The Devil in Latvian Charms and Related Genres

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Abstract: In Latvian folklore, the Devil is a relatively common image, represented in all the genres. This paper analyses the verbal charms that mention the Devil or Thunder together with the motif of pursuing the Devil. The corpus of charms consists of texts taken from the first systematic collection of Latvian charms, published in 1881. Examples of charms are accompanied by a comparative analysis of folk legends and beliefs. There are correspondences in charms, legends and beliefs regarding the appearance and traits of the Devil as well as his activities and dwelling places. These genres also share the motif of pursuing the Devil. Texts from different genres complement each other by providing missing narrative fragments and aspects of meaning. In the legends and charms, black and red dominate in the Devil's appearance, and the Devil can also appear in the form of animals. The Devil's activities and presence are linked with the origins of evil and associated with a variety of diseases which, like the Devil himself, are overcome by similar techniques. These legends and beliefs help us understand the similarities expressed in the charms, deepen and expand the semantics of the images, and explain the associative links and anchoring of specific actions in the broader folklore material. The plot and length of texts in charms are determined by the specific style, structure, and function of this genre. Therefore, content is not expanded in detail; instead, only key figures or images, the foundation of the plot, and its most important elements are mentioned. The comparative material found in legends and beliefs provides more in-depth explanation of the concise messages expressed in the charms.

Keywords: Latvian verbal charms, folk legends, folk beliefs, Devil, pursuing the Devil, Thunder

INTRODUCTION

The Devil is a relatively common image in Latvian folklore. Although he is not often mentioned in charms, and due to the relatively short form of the genre, not all of the features and expressions of this character are understandable. When compared and supplemented with material from other genres, the Devil's character and actions in charms

becomes clearer. When unnamed, the Devil also exists as the concept of “evil” and is associated in the charms with misfortunes and various diseases, which are overcome or repelled using similar techniques, text structures, and content.

Pursuing the Devil, with Thunder trying to kill him, is a known motif in Latvian charms. In an effort to escape, the Devil hides in the water, in the swamp, under an oak tree or a stone. This is also a familiar motif in the folklore of other nations, as evidenced by the international index of folktales, such as ATU type 1147 (UTHER 2004:48). Based on plot similarities in the folklore of various European peoples as well as etymological parallels of the words “God”, “Devil”, and “Thunder” in different languages, the texts related to this motif have been linked to Proto-Indo-European mythology. In Latvian culture, the theme of the battle between God and the Devil was updated during the period of national romanticism in the second half of the 19th century, as if seeking to recreate a lost myth from a scattered fragment (LAUTENBAHS-JŪSMIŅŠ 1885). During the interwar period, the folklorist Pēteris Šmits attributed the theme of the battle between the Devil and Thunder to an ancient myth (ŠMITS 1926:48), pointing out that they had been preserved in Latvian folklore since Proto-Indo-European times (ŠMITS 1926:108). The development of this theme in the context of Indo-European mythology gained more visibility with the works of semioticians Viacheslav Ivanov and Vladimir Toporov, who also used examples from Latvian folklore to justify the existence of the myth (IVANOV – TOPOROV 1974:4–179).

The wide distribution of this theme in Latvian folklore is indicated by the 15 volumes of Latvian folktales and legends compiled by Šmits (ŠMITS 1925–1937). Volume 14 contains only texts referring to the Devil’s activities, appearance, dwellings, etc.,¹ including the chapter “Thunder Persecutes the devils”, which comprises 21 variants of this theme.² References to other texts related to these characters in Latvian folklore are found in the Latvian folktales type index compiled by Kārlis Arājs and Alma Medne (ARĀJS – MEDNE 1977).

This study analyses the texts of Latvian charms that mention the Devil, Thunder, and the motif of pursuing the Devil. The verbal charms are supplemented by materials from other folklore genres (legends and beliefs) that share a similar plot and describe the Devil’s appearance, activities, and dwellings, thus explaining the message in the charms more extensively. For the purposes of this analysis, the corpus of charms consists only of the texts published by Fricis Brīvzemnieks in the 1881 edition of “Ethnographic Materials of the Latvian People” (BRĪVZEMNIEKS 1881) in the chapter “Latvian Charms and Spells”.

CORPUS AND TEXT SELECTION

“Ethnographic Materials of the Latvian People” by Brīvzemnieks is the first comprehensive publication of Latvian charms. Brīvzemnieks began collecting materials for this edition in the spring of 1869 on an expedition to Latvia funded by the Society of Devotees of Natural Science, Anthropology and Ethnography in Moscow. Many of the people he encountered during the expedition became folklore collectors themselves

¹ <http://pasakas.lfk.lv/wiki/Velni> (accessed October 21, 2019) Here and hereafter examples are taken from bilingual text corpus of Pēteris Šmits’ *Latvian Folktales and Legends* (Vol. 13–15).

² http://pasakas.lfk.lv/wiki/P%C4%93rkons_vaj%C4%81_velnus (accessed October 21, 2019)

and in later years sent folklore materials to Brīvzemnieks in Moscow. Among them were teachers as well as farmers. In 1877, a few years before the publication of the collection, Brīvzemnieks also published calls in the Latvian press to collect folklore (BRĪVZEMNIEKS 1877). The 1881 edition refers to 50 collectors of charms and contains a total of 717 text units. After its publication, the most diligent collectors of folklore received the edition as a gift, and the publication could also be purchased. Thus, the texts published in the edition returned to active and wider circulation among the people, and later, in the 1930s, along with the folklore collections of school pupils and university students, the texts arrived at the Latvian folklore archives. Brīvzemnieks' collection of charms has had a significant impact on the Latvian charming tradition and the text corpus of the Archives of Latvian folklore,³ and therefore only the texts published in the 1881 edition are used in this study to analyse the characteristics and function of the Devil's image.⁴

The majority of charms published in the Brīvzemnieks collection have come from the western Latvian region of Kurzeme (Courland). More than 200 units of text were sent by Jānis Pločkalns from the Skrunda area, and this is the largest collection of charms in the collection published from a single collector. Pločkalns was an educated farmer and has often clashed with the local Tsarist Russian administration, even to the point of being arrested. He was helped in his collecting efforts by his mother, Anna Pločkalna, who learned to write in her 60s so she could send folklore materials to Brīvzemnieks in Moscow. Up until that time, however, the illiterate woman would visit local charmers and learn their charms by heart. Having returned home, she repeated them to her son, who wrote them down. Having also been a popular folk healer and wisewoman herself, she taught others the charms she knew in return for the formulas she received (BRĪVZEMNIEKS 1881:V).

For the analysis of the Devil's image and actions, I have used 37 texts from the Brīvzemnieks collection. These include as well charms that mention the name of the Devil or Thunder while also clearly revealing the pursuing or chasing away of the Devil. Likewise, these include texts in which the Devil has been replaced by a "black man" or a "big man", and texts in which pursuing is only partially revealed, mentioning only certain details, such as the driving of disease into the seaside. Also included are charms in which Thunder hounds a specific disease (fever, abscess, stabbing pain, swelling), envious person, or witch. Although there are more texts in the charms collection in which a deity overcomes misfortune, evil, or sickness, not all of them contain an obvious motif of pursuing the Devil. Texts in which a Biblical figure (God, Jesus, Mary, etc.) drives away evil spirits or disease are not included in the analysis.

Seventeen of the thirtyseven texts were provided by Pločkalns. Because a large number of charms in which the Devil is driven away come from a single collector, these texts could be viewed as a specific feature of the repertoire of a single charmer. However,

³ <http://www.garamantas.lv/en/classification/1194275/Latviesu-buramvardu-digitalais-catalogue-Dr-philol-Aigars-Lielbards> (accessed October 21, 2019)

⁴ For more about Brīvzemnieks' expedition, his charms collection and its influence on the corpus of charms held at the Archives of Latvian Folklore, see LIELBĀRDIS 2017. Brīvzemnieks' 1881 publication is available online in the Digital Archives of Latvian Folklore <http://www.garamantas.lv/en/collection/1167225/Fricis-Brivzemnieks-Latviesu-etnographic-materiali-1881> (accessed October 21, 2019).

given that Pločkalns' mother collected charms from other local healers as well, the range of the theme is expandable. Brīvzemnieks did not indicate the origin of four of the texts, and three texts were sent from places other than western Latvia (see map).

Figure 1. Places from which texts including the motif of pursuing the Devil were contributed to the 1881 collection compiled by Brīvzemnieks. Map retrieved from the Digital Catalogue of Latvian Charms section of the Digital Archives of Latvian Folklore.

THE DEVIL'S APPEARANCE AND TRAITS

Several layers of concepts and preconceptions have converged in the character of the Devil in Latvian folklore. The Devil is God's associate in creating the world, but he is also a gullible custodian of money, hiding it under a stone or in a cave or lake; in addition, he is also the figure persecuted by the God of Christianity who can be scared away by reciting the Lord's Prayer or making the sign of the cross. From the master of dead souls, the Devil also evolved into the guardian of the gates of hell, and in the youngest layer of folklore, his appearance and behaviour are described as similar to those of the German land-owning classes. Typical features of the Devil are horns, tail, animal leg, and glowing red eyes: "The Devil is said to have fiery eyes, two horns on his forehead, one horse leg and one rooster leg, and a big tail in back" (ŠMITS 1941:1944). In folk legends, black and red dominate the Devil's appearance; he can also appear in the form of various animals, such as a dog, cat, hare, ram, goat, bird, etc. In charms, the Devil is not always named directly, and euphemisms are used instead, such as a "black man":

Charm against nightmares and fright

"Liels vīrs stāv liela meža malā, liela ozola nūja rokā. Melns vīrs iet pa ceļu, gara aste pakal velkas; tas tevi dzen projām uz jūru, – tur būs tev palikt. Vēca sieva iet pa ceļu, gara aukla pakal velkas; tā tevi piesies pie bērza saknes. – Iekš tā vārda ..." (BRĪVZEMNIEKS 1881:121).

[A big man stands at the edge of a large forest, a big oak stick in his hand. A black man walks down the road, a long tail trails after him; he drives you off to the sea – there you shall stay. An old woman walks down the road, a long string trails behind her; she will tether you to the root of the birch. – In the name ...]

Charm against nightmares and fright

“Melnš vīrs, melns zirgs stāv kārklu krūmā – dzelzu cepures, dzelzu kreklis, dzelzu zābaki. Iznīkst melns vīrs, iznīkst melns zirgs, iznīkst kārklu krūms! Iekš tā vārda ...” (BRĪVZEMNIEKS 1881:121).

[A black man and a black horse stand in an osier bush – iron hats, iron shirt, iron boots. The black man withers, the black horse withers, the osier bush withers! In the name ...]

Brīvzemnieks pointed out that people were reticent to call the Devil or other evil creatures, such as the wolf or snake, by their real name, particularly during Lent (BRĪVZEMNIEKS 1881:159). Some folk beliefs also state that if the devil is mentioned, he appears: “The word ‘devil’ cannot be mentioned, because otherwise he may appear in his true appearance” (ŠMITS 1941:1945). This is probably the reason why the Devil is not always named in charms. Folk legends also mention a black gentleman riding in a carriage with a varying number of horses and a dog running beside him. “Black man” may also be a literal description of the Devil’s appearance:

“When I was still herding livestock at Rukmaņi in Aumeisteri Parish, I saw the Devil himself drive by. It was about noon when I suddenly noticed a stately carriage driving down from Dambis Hill and three beautiful horses ahead of it. Dambis Hill is as steep as a roof, but the Devil was driving down it. The carriage had glass windows, and the Devil was sitting inside, completely black, a shiny hat on his head, and there were two proud ladies with blue veils sitting beside him. A big black dog ran ahead, as big as a colt, and it shined like an otter. The dog didn’t even look at our dogs. He ran on, his tongue hanging out over his teeth. The Devil drove away and turned into the woods.”⁵

The colour red is also associated with the Devil, who may appear as a red dog or red cat. The following examples can be found in both Lithuanian and Estonian folk legends (VĒLIUS 1987:44; VALK 2001:110). This helps us understand charms in which a red wagon, red horses, or a red dog are mentioned:

Charm for the eyes

“Sarkani rati, sarkani zirgi, sarkans kučieris, sarkana pātaga, sarkans suns pakaļ tek. Lai iznīkst kā vecs mēnesis, kā vecs pūpēdis! (Šie vārdi trīs reiz teicami.)” (BRĪVZEMNIEKS 1881:128.)

[Red carts, red horses, red coachman, red whip, red dog running after him. Let it die like an old moon, like an old puffball! (These words must be repeated three times.)]

⁵ <http://pasakas.lfk.lv/wiki/140102012> (accessed October 21, 2019)

Charm against swelling

“Trejdeviņas sarkanas karītes skrej pa ceļu, trejdeviņi sarkani zirgi skrej priekšā, trejdeviņi sarkani kučeri priekšā, – sarkana cepure, sarkanas drēbes, sarkana pātaga, sarkani cimdi, sarkanas grožas – klačo, plikšina, saplakstina pumpumu, briedumu – tas (vārda) nelaimi slāpē, tas (vārda) nelaimi slāpē” (BRĪVZEMNIEKS 1881:129).

[Three-times-nine red carriages are running down the road, thrice-nine red horses in front of them, thrice-nine red drivers in front of them – red hat, red clothes, red whip, red gloves, red reins – babbling, patting, flattening the swelling – it smothers (name’s) sickness, it smothers (name’s) sickness.]

Charm for the salivary glands

“Sarkana karīte skrej pa ceļu, seši sarkani zirgi priekšā, seši ormaņi; sarkans sunītis guļ uz ceļa sartinājies. Ņem to pātagu, cērt to pātagu, – lai iznīkst kā pērnais pūpēdis, kā vecs mēnesis, lai paliek tas lopiņš (v. cilvēks) pie pirmās veselības!” (BRĪVZEMNIEKS 1881:139.)

[A red carriage runs down the road, six red horses in front, six cabbies; a little red dog sleeps curled up on the road. Take that whip, lash that whip, let it be killed like last year’s puffball, like an old moon, may the beast (or person) be in the best of health!]

Although the Devil is not mentioned by name in these cases, there is a correspondence between the mention of red and the description of the action revealed in the legends. The Devil is linked with the red colour, and this relationship is represented in the relatively extensive legend material. Red in clothing, objects, or body parts is one of the special features that allow a pedestrian or driver to be identified as the Devil’s embodiment:

“A man once saw an ornate black carriage on his way to Jaun-Jelgava, a black gentleman sitting inside. The carriage stopped when it reached the man, and the black gentleman told him to step inside, he’d give him a lift. The man was ready to climb into the carriage when he saw two little red horns under the gentleman’s cap. The man remembered to make the sign of the cross. There was a whirlwind, something splashed in the lake, and there went the black gentleman with his carriage.”⁶

While studying the Devil’s manifestations in Estonian folklore, Ülo Valk has listed how often and in which animal shapes the Devil appears in legends (VALK 2001:105). The Lithuanian folklore researcher Norbertas Vėlius has also listed the Devil’s transformations in the form of domestic and wild animals (VELIUS 1987:42). The animals the Devil is transformed into often have something specific that distinguishes them from ordinary creatures:

“Yes, and as he rode along the shed, a small black dog with a very large head ran out of it. It didn’t bark at all but went for his feet, looking to get up on the horse’s back. He pulled his feet up on the horse’s back and began to ride as hard as the horse could, but then the dog turned into a cat and jumped up on the horse in a single leap and landed behind the horseman.”⁷

⁶ <http://pasakas.lfk.lv/wiki/140102011> (accessed October 21, 2019)

⁷ <http://pasakas.lfk.lv/wiki/140303003> (accessed October 21, 2019)

The Devil's manifestations as a dog or cat have the peculiarity that, within the same narrative, he can change his shape:

"Here, while passing the lower congregation's cemetery, he sees a black creature, like a wolf, come running out of the cemetery and heading in a big arc towards the road and the driver. He had no fear, let it run! But the black beast became smaller and smaller, already the size of a dog. Finally, having approached to about two or three ells in front of the horse, it became the size of a cat."⁸

It was believed that:

"The Devil is a black man with a cow's legs and long claws on his hands. When it thunders, he turns into a black cat and hides from humans. In wells, he sometimes turns into a fish. When a woman pulls him out and wants to grasp him with her hand, then he disappears" (ŠMITS 1941:1944).

For comparison, a charm text:

Charm against madness.

"Jūrmalas Piktulis, murzīts kā runcis, neatron grāpīša paceltas malas, cilvēkā (v. lopā) iešavās, plēzdamies moca, mana gan Pērkonu tuvu uz pēdām. Skrej ārā, lupatiņš! Reizu tev teicu, – vēl vienu reiziņu, klausies, ko tev saku! Ja vēl tu neklausī, Pērkonu saukšu, – tad zini ka tev būs sprantā ar guntu, kā zemē grimdīsi deviņas ases! (Tā septiņas reizes jāteic un jāvelk tādas septiņas zīmes: (...) Ja svētdienā vārdo, tad riņķis pa priekšu jāvelk ar pirkstu vaj uz lopa, vaj uz cilvēka miesu; kad pirmdienā – tad pirmais spieķis no augša un t. j. pr.– ar sauli. Pussvētu taisāms pa priekšu mazais riņķis vidū.)" (BRĪVZEMNIEKS 1881:369.)

[Seaside Angryman, dishevelled as a tomcat, finds not the upper edges of a pot, enters man (or beast), tosses and turns, senses Thunder close by. Run out, ragamuffin! I told you once, and one more time, listen to what I say to you. If you're not listening, I'll call Thunder, you know you'll get it in the neck with lightning, so that you'll sink nine ells in the earth! (And seven times it must be said, and the following seven marks must be drawn:⁹ If the charm is said on a Sunday, one must draw a circle with a finger either on the animal's or the human's flesh; if on a Monday, the first line on top, and so on, in the direction of the sun. On a Saturday the small circle must be made first in the middle.)]

In his publication on charms, Brīvzemnieks commented on this text, pointing out that the Devil hides under an overturned pot during thunder (BRĪVZEMNIEKS 1881:154). Both this example of a charm text and Brīvzemnieks' comment relate to a wider set of legends and beliefs explaining that an overturned pot must – or must not – be left in the courtyard during storms, where the Devil can take refuge (or not) when he is chased by Thunder. If the Devil doesn't find a place to hide, he can "run into" a man, animal, or house, or hide

⁸ <http://pasakas.lfk.lv/wiki/140303012> (accessed October 21, 2019)

⁹ Current sign is available at <http://www.garamantas.lv/en/file/1167516> (accessed November 28, 2019)

in human clothes or in the appearance of a nearby animal, and it is therefore necessary to drive cats and dogs out of the house during thunder so that lightning does not hit the house.

The Devil might also appear as a creature vaguely resembling something:

“This once happened to me in the Milnas Forest. I was walking through the pines in the very middle of the day. As I entered the forest, a black something – not really a cat nor a dog – started getting under my feet, and on and on. Now I could no longer go forward or back. But as I invoked the name of God, it suddenly disappeared.”¹⁰

When compared to certain charm texts, the above legends play an important role in revealing the semantics of the images in charms and help to make sense of the formula text itself. By looking at the examples of charms against pains, the legend texts extend the field of meanings, revealing similarities with the transformations of the Devil found in the above-mentioned material:

Charm against pains

“Paņēmu skalu – nodūru velnu, atskrēja melns suns – nokoda sāpes, atskrēja melna kaķe – pārkoda sāpes, atskrēja zaķis – pārkoda sāpes” (BRĪVZMĒNIKS 1881:128).

[I picked up a splinter – I stabbed the devil. A black dog came running – he bit off the pain. A black cat came running – she bit through the pain. A hare came running – he bit through the pain.]

Charm against nightmares and fright

“Pārlauz skalu, atskrej zaķis – nodur zaķi: nobaidi to ļauno garu projām, lai paliek vesels bērniņš! Dievs Tēvs ...” (BRĪVZMĒNIKS 1881:122).

[Break a splinter, the hare comes running – stab the hare, scare that evil spirit away so that the baby be healthy! God the Father ...]

As in the above-mentioned legend, the Devil grows smaller in these charms. This reduction of pain by association (from greater to less to total disappearance) is also found in other examples of charms, e.g., by counting from one to nine and then back. The following method is also applied in the case of horse colic:

Charm against horse colic

“Bērais! Velns brauc pa smilkšu kalnu deviņiem melniem zirgiem; velns brauc pa smilkšu kalnu astoņiem melniem zirgiem; velns brauc pa smilkšu kalnu septiņiem melniem zirgiem, (...), velns brauc pa smilkšu kalnu vienu melnu zirgu. Jēzu, nāc palīgā pie bērā zirga spalvas! Dievs Tēvs ...” (BRĪVZMĒNIKS 1881:151).

[Bay horse! The Devil drives nine black horses across the sand hill; the Devil drives eight black horses across the sand hill; the Devil drives seven black horses across the sand hill, (...) the

¹⁰ <http://pasakas.lfk.lv/wiki/140303011> (accessed October 21, 2019)

Devil drives a single black horse across the sand hill. Jesus, come to help by the bay horse's coat! God the Father ...]

Similarities can be found when comparing the Devil's looks, actions, and the conditions of his appearance in charms with those in legends and beliefs. Legends and beliefs reveal the colours of the Devil (black, red), his ability to turn into different animals, and his movement in a horse-drawn carriage. Such situations are also mentioned in charms, although they do not contain a plot, are often fragmentary, and do not necessarily mention the Devil's name. Cross-matches show the existence of similar ideas in different folklore genres (or beyond their boundaries), adapting the content to the style of expression of each genre.

PURSUING THE DEVIL

The motif of pursuing the Devil is relatively common in legends and beliefs as well as in charms. In cosmological legends, God and the Devil create land and the animals, work together, or try to trick or scare each other. There is often some sort of disagreement between God and the Devil. They may have a dispute or resentment, or the Devil might have done something to make God decide to kill him by throwing a stone at him. To accomplish this, God often sends Thunder:

"The Devil lives happily in the middle of that lake, but there is swamp all around the lake. So God sent Thunder. But as soon as the Devil sees Thunder, he shifts into a cat. And like a cat, he jumps into the lap of a shepherd girl and lives on. Then God decides to kill the Devil. The Devil was counting money on Zaļumu Hill (Green Hill). God grabs a big, big rock and hurls it at the Devil. But guess what? He leans sideways, the rock misses, and the Devil jumps in the swamp."¹¹

In another legend, a fox teaches the Devil how to hide from Thunder. The Devil escapes into the sea and beneath a rock:

"From the thunder blast he [the Devil] too had some harm: the rock under which he had slithered fell onto him so that he could not get out at all, and he is still bound there to this very day."¹²

The motif of pursuing the Devil is also common in charms. Thunder drives him off or tries to kill him by blasting him or throwing thunderbolts at him:

Charm against nightmares and fright.

"Es viena kristīta sieva, kā kristīta baznīca, es atsaku tiem velniem visiem; es viena kristīta sieva, es izdzenu tos velnus visus; es viena kristīta sieva, es nodomu tos velnus visus trejdeviņiem Pērkoniem, trejdeviņu Pērkonu lodēm, lai viņus sasper jūras dziļumā, lai jūras daļas viņus saēd, sagremo!" (BRĪVZEMNIEKS 1881:123.)

¹¹ <http://pasakas.lfk.lv/wiki/140121001> (accessed October 21, 2019)

¹² <http://pasakas.lfk.lv/wiki/140121001> (accessed October 21, 2019)

[I'm a christened woman, christened in church, I reject those devils all; I'm a christened woman, I drive those devils all out; I'm a christened woman, I give those devils all to thrice-nine Thunders, thrice-nine bullets of thunder, so they be smashed in the deep sea, so they be eaten and digested by the sea-parts!]

Instead of the Devil, Thunder also pursues diseases or evil spirits:

Charm against swelling

"Trejdeviņi Pērkoni nāca no jūras, trejdeviņas dzelzu lodes – sper to pumpumu apakš akmeņa, – tas cilvēks paliek pie pirmās veselības" (BRĪVZEMNIEKS 1881:129).

[Thrice-nine Thunders came from the sea, thrice-nine iron bullets, kicking that swelling under a rock – the man returns to his original health.]

Charm for milk, cream and butter

"Nāk mans pieniņš no Liepājas, nāk mans pieniņš no Jelgavas, nāk mans pieniņš no Rīgas, nāk mans pieniņš pa visiem ceļiem, nāk mans pieniņš pa visiem takiem, nāk mans pieniņš no jūras, nāk mans pieniņš no visiem ezeriem, nāk mans pieniņš no visiem avotiem, nāk mans pieniņš no visām upēm, nāk mans pieniņš no visām attekām, nāk mans pieniņš no malu malām, nāk mans pieniņš no atteku attekām. Nu Dēkla, Laima sēd kalnā, kupā mans pieniņš, kreimiņš kupata kupā. Dzen, Pērkona lode, zibenē tos ļaunos garus no maniem lopiem nost! Iekš tā vārda ..." (BRĪVZEMNIEKS 1881:163–164).

[Comes my milk from Liepāja, comes my milk from Jelgava, comes my milk from Riga, comes my milk from all the roads, comes my milk from all the paths, comes my milk from the sea, comes my milk from all the lakes, comes my milk from all the springs, comes my milk from all the rivers, comes my milk from all the river branches, comes my milk from everywhere, comes my milk from all branches of the river branches. Now Dēkla, Laima are sitting on the hill, come my milk, come my cream, come. Chase, Thunder's bolt, shove those evil spirits away from my cattle! In the name ...]

The bolt (or bullet) of thunder or rock is sometimes replaced by arrows in charms:

Charm against nightmares and fright

"Joda māte, Joda tēvs brauca baznīcā lieliem ratiem, melniem zirgiem; satiek uz ceļa jūtēm – nāk no jūras trīs sulaini trejdeviņām bultām. Tur tevi sašaus, tur tu iznīksti, izputi, kā vecs pūpēdis, kā vecs mēnesis! Dievs Tēvs ..." (BRĪVZEMNIEKS 1881:120).

[The mother of the Black One and the father of the Black One drove to the church in a big cart with black horses; as they're heading out, they meet three servants with thrice-nine arrows coming from the sea. There you're going to be shot, there you'll perish, you will crumble like an old puffball, like an old moon! God the Father ...]

These thunder or iron bolts (or bullets), including arrows, are related to both the natural phenomenon and to the archaeological material. A legend says, "But if Thunder itself ever strikes a place, then an arrow or a round stone is left behind. This thunderbolt could

cure various diseases”.¹³ Associations with thunder bolts and arrows may be caused by sightings in nature such as ball lightning, but polished stone axes have also been regarded as thunderbolts or arrows (URTĀNS 1990:4) and are claimed to possess healing powers even today.

As he flees, the Devil hides in lakes, caves, rivers, or also under a rock: “Once a forester went to the woods and saw the wicked one in a lake. He ran out of the lake and sat on a rock and flipped the finger up towards Thunder. But Thunder kicked him, and he ran into the lake”.¹⁴ A rock is the place where the Devil tends to sit and sometimes to sew. The Devil’s treasures are hidden under the rock, or, in other cases, the rock is an entrance to another world. In the charms, a rock is associated with the Devil’s place of residence and the place where diseases and evil are sent:

Charm against a whirlwind

“Velna māte peld pa jūru caur deviņu akmeņu starpu. Peldi, velna māte, es jau sen tevi gaidu; es tevi atsiešu atmuģuris ar pūdētu lūku; es tev piekalšu pie pelēka ruda akmeņa; es tevi piekalšu ar tērauda naglām, atpakaļ atnīdēšu. Tur tu guli, tur tu pūsti, tur tu paliec mūžīgi: vairs tā lopa veselību nemaitāsi” (BRĪVZEMNIEKS 1881: 156).

[The Devil’s mother swims across the sea between the nine rocks. Swim, Devil’s mother, I’ve been waiting for you a long time; I’ll tie you backwards with a rotten bast string; I’ll nail you to a grey-red stone; I’ll nail you with steel nails, stamp you out. There you lie, there you rot, there you stay forever: you will no longer spoil the health of that animal.]

Charm against nightmares and fright

“Sprūk, sprūk! zogu, zogu! Caur sētu, caur sētas posmiem, pie ruda akmeņa! Tur tevi zibens sitīs pa deviņi asi iekš zemes” (BRĪVZEMNIEKS 1881:122).

[Dodge, dodge! I steal, I steal! Through the fence, through the fence sections, to the red rock! There you will be struck by lightning, nine fathoms into the ground.]

In some texts, malice, diseases and envious people are sent to the sea or seaside, where they must sift or scrape sea stones and pebbles:

Charm against envy

“Kas bez rokām, kājām skrej, lai tas skrej uz jūr’, uz jūrmali, lai sijā sīkas olas, akmeņus! (Vārds) skrej uz Jodu pili, Jodu suņi nepajuta, jodu māte vien pajuta. Cik rozīšu dārziņā, tik zvaigznīšu debesīs. Dievs Tēvs ...” (BRĪVZEMNIEKS 1881:172).

[Who runs without hands, without feet, let him run to the sea, to the seashore, to sift through tiny pebbles and stones! (name) run to the Palace of the Black Ones, their dogs didn’t notice, only the Black Ones’ mother noticed. As many roses in the garden, so many stars in the sky. God the Father ...]

¹³ <http://pasakas.lfk.lv/wiki/130401001> (accessed October 21, 2019)

¹⁴ <http://pasakas.lfk.lv/wiki/130401007> (accessed October 21, 2019)

Charm against cough

“Kāsi, ej ārā! Tu kāsi no (vārda), nekasi (vārda) miesas! Kāsi, ej ārā! Tu kāsi no (vārda), nekasi (vārda) kaulu! Tu kāsi no (vārda), nekasi (vārda) sirdi! Ej gar jūru, kasi jūras olas, kasi jūras smiltis: tās tev gardākas, ne kā (vārda) miesas. Nenāc mājās – suņi, kaķes tevi saplosīs, suņi kaķes tevi saplosīs” (BRĪVZEMNIEKS 1881:124).

[Leave, cough! You cough from (name), don't scrape (name's) flesh! Leave, cough! You cough from (name), don't scrape (name's) bone! You cough from (name), don't scrape (name's) heart! Go along the sea, scrape the sea pebbles, scrape the sea sand: those are more delicious to you than (name's) flesh. Don't come home – the dogs and cats will tear you up, the dogs and cats will tear you up.]

In Latvian folklore, the word “sea” can also denote a place containing a lot of water, such as a lake. The seaside or sea sand can be linked both to the dwelling place of the Devil (the lake) and to sand and stones as barren places or substances. In Latvian folklore, the sea is also associated with the world of the dead, also known as the land behind the sun (DRĪZULE 1988:89).

In some texts, Thunder may be replaced by an “old man”, such as in the charm against a boil. In both charms and other genres of Latvian folklore, “old man” is also synonymous with God:

Charm against abscess

“Vecs vīrs iet gar jūru, tērauda zobens rokā; sit trumu pušu – trums skrej dziļā jūrā, jūras dziļās smiltīs, jūras dziļās olās – tur vērpj, tur tu šķeterē” (BRĪVZEMNIEKS 1881:135).

[An old man walks along the sea, a steel sword in hand. He cuts the boil, the boil runs into the deep sea, into the deep sand of the sea, into the deep pebbles of the sea, spinning there, there you twist skeins.]

Thunder also drives disease and evil deep into the ground:

Charm against horse colic

“Sargājies melnais lops! Kas tur nāk, kas tur nāk? Nāk pa jūru deviņi Pērkoni rūkdami sperdami. Tie tevi saspers pa deviņi asi zemē iekšā, iekš zemes bez gala! Iekš tā vārda ...” (BRĪVZEMNIEKS 1881:151).

[Beware black beast! Who comes there, who comes there? Nine Thunders come across the sea, rumbling and striking. They'll kick you nine fathoms into the ground, into the earth without end! In the name...]

Charm against nightmares and fright

“Atstāj nost, lāstu maiss! Dod vietu Svētam Garam! Nāks no jūras trīsreiz deviņas zibenes, trīsreiz deviņi pērkoni; tie tevi spers, tie tevi sitīs pa trīsreiz deviņi asi, pa trīs reiz deviņi jūdži iekš zemes. Tur tavs tēvs, tur tava māte, tur tavi brāļi, tur tavas māsas, tur tu pats, tur tu iekš paliec, mūžam augšā necelies, – kamēr šī saule, kamēr šī zeme – bez gala. Amen” (BRĪVZEMNIEKS 1881:121).

[Lay off, curse bag! Give room to the Holy Ghost! Three-times-nine lightnings, three-times-nine thunders come from the sea; they'll kick you, they'll beat you three-times-nine fathoms, three-times-nine miles into the ground. There your father, there your mother, there your brothers, there your sisters, there yourself, there you stay, never get up, while this sun, while this earth – without end. Amen.]

In charms, the origin of evil is associated with the Devil, and with his presence in the form of an illness. By invoking or threatening the Devil with Thunder, it is possible to get rid of the misfortune: it is destroyed or sent back to a rock or under it, underground, or to the sea. In the charms of other ethnic groups, the rock is a location, associated also with the unliving, with barrenness, as well as with the dwelling place of evil (Pócs 2009: 36). Driving a sickness into water or to the seashore is also known in Lithuanian (VAITKEVIČIENE 2008:80) and Slavic charms (AGAPKINA 2010:117), where sickness remains, diminishes, or is forced to do some senseless or long-term action such as sleeping, shifting or scraping sea stones. The meaning of the seashore as an empty, barren, and abandoned place is also underscored by the wording of the following charm, which gives a more detailed description of it:

Charm for the salivary glands

“Kas bez kājām, rokām skrej, lai tie skrej uz jūru, jūrmali, lai sijā sīkas olas akmeņus. Dievs Tēvs ... Ceļa tēvs, ceļa māte, saules teka, (vārdam) atdod (vārda) veselību. Viņš piedzimis bez vārda, bez krekla, bez kristībiņas. Māte deva kreklu, krusttēvs vārdu, baznīckungs kristībiņu. Lai tie skrej uz jūr', uz jūrmali, kur nedzird ne gaili dziedam, ne cilvēku runājam, ne cūku rukstam, ne zirgu zviedzam, ne govi maujam, ne zosi klēgājam, ne aitū brēcām... Pie trejdeviņiem kokiem, pie ozoliem, liepām, bērziem, alkšņiem, priedēm, eglēm!.. Un tā lai iztek kā liepas celma pelni ar smalku lietu notek, Un tad ja jūs ar labu neiesit, tad es jūs ar īleniem, nažiem nobādīšu un noduršu. Tad jūs izvelkaties kā pūta pa nāsīm, kā dūmi pa pirkstu galiem. Trīs Jāņu brāļi, trīs līki bērzi. Dievs Tēvs ...” (BRĪVZEMNIEKS 1881:139).

[Who run without hands, without feet, let them run to the sea, to the seashore, to sift through tiny eggs (pebbles), stones. God the Father ... The father of the road, the mother of the road, the sun's path, give (name) (name's) health. He was born without a name, without a shirt, without christening. Mother gave him a shirt, godfather gave him a name, the church master (cleric) gave him christening. Let them go to the sea, to the seaside, where no roosters can be heard crowing, no human speaking, no pig grunting, no horses neighing, no cows mooing, no geese honking, no sheep bleating... On to the thrice-nine trees, to the oaks, lindens, birches, alders, pines, spruces! And so let it run out like the ashes of a linden stump washed by fine drizzle. And if you do not leave on your own now, I will stab you with awls and knives and kill you. Then you pull out like air from the nostrils, like smoke through the fingertips. Three brothers of Jānis, three crooked birches. God the Father...]

Sickness and misfortune can also arise from an encounter with the Devil:

“Once a lass went through the woods shortly before midnight. It was very dark. The lass was very afraid, and she rushed on quickly. A red man suddenly came out of the woods and walked over to the lass, pressing close to her right side. She nevertheless went home, but the next day

she was sick. Her right side hurt terribly. Having been bed-bound for a long time, the lass died. The story is that this man was the devil himself.”¹⁵

This example of a legend shows that sickness originates, and is connected, with the Devil. In charms, Thunder is also appealed to in cases where the disease is known, such as stabbing pain, swelling, boils and abscess:

Charm against stabbing pain

“Dūrējs dur – man bail! Trīs Pērkoni lai nosper! + Dūrējs dur – man bail! Deviņi Pērkoni lai nosper! + Dūrējs dur – man bail! Trejdeviņi Pērkoni lai nosper! + (Cik pērkoni sakāmi, tik krusti metami.)” (BRĪVZEMNIEKS 1881: 125.)

[The stabber stabs – I’m afraid! May three Thunders strike it! + The stabber stabs – I’m afraid! May nine Thunders strike it! + The stabber stabs – I’m afraid! May thrice-nine Thunders strike it! + (Each time Thunder is named, make the sign of the cross.)]

Charm against abscess

“Mūc, trums! Mūc, augons! Mūc visa neleime! Kur tu nāci, tur esi! Te tevi raustīs, te tevi plēsīs, te tev laba nedarīs! Mūc mūc uz jūru, rozies jūras smiltīs, – tur tava vieta, tur tu guli! Pērkons nodzenās ar deviņiem dēliem. Iznīksti kā vecs mēnesis, kā vecs pūpēdis, kā rīta rasa!” (BRĪVZEMNIEKS 1881: 135.)

[Scram, tumour! Scram, boil! Scram, all misfortune! Go where you came from! Here you’ll be shaken, here you’ll be ripped, here you’ll see no good! Scram, run to the sea, dig into the sand of the sea – that’s your place, lie there! Thunder will run you down with [his] nine sons. Dwindle like an old moon, like an old puffball, like the morning dew!]

From the examples provided, it is evident that individual episodes of the motif of harassing the Devil appear both in charms and legends. Thunder alone or with his sons (charms against tumours and stabbing pain) or as an old man (charms against abscess) persecutes the Devil. In charms, the Devil is not always called by his name; sometimes he is referred to as Seaside Angryman, the Black One, or as the personification of diseases, such as “abscess” or “boil”. Sickness is associated with the Devil’s influence or incarnation; diseases are exiled to an empty and barren place such as the sea or seaside. In both legends and charms, one of the Devil’s homes and hiding places is a rock, where he is ordered to go or where he flees to escape Thunder. Similarly, the means used to pursue the Devil – iron/stone bolts/arrows – have the same meaning and use both in legends and beliefs as well as in charms. Thus, the motif of pursuing the Devil is complementary in the different genres of folklore and allows for a better understanding of the short and sometimes fragmented messages expressed in the texts of charms.

¹⁵ <http://pasakas.lfk.lv/wiki/140114007> (accessed October 21, 2019)

CONCLUSION

The time when Brīvēzēnieks' collection of charms was compiled and the texts for it were collected marks the boundary between the oral and written tradition as well as the point of contact between two religions in the charming tradition and the preconceptions of the people. On the one hand, the first half of the 19th century was a time when, in addition to growing literacy levels among the population, charms were also increasingly disseminated in handwriting, translated mainly from German, and fragments of religious songs and prayers were also used as charms. On the other hand, this was a time when national self-confidence was awaking in society and the search for identity-affirming cultural values and symbols began, trying to get rid of foreign cultural, including Christian, layers.

Brīvēzēnieks wrote about his two grandmothers in the introduction to the section on charms. Both women were said to have been charmers. One treated sickness with the old or "strong" formulas, and the other used words from a book. The former was considered more effective in comparison to the charms taken from books. Brīvēzēnieks himself also screened the texts when compiling his collection, leaving unpublished those charms directly borrowed from prayer books and hymnals (BRĪVĒZĒNIEKS 1881:113).

The corpus used in this study shows that the oral tradition was relatively strong in the second half of the 19th century. The charms involving the motif of pursuing the Devil and descriptions of the Devil's and Thunder's activities correspond with the local tradition and are not represented in the handwritten tradition that largely related to the texts of European Christianity. On the whole, Brīvēzēnieks' collection mainly reveals the charming tradition of western and central Latvia; it includes no charms from the eastern part of present-day Latvia. The motif of pursuing the Devil can thus be localised in the charms of western Kurzeme, from which most of the thematically related texts also come. However, because the examples of beliefs and legends used as comparative materials are not only from Kurzeme, the geography of the ideas in these genres is broader.

Legends and beliefs help us understand the similarities in charms, they deepen and expand the semantics of the charm images, and explain the association and connection of certain actions in the broader folklore material or in the preconceptions of people in the more distant past. Material belonging to different genres complements and forms a field of notions both within and outside the boundaries of each genre. Dan Ben-Amos pointed out that "any historical changes and cultural modifications in forms of folklore are just variations on basic structures that are permanently rooted in human thought, imagination, and expression" (BEN-AMOS 1976:37). Mikhail Bakhtin also expressed similar thoughts in his study of speech genres, stating that notions and symbols are rooted in a common language usage (BAKHTIN 1979:238). Thus, the traditional separation in folklore genres does not play a decisive role in the analysis of the Devil's image and the motif of pursuing him, because the classification of oral or written forms within one genre is often purely scientific.

In most cases, the motif of pursuing the Devil in legends is identical to that mentioned in charms. Although the material analysed above does not allow for the making of assumptions on the origin of one or another material as primary in relation to the other, it does provide justification that they both include and use the same folklore material as well as similar concepts and understanding. Legends explain the functioning of mythological

creatures, the relationship between them, and their dwelling places, whereas in charms this knowledge is perceived as self-evident and there is no need for a wider, more detailed explanation of the etymology of an entity, matter, or event.

As one of the elements of the narrative structure, plot also forms the message expressed in charms, which, through its characters and their actions, links the reality of the present (the performance of the charms) to the reality of the text (the pursuit of the Devil). It is believed that the specific style, structure, function, etc. of this genre determines the description of a situation and the length of the text encountered in charms. Therefore, plots are not expanded in detail in charms; instead, only key figures or images, the basic foundation of the plot, and its most important elements are mentioned. Reducing the text also limits the meanings, but at the same time it confirms the existence of concepts outside the genre and the knowledge of its users. Assuming that the motif of pursuing the Devil was understandable and functioned in an oral tradition simultaneously in charms and in other genres, a greater healing effect could be achieved if the similarities, associations, and orders were understood by both the charmer and the sick person (if human). Consequently, saying the charms out loud during the performance would be self-evident.

By comparing proverbs and folktales, Latvian folklorist Elza Kokare concluded that the coherence between the two genres could also have a genetic character. The origin of relatively many proverbs can be attributed to folktales or anecdotes, in which they occur both as agents of a separate theme, a plot episode or even an entire folktale, and as laconic formulations of the lessons learned (KOKARE 1977:108). Linda Dégh has compared legends and beliefs and has come to a similar conclusion. She explains that the short genres of folklore (beliefs, paremias) are closely associated with or derived from longer folklore genres such as legends: "... it becomes clear that folk belief is part of any legend, therefore there is no need to maintain the term 'belief legend'. Belief is the stimulator and the purpose of telling any narrative within the larger category of the legend genre..." (DÉGH 1996:33). From the examples analysed in this article, it appears that the shorter message of charms is explained in more detail by the legends and beliefs. Consequently, in the case of charm texts, the assessment of similar themes in the context of other genres is essential, including supplementing them with comparative material from other cultures and languages.

Because nearly half of the charm corpus used in this study that refers to the pursuing of the Devil by Thunder was contributed by a single person, Jānis Pločkalns of Skrunda, it is possible to raise suspicion of falsification or creative writing on the part of the contributor. In addition, the second contributor (four units), Jānis Kungs, whose collected charms contain close similarities to the texts of Pločkalns, was a friend of Pločkalns. This may also lead to suspicion of borrowing texts or even the creation of new texts in the name of national romanticism or the existence of Latvian ancient myths, thus playing a joke on both Brīvzemnieks and future readers.¹⁶

¹⁶ This research was done within the framework of the post-doctoral research project "Digital Catalogue of Latvian Charms", No. 1.1.1.2/VIAA/1/16/217.

REFERENCES CITED

- AGAPKINA, Tatiana
2010 *Vostochnoslavianskie lechebnye zagovory v sravnitel'nom osveshchenii. Siuzhetika i obraz mira* [East Slavic Healing Charms in Comparative Light. Plot Structure and Image of the World]. Moskva: Indrik.
- ARĀJS, Kārlis – MEDNE, Alma
1977 *The Types of the Latvian Folktales*. Rīga: Zinātne.
- BAKHTIN, Mikhail
1979 *Estetika slovesnogo tvorchestva* [The Aesthetics of Verbal Creativity]. Moskva: Iskusstvo.
- BEN-AMOS, Dan
1976 The Concepts of Genre in Folklore. In PENTIKÄINEN, Juha – JUURIKKA, Tuula (eds.) *Folk Narrative Research*. Studia Fennica 20:30–43. Helsinki: Finnish Literature Society.
- BRĪVZEMNIEKS, Fricis
1877 *Zinatnibas un tautas draugeem* [Friends of Science and Folk]. *Mājas Viesis* 38:302–303. http://www.periodika.lv/periodika2-viewer/view/index-dev.html#panel:pp|issue:p_001_mavi1877n38|article:DIVL70|issueType:P (accessed October 15, 2019).
- BRĪVZEMNIEKS, Fricis (Treiland)
1881 *Materialy po etnografii latyshskago plemeni. Trudy etnograficheskogo otdiela* [Ethnographic Materials of the Latvian People. Proceedings of the Ethnographic Department]. Kn. 4. Moskva: Imperatorskoie Obshchestvo Liubitelei Estestvoznaniia, Antropologii i Etnografii.
- DÉGH, Linda
1996 What is a Belief Legend? *Folklore* 107:33–46.
- DRĪZULE, Rita
1988 Dieva un velna mitoloģiskie personificējumi latviešu folklorā [Mythological Personifications of God and the Devil in Latvian Folklore]. In DARBINIECE, Jadviga (ed.) *Pasaules skatījuma poētiskā atveide folklorā* [The Poetic Representation of World View in Folklore], 71–90. Rīga: Zinātne.
- IVANOV, Vyacheslav – TOPOROV, Vladimir
1974 *Issledovania v oblasti slavianaskikh drevnostei. Leksicheskie i frazeologicheskie voprosy rekonstruktsii tekstov* [Studies in the Field of Slavic Antiquities: Lexical and Phraseological Questions of the Reconstruction of Texts]. Moskva: Nauka.
- KOKARE, Elza
1977 Žanru mījsakarības latviešu folklorā [The Correlation of Genres in Latvian Folklore]. In BREIDAKS, Antons et al. (eds.) *Latviešu folklorā – žanri, stils*, 49–109. Rīga: Zinātne.
- LAUTENBAHS-JŪSMIŅŠ, Jēkabs
1885 *Dievs un Velns* [God and the Devil]. Rīga.
- LIELBĀRDIS, Aigars
2017 Fricis Brīvzemnieks at the Very Origins of Latvian Folkloristics: An Example of Research on Charm Traditions. In BULA, Dace – LAIME, Sandis (eds.)

- Mapping the History of Folklore Studies: Centers, Borderlands and Shared Spaces*, 193–206. Cambridge: Cambridge Scholars Publishing.
- PÓCS, Éva
2009 Miracles and Impossibilities in Magic Folk Poetry. In ROPER, Jonathan (ed.) *Charms, Charmer and Charming*, 27–53. Hampshire; New York: Palgrave Macmillan.
- ŠMITS, Pēteris
1925–1937 *Latviešu pasakas un teikas* [Latvian Folktales and Legends]. Rīga: Valters un Rapa.
1926 *Latviešu mitoloģija* [Latvian Mythology]. Rīga: Valters un Rapa.
1941 *Latviešu tautas ticējumi* [Latvian Folk Beliefs]. Vol. IV. Rīga: Latviešu folkloras krātuve.
- URTĀNS, Juris
1990 *Pēdakmeņi, robežakmeņi, muldakmeņi* [Footprint Stones, Boundary Stones and Trough Stones]. Rīga: Avots.
- UTHER, Hans-Jörg
2004 The Types of International Folktales. A Classification and Bibliography. *FF Communications* (285). Helsinki: Suomalainen Tiedeakatemia.
- VAITKEVIČIENE, Daiva
2008 *Lietuvių užkalbėjimai: gydymo formulės* [Lithuanian Verbal Healing Charms]. Vilnius: Lietuvių literatūros ir tautosakos institutas.
- VALK, Ülo
2001 The Black Gentleman: Manifestations of the Devil in Estonian Folk Religion. *FF Communications* (276). Helsinki: Suomalainen Tiedeakatemia.
- VĒLIUS, Norbertas
1987 *Chtoniškasis lietuvių mitologijos pasaulis: folklorinio velnio analizė* [The Chthonic World of Lithuanian Mythology: An Analysis of the Devil in Folklore]. Vilnius: Vaga.

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