arts

MDPI

Article

Restoring Authenticity: Literary, Linguistic, and Computational Study of the Manuscripts of Tchaikovsky's *Children's Album*

Evgeny Pyshkin [1,*] and John Blake [2]

[1] Department of Computer Science and Engineering, Division of Information Systems, University of Aizu, Aizu-Wakamatsu 965-8580, Japan
[2] Center for Language Research, University of Aizu, Aizu-Wakamatsu 965-8580, Japan; jblake@u-aizu.ac.jp
* Correspondence: pyshe@u-aizu.ac.jp

Abstract: This research contributes to the studies on the origins and transformations of Tchaikovsky's *Children's Album*, Op. 39 using the linguistic methods of discourse, metaphor, and comparative analysis to explore a number of connected questions and their impact on how the audiences and scholars perceive and understand the compositions. These methods are supported by the technology provided by computational linguistics, such as large language models along with music analysis algorithms based on signature pattern elicitation. This article examines how artificial intelligence technologies can shed light on the differing views on the *Children's Album.* The meanings and implications of the published reordering of the pieces are explored. The influence of Schumann's Album for the Young and the broader pedagogical and cultural significance of editorial transformations is investigated. Through this interdisciplinary approach, this study offers new insights into the compositional intent and interpretive possibilities of Tchaikovsky's work. The presented results of the musicology, literary, computational, and linguistic analyses complement the few scholarly studies aimed at unveiling the intriguing metaphors and connections of the *Children's Album,* which tend to remain in the shadows of his larger-scale piano and symphonic works.

Keywords: musicology; literary analysis; artwork genesis; translation authenticity; Tchaikovsky; metaphor analysis, comparative analysis

check for updates

Academic Editor: Andrew M. Nedd

Received: 7 March 2025
Revised: 25 April 2025
Accepted: 28 April 2025
Published: 1 May 2025

Citation: Pyshkin, Evgeny, and John Blake. 2025. Restoring Authenticity: Literary, Linguistic, and Computational Study of the Manuscripts of Tchaikovsky's *Children's Album*. *Arts* 14: 49. https://doi.org/10.3390/arts14030049

Copyright: © 2025 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

1. "Sketches of Unconditional Simplicity"?

Pyotr Ilyich Tchaikovsky (1840–1893) composed the *Children's Album*, the 24 pieces for piano, Op. 39, in 1878. By the moment of creation, Tchaikovsky was already famed as the author of the *First piano concerto in B Flat Minor*, Op. 23 (1875), the voluminous plot for *Swan Lake* (1875), and the four symphonies. Just the same year, Tchaikovsky completed *Eugene Onegin*, one of the cornerstones of the Russian operatic repertoire, the pathbreaking *Violin concerto in D Major*, Op. 35, and other large-scale symphonic, choir and piano works.

It would not be too speculative to suggest that initially, the composer might have been considering the *Children's Album* as a minor contribution to the music literature for the young with the titles that would attract the interest of children in the same manner as Schumann's compositions assembled in his Op. 68 (Schumann 1848). Indeed, from Tchaikovsky's letter to Nadezhda von Meck (Tchaikovsky 1878b) we can learn:

> Since a while ago, I've been thinking that it would be nice to contribute to the children's music literature, which is not rich at all. I want to create a series of little sketches of unconditional simplicity with the titles that would be attractive for children, like Schumann's [titles]. (our translation)

Although this letter perhaps provides an important insight into Tchaikovsky's original idea, knowledge based solely on private communications must be approached with caution. Tchaikovsky himself wrote in one of his diaries from June 1888 (Bullock 2016, p. 13):

> Letters are never entirely sincere, at least judging by myself. Regardless of my correspondent or my reason for writing, I am always concerned about the impression that the letter will produce not only on my correspondent, but even on some casual reader. As a result, I pose. [...] Whenever I read the letters of eminent people after their deaths, I am always troubled by a vague feeling of falseness and deceit.

Maybe, the final result we know from Tchaikovsky's original manuscripts (Tchaikovsky 1993, 2015) diverged so significantly from his initial intention, which he shared with von Meck in his letter, that he accepted the editorial reordering of the compositions while approving the score for the first publication by Peter Jurgenson (Tchaikovsky 1878a) followed by many other editions including including the academic editions of complete works (Čajkovskij 2001; Tchaikovsky 1948), which kept the same ordering.

There were also minor changes in the music score, such as a missing *pianissimo* at the end of the *Winter Morning* and the elimination of the ironical harmonic ostinato in the basso voice of the *German Song*. These changes do not substantially affect how the work is perceived by the listener, though. However, the effect of reordering is surely much stronger, and it is impossible not to see how these transformations impacted the inner micro-cycles perfectly displaying the metaphorical depth of the whole work to be understood as portraying the stages of the life journey (Ayzenshtadt 2003), as well as the hopeful rebirth hidden behind the facade of the "sketches of unconditional simplicity" for children.

This article aims at providing an in-depth study of the metaphors, transformations, and genesis of the *Children's Album*, extending the musicology research with insights from linguistic and computational instruments. We seek out the possibilities to revisit the prevailing views on the *Children's Album* and to explain the implications of the editorial decisions towards understanding the authentic work in a holistic way, with respect to both original manuscripts and the modern studies of Tchaikovsky's legacy.

2. Introduction Proper

2.1. Perception Points and Research Questions

Despite the existence of a few important scholarly studies on the metaphors expressed by 24 compositions from the *Children's Album* (Kandinskiy-Rybnikov and Mesropova 1990; Lazanchina 2015; Nekhaeva 2018), the latter is still often (mis)understood as through elicitation of the following seven perception points:

(1) The *Children's Album* was published undoubtedly according to the author's will with regards to the order of compositions and conceptual connections between them; (2) The *Children's Album* is a collection of piano pieces; (3) It is a collection of simple piano pieces (4) appealing for children's attention, (5) capturing the essence of childhood, serving (6) primarily the pedagogic purposes, yet, displaying (7) a similar approach as in Robert Schumann's *43 Clavierstücke für die Jugend*, Op. 68 (Schumann 1848), namely, to compose sophisticated thematic music with the titles that would be attractive for the young and in equal extent educational, enjoyable, and affordable (both mentally and technically) for the young musicians.

From the perspective of cultural studies and implications, we discuss the following three questions:

1. What is the possible meaning and implications of the reordering of the pieces in many published editions compared to the original manuscript;
2. In what extent the structure and music contents of the *Children's Album* can be considered as the imitations of Schumann's approach in his *Album for the Youth*;
3. What is the impact of transformations applied to the original manuscript on the pedagogical and cultural value of the whole work.

We then adopt a different standpoint, and from the perspective of applying computational and linguistic methods to extend pure musicology studies, we discuss these two questions:

4. How an Artificial Intelligence (AI) technology, such as Large Language Models (LLMs) can help to explore both the relevant and irrelevant common views to the compositions; and
5. What are the possibilities of the computational models, such as pattern elicitation algorithms for extending the musicology studies.

As we demonstrate in Section 2.3, the quite narrow topic of this research has been addressed by just a few studies, specifically, among the papers published in English. Most studies appearing in the context of music education touch primarily the methodical aspects of piano play, and provide just superficial analysis of the metaphors and narratives of the whole work. The book of Sergei Ayzenshtadt completely devoted to the *Children's Album* (Ayzenshtadt 2003) forms a rare exceptional case, where behind the facade of the pedagogical tutorial, we discover a great review of substantial contemporary studies in Russian, however this publication is almost invisible in the context of research works published in English.

Therefore, in our study, we refrain from going too far to the analysis of pedagogical goals: Ayzenstadt's monograph serves the purpose well. The tutorial not only contains the detailed analysis of the compositions focused on the piano play learning but also presents the insightful comments on the examples of the *Children's Album*'s pianistic interpretations including those notable renditions by Alexander Goldenweiser, Yakov Flier, and Mikhail Pletnev. We dare to suggest that Ayzenshtadt's efforts work has played a significant role in inspiring the subsequent growing interest in the *Children's Album* as one of Tchaikovsky's emblematic piano works.

Rather than focusing on the pedagogical and educational aspects, we try to rediscover the composition at its different ontological stages and stratify the study using the approaches provided by the conceptual apparatus of information (computational) theory and linguistics as advised by Tomaszewski in his paper "On the analysis and interpretation of a music work" published in Polish (Tomaszewski 2000).

2.2. The Illusion of Objectivity

Despite the prevailing ideal in research of attaining objectivity—understood as impartiality, neutrality, and universal truth—such a position is increasingly recognized as unattainable, particularly in domains such as musicology where interpretation, affect, and context are inextricably intertwined. In examining the *Children's Album*, it becomes clear that any claim to pure objectivity is complicated by the inherently interpretive nature of musical analysis and pedagogy. As Emmet (1994) observes, objectivity is often treated as a regulative ideal directing inquiry, yet the assumptions embedded in this ideal frequently go unexamined. Eisner (1993), following Dewey (1969), contends that what passes as objectivity is better understood as a selective stance cloaked in linguistic conventions that depersonalize the researcher, creating the illusion of dispassionate observation.

Language, as Whorf (1940) and Sapir (1929) demonstrate, fundamentally shapes perception, and thus what we describe is always filtered through cultural and linguistic

systems. Philosophers such as Kant and Schopenhauer have long distinguished between the mediated, phenomenal world and the inaccessible Kantian noumenal reality, underscoring the impossibility of knowing "things as they are". Fish (1982) argues that texts themselves are sites of negotiation between authors and readers. In this light, what becomes epistemologically responsible is not a denial of subjectivity, but its acknowledgment and management. Peshkin (1988) urges researchers to "tame" their subjectivity—to recognize its presence, reflect upon it, and incorporate this reflexivity into their methodology. Lather (2010) echoes this, defining objectivity as an "honest awareness" of one's values and their influence on the research process. In the context of the *Children's Album*, this means accepting that interpretive acts, such as evaluating the pedagogical function of reordering the sequence, cannot escape the researcher's own musical, cultural, and pedagogical frameworks. Thus, the interpreter engages with the work not as a detached observer but as an active participant in co-creating meaning. To regard the collection as an integral whole, as opposed to a series of isolated études, requires precisely this kind of engaged, reflexive scholarship. In such a model, subjectivity is not a threat to understanding, but its essential condition.

2.3. Reifying the Research Context

While exploring the sources (including the research studies, methodical textbooks, music school tutorials, commentaries in the music scores, historical and biographical literature, web resources, etc.) one can observe the evident research gaps of two kinds. On the one hand, probably, not without a hypnotic impact of Tchaikovsky's own notion about "unconditional simplicity", the *Children's Album* as a smaller composition positioned as "merely" targeting the young musicians and their audiences, has not received the attention it truly deserves, being much shadowed by Tchaikovsky's large scale works—symphonies, concertos, opera and ballet music. On the other hand, a few existing studies appeared in Russian providing the very important substantial insights to the history, musical, and pedagogical aspects of the *Children's Album* are almost invisible and rarely cited in music literature published in English. Though bridging these gaps was not our main motivation, it can be considered as one of the positive side effects of our studies.

The extant studies often overestimate the biographical and educational links of the work in its published form considered as the composer's final artistic statement, while underrating the important musical and artistic aspects, as well as its appeal to audiences from the distant eras, of different ages, and with diverse backgrounds. Recent studies are questioning the perception of Tchaikovsky as a composer whose works were primarily shaped by personal experiences (Maes 2024). As suggested by Wiley (2009), a fresh look might be required at Tchaikovsky's music's sophistication and its place within the musical thought of his days, not just the composer's personal life and biography: "the ability of a composition to transcend generations, whatever its genesis in life experience, is increasingly divorced from biography over time as it resonates with the concerns of new audiences" (Wiley 2009, p. xix).

Though, according to Mieczysław Wallis, an artwork has its definite boundaries in space and/or in time (Bokiniec 2009), specifically for performing arts such as music, these boundaries can be extended or even substantially rethought as a result of the performer's interpretation as well as the audience's experience and perception. The concept of the importance of considering human perception of a piece of music (and, in broader sense, a piece of art) through the contemporary context, and not just limited by the timely or biographical aspects of its creation, is not novel and developed by many authors. According to Mieczyslaw Tomaszewski, though biographical, historical, and cultural aspects are all important components of the view to the music composition's context, they don't limit

the process of music work's *integral interpretation*. The performer (naturally connected to the contemporary context) competently mediates the composition to the attention of the listeners, and "helps others to open their ears and eyes, awaken their memory and imagination" (Tomaszewski 2015) and, therefore, encourages them to create their own meaningful interpretations.

2.4. Contributions to the Research Literature

The perspective of the generations transcended by the music composition aligns with the concept of the perception-centric analysis (Schiavio et al. 2022) focusing the human perception as a co-creative process involving the author, the performer, the listener, and, in this particular case, the researcher. With this main vision in mind, this research contributes to the research literature in the following ways:

1. We investigate the prevailing perspectives on the compositions from the *Children's Album* using the interaction with an LLM-driven AI agent.
2. We identify how the reordering of the music pieces from the carefully crafted original manuscript impacted the perception of the musical contents of the *Children's Album*.
3. We address the question regarding the degree of influence or imitation of Schumann in the *Children's Album*.
4. We describe the possible enhancements of traditional musicology studies with the help of AI-driven technology, such as pattern elicitation algorithms through linguistic and musical analysis.
5. We examine the transformations applied to the original manuscript from the perspective of their impact on the pedagogical and cultural value of the whole work.

Our focused research on the analysis of Tchaikovsky's *Children's Album* is in line with the larger scale works on the particularities of human perception of music and on modern analytical tools, including computational and linguistic instruments discourse, metaphor, and comparative analysis, all substantially relying on AI, which could offer new ways to examine the art work genesis, transformations, and implications, as well as deliver a number of interesting complementary insights for the musicologists and music audiences.

3. Methods at a Glance

3.1. Computational Methods Extending Musicology Analysis

Detection of music file similarity based on tonality, tempo and chord progression (that can be extracted from sound files using signal processing algorithms as demonstrated by Thomas et al. (2016) can be very helpful to improve the algorithms of music retrieval, but may not be enough to judge about stylistic and harmonic similarity or about the presence of transformed citations where the key, tempo and melody can be significantly modified compared to the original but keeping almost intangible traits of relatedness, still perceptible by an experienced ear.

Rather than present-day machine learning approaches, in our preliminary experiments (Pyshkin 2022), we tried to apply David Cope's signature elicitation algorithms (Cope 1991) to analyze how often the signatures characterizing Schumann's music for children appears in the compositions from the *Children's Album* against the signatures that would be characteristic for a selection of piano works created by the composers that can be considered as those who influenced the formation of Tchaikovsky's style and approach including such names as Bach, Beethoven, Haydn, Mozart, and Vivaldi. According to Cope, the idea of signature is to represent a small composition-independent pattern, which does not resemble an obvious excerpt from a particular work, but rather reflects a characteristic element of the composer's style on a small scale. In-depth analysis of the signature elici-

tation process is not in the scope of this article, we would just suggest a few examples of signature candidates, shown in Figure 1, to illustrate a general idea.

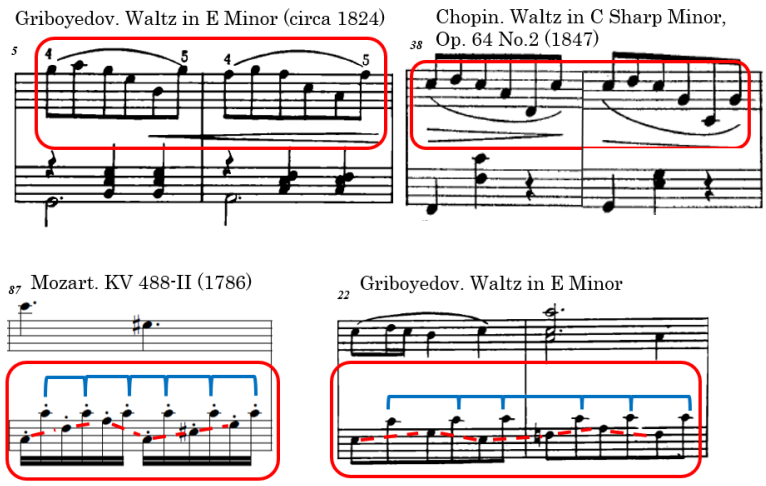


Figure 1. Examples of signature candidates and their re-appearance.

Reusing a signature of one composer in the work of another author (often with recombination and variations) could create allusions to appear as more sophisticated constructions rather than straightforward borrowing of melodies or motifs. Pattern matching methods based on signature elicitation can be applied to authorship identification, along with other known approaches, such as analysis and modeling of music structure using n-grams, Markov chain models, deep neural networks, grammatical inference, etc. However, signatures are not only helpful for authorship attribution, but also for in-depth analysis of music compositions to discover the characteristics of style, their genesis, and their development. The links between the authors and the periods may also be identified, which will be of great interest for musicologists.

Though the implementation described in Pyshkin (2022) requires further work on the adjustments of multiple parameters of signature elicitation process, it nevertheless illustrates relatively rare appearance of signatures characteristic for Schumann's pieces for the young in the compositions from the *Children's Album*. In line with Cope's definition, an imitation of style does not assume necessary appearance of signatures of the imitated composers, their rare occurrences provide a rationale for disputing the possibility for deliberate imitation of Schumann's style by Tchaikovsky who rather only followed the general idea and the approach to compose the pieces appealing to the children's audience by their attractive titles and narratives. Furthermore, since the relative distribution of signatures between different composers does not fluctuate too heavily upon the changes in pattern matching controlling parameters, our qualitative assessment can be considered as well-reasoned and suggestive, though surely not conclusive.

There are many challenges in constructing an explainable machine learning algorithm producing the results and making conclusions that can be understood by musicologists, the possibilities to apply such approaches to our problem need to be investigated in more depth.

3.2. Traditional Linguistic Methods

We drew on the standard analytical approaches to explore the sequencing issues in Tchaikovsky's *Children's Album*, as well as the proportions of possible imitation of Schumann's approach. Specifically, the utilized methods include discourse analysis, metaphor analysis, and comparative analysis.

Discourse analysis provides insights into qualitative aspects of how the *Children's Album* is discussed and interpreted across different cultural and scholarly contexts. We examined reviews, academic literature, and educational materials to uncover discursive patterns and dominant narratives surrounding the album. Key themes, interpretations, and critiques provide insights into how translation choices and sequencing impact the reception and understanding of Tchaikovsky's compositions.

Metaphor analysis is utilized to uncover the underlying conceptual metaphors embedded in the titles and in the thematic content. Comparative analysis involves a detailed examination of the variations in sequence, and the consequent effects on thematic coherence and emotional progression within the album. By juxtaposing multiple versions, this approach elucidates discrepancies, commonalities, and interpretative shifts caused by translation and editorial decisions.

4. Related Musical Literature

Unlike many known examples of almost purely didactic literature both before and after Tchaikovsky (such as *Sonatinas* by Clementi, *Albumleaves for the Young*, Op. 101, by Gurlitt, *Mikrokosmos* by Bartók, *Children's Book*, Op. 98, by Gretchaninov, or *24 Preludes for Children*, Op. 119, by Heller), there is no dispute that Schumann and Tchaikovsky advanced music education for children by blending educational and inspirational aspects in their compositions, moving beyond mere technical exercises to capture the children's imaginations and engage their emotions.

The connections between other remarkable examples of music literature and the traditions established by Schumann and Tchaikovsky deserve to receive independent studies for every single case; we cite here only a few illustrations of true gems of musical creativity such as Schumann's *Kinderszenen*, Op. 15 (requiring, however, much more advanced skills compared to the pieces from Op. 68), Debussy's *Le coin des enfants*, Mompou's *Scènes d'enfants*, Ravel's *Ma mère l'Oie* for four hands, Shchedrin's *Album for the Young*, or Prokofiev's *Musique d'enfants*, op. 65.

In the scope of this particular article, we take the liberty to look in greater depth at Prokofiev's *Musique d'enfants* as an insightful case. The 12 compositions from Op. 65 are celebrated for their educational intent to develop musical tastes among young people by introducing them to the contemporary musical language as Prokofiev (1936) mentioned himself. The latter consideration, however, should be viewed through the lens of the sarcastic nature of the author of *Sarcasms*: the actual addressees could equally include the adults often also lacking good lessons on contemporary music language. Pieces from Prokofiev's Op. 65 (1935) not only showcase Prokofiev's characteristic harmonies and rhythms in a condensed and dramatically simplified form, but also serve as obvious links to his large-scale works, e.g., *Sur les près la lune se promène* clearly alluding to the *Andantino* Juliet-girl theme from *Romeo and Juliet* (the same 1935!), *Le marche* from Op. 65 echoing the march from The *Love for Three Oranges*, and *Le Valse* envisioning the future Cinderella's ballet waltz (1944). *Le soir* was reused almost completely in *Stone Flower* (1950) for the lyrical scene of Catherine and Danila, thus, resembling the case of Tchaikovsky's double use of the Neapolitan dance both in *Children's Album* and in *Act III* of his *Swan Lake*. Prokofiev's collection could be apparently considered as a rare example of music for children, which so respectfully follows Tchaikovsky's model in its original form: the thematically united compositions can be interpreted as portraying the activities and images of the whole day, while, in a similar vein to Tchaikovsky's method, the final *Sur les près la lune se promène* (the moon walking over the meadows) symbolizes a cycle of rebirth in the same manner as the connection between the *Organ-Grinder Singing* (No. 24, the final episode in the manuscript) arched with the reflective quiet introduction of No. 1 *Morning Prayer*.

5. Tchaikovsky, LLM, Common Views, and Myths

Music exploration and analysis with the help of AI, which brings the new possibilities to enhance musicology studies, became one of the most prominent and compelling topics in today's music science agenda (Allegraud et al. 2019; Anderson and Schutz 2023). Extending musicology research with the insights provided by AI and natural language processing grounded on the commonalities between natural language and music (Park et al. 2024) contributes to the agenda of exploring the changes in music education affected by AI (Himonides 2016).

The scope of this article is relatively narrow and rather specific, that is why, as shown in Section 2.3, there is actually just a limited number of the scholarly studies clearly focusing on the *Children's Album*; even using AI tools and databases targeting the scholarly sources (such as Semantic Scholar, for example) does not necessarily lead to serious expansion of the discovered relevant scientific sources. From this perspective, we expected that using a general-purpose tool can crawl a wider range of resources reflecting publicly present ideas, common views, and even, using the term from the preface to Maeder and Reybrouck (2015), the cliché the listeners as well as the educators often got accustomed. Access to these less scholarly, but more widespread visions is after all not bad for our study attempting to explore a relatively underrated and "underreferenced" Tchaikovsky's piano work.

The seven perception motives we suggested for our study reflect, in concise form, the observations we can deduce from theChatGPT 4.0 conversational scenarios; though not being false, they often can be debated as oversimplification or, in certain cases, even myths. To unveil the prevailing common views on the genesis and understanding of the *Children's Album*, asking for help from a large language model-enforced AI is a today-practical approach. Though the AI generated answers must not be assumed to reflect the absolute facts, they can provide a valuable output to uncover and confirm these common views which include the inspiration by Schumann, the primary educational purpose, and the variety of narrative sketches exposed in the compositions.

In our recent communication with ChatGPT 4.0 shown in Figure 2, we initially posed the following two questions:

1. What are the known facts behind the history of creation of the *Children's Album*? (Figure 2a)
2. What are the relationships and illustrative connotations between the compositions from the *Children's Album* and Schumann's pieces from his Op. 68? (Figure 2b).

Since, somewhat unexpectedly, ChatGPT responses to these questions made no mention of the original manuscript, we proceeded with the following additional prompt:

3. Why do many contemporary pianists prefer to perform the compositions from the *Children's Album* in their original order as in the preserved Tchaikovsky's manuscripts? (Figure 2c)

The interaction with ChatGPT provide clear evidence of the potential biases of information of AI-driven information retrieval. While it generates factually valid knowledge, it also produces plausible but inaccurate or even misleading claims. Therefore, careful cross-referencing with other scholarly and musicology sources is necessary, the latter, in turn, could still reciprocally gain from the AI-driven insights.

Specifically, from the first chat log presented in Figure 2a, one could not learn the story (still unknown for many) of the significant differences between the first published edition (Tchaikovsky 1878a) (as well as many following editions) and the original manuscript preserved in the Russian National Museum of Music, and fortunately existing as a complete handwritten score, comprising all 24 compositions.

ChatGPT 4 conversation on the history, origins, purpose, and dedications of the *Children's Album*

1 What are the facts behind the history of creation of "Children's Album", Op. 39 by Tchaikovsky?

The "Children's Album," Op. 39, by Pyotr Ilyich Tchaikovsky, is a beloved collection of 24 simple piano pieces composed in 1878. This work is known for its beautiful melodies and the way it captures the essence of childhood, making it a favorite among both young pianists and their audiences. Here are some key facts regarding the history and creation of this work:

1. **Inspiration from Schumann**: Tchaikovsky was inspired by Robert Schumann's "Album für die Jugend" (Album for the Youth), Op. 68. Schumann's collection, composed in 1848, consists of a series of 43 pieces for children. Tchaikovsky admired Schumann's ability to write sophisticated music that appealed to children and sought to create a similar work that would be both educational and enjoyable for young pianists.
2. **Dedication to Children**: The "Children's Album" was dedicated to Tchaikovsky's nephews, Vladimir "Bob" Davydov and Anatoly "Tolik" Davydov, whom he was very fond of. This personal connection to his family members provided a significant source of inspiration for the composer.
3. **Educational Purpose**: Tchaikovsky intended the "Children's Album" to serve an educational purpose, providing young pianists with pieces that were not only accessible and engaging but also offered technical challenges appropriate for their skill level. Each piece in the collection addresses different aspects of piano technique and expression, making it a valuable teaching tool.
4. **Variety of Pieces**: The 24 pieces in the collection cover a wide range of moods, styles, and technical challenges, from the playful "Morning Prayer" to the more somber "The Sick Doll," and the lively "The New Doll." This variety ensures that there is something for every young pianist to enjoy and learn from.
5. **Influence on Other Composers**: The success and popularity of Tchaikovsky's "Children's Album" influenced other composers to create similar works aimed at young musicians, contributing to a rich repertoire of educational music that is both musically rewarding and accessible to children.
6. **Performance and Recording**: Although primarily intended for the education of young pianists, the pieces from the "Children's Album" are frequently performed in concert by professional pianists and have been recorded numerous times, highlighting their lasting appeal and musical value.

The "Children's Album" remains a testament to Tchaikovsky's genius in creating music that appeals to the innocence and imagination of children while also providing them with substantive musical and technical challenges.

(**a**)

2 What are relationships and demonstratable connotations between Schuman's pieces from his Op. 68 and the compositions from Tchaikovsky's "Children's Album"?

The relationship between Schumann's "Album für die Jugend" (Album for the Youth), Op. 68, and Tchaikovsky's "Children's Album," Op. 39, extends beyond the inspiration Tchaikovsky drew from Schumann's work. Both collections were intended for children or young pianists, focusing on pedagogical value as well as aesthetic appeal. Here are some demonstrable connotations and relationships between the pieces from both composers:

1. **Pedagogical Focus**: Both sets of pieces are explicitly educational, designed to develop the technical and expressive abilities of young pianists. They cover a broad range of piano techniques and musical expressions suitable for different levels of development in young performers.
2. **Musical Storytelling**: Both Schumann and Tchaikovsky utilize their compositions to tell stories or convey images that would be relatable and engaging for children. For example, Schumann's "Wild Rider" and Tchaikovsky's "The Witch" (Baba-Yaga) both create vivid, imaginative narratives through music.
3. **Character Pieces**: Each piece in both collections can be seen as a character piece, a short musical composition that depicts a particular mood, personality, or scene. This approach was particularly popular in the Romantic era and is used effectively by both composers to appeal to the imaginations of young players.
4. **Simplicity and Complexity**: While many pieces in both collections are simple enough for beginners, others offer more complex challenges for advanced students. This range ensures that as children develop their skills, they can continue to find suitable pieces within the same collection that challenge their growing abilities.
5. **Emotional Range**: Both collections exhibit a wide emotional range, from joy and humor to melancholy and introspection. This variety teaches young pianists not only technical skills but also how to express different emotions through music. Schumann's "Kleine Studie" (Little Study) encourages delicate articulation and dynamic control, similar to Tchaikovsky's "Sweet Dream," which also requires expressiveness and dynamic shading.
6. **Cultural Reflections**: While Schumann's pieces often reflect the German Romantic ethos, Tchaikovsky's compositions sometimes incorporate Russian folk themes or characters, such as "The Russian Song" or "The Doll's Funeral." This gives young pianists insight into the cultural backgrounds of the composers, as well as the universality of certain emotions and experiences.
7. **Influence and Legacy**: Schumann's Op. 68 undoubtedly influenced Tchaikovsky's approach to composing music for children, setting a precedent for creating educational yet musically satisfying pieces. Tchaikovsky's "Children's Album" continues this legacy, ensuring that both collections remain essential components of piano education for young students.

Through these collections, Schumann and Tchaikovsky managed to create works that are not only pedagogically valuable but also rich in musical content, allowing young pianists to explore a wide range of emotions and technical challenges within the context of their developing musical abilities.

(**b**)

3 Why do many contemporary pianists prefer to perform the compositions from the "Children's Album" in their original order exactly as in preserved Tchaikovsly's manuscripts?

Performing the compositions from Tchaikovsky's "Children's Album" in their original order, exactly as preserved in the composer's manuscripts, is a practice that contemporary pianists often prefer for several reasons, each rooted in musical, pedagogical, and historical considerations:

1. **Narrative and Emotional Journey**: The order of the pieces in the "Children's Album" is thought to create a specific narrative or emotional journey, not unlike the progression of a story. By adhering to Tchaikovsky's original sequence, performers can convey the emotional and thematic arcs that the composer intended, leading the listener through a variety of moods and scenes that might represent aspects of childhood or the development of musical ideas.
2. **Contrast and Cohesion**: Tchaikovsky carefully sequenced the pieces to provide contrasts in mood, tempo, and texture, while still maintaining a cohesive overall character for the album. This careful arrangement ensures that no two pieces that are too similar in mood or technique are placed next to each other, providing a rich and varied listening experience that highlights the unique qualities of each piece.
3. **Pedagogical Intent**: Given the educational purpose of the "Children's Album," the sequence of pieces may also reflect a pedagogical progression, with each piece introducing or emphasizing different technical or musical concepts suitable for young pianists. Performing them in the intended order respects Tchaikovsky's design as a teaching tool, where each piece builds upon the skills and concepts introduced in the previous ones.
4. **Respect for Composer's Intentions**: Following the order of the pieces as Tchaikovsky intended is a way to honor the composer's artistic choices and intentions. It reflects a respect for the integrity of the work as a whole, acknowledging that the composer had specific reasons for placing each piece in its particular position within the collection.
5. **Historical Authenticity**: Performing the pieces in their original order also serves the purpose of historical authenticity, offering audiences an experience that is as close as possible to how the work would have been presented and perceived in Tchaikovsky's time. This approach can be especially important in classical music, where preserving and understanding the historical context of compositions is valued.
6. **Musical Dialogue**: The arrangement of the pieces allows for a musical dialogue between contrasting emotions and characters. By adhering to the original order, performers can explore and highlight these transitions and relationships, creating a more engaging and meaningful performance.

While performers are always free to interpret classical works in new and personal ways, the choice to perform Tchaikovsky's "Children's Album" in its original sequence demonstrates a commitment to the composer's vision and offers audiences a chance to experience the work as a coherent musical journey, just as Tchaikovsky might have intended.

(**c**)

Figure 2. Interaction with ChatGPT 4.0: (**a**) Conversation 1: History. (**b**) Conversation 2: Connections to Schumann. (**c**) Conversation 3: Why manuscript?

Now the copies of the manuscript pages are publicly available as the facsimile edition (Tchaikovsky 1993) or the electronic version (Tchaikovsky 2015). With this important artifact in hand, we can continue the discourse on possibilities that can be brought by computational technology and language modeling to augment a musicology-centered analysis of the genesis of Tchaikovsky's work, which could provide important complementary insights to its meaning and its historical value within the broader context of music, education, computer technology, and language literature.

The seven perception motives we suggested for our analysis in the beginning of this article reflect, in concise form, the observations we can deduct from the ChatGPT conversational scenario; though not being false, they could be considered as oversimplifications or, in certain cases, even myths. While eliciting these prevailing common views from the ChatGPT statements, one should not ignore a number of questionable or even erroneous statements.

Indeed, from the log presented in Figure 2a, we learn that *"each piece in the collection addresses different aspects of piano technique and expression"*, the consideration that could be rather appropriate to describe Czerny's etudes, but hardly the *Children's Album*'s contents. The second chat log (shown in Figure 2b) extends this consideration about the compositions *"designed to develop the technical and expressive abilities of young pianists"*, followed by perhaps the most doubtful idea from the third conversation (see Figure 2c)—*"performing them in the intended order respects Tchaikovsky's design as a teaching tool, where each piece builds upon the skills and concepts introduced in the previous ones"*. It remains unclear, which order is supposed to be an "intended" one here, and, of course, the whole our article is an effort to debate the idea of Tchaikovsky's design as simply a teaching tool.

Furthermore, from the first conversation, we agree with the conclusion that 24 pieces cover a wide range of moods and styles, but this is followed by a very doubtful attribution of No. 1 *Morning Prayer* as a "playful" composition, the latter concept can be, within the certain limits, applied to No. 2 *Winter Morning*, or rather to *Toy Horse Play*, but definitely not to the opening scene, which is apparently one of the most contemplative and pensive creations in the whole album. *The Doll's Illness* is being contrasted by the AI against the "playful" prayer as just "more somber". The perspective of storytelling (presented in the second log) is illustrated by the examples of Schumann's *Wild Rider* and Tchaikovsky's *Baba-Yaga*, where the both creating, according to AI, "vivid, imaginative narratives", though these two examples look like very randomly and speculatively selected, since it is difficult to find either topical or stylistic or technical similarities between them.

However, we do agree with the idea that "performing the pieces in their original order [...] serves the purpose of historical authenticity [...] where preserving and understanding the historical context of compositions is valued" (third conversation, Figure 2c). This idea contributes to an important component of the current study of metaphors and transformations of the *Children's Album*, but surely not a single one.

6. Findings: Towards Restoring the *Children's Album* Authenticity

The presented literary, linguistic, and computational grounds support the following major findings:

1. The documented author's approval of the first published edition could not hide all the metaphors that we can discover from the preserved original manuscript, its thematic and structural coherence, and the complexity of interpreting Tchaikovsky's editorial decisions.
2. The original version helps us understand the *Children's Album* as an integral inseparable larger scale composition rather than a collection of 24 independent pieces.

The compositions are semantically and musically linked to appear as several untitled parts of the whole.

3. The *Children's Album* can be appreciated by young piano players and their audiences, but they are far from appealing for children only. To truly appreciate the whole construction, its mental appeal, the pictures portrayed, metaphors expressed, one requires both historical and musical background, as well mental maturity, aesthetic sensitivity, and education of an adult.
4. The pedagogical value is obvious; however, the purpose of advancing piano playing skills is definitely not the main composer's motivation.
5. The apparent imitation of Schumann's style must be called in question, yet this does not diminish Tchaikovsky's profound respect for Schumann's legacy.

The following detailed explanation is divided thematically into three discrete sections, namely: sequencing, influence, and metaphors, though these concepts remain inherently interconnected and mutually dependent.

6.1. Sequencing: Unraveling Dramatic Transformations

The sequencing of parts within a musical work shapes the listener's experience, much like the arrangement of chapters in a book or scenes in a film. This organization is not merely a logical decision but a deliberate artistic choice that can profoundly affect the narrative flow and thematic development. Composers can use sequencing to craft a coherent story or evoke emotions, guiding the listener through a curated auditory journey. There is, however, a paucity of studies exploring the sequencing of musical pieces. Juslin investigated musical expectancy within pieces and found that particular sequential note progressions establish expectations for subsequent notes, which may result in affective responses if expectations are unrealized (Juslin 2019).

Similarly, the emotional journey facilitated by the sequencing of pieces is a critical consideration. For example, Tchaikovsky's *The Seasons* are composed as twelve short character pieces for piano, each representing different months. The sequence from the hopeful January *At the Fireside* in A major to the slightly melancholic December *Christmas* in A Flat major/A major guides the listener through the cycle of seasons, with each piece capturing the quintessence of its respective month, both in sentiment and character, thus creating an emotional arc that parallels the changing seasons (Landrum 1997).

In educational contexts, the sequencing of musical pieces often serves a pedagogic, progressively building the pianist's skills. For example, in Czerny's *Etudes* each piece focuses on a different technical challenge (Gray 1977). The musical narrative progresses from simpler to more complex expressions, mirroring a student's learning journey.

The sequencing of pieces within a musical album is a fundamental aspect that composers leverage to enhance narrative and thematic coherence, emotional engagement, and, partially, the educational value. It may seem surprising, but the first careful musicology studies of the sequencing of pieces in the *Children's Album* did not appear until the early 1990s, more than a century after the completion of the whole work (Kandinskiy-Rybnikov and Mesropova 1990, 1997). The significant reordering in the published editions could not help but impacted the album's integrity and thematic coherence. Table 1 lists all the compositions in their original order according to the manuscripts (Tchaikovsky 2015). Figure 3 graphically illustrates the significant reordering in the first published Jurgenson edition (Tchaikovsky 1878a) followed by numerous subsequent editions.

The edits applied to the first publication did more than disrupt the internal structure of the album as an indissociable whole; they not only distorted the micro-cycles existing in the manuscripts (shown in Table 1), but also severed the evident harmonic and thematic

links, diminished the emotional tension of the original version, and partially obscured certain metaphors to make them less explicitly apparent (Pyshkin and Blake 2024).

Table 1. List of the compositions according to the manuscript.

Micro-Cycles *	Orig. No.	Jurg. No.	Compositions **
Morning/Birth	1	1	Morning Prayer
	2	2	Winter Morning
	3	4	Mama
The games boys play	4	3	Toy Horse Play
	5	5	March of the Wooden Soldiers
The games girls play	6	9	A New Doll
	7	6	The Doll's Illness
	8	7	The Doll's Funeral
Pair and ball dances	9	8	Waltz
	10	14	Polka
	11	10	Mazurka
Motherland (folk traditions)	12	11	Russian Song
	13	12	Muzhik Playing Harmonica
	14	13	Kamarinskaya
Traveling/Learning	15	15	Italian Song
	16	16	Old-French Song
	17	17	German Song
	18	18	Neapolitan Song
Tales/Memories/Children	19	19	Nanny's Tale
	20	20	Baba-Yaga
	21	21	Sweet Dream
	22	22	Lark's Song
End of the day/Rebirth	23	24	In Church
	24	23	Organ-Grinder Singing

* These internal "untitled parts" shown in the table in contrasting colors were not advocated by Tchaikovsky, but rather reflect one possible listener's rendition of the thematically linked groups of compositions. Our version differs in some parts from the structure suggested in Ayzenshtadt (2003), though these discrepancies are not substantial. ** English translations of the titles are given according to the systematic approach to authentic translation suggested in Pyshkin and Blake (2025).

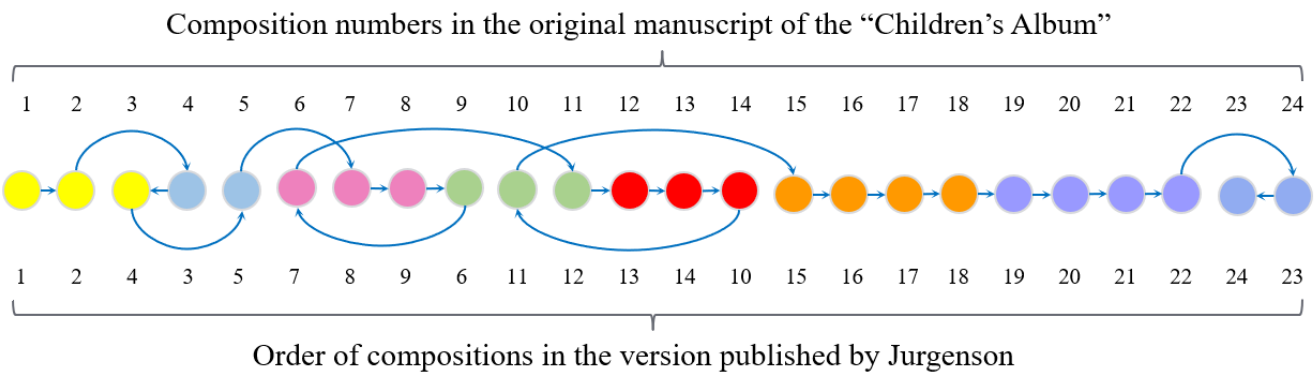


Figure 3. Disruptive transformations. The colors correspond to those used in Table 1.

In a sense, such transformations reduce the traces of Tchaikovsky's "revolutionizing" approach evident in the manuscripts of the *Children's Album* just as in his 1875's *Swan Lake* ballet music, when, as Plumley aptly notes, Tchaikovsky seriously reformed the usual model of composing for ballet when "after the choreographer had set out the synopsis and sequences of dances, a composer was [just] to provide simple but pliant melodies with clear metrical patterns" (Dotsey 2024). Therefore, a popular idea that Tchaikovsky just neglected the reordering, could hardly be accepted.

It is no wonder that many pianists today prefer to play and record the compositions from the *Children's Album* in their original versions and original order. This approach enhances emotional tension, meaningful cohesion, and preserves the historical and narrative authenticity of the whole work.

6.2. Influence: Just a Hint of Schumann

Though Tchaikovsky explicitly referenced Schumann in the subtitle "24 simple pieces for children **like Schumann**", the latter note appeared in the first published edition, but is missing in the manuscript. In-depth analysis using both musicology and computer models casts doubt on the intention to imitate Schumann as a significant leading force in creation of the *Children's Album* in terms of comparing the musical signatures occurring in both works using the approach developed by Cope (1991).

It was not completely surprising that after experimenting with signature elicitation, we could find only very small number of characteristic Schumann signature variations in the *Children's Album* actually often appearing along with the signatures of other composers including, for example, Haydn, Beethoven, Mozart, and Vivaldi. Even if we acknowledge that some unique Schumann's signatures were missed due to the imperfectness of configuring the automatic signature elicitation process, we can still conclude, that Schumann signatures are far from being more frequent at all, compared to other matched patterns. Though, in concordance with Cope's definition, an imitation of style does not necessarily assume appearance of signatures of the imitated composers, their rare occurrences provide a rationale for disputing the possibility for deliberate imitation of Schumann's style by Tchaikovsky. To sum up, there is surely no contradiction in suggesting that Tchaikovsky could still have wished to partially imitate Schumann's approach, though the musicological, computational, and linguistic analysis of his Op. 39 allows us debating the hypothesis that such an imitation (or rather homage to Schumann) was the prevailing motive. In broader sense, the case of the *Children's Album* can be considered as a minor but interesting illustration of the relationships of Tchaikovsky's music to Western European models:

> 'To suggest that he somehow wished to emulate these models and couldn't is demeaning and unsupportable in the face of his manifest ingenuity. This does not mean that inspiration never faltered [. . .] but simply that giving him some credit for autonomy and individual approaches to composition will rectify the tendency, over the decades, to reject his music as unassimilated—not quite up to standard—eccentric, and too personal" (Wiley 2009, p. xx).

Furthermore, the insights into the similarities and differences with Schumann's pieces were discussed, challenging the notion that Tchaikovsky's work was a mere imitation of Schumann's style. The obvious influence of Schumann on the appearance of the *Children's Album* does not reduce it to mere imitation of Schumann's style and his pieces for the young, which also have a long history of editions but remarkably few scholarly studies (Appel 2014).

Indeed, in Table 2, we summarize our attempt to revisit the compositions from the *Children's Album* from the perspective of discovering the possible closest matches to both Schumann's Op. 68 and to a broader selection of music and text literature. Particularly, Table 2 delivers a number of interesting insights. When one can find an apparent (though

approximate) topical match such as between Schumann's (actually, straightforwardly following Bach's) *Choral* and Tchaikovsky's *Morning Player*, between *Roaming in the Morning* and *Winter Morning*, between *Soldier* and *March of Wooden Soldiers*, or between *Sheherazade* and *Sweet Dream*, there are quite rare cases, where one can also find actual similarities in the selection of music patterns and means of expression (Keshuang 2023). Vice versa, as soon as we discover some music pattern match (although there are actually very few), we could hardly find any topical connection between such compositions. The findings of connections to other music and literature rather than to the *Album for the Young* by Schumann lead to even more fruitful discoveries challenging the emotional simplicity and unpretentiousness of Tchaikovsky's "sketches of unconditional simplicity" for children.

Table 2. Contrasting the *Children's Album* compositions against Schumann's pieces and other insightful sources.

Pattern Match *	Topical Match *	Schumann, Op. 68	Tchaikovsky, Op. 39	Other Interesting Sources
	✓	Choral	Morning Prayer	
	✓?	Roaming in the Morning	Winter Morning	
	✓		Winter Morning	Pushkin's eponymous poem
✓		Melody	Mama	
✓		Humming Song	Mama	
	✓	Soldier	March of the Wooden Soldiers	
✓	✓	Choral	In Church	
	✓	The Wild Rider	Toy Horse Play	
✓			Toy Horse Play	Vivaldi's *Sicilienne*
	✓	First Loss	The Doll's Illness	
✓	✓		The Doll's Illness	Mozart's *Lacrimosa* from *Requiem*
	✓?		Mazurka	Tchaikovsky's *Un poco di Chopin*
✓	✓?	Little Song in Canon Form	Old-French Song	
✓		The Reaper's Song	Italian Song	
	✓	Echoes from the Theater	Waltz	
	✓		Waltz	Tolstoy's *War and Piece*
	✓	Sheherazade	Sweet Dream	
	✓	In Memoriam	Sweet Dream	
✓	✓		Organ-Grinder Singing	Tchaikovsky's *Reverie interrompue*

* Checkmarks indicate "a definitive match", while a checkmark accompanied by a question mark suggests a probable match.

Ayzenshtadt distinguishes the pieces from the *Children's Album* as the forms of chrystal purity (Ayzenshtadt 2003) (which indeed makes them suitable for pedagogical goals), nevertheless, the form clarity does not always make the pianistic interpretation easier: one could also attribute such a clarity to Chopin's Mazurkas, for example, though they are incredibly challenging because of the "thousand nuances of movement" (Fons 2012) including numerous so called veridical events such as sudden change in tempo or harmony, as well as the marked (and even more often unmarked) rubato (Shi 2021).

6.3. Metaphors and Allusions: Pushkin, Mozart, Natasha Rostova, and More

Though belonging to the integral composition, the pieces from the *Children's Album* bring an interplay of their own distinctive and connective narratives. Reflective, and often introspective, they appear as mere sketches, yet they are rather concise metaphorical descriptions imbued with intriguing allusions to Tchaikovsky's own compositions, the art works of those influencing his music, and even those who have been influenced by Tchaikovsky's legacy.

Though each smaller scale sequence of composition, or internal cycle, such as Doll Story as well as each single composition deserves a particular attention, in this article we visit a few insightful cases to demonstrate the *Children's Album*'s interplay of illustrations, metaphors, and connections.

In No. 2 *Winter morning*, we find an almost straightforward illustration of the eponymous poem of Alexander Pushkin: the picturesque winter landscape portrayed by the music is complemented by the tender dialogue of a hero with his beloved friend as we dare to illustrate in Figure 4 with our own fragmentary rhythmic translation of the Russian verses into English.

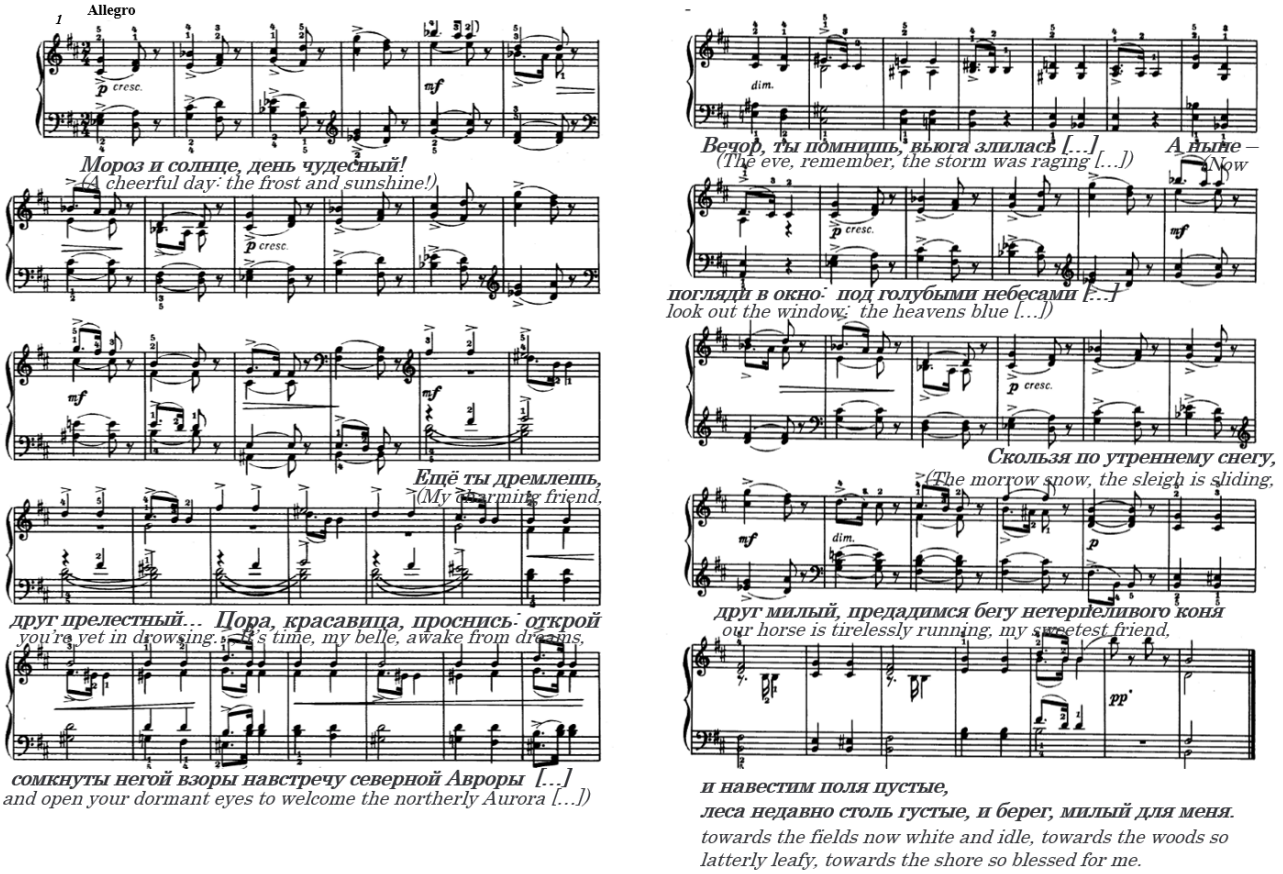


Figure 4. No. 2 *Winter morning* as an illustration of the eponymous poem of Alexander Pushkin.

In contrast to the Jurgenson edition, in the manuscript, the lovely emotions of *Winter morning* are followed by the tenderness of No. 3 *Mama*, leaving the boy games to the subsequent Nos. 4–5 *Toy Horse Play* and *March of the Wooded Soldiers*, both could be linked without much exaggeration to the future scenes from The Nutcracker ballet. In Figure 5, one can observe the appearance of concept and development of the whole work, though, from the perspective of a concept of collection of compositions, it would be more natural to write each single one on a separate sheet.

Thus, it is unsurprising that the composition opening the Doll story (Orig. No. 6 *A New Doll*) begins on the same page as the *March of the Wooden Soldiers*, the same happens with the orig. No. 7 *The Doll's Illness* and No. 8 *The Doll's Funeral*. All three together produce a small but significant narrative part of the whole *Children's Album*'s journey. It provides a rationale for translating the original No. 6 in English editions with an indefinite article "a", thus, creating an introduction to the whole micro-cycle. This approach would not work well for Jurgenson edition-based order of the compositions.

Furthermore, the upper voice theme of the penetrative *The Doll's Illness* as well as the whole development of its tension evokes none other than the *Lacrimosa* from Mozart's *Requiem* (Figure 6). This poignant association positions the piece as one of the climactic highlights of the whole *Children's Album*.

In the published version, moving the *Waltz* ahead and placing the new doll appearance after the pair dance does not only destroy that "Doll story" narrative, but also the sequence of popular (almost mandatory to learn in 19th century) ball dances, which naturally includes a waltz, a mazurka, and a polka—three scenes, each with a very contrasting character and portrayed dancing movements.

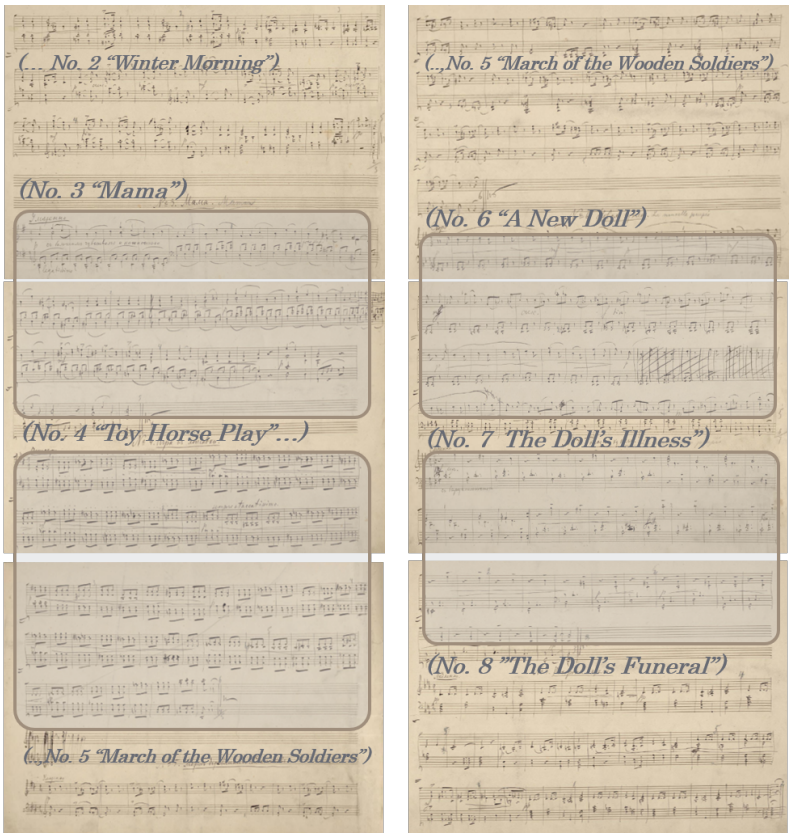


Figure 5. The order and layout of the compositions Nos. 3–8 in the manuscript.

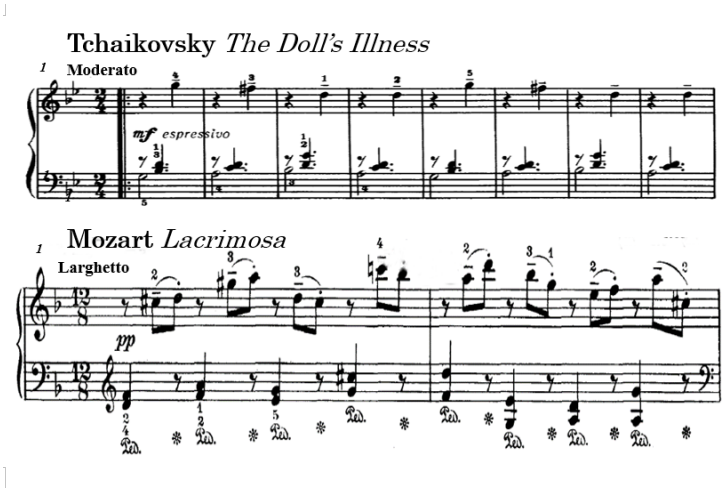


Figure 6. Allusion to *Lacrimosa* in *The Doll's Illness*.

Indeed, the original position of No. 9 *Waltz* forms an interesting case: the games with the dolls are set aside as the girls enter their first ball. From this perspective, rather than to

the *Echoes from the Theater* (looking like the closest topical match from Schumann's Op. 68, see again Table 2), this waltz could be projected to the the first ball of Natasha Rostova from Leo Tolstoy's *War and Piece* (Tolstoy 1869). There was an interesting fact: just a year before the creation of the *Children's Album*, the composer wrote in his diary (Tchaikovsky 2018):

> Never in the whole course of my life did I feel so flattered, never so proud of my creative power, as when Leo Tolstoy, sitting by my side, listened to my Andante [*Andante Cantabile* from the *First String Quartet*, Op. 11] while the tears streamed down his face.

Thus, a reflection on Tolstoy's epic novel would have not been impossible; at least, such a rendition is a plausible possibility from the listeners' literary experience.

No. 11 *Mazurka* belongs to the genre, where Chopin is the first name that springs to the mind. In one of his latest works, Tchaikovsky made a kind of homage to Chopin in his improvisation-like sketch *Un poco di Chopin*, Op. 72 No. 15, composed in **tempo di mazurka**, though, same as in the *Mazurka* from the *Children's Album*, we could hardly find the patterns or imitations of Chopin's style, but rather of mazurkas by Mikhail Glinka, a great predecessor of Tchaikovsky. Glinka, a great reformer, who, according to Russian critic Vladimir Stasov, was a creator of the new Russian language in music, equal to Alexander Pushkin, the creator of the new Russian language in literature (Curran 1965), receives the tribute in the *Children's Album*'s Russian cycle, especially in No. 13 *Muzhik Playing Harmonica* and surely No. 14 *Kamarinskaya*, the latter musically referring to Glinka's symphonic *Kamarinskaya* being, in Tchaikovky's words, the beginning of Russian symphonic school (Dotsey 2019).

In No. 15 *Italian Song*, Tchaikovsky used a motive he discovered in Florence. He describes his experience in a letter to von Meck (Tchaikovsky 2018) (16 December 1877):

> One evening Anatol and I suddenly heard someone singing in the street, and saw a crowd in which we joined. The singer was a boy about ten or eleven, who accompanied himself on a guitar. He sang in a wonderfully rich, full voice, with such warmth and finish as one rarely hears, even among accomplished artists. The intensely tragic words of the song had a strange charm coming from these childish lips. The singer, like all Italians, showed an extraordinary feeling for rhythm. This characteristic of the Italians interests me very much, because it is directly contrary to our folksongs as sung by the people

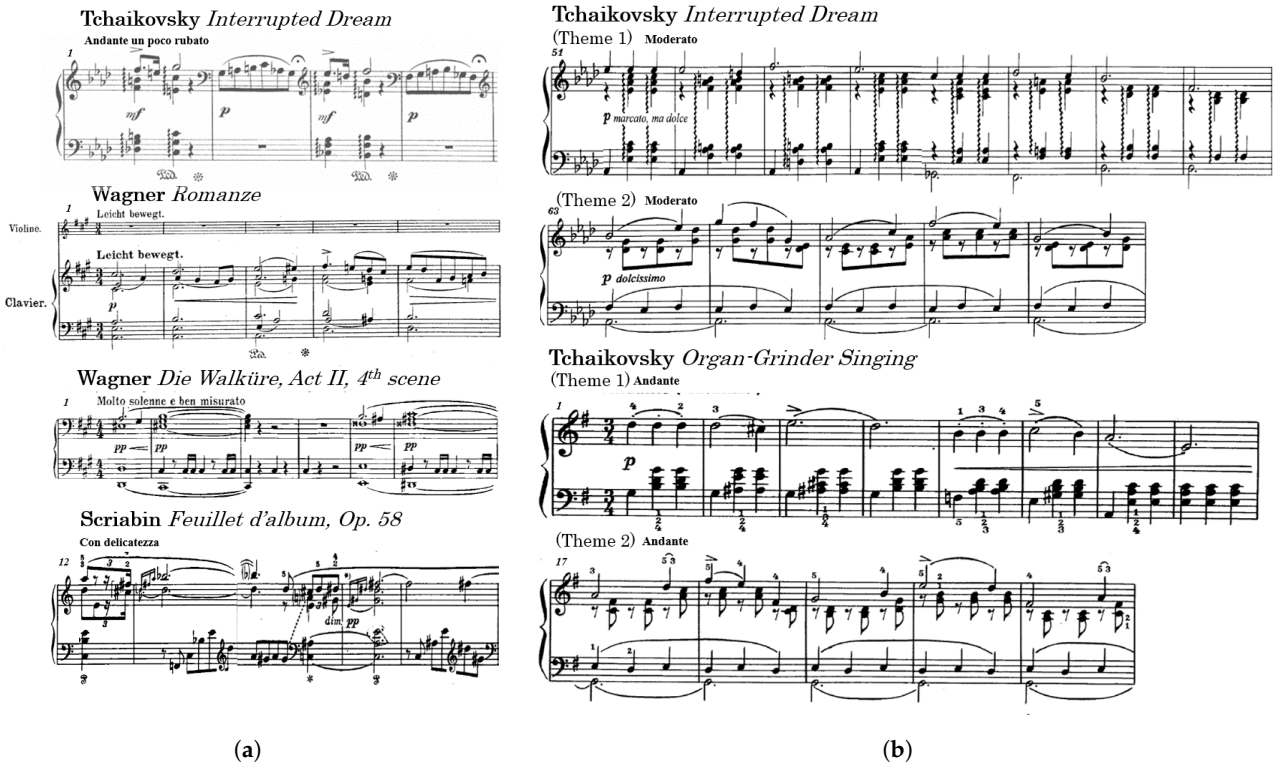
In the same letter, Tchaikovsky mentions "a charming little song" that he carried away from Venice. This theme has been used for No. 24 *Organ-Grinder Singing*.

Finally, let's revisit the *Reverie interrompue* (Interrupted Dream), No. 12 from *12 pieces for piano*, Op. 40, composed in the same 1878. Though quite short. this poetic piece is rich of interesting connotations. The opening motive reminds the opening phrase from Wagner's *Romanze for violin and piano* composed in 1840 (the birth year of Tchaikovsky, by the way!), the phrase, which was later transformed to a fatum leitmotif appearing in *The Valkyrie* as Figure 7a illustrates.

The leitmotif probably originating in Wagner's works, finds references in the creations of later epochs, thus, linking Tchaikovsky's work not only to the past, but to the future such as in the case of Scriabin's *Feuillet d'album*, Op. 58, for example.

Thus, attaching the melody of the simple Venice song to the "Wagnerian" introduction in the *Reverie interrompue* makes the latter piece an important reference point. It is now almost impossible to ignore the links between the *Reverie interrompue* with all its connections and the *Organ-Grinder Singing* (as Figure 7b illustrates), the final composition in the original manuscript harmonically and tonally arched back (forward?) to No. 1 *Morning Prayer*.

To sum up, in a perhaps not overly sophisticated way, the compositions from the *Children's Album* effectively illustrate the idea that "the appeal of Tchaikovsky's music is not restricted to its immediate Russian context" (Maes 2024), but must always be considered in a much broader perspective.



(**a**) (**b**)

Figure 7. (**a**) *Reverie interrompue*: allusions to Wagner and a link from Scriabin. (**b**) Venice song's themes appearing in both the *Reverie interrompue* and the *Organ-Grinder Singing*.

7. Discussion

As a discussion teaser, let us share another interesting experiment with ChatGPT on the creation of a list of possible titles for the suite of compositions simulating to be the pieces for children but actually metaphorically portraying the whole human life. In one of generated versions the No. 24 *Aurora's Promise* is particularly impressive: it alludes so emotionally and meaningfully to both the No. 1 *Morning Prayer* and No. 2 *Winter Morning* from the *Children's Album*. This insightful conversation is shown in Figure 8.

7.1. Possibilities for Research on Emotional Response

From the perspective of human perception, the experiments on comparing the listeners' emotional response to the performed compositions between the original manuscript and Jurgenson edition would be a very interesting direction for further research. The model of measuring the physiological and emotional response to music listening demonstrated in (Ma 2023) could be a very promising approach to be applied to investigate whether (and in which ways) two different versions activate different reaction and feedback among the listeners.

7.2. Pedagogical Implications

The question of how applied transformations impact pedagogical goals remains rather open. There is insufficient evidence to support the view that the reordered sequence facilitates the apprehension of the whole work by the young, or better serves the aim of

developing piano skills. After all, while learning, the young musicians usually work on each individual piece. However, considering the whole construction and the whole integral narrative is important for their progress in music understanding rather than in developing purely technical proficiency: the finest interpretations of multi-part compositions do not reduce them to isolated segments; on the contrary, they seek to rediscover the musical and conceptual connections that unify the whole.

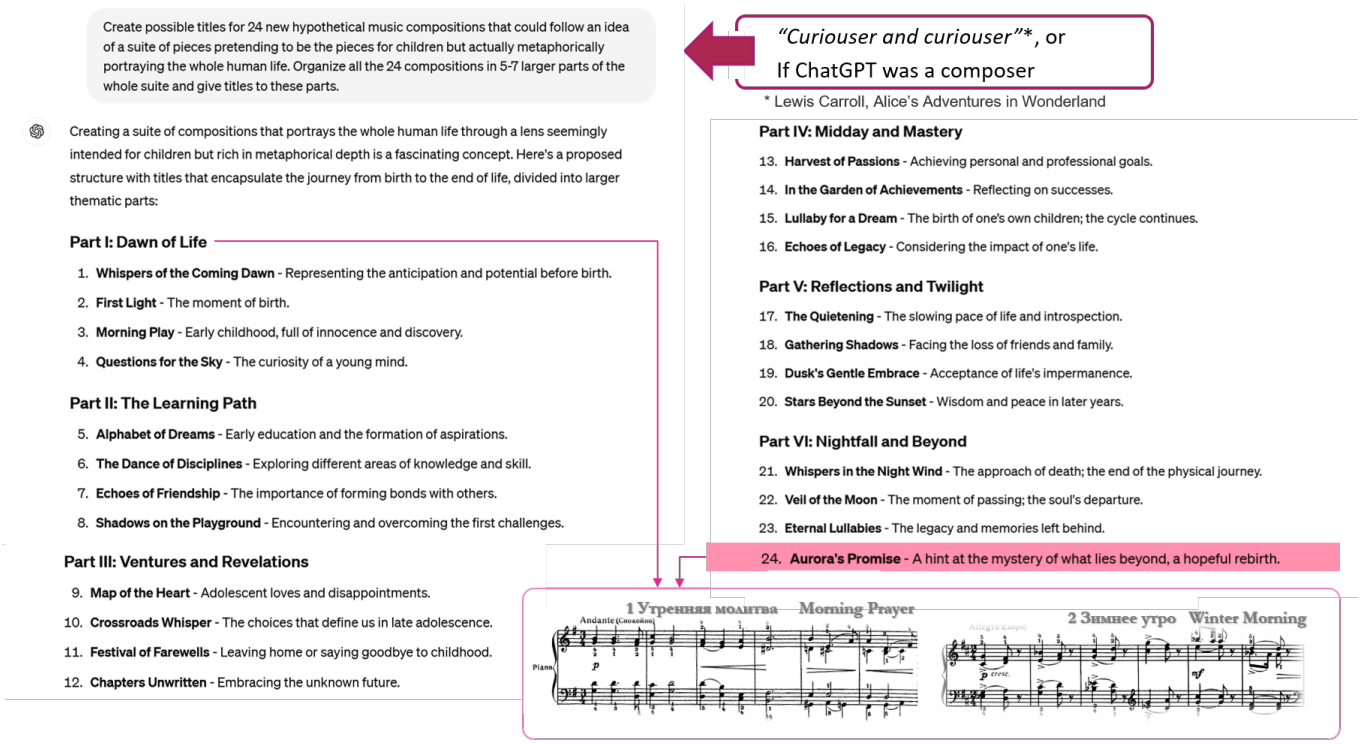


Figure 8. ChatGPT conversation 4: "Recreation" of titles.

7.3. Cross-Disciplinary, Cross-Genre, and Cross-Technology Implications

An approach to the literary, linguistic, and AI-enhanced analysis of Tchaikovsky's *Children's Album* presented in this article complements the computational models for musicology to better understand the intriguing study of the genesis of the one of Tchaikovsky's piano jewels, which tends to remain in the shadows of his larger scale piano and symphonic works. Though interesting and informative by itself, the case illustrates broader ideas of the meaningfulness of the cross-disciplinary, cross-genre, and cross-technology orchestration involving both humanities and technology-inspired models for the benefits of better understanding of human perception of art works, including but not limited to music and imaginative literature.

Musicology studies and linguistic instruments enhanced with AI, computer science, and mathematical algorithms can provide additional important insights for researchers, artists, performers, and art lovers searching for deeper explanations of the origins and development of the one of gems of Tchaikovsky's piano music. Fortunately, such insights (often subjective) could hardly finally resolve all the possible questions (and, in fact, cause rise to even more), but they can significantly contribute to the whole discourse on the interinfluential relationships between the arts and science. Future research could explore the integration of computational models with musicological analysis to study other historical music manuscripts, expanding the understanding of editorial decisions and their impacts on classical music reception.

7.4. Appeal to Modern Sensibilities

In a narrower sense, the findings of this study contribute to a deeper understanding of the *Children's Album* and suggest that its pedagogical and artistic value extends beyond its designation as music for children. The implications for future editions, interpretations, and translations of Tchaikovsky's works are significant, advocating for a more faithful adherence to the original manuscript. In a similar vein to Pierre Lacotte's revivals of the original choreography of romantic ballets, unveiling the value and meaning of the original Tchaikovsky's manuscript does not merely create opportunities for an intriguing opportunity for cultural time travel, but to borrow a term from (Maes 2024), appeal beyond doubt to **modern sensibilities**.

Author Contributions: The authors contributed equally to this work and wrote the paper in tight collaboration. Specifically, E.P. mainly worked on conceptualization, musicology, and historical analysis, while J.B. was focused on linguistic explorations, literary studies, and pedagogical implications. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Informed Consent Statement: Not applicable.

Data Availability Statement: No new data were created or analyzed in this study. Data sharing is not applicable to this article.

Conflicts of Interest: The authors declare no conflicts of interest.

References

Allegraud, Pierre, Louis Bigo, Laurent Feisthauer, Mathieu Giraud, Richard Groult, Emmanuel Leguy, and Florence Levé. 2019. Learning sonata form structure on mozart's string quartets. *Transactions of the International Society for Music Information Retrieval (TISMIR)* 2: 82–96. [CrossRef]

Anderson, Cameron J., and Michael Schutz. 2023. Understanding feature importance in musical works: Unpacking predictive contributions to cluster analyses. *Music & Science* 6: 20592043231216257.

Appel, Bernhard R. 2014. Actually, taken directly from family life: Robert Schumann's Album für die Jugend. In *Schumann and His World*. Edited by Larry R. Todd. Princeton: Princeton University Press, pp. 171–202. [CrossRef]

Ayzenshtadt, Sergei. 2003. *"Detskiy albom" Tchaikovskogo. Metodicheskiye Kommentarii (Tchaikovsky's Children's Album. Methodical Comments)*. Sochi: Klassika-XXI. (In Russian)

Bokiniec, Monika. 2009. Mieczysław wallis: Experience and value. *Estetika: The European Journal of Aesthetics* 46: 75–96. [CrossRef]

Bullock, Philip Ross. 2016. *Pyotr Tchaikovsky*. London: Reaktion Books.

Cope, David. 1991. *Computers and Musical Style*. Oxford: Oxford University Press, vol. 6.

Curran, Michael William. 1965. *Vladimir Stasov and the Development of Russian National Art: 1850–1906*. Madison: The University of Wisconsin-Madison.

Čajkovskij, Petr Il'ic. 2001. *Complete Works, New Edition*. Edited by Thomas Kohlhase. Moscow and Mainz: Muzyka, Schott, vol. 69b.

Dewey, John. 1969. *How We Think*. Lexington: D.C. Heath.

Dotsey, Calvin. 2019. The Birth of Russian Music: Glinka's Kamarinskaya. Available online: https://houstonsymphony.org/glinka-kamarinskaya (accessed on 28 February 2025).

Dotsey, Calvin. 2024. Strange and manifold music. In *Swan Lake, The Royal Ballet Programme*. London: Royal Opera House, pp. 38–40.

Eisner, Elliot. 1993. Objectivity in educational. In *Educational Research: Volume One: Current Issues*. London: SAGE, vol. 1, pp. 49–56.

Emmet, Dorothy. 1994. *The Role of the Unrealisable: A Study in Regulative Ideals*. Berlin and Heidelberg: Springer.

Fish, Stanley. 1982. *Is There a Text in This Class? The Authority of Interpretive Communities*. Cambridge: Harvard University Press.

Fons, Margaret Ann. 2012. *"A Thousand Nuances of Movement": The Intersection of Gesture, Narrative, and Temporality in Selected Mazurkas of Chopin*. Austin: The University of Texas.

Gray, Patricia Marie. 1977. *The Pedagogical Concepts of Carl Czerny: An Analytical Study*. Cincinnati: University of Cincinnati.

Himonides, Evangelos. 2016. Big data and the future of education: A primer. In *Music, Technology, and Education*. London: Routledge, pp. 243–56.

Juslin, Patrik N. 2019. *Musical Emotions Explained: Unlocking the Secrets of Musical Affect*. Oxford: Oxford University Press.

Kandinskiy-Rybnikov, Alexey A., and Marina G. Mesropova. 1990. Vremena goda i Detskiy albom Tchaikovskogo: Tsyklichnost i problemy ispolneniya (Tchaikovsky's The Seasons and Children's Album: Cyclicity and performing problems). In *Tchaikovsky: Voprosy Istorii, Teorii i Ispolnitelstva (Tchaikovsky. Questions on History, Theory, and Performing)*. Moscow: Moscow Conservatory, pp. 120–37. (In Russian)

Kandinskiy-Rybnikov, Alexey A., and Marina G. Mesropova. 1997. One opublikovannoy P.I. Tchaikovskim pervoy redaktsii "Detskogo alboma" (On an unpublished first edition of the "Children's album" by P.I. Tchaikovsky). In *Voprosy Muzykalnoy Pedagogiki (Issues of Musical Pedagogy)*. Moscow: Muzyka, pp. 138–61. (In Russian)

Keshuang, Liu. 2023. "Children's Album" by P. I. Tchaikovsky and Its Musical Context. *Humanities & Science University Journal* 76: 110–16. (In Russian)

Landrum, Michael McRee. 1997. *Tchaikovsky's "The Seasons": Analytical and Pedagogical Perspectives*. Philadelphia: Temple University.

Lather, Patricia. 2010. *Engaging Science Policy: From the Side of the Messy*. Lausanne: Peter Lang, vol. 345.

Lazanchina, A. 2015. Fenomen detstva v fortepiannykh tsiklakh R. Shumana i P. Tchaikovskogo (The phenomenon of childhood in piano cycles by R. Schumann and P. Tchaikovsky). In *Transactions of Russian Academy of Science Samara Research Center*. Moscow: RAS, pp. 1224–27. (In Russian)

Ma, Xuanyi. 2023. Towards a Novel Approach for Real-Time Psycho-Physiological and Emotional Response Measurement: Findings from a Small-Scale Empirical Study on Sad Erhu Music. Ph.D. thesis, UCL (University College London), London, UK.

Maeder, Costantino, and Mark Reybrouck. 2015. *Music, Analysis, Experience: New Perspectives in Musical Semiotics*. Leuven: Leuven University Press.

Maes, Francis. 2024. Tchaikovsky, onegin, and the art of characterization. *Arts* 13: 82. [CrossRef]

Nekhaeva, Iraida. 2018. The modern measurement of Tchaikovsky (Definition experience of the "modernity" concept on example of the "Children's Album" by PI Tchaikovsky). *Tomsk State University Journal of Cultural Studies and Art History* 30: 146–47.

Park, Saebyul, Eunjin Choi, Jeounghoon Kim, and Juhan Nam. 2024. Mel2word: A text-based melody representation for symbolic music analysis. *Music & Science* 7: 20592043231216254.

Peshkin, Alan. 1988. In search of subjectivity—One's own. *Educational Researcher* 17: 17–21.

Prokofiev, Sergei. 1936. Interview to Gazeta Polska. Signed H.L., March 7. In *Prokofiev o Prokofieve (Prokofiev on Prokofiev: Articles and Interview)*. Edited by Viktor P. Varunts. Moscow: Sovetsky Kompozitor, 1991, pp. 135–36.

Pyshkin, Evgeny. 2022. (Un)like Schumann: Applying Cope's music signature pattern matching algorithms to Tchaikovsky's Children's Album. Paper presented at the 16th International Conference on Advanced Engineering Computing and Applications in Sciences ADVCOMP 2026, IARIA, Lisbon, Portugal, September 28–October 2; pp. 11–16

Pyshkin, Evgeny, and John Blake. 2024. Dispelling the seven myths of tchaikovsky's children's album through computational and language modeling. Paper presented at the Sempre MET2024 International Conference on Music-Education-Technology, SEMPRE, London, UK, June 14–15; pp. 29–31.

Pyshkin, Evgeny, and John Blake. 2025. "Lost in Translation"? Challenges in conveying the original titles of Tchaikovsky's Children's Album. *Terra Linguistica* 16: 99–111.

Sapir, Edward. 1929. The status of linguistics as a science. *Language* 5: 207–14. [CrossRef]

Schiavio, Andrea, Nikki Moran, Mihailo Antović, and Dylan van der Schyff. 2022. Grounding creativity in music perception? a multidisciplinary conceptual analysis. *Music & Science* 5: 20592043221122949.

Schumann, Robert. 1848. *43 Piano Pieces for the Youth. Op 68 (Orig. Title in German: 43 Clavierstücke für die Jugend)*. Hamburg: Schuberth and Co.

Shi, Zhengshan. 2021. *Computational Analysis and Modeling of Expressive Timing in Chopin's Mazurkas*. Montréal: ISMIR, pp. 650–56.

Tchaikovsky, Modeste. 2018. *The Life & Letters of Peter Ilich Tchaikovsky*. Frankfurt am Main: Outlook Verlag GmbH.

Tchaikovsky, Pyotr Ilyich. 1878a. *Children's Album, Op 39*. Lausanne: Jurgenson Peter.

Tchaikovsky, Pyotr Ilyich. 1878b. Letter to Nadezhda von Meck from Kamenka. Available online: http://en.tchaikovsky-research.net/pages/Letter_820 (accessed on 23 April 2025). (In Russian)

Tchaikovsky, Pyotr Ilyich. 1948. *Complete Works, Vol. 52: Piano Works*. Edited by Nikolai Drozdov. Leningrad: Muzyka. (In Russian)

Tchaikovsky, Pyotr Ilyich. 1993. *Children's Album for Piano. Facsimile*. Moscow and Vienna: Minex.

Tchaikovsky, Pyotr Ilyich. 2015. Tchaikovsky: Otkrytyi Mir. Detskiy Albom (Tchaikovsky: Open World. Children's Album. Available online: https://www.culture.ru/catalog/tchaikovsky/ru/item/archiv/detskiy-albom-24-legkih-pesy (accessed on 23 April 2025). (In Russian)

Thomas, Mathew, Mintu Jothish, Navin Thomas, Shashidhar G. Koolagudi, and Y. V. Srinivasa Murthy. 2016. Detection of similarity in music files using signal level analysis. Paper presented at the 2016 IEEE Region 10 Conference (TENCON), Singapore, November 22–25; pp. 1650–54.

Tolstoy, Leo. 1869. *War and Peace*. Translated by Rosemary Edmonds. Harmondsworth: Penguin.

Tomaszewski, Mieczysław. 2000. Nad analizą i interpretacją dzieła muzycznego. In *Myśli i Doświadczenia. w: Interpretacja Integralna dzieła Muzycznego. Rekonesans.* Kraków: Akademia Muzyczna, pp. 19–35.

Tomaszewski, Mieczyslaw. 2015. Reading a work of music from the perspective of integral interpretation. *New Perspectives in Musical Semiotics* 61: 356.
Whorf, Benjamin Lee. 1940. Science and linguistics. *Technology Review* 42: 229–31 & 247–48.
Wiley, Roland John. 2009. *Tchaikovsky*. Oxford: Oxford University Press.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.