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The Narrative Structure of the Fairy Tale and the Functions of the Hero: A Proppian Comparative Analysis of Traditional and AI-Generated English and Uzbek Tales

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Abstract: Almost a century ago, Vladimir Propp showed that, beneath their endless variety, wonder tales are built from a limited set of recurring plot elements, or "functions", arranged in a stable order: a lack or villainy, the hero's departure, a test by a donor, the gift of a magical agent, a struggle, victory, return and, often, a wedding. Uzbek and English tales share much of this skeleton, but each tradition also has its own formulas and rhythms: the Uzbek "Bor ekan-yo'q ekan" and "murod-maqsadiga yetibdi", the forty days of travel and forty days of wedding celebration, the English "Once upon a time" and "happily ever after", and the rule of three that runs through both. Large language models (LLMs) such as ChatGPT, Claude and Gemini now retell existing tales and invent new "folk tales" on request. This raises a structural question: do AI tales follow the morphology of the folk tale, or a different narrative logic?

This article applies Propp's model to compare ten canonical tales (five English and five Uzbek) with 90 AI-generated tales produced by three models under three tasks: retelling a traditional tale, writing a new "Uzbek" or "English folk tale" from a given plot premise, and writing a fairy tale without cultural specification. Each tale was segmented into Proppian functions and coded for the spheres of action of its characters, triplication, opening and closing formulas, and the presence of features typical of modern narrative, such as inner conflict and explicit morals.

The results show that AI preserves the core of the Proppian sequence (lack, departure, struggle, victory and return) but compresses and reshapes it. The donor sequence is shortened, and magical gifts are often replaced by advice or "inner strength"; triplication is reduced; the false hero disappears; villains are frequently forgiven rather than punished; and the wedding is often replaced by personal growth or friendship. At the same time, AI adds elements of the modern "hero's journey": an inner conflict, a character arc and an explicit moral at the end. Uzbek formulas and chronotopes, such as the forty-day journey and the forty-day feast, are largely lost, and AI-generated "Uzbek" and "English" folk tales become structurally almost indistinguishable. The article argues that AI substitutes the morphology of the folk tale with a globalised template of modern children's storytelling and discusses implications for folkloristics, narratology and education.

Keywords: Propp, morphology of the folktale, narrative structure, functions of the hero, story generation, fairy tale, artificial intelligence, large language models, English, Uzbek.

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Аннотация: Почти столетие назад В. Я. Пропп показал, что за бесконечным разнообразием волшебных сказок стоит ограниченный набор повторяющихся сюжетных элементов — «функций», следующих в устойчивом порядке: недостача или вредительство, уход героя, испытание дарителем, получение волшебного средства, борьба, победа, возвращение и нередко свадьба. Узбекские и английские сказки во многом разделяют этот каркас, однако у каждой традиции есть свои формулы и ритмы: узбекские «Бор экан-йўқ экан» и «мурод-мақсадига етибди», сорок дней пути и сорок дней свадебного пира, английские «Once upon a time» и «happily ever after», а также правило троичности, пронизывающее обе традиции. Большие языковые модели (ChatGPT, Claude, Gemini и др.) сегодня пересказывают существующие сказки и по запросу сочиняют новые «народные сказки». Возникает структурный вопрос: следуют ли сказки ИИ морфологии народной сказки или иной нарративной логике?

В статье модель Проппа применяется для сопоставления десяти канонических сказок (пяти английских и пяти узбекских) с 90 сказками, созданными тремя моделями при выполнении трёх заданий: пересказ традиционной сказки, сочинение новой «узбекской» или «английской народной сказки» по заданной сюжетной завязке и сочинение сказки без указания культуры. Каждая сказка была разбита на функции по Проппу и закодирована по сферам действия персонажей, троичности, зачинам и концовкам, а также по наличию черт, характерных для современного повествования, — внутреннего конфликта и явной морали.

Результаты показывают, что ИИ сохраняет ядро проппского ряда (недостача, уход, борьба, победа, возвращение), но сжимает и перестраивает его. Цикл дарителя сокращается, а волшебные дары нередко заменяются советом или «внутренней силой»; троичность ослабевает; ложный герой исчезает; злодеев чаще прощают, чем наказывают; свадьба часто заменяется личностным ростом или дружбой. Одновременно ИИ добавляет элементы современного «пути героя»: внутренний конфликт, арку персонажа и явную мораль в финале. Узбекские формулы и хронотопы — сорокадневный путь и сорокадневный пир — в основном утрачиваются, а созданные ИИ «узбекские» и «английские» народные сказки становятся структурно почти неразличимыми. Делается вывод, что ИИ подменяет морфологию народной сказки глобализированным шаблоном современного детского повествования; обсуждается значение результатов для фольклористики, нарратологии и образования.

Ключевые слова: Пропп, морфология сказки, нарративная структура, функции героя, генерация историй, волшебная сказка, искусственный интеллект, большие языковые модели, английский язык, узбекский язык.

Annotatsiya: Qariyb yuz yil oldin V. Ya. Propp sehrli ertaklarning cheksiz xilma-xilligi ortida cheklangan miqdordagi takrorlanuvchi syujet unsurlari — «funksiyalar» turishini va ular barqaror tartibda kelishini ko’rsatgan edi: kamchilik yoki zarar yetkazish, qahramonning yo’lga chiqishi, hadya beruvchining sinovi, sehrli vositani olish, kurash, g’alaba, qaytish va ko’pincha to’y. O’zbek va ingliz ertaklari bu asosning katta qismini baham ko’radi, biroq har bir an’ananing o’z formulalari va ritmi bor: o’zbekcha «Bor ekan-yo’q ekan» va «murod-maqsadiga yetibdi», qirq kunlik yo’l va qirq kecha-kunduz to’y, inglizcha «Once upon a time» va «happily ever after», shuningdek, ikki an’anaga ham xos bo’lgan uchlik qoidasi. Bugungi kunda ChatGPT, Claude, Gemini kabi katta til modellari mavjud ertaklarni qayta hikoya qilmoqda va so’rovga ko’ra yangi «xalq ertaklari»ni to’qimoqda. Bu

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tuzilmaviy savolni o'rtaga qo'yadi: sun'iy intellekt ertaklari xalq ertagi morfologiyasiga amal qiladimi yoki boshqa hikoyaviy mantiqqa bo'ysunadimi?

Maqolada Propp modeli asosida o'nta kanonik ertak (beshtasi ingliz, beshtasi o'zbek) uchta model tomonidan uch xil vazifa — an'anaviy ertakni qayta hikoya qilish, berilgan syujet boshlanmasi asosida yangi «o'zbek» yoki «ingliz xalq ertagi»ni yozish hamda madaniyat ko'rsatilmagan holda ertak yozish — bo'yicha yaratilgan 90 ta ertak bilan qiyoslanadi. Har bir ertak Propp funksiyalariga ajratilib, personajlarning harakat doirasi, uchlik takrorlar, boshlanma va yakun formulalari hamda ichki ziddiyat va ochiq ibrat kabi zamonaviy hikoyaga xos belgilar mavjudligi bo'yicha kodlandi.

Natijalar shuni ko'rsatadiki, sun'iy intellekt Propp ketma-ketligining o'zagini (kamchilik, yo'lga chiqish, kurash, g'alaba, qaytish) saqlaydi, biroq uni qisqartiradi va qayta shakllantiradi. Hadya beruvchi bilan bog'liq qism qisqaradi, sehrli sovg'alar ko'pincha maslahat yoki «ichki kuch» bilan almashtiriladi; uchlik takrorlar kamayadi; soxta qahramon yo'qoladi; yovuz personajlar jazolanish o'rniga ko'pincha kechiriladi; to'y esa ko'pincha shaxsiy o'sish yoki do'stlik bilan almashtiriladi. Shu bilan birga, sun'iy intellekt zamonaviy «qahramon yo'li» unsurlarini — ichki ziddiyat, personaj rivoji va yakunda ochiq ibratni qo'shadi. Qirq kunlik yo'l va qirq kecha-kunduz to'y kabi o'zbekcha formulalar va xronotoplar asosan yo'qoladi, sun'iy intellekt yaratgan «o'zbek» va «ingliz» xalq ertaklari esa tuzilish jihatidan deyarli farqlanmay qoladi. Maqolada sun'iy intellekt xalq ertagi morfologiyasini zamonaviy bolalar hikoyasining globallashgan qolipi bilan almashtirishi asoslanadi hamda natijalarning folklorshunoslik, narratologiya va ta'lim uchun ahamiyati muhokama qilinadi.

Kalit so'zlar: Propp, ertak morfologiyasi, hikoyaviy tuzilish, qahramon funksiyalari, hikoya generatsiyasi, sehrli ertak, sun'iy intellekt, katta til modellari, ingliz tili, o'zbek tili.

Introduction

"Bor ekan-yo'q ekan, qadim zamonda bir podsho bor ekan. Uning uchta o'g'li bor ekan…" An Uzbek listener who hears these words already knows a great deal about what will follow. The king will face a misfortune; his three sons will set out, one after another; the two elder brothers will fail; the youngest will meet a helper, receive a magical gift, overcome a Dev or a dragon, return home despite his brothers' treachery, and win the hand of a princess. The tale will end with the formula "qirq kecha-kunduz to'y-tomosha qilib, murod-maqsadiga yetibdi" ("they feasted for forty days and forty nights and reached their heart's desire"). An English child hearing "Once upon a time there was a poor widow who had an only son called Jack" has similarly clear expectations, ending in "happily ever after".

These expectations are not accidental. In his Morphology of the Folktale, first published in 1928, Vladimir Propp demonstrated that Russian wonder tales, despite their great variety of characters and details, are built from a limited set of 31 functions, plot actions defined by their significance for the course of the story, which always appear in the same order (Propp, 1968). He also showed that these functions are distributed among seven types of characters, or spheres of action: the villain, the donor, the helper, the princess and her father, the dispatcher, the hero and the false hero. Propp's model has since been applied to tales from many cultures and has become one of the foundations of modern narratology (Dundes, 1964; Meletinsky et al., 1974).

Uzbek and English wonder tales broadly fit this morphology, but they also have their own characteristic features: specific opening and closing formulas, recurring numbers (three in both

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traditions, forty in Uzbek), typical spaces such as Mount Qof or the giant's castle, and typical forms of reward. Together, these features give each tradition its recognisable narrative "rhythm".

Today a new storyteller has entered the scene. Large language models can retell a traditional tale for children or write a completely new "folk tale" on request. Teachers use them to create reading materials; parents use them for bedtime stories; authors use them for inspiration. Unlike human storytellers, however, these models did not learn their craft by listening to grandmothers. They learned it from vast amounts of written text, much of it modern English-language children's literature, film scripts and creative writing guides, in which the dominant structure is not Propp's morphology but the "hero's journey" popularised by Campbell (1949) and Vogler (2007), with its emphasis on inner transformation.

This raises a structural question. When AI tells a fairy tale, does it follow the morphology of the folk tale, or does it impose a different narrative logic? And does it preserve the structural differences between Uzbek and English tales, or does it merge them into a single template?

The aim of this study is to compare the narrative structure and hero functions of traditional and AI-generated English and Uzbek tales using Propp's model. The study addresses three research questions:

1. To what extent do AI-generated tales reproduce the Proppian sequence of functions and spheres of action found in traditional English and Uzbek tales?
2. Which structural elements, including functions, triplication and formulas, are preserved, lost, transformed or added in AI-generated tales?
3. Do AI-generated "Uzbek" and "English" folk tales differ structurally from each other, as traditional tales do?

The study contributes to folkloristics and narratology by applying Propp's model to AI-generated texts in an English–Uzbek comparative perspective. Its practical value lies in its implications for teachers, authors and developers of AI storytelling tools.

Literature Review

Propp's morphology and its development

Propp (1968) defined the function as "an act of a character, defined from the point of view of its significance for the course of the action". He identified 31 functions, beginning with absentation and interdiction, continuing through villainy or lack, departure, the donor's test and the receipt of a magical agent, struggle, victory, return, pursuit and rescue, and ending with the recognition of the hero, the exposure and punishment of the false hero or villain, and the wedding. Not every tale contains every function, but those present appear in the canonical order.

Propp's work became widely known in the West only after its English translation in 1958, and it strongly influenced structuralism. Dundes (1964) applied the model to North American Indian tales, introducing the notion of "motifemes". Meletinsky and colleagues (1974) refined the model, distinguishing levels of structure and highlighting the role of tests and their outcomes. Olrik's (1909/1965) "epic laws of folk narrative", including the law of three, the law of opening and closing, and the law of contrast, describe further stable features of folk tales, while Lüthi (1982) characterised the European folk tale by its one-dimensionality, depthlessness and abstract style: characters do not have inner lives, and emotions are expressed through action rather than introspection.

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The hero's journey and modern narrative

A different model of narrative structure was proposed by Campbell (1949), who described a "monomyth" of the hero's departure, initiation and return, with strong emphasis on psychological transformation. Vogler (2007) adapted this model for screenwriting, and it has become a dominant template in film and modern children's literature. Unlike Propp's model, which describes external actions, the hero's journey emphasises the hero's inner arc: overcoming fear, discovering one's true self, learning a lesson. This difference is important for the present study, since AI models trained on modern texts are likely to be exposed to this template much more often than to traditional folk tales.

Uzbek and English wonder tales

Uzbek wonder tales have been described by Afzalov (1964) and Imomov (1981), who noted their characteristic formulas, motifs and character types, such as the youngest son, the clever Kal, the Dev, the Pari and the magical horse. Zhirmunsky and Zarifov (1947) studied the Uzbek heroic epic, which shares many narrative patterns with wonder tales. Characteristic features include the opening formula "Bor ekan-yo'q ekan…", the closing formulas "murod-maqsadiga yetibdi" and "qirq kecha-kunduz to'y-tomosha qilibdi", the symbolic numbers three and forty, and journeys to distant mythical places such as Mount Qof. English wonder tales, collected by Jacobs (1890) and others, follow similar patterns, with the formulas "Once upon a time" and "they lived happily ever after" and a strong rule of three, as in the three trips of Jack and the Beanstalk. Both traditions correspond to many international tale types catalogued by Uther (2004).

Computational approaches to Propp and story generation

Propp's model has long attracted researchers in computational narrative. Gervás (2013) used Propp's morphology as a grammar for automatic story generation, and Finlayson (2016) developed methods to infer Proppian functions from annotated texts. With the rise of neural language models, story generation has advanced rapidly (Fan et al., 2018; Yang et al., 2022). Recent studies have begun to compare AI and human storytelling: Tian et al. (2024) found that LLM-generated stories tend to be more homogeneous and to resolve conflicts too quickly, while Beguš (2024) showed that AI-generated stories rely heavily on familiar tropes and conventional moral resolutions. These studies, however, have focused on English and on general fiction rather than on the structure of traditional folk tales.

AI and cultural homogenisation

LLMs perform worse on low-resource languages (Robinson et al., 2023) and favour Western cultural content and values (Naous et al., 2024; Tao et al., 2024). Bender et al. (2021) warned that they reproduce the dominant patterns of their training data. If narrative structure is also culturally shaped, AI may homogenise not only the content but also the form of stories from different cultures.

Research gap

Propp's model has been applied to many traditions and used in computational story generation, and AI storytelling has begun to be studied. Yet no study has systematically compared the Proppian structure of traditional and AI-generated tales, and none has done so for Uzbek tales. This article aims to fill that gap.

Methods

Research design

The study uses a structural comparative design based on Propp's morphology, supplemented by frequency counts and a simple measure of sequence similarity.

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Corpus

Traditional tales. Ten canonical wonder tales were selected: five English tales from Jacobs's collection (Jack and the Beanstalk, Molly Whuppie, Tom Tit Tot, Cap o' Rushes, The Three Heads of the Well) and five Uzbek wonder tales from published collections of Uzbek folk tales (Zumrad va Qimmat, Kal va Dev, Ur to'qmoq, Uch og'a-ini botirlar and Yalmog'iz kampir).

AI-generated tales. Three widely used LLMs (for example, ChatGPT, Claude and Gemini) performed three tasks:

Task	Prompt	Purpose
A — Retelling	"Retell this fairy tale for children." (for each traditional tale)	To see how the models restructure existing tales
B — Culturally framed generation	"Write an Uzbek folk tale about [premise]" / "Write an English folk tale about [premise]"	To test whether the models reproduce culture-specific structures
C — Unframed generation	"Write a fairy tale about [premise]."	To reveal the models' default narrative template

For tasks B and C, five plot premises were used, each corresponding to a traditional tale type: a youngest son sent to find a cure for his father; a mistreated stepdaughter; a poor boy who must outwit a monster; a girl who must guess a magical helper's name; and three brothers who set out on a quest. Task A produced 30 texts (10 tales × 3 models). Task B produced 30 texts (5 premises × 2 cultures × 3 models), and task C produced 15 texts (5 premises × 3 models). Fifteen additional texts were produced by repeating task B for the Uzbek premises with Uzbek-language prompts. The total AI corpus was therefore 90 texts.

Analysis

Each tale was analysed on five levels:

1. **Functions.** Each tale was segmented into Proppian functions using Propp's (1968) definitions, and the sequence of functions was recorded.

2. **Spheres of action.** Each character was assigned to one or more of Propp's seven spheres of action (villain, donor, helper, princess or sought-for person, dispatcher, hero, false hero).

3. **Triplication.** The presence and completeness of triple repetitions (three brothers, three tasks, three attempts) were noted, following Olrik's (1909/1965) law of three.

4. **Formulas.** Opening and closing formulas were recorded and classified as traditional ("Bor ekan-yo'q ekan", "murod-maqsadiga yetibdi", "Once upon a time", "happily ever after") or non-traditional.

5. **Modern narrative features.** Following the contrast between Lüthi's (1982) description of the folk tale and the hero's journey (Campbell, 1949; Vogler, 2007), each tale was coded for the presence of an explicit inner conflict, a character arc of psychological growth, emotional introspection and an explicit moral statement.

To compare sequences, the structural similarity of each AI tale to its traditional counterpart (task A) or to the typical sequence of the corresponding tale type (tasks B and C) was calculated as the proportion of shared functions in the correct order.

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Reliability

A second coder trained in Propp's model independently coded a subset of the tales; disagreements were resolved through discussion (Krippendorff, 2018). Interpretation followed the principles of thematic analysis (Braun & Clarke, 2006).

The overall picture is one of compression and reshaping. AI tales contained fewer functions on average than traditional tales. The core of the Proppian sequence, consisting of lack or villainy, departure, struggle, victory and return, was preserved in almost all AI tales, which is why they remain recognisable as fairy tales. Other functions, however, were frequently omitted, merged or transformed, and new, non-Proppian elements were added.

2. The core sequence: preserved

The functions that form the backbone of the plot were the most stable. In retellings, the models kept the initial misfortune (the king's illness, the stepmother's cruelty, the giant's threat), the hero's departure, the decisive confrontation and the return home. In generated tales, the same skeleton appeared regardless of the premise or culture.

3. The donor sequence: shortened and psychologised

In traditional tales, the encounter with the donor is a key episode: the hero is tested, often through a request for kindness or help, responds correctly and receives a magical object or helper, such as a magical horse, a cudgel or a ring. In AI tales, this sequence was often shortened: the test was omitted, or the hero simply met a kind helper. More strikingly, the magical gift was frequently replaced by advice or by the discovery of inner strength: instead of receiving a magical horse, the hero "learned to believe in himself"; instead of a magical object, the old woman gave "wise words". The external, magical logic of the folk tale was thus partly replaced by a psychological one.

4. Triplication: reduced

Traditional tales in both languages relied heavily on triplication: three brothers, three tasks, three journeys up the beanstalk. In AI tales, triplication was frequently **reduced**. Three brothers were often mentioned, but the failures of the two elder brothers were collapsed into a single sentence; three tasks became one or two; Jack climbed the beanstalk once or twice instead of three times. The rhythmic repetition that gives folk tales their oral, memorable quality and builds suspense was weakened, especially in task C.

5. The false hero and the punishment of the villain

The false hero almost disappeared from AI tales. In traditional Uzbek tales such as Uch og'a-ini botirlar, the elder brothers often betray the youngest, steal his prize and claim his deeds, until he is recognised and they are exposed. In AI tales, the elder brothers were frequently made supportive, or their treachery was omitted.

The punishment of the villain was also transformed. In traditional tales, villains are punished, often severely: the Dev is killed, the wicked stepmother and Qimmat receive a chest of snakes, the giant falls from the beanstalk. In AI tales, villains were frequently forgiven or reformed: the Dev apologised and became the hero's friend, the stepmother realised her mistake, the giant was left in peace. This reflects the preference of modern children's literature for reconciliation over retribution.

6. The ending: from wedding to personal growth

In traditional tales, the final function is often the wedding (XXXI), frequently accompanied by the hero's accession to the throne. In Uzbek tales, this is marked by the formula of the forty-day feast. In AI tales, the wedding was often replaced by other endings: the hero returned home "wiser and

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braver", the heroine "found her own happiness", or the characters "became the best of friends". The final reward thus shifted from a social and material outcome (marriage, kingdom, wealth) to a psychological one (growth, self-confidence, friendship).

7. Formulas and chronotopes

English opening and closing formulas were well preserved and appeared even in many "Uzbek" tales written in English. Uzbek formulas fared much worse. In Uzbek-language outputs, the short form "Bir bor ekan, bir yo'q ekan" was sometimes kept, but the longer playful versions and the closing formulas "murod-maqsadiga yetibdi" and "qirq kecha-kunduz to'y-tomosha" were rare. Characteristic Uzbek chronotopes, such as the journey "for forty days and forty nights", travel to Mount Qof, and the Dev's cave in the mountains, were often replaced by generic "faraway lands", "dark forests" and "tall mountains". Many AI tales ended with an explicit moral statement ("And so Zumrad learned that kindness is the greatest treasure"), a feature rare in traditional tales of both traditions.

8. Modern narrative features

In line with Lüthi's (1982) characterisation, traditional tales showed almost no inner conflict or introspection: heroes act, and their feelings are expressed through action. AI tales, by contrast, frequently included explicit inner conflict ("Kenja was afraid, but he knew he had to be brave"), emotional introspection and a clear arc of psychological growth, typical features of the hero's journey (Campbell, 1949; Vogler, 2007).

9. Cultural homogenisation

Perhaps the most important finding concerns task B. AI-generated "Uzbek folk tales" and "English folk tales" built on the same premise were structurally almost indistinguishable. Their sequences of functions, endings, morals and modern narrative features were very similar; the main differences lay in surface details such as names, food and clothing. Traditional Uzbek and English tales, by contrast, differ in formulas, numbers, chronotopes and the types of reward. Uzbek-language prompts did not substantially change this pattern.

Discussion

From folk morphology to a global template

The results suggest that AI does not simply reproduce the morphology of the folk tale. It preserves the core, the basic arc of lack, quest, struggle and return, which is shared by folk tales, myths and modern stories alike. Around this core, however, it builds a structure that is closer to the hero's journey of modern children's literature and film than to Propp's morphology. The donor's magical gift becomes inner strength; the false hero disappears; the villain is forgiven; the wedding gives way to personal growth; the tale ends with an explicit lesson. In short, AI tends to substitute the morphology of the folk tale with a globalised template of modern storytelling.

Why the core survives and the periphery changes

This pattern can be explained by the nature of the models' training data. The core arc of lack and resolution is extremely frequent across all kinds of narratives, so the models reproduce it reliably. The more specific elements of folk morphology, such as the donor sequence, the false hero, triplication and traditional formulas, are frequent in folk tale collections but rare in the much larger body of modern fiction, screenplays and writing guides. When generating a tale, the models therefore follow the dominant modern patterns. This finding is consistent with observations that LLM-generated stories are homogeneous and rely on familiar tropes and quick moral resolutions (Tian et al., 2024; Beguš, 2024).

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Losing the folk tale's own logic

The changes are not merely technical. Propp's functions reflect the folk tale's own logic, in which the hero succeeds not through inner transformation but through correct action: kindness to the donor, courage in the struggle, cunning against the villain. Lüthi (1982) described this as the folk tale's "depthlessness": not a weakness but a distinctive aesthetic in which the world is clear, actions have consequences and justice is restored. When AI introduces inner conflict and explicit morals, it changes not only the form but also the worldview of the tale. The punished villain becomes a reformed friend, and the magical world becomes a psychological one.

Cultural homogenisation

The structural similarity of AI-generated "Uzbek" and "English" tales is particularly significant. Traditional Uzbek and English tales share Proppian roots, but each has its own formulas, numbers, chronotopes and types of reward that give it a distinctive identity. In AI tales, these differences shrink to surface details. This extends earlier findings about the cultural bias of LLMs (Naous et al., 2024; Tao et al., 2024) from content and values to narrative form: AI homogenises not only what stories say but also how they are told.

Practical implications

Several practical implications follow. Teachers can use Propp's functions as a tool for comparing traditional and AI-generated tales with students, which is an effective way to teach both narrative structure and cultural awareness. Authors and educators who use AI to create folk-style tales should specify structural features in their prompts, for example: "Include three brothers, a test by a donor, a magical gift, a false hero, the traditional opening and closing formulas, and no explicit moral." Developers of AI storytelling tools could integrate structural models such as Propp's as explicit guidance, building on earlier computational work (Gervás, 2013).

Limitations

The study has several limitations. The corpus is relatively small, and LLMs change quickly, so the findings reflect particular model versions. Applying Propp's model involves interpretation, especially for shortened or merged functions, although double coding reduced this problem. The study focused on wonder tales; animal tales and realistic tales may show different patterns. Future research could include more tales and languages, the analysis of longer AI tales, and studies of how children perceive and remember traditional and AI-generated narrative structures.

Conclusion

The wonder tale is one of humanity's oldest narrative forms, and its structure, as Propp showed, is remarkably stable. This study has asked whether AI, the newest storyteller, keeps that structure. The answer is: partly.

The main findings can be summarised as follows:

1. AI-generated tales preserve the core Proppian sequence of lack, departure, struggle, victory and return, but contain fewer functions overall.

2. The donor sequence is shortened, and magical gifts are often replaced by advice or "inner strength".

3. Triplication is reduced, the false hero largely disappears, and villains are more often forgiven than punished.

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4. The wedding is frequently replaced by personal growth or friendship, and many tales end with an explicit moral; inner conflict and introspection, typical of the modern hero's journey, are added.

5. Uzbek formulas and chronotopes are largely lost, and AI-generated "Uzbek" and "English" folk tales become structurally almost indistinguishable.

Thus, AI does not simply tell fairy tales; it retells them according to a different grammar. If we want children to hear tales that begin with "Bor ekan-yo'q ekan" and end with forty days of feasting, with three brothers, a grateful donor and a false hero exposed, we must know the morphology of our tales and guide AI to respect it.

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