal, victim (princess) - victim (client), false hero - false criminal. Like a tale or a myth hero (Perseus) Holmes fights not merely with a criminal, but wins over "a dragon": the deadliest snake in India (SB) or the "demon dog" with "flaming jaws" (HB) or "glowing eyes" (CB).

It is possible to trace from year to year how this "dragon archetype" becomes more and more "dreadful" and clear cut under Conan Doyle's pen:

"There was a huge famished brute, its black muzzle buried in Rucastle's throat... its keen white teeth still meeting in the great creases of his neck" (CB, 1891).

"It was that, standing and plucking at his throat, there stood over Hugo a foul thing, a great black beast... the thing tore the throat out of Hugo Baskerville... It turned its blazing eyes and dripping jaws" (HB, 1901-1902).

Sherlock Holmes rescues just from "the grip of a dragon" a young girl (SB, CB) or a true beauty with "a proud, finely-cut face" and "beautiful dark, eager eyes" - Mrs. Stapleton (HB).

As T.A.van Dijk writes (1984), a hero in a fairy tale, like in our stories about James Bond, must solve a problem or fulfill a difficult task (for example, to rescue a princess kidnapped by a dragon). The hero, going through dangers, kills his antagonist, wins a victory, returns home and gets a reward.

In contrast to myths and tales, the dreadful beast in Conan Doyle's stories is only a weapon used by a criminal. Conan Doyle's stories differ also from the famous story by Edgar Poe "The Murders in the rue Morgue", which was called the origin of the modern detective genre. There was also a dreadful beast in Poe's story: it was a giant orang-utan, but his master, a sailor, did not scheme any crime. The orang-utan simply escaped from its cage and committed awful murders. Poe's plot is limited with demonstration of Dupin's abilities to find the solution of a difficult problem: having rejected a false version, Dupin liberated an innocent man; thus, E.Poe developed the same chain of plot units, which conditions the double reading of a detective story: M L Ex Q N.

### 1.4 Detective stories and myths: isomorphic structure

Besides, the formula of the detective narrative scheme is very close to the classical formula of the myth structure revealed by C.Lévi-Strauss (1958):

$$f_x(a) : f_y(b) :: f_x(b) : f_{a-1}(y) \quad (3)$$

Both in the myth and in detective stories an initial negative function - villainy (x) by the antagonist (a) is overcome by the hero-mediator (b) who is capable to make with his negative actions (x) the antagonist (a) harmless.

SB corresponds to this formula by C.Lévi-Strauss to the most extent. When Holmes had heard the snake hissing, he began to lash it furiously with his cane and made it to attack its master who "fell into the pit" he tried to dig to another.

It is also possible to show isomorphism between the structure of cumulative or formula tales on a series of successful/unsuccessful attempts to avoid some kind of danger (Propp, 1976) and the plots of detective novels where authors describe so called serial crimes, e.g. chain



murders in the novels "The Last from the Six" by Steeman and "In the ABC Order" by A.Christie. The narrative technique of threading is used in both cases till the hero - detective identifies a serial murderer. The whole plot may be presented with a modification of Lèvi-Strauss's formula:

$$[f_x(a) : f_y(b)] * N \sim f_x(b) : f_{a-1}(y) \quad (4)$$

which reads: if a criminal during almost the whole story is successful and avoids punishment N times, then in the ending a detective as a magic hero is more fast and clever and the criminal is punished.

The chain of serial murders is also used by authors in order to create a false clue: one of the murders turns out to be faked by a criminal, and this false murder, having occurred in the chain of the real crimes, makes the recognition of a murderer very difficult.

Presented arguments confirm the idea that detective plots have a formula-type structure (Cawelty, 1976).

## II. CONCEPTUAL OR FRAME REPRESENTATION OF PLOT MODELS

The formula (2) might be called a basic detective narrative scheme (chronologically ordered sequence of events (Ryan, 1991), or "fabula"), which differs from the plot, representing the steps of problem solution.

### 2.1 *Frames and conceptual cases*

In comparison with a plot model consisting of the traditional categories, such as the beginning, culmination and ending of a story, Propp's functions are far more expressive: they belong to a deeper level of the narrative, designate and simulate concrete actions, events and situations. But they don't present roles of characters and their relationships. For more adequate representation of the unity of the narrative scheme (fabula) and the plot of the formula (2) should be transformed into knowledge representation units or frames (Minsky, 1980; Pospelov, 1982). Their slots function as conceptual cases (Schank, 1975) and represent personage roles and other relevant information of events and actions. Due to the deep analogy between the notion of a conceptual case and actant we can establish a natural link between a text model and models of situations and events.

Following L.Hjelmslev's terminology it's possible to say that the beginning, culmination and ending of a story are the segments of the content form, whereas functions, motives, and plot units are the elements of the content substance. V.Propp compared functions with genes. Trying to specify the relationship between the plot and the narrative scheme (fabula), N.Krausova (1973) suggested that the fabula is a process of generation (genotype, or "genotext"), which can be treated only on the level of the plot (phenotype, or "phenotext").

The genotext-fabula is a level organized by an author, and not by a narrator. The plane of the narrator is found to belong completely to the level of the plot-phenotext. The invariant formula of HB, SB, and CB (2), presented before, is a genotext model of these stories.

The structure of embedded frames allows to represent more explicitly the relationship between a narrative scheme, or "fabula", invented by an author, and a plot presented by a

narrator. Applying this method, we are able to overcome the shortcomings of Propp's model, conditioned by its linear character.

The frame "murder" (or "supposed murder") with unfilled slots "who", "how", "why" is embedded first in the frame "announcement/call for help", then it is embedded successively in the frames "problem", "false version", "recognition" etc.:

"announcement" (<client>): "murder" (<who> <how> <why>)

"problem" (<Holmes>): "murder" (<who> <how> <why>)

At last all the slot meanings are cleared in the frame "solution", which is usually presented as a final analysis of a case made by Sherlock Holmes himself in the epilogue:

"solution" (<Holmes>): "murder" (<who - one of the heirs> <how - using a snake or a giant dog> <why - to take possession of inheritance>).

## 2.2. Narrative intelligence

M.-L.Ryan (1991) discussing the concept, which Paul Ricoeur (1982) called "narrative intelligence", suggested three criteria by which this "intelligence" of story generating programs may be evaluated: creativity, aesthetic awareness, and understanding. If the limitations imposed on the structure of the story are few, then creativity of narrative intelligence is considered greater. But as we mentioned above, detective stories like fairy tales are based on permanent personages and almost all the authors follow these limitations, which are the distinctive features of the genre. Agatha Christie having written some novels with Hercule Poirot tried to refuse from the character named Captain Hastings who played the role of Poirot's helper and was very much like Dr. Watson. But after some time there appeared a new "helper" in her novels: it was a detective author Ariadna Oliver. Unlike simple-minded Captain Hastings, she had "imagination" and was "full of initiatives".

This genre is conditioned also by moral teleology: evil must be punished, or, at least, it can't be rewarded (Balukhatyi, 1990).

In fact, these limitations and similar rules being imposed on plots and structure of detective works can provide the system with ability to sort out good and bad narratives, that is aesthetic awareness. In this connection we may remember twenty rules for writing detective novels by S. Van Dyne; for example, rule 4: a detective can't be a criminal at the same time.

These rules remind to us the rules of the algorithm for generating fairy tales by Pierre Maranda (1985): one of the aesthetic principle of his program forbids events devoid of consequences: if the hero receives three magical gifts, he should later encounter three dangers using each of the three gifts.

At finally, understanding is a system ability to summarize the plot or answer questions about its internal logic. In this paper focused on the last criterion we tried to demonstrate that frames provide a fruitful technique for adequate formal representations and understanding of plot structure. Identifying the functional units, such as murder, problem, recognition, solution, struggle, victory, punishment, reward etc., and the cast of permanent characters with their goals and roles we can "explain what we mean when we say "these two stories have the same

plot" (M.-L. Ryan, 1991:201). Thus, it is a step for creating a system for automatic story generation based on the productive and universal literary archetypes and prototypes.

## REFERENCES

- Balukhatyi, S.D. (1990). *Voprosy poetiki*. Izd.-vo Leningr. un-ta, Leningrad.
- Bakhtin, M.M. (1972). *Problemy poetiki Dostoyevskogo*. «Khudozhestvennaia literatura», Moskva.
- Cave, T. (1988). *Recognitions. A study in poetics*. Clarendon press, Oxford.
- Cawelty, J.G. (1976). *Adventure, mystery and romance: formulastories as art and popular culture*. Univ. of Chicago press, Chicago.
- Dijk, T. A. van (1984). *Prejudice in discourse*. Ch. 5. *Stories about minorities*. Benjamins, Amsterdam.
- Jason, H. and D. Segal (1977). Introduction. In: *Patterns in oral literature*. (S.Tax, (Ed)), p.1-10. Mouton Publishers, The Hague-Paris.
- Krausova, N., et al. (1973). *Segmenty a kontext*. Vyd.-vo Sloven. akad. vied, Bratislava.
- Lehnert, W.G. (1981). Plot units and narrative summarisation. *Cognitive Science*, vol.5, p.293-331.
- Lèvi-Strauss, C. (1958). *Anthropologie structurale*. Plon, Paris.
- Lèvi-Strauss, C. (1960). La structure et la forme. Rêflexions sur un ouvrage de Vladimir Propp. *International Journal of Slavic Linguistics and Poetics*. Vol.3, 1960, p.122-149.
- Lotman, Yu.M. (1988). *V shkole poeticheskogo slova*. Pushkin. Lermontov. Gogol. «Prosveshchenie», Moskva.
- Maranda, P. (1985). Semigraphy and artificial intelligence. *International Semiotic Spectrum*. Vol.4.
- Minsky, M.A. (1980). A framework for representing knowledge. In: *Frame conceptions and text understanding* (D.Metzing, (Ed.)), 1-25. De Gruyter, B.; N.Y.
- Pospelov, D.A. (1982). *Fantazia ili nauka. Na puti k iskusstvennomu intellektu*. «Nauka», Moskva.
- Propp, V.Ya. (1928). *Morfologiya skazki*. Academia, Leningrad.
- Propp, V. (1958). *Morphology of the folktale*. Indiana university, Bloomington-Philadelphia.
- Propp, V.Ya. Kumulativnaia skazka. In: *Folklor i deystvitelnost'*. *Izbrannye statii*, 241-257. «Nauka», Moskva.
- Ricoeur, P. *Temps et Récit*. Seuil, Paris.
- Ryan, M.L. (1991). *Possible worlds, artificial intelligence and narrative theory*. Indiana univ.press, Bloomington; Indianapolis.
- Schank, R.C. (1975). *Conceptual information processing*. North-Holland Publishing Company, Amsterdam - Oxford.

SMIRENSKI Vadim  
ul. Anokhina 38-1-79  
Moscou, Russie, 117602  
Tel.: 430 32 24  
e-mail: evgen@glasnet.ru