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The Evolution of Nabokov's Poetic Style: a Stylochronometric Analysis of Attributive Patterns

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Abstract. The goal of this paper is to investigate attributive constructions in the poetry of Vladimir Nabokov. The material comprises Nabokov's lyric poetry, published by the author himself in collections representing all major creative periods. The focus is on one of the most significant aspects of his style: the set of attributive types and their relationships, which together form a potential system

Beyond categorizing different grammatical types of attributes (adjectives, participial phrases, subordinate clauses, etc.), we quantified more complex phenomena such as attribute inversion and polyfunctional attributes, which were likely subject to strong interference from English.

The analysis reveals two distinct tendencies of stylistic evolution in Nabokov's poetry. The first tendency is defined by the specific processes of divergence and declining inversion. While English-language influence accelerated these changes, it did not alter the essential course. The second tendency involves an oscillating dynamic in the use of polyfunctional attributes that persists throughout all phases of his creative work.

These findings demonstrate that Nabokov's poetic style evolved through gradual transformation rather than radical rupture. External factors such as country of residence and linguistic environment quantitatively modulated the pace and scope of changes but failed to precipitate qualitative shifts in his attribute (adnominal) system. **Keywords**: Quantitative analysis of style; Change over time; Attribute types; Poetic text; Nabokov

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Эволюция поэтического стиля Набокова: стилехронометрический анализ атрибутивных структур

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Аннотация. Предлагаемое исследование ставит целью изучить атрибутивную струкуру в поэзии Владимира Набокова. Материалом является стихотворная лирика Набокова, опубликованная самим автором в сборниках и отражающая его стиль во всех основных периодах творчества. В фокусе внимания находится один из важнейших аспектов его стиля – системы атрибутивных типов. Помимо различных грамматических типов атрибутов проведены подсчеты таких более сложных для восприятия явлений как инверсия атрибутов и полифункциональные атрибуты, которые должны были испытать сильную интерференцию со стороны английского языка.

Проведенный анализ показывает, что в стиле Набокова-поэта существовали две модели изменений. Первая проявляется в постепенном увеличении различий между сборниками по совокупности анализируемых параметров и в уменьшении частоты инверсии атрибутов.

Влияние со стороны английского языка ускорило происходящие изменения, однако не изменило их основной характер.

Вторая модель заключается в альтернирующей смене частот полифункциональных атрибутов, которая сохраняется на протяжении всей творческой деятельности Набокова.

Результаты показывают, что изменения в атрибутивной системе Набокова-поэта происходили не в форме резкого скачка, а путем эволюции, на направление и масштаб которой такие внешние факторы, как страна проживания и языковая среда имеют количественное, но не качественное влияние.

Ключевые слова: Квантитативный анализ стиля; Динамика; Типы атрибутов; Стихотворный текст; Набоков

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Introduction

Vladimir Nabokov's brilliant prose has long eclipsed his significant poetic output, though he began as a poet and sustained verse composition throughout his career – persisting in Russian poetry even after adopting English exclusively for prose. While scholars have thoroughly examined the evolution of his literary style in prose, particularly the transformative impact of his linguistic transition, the challenge of systematic quantitative analysis of stylistic evolution in his poetry has yet to be tackled.

The study of stylistic evolution in Vladimir Nabokov's works remains one of the most intensively researched aspects of his oeuvre. Investigations into the dynamics of his style examine shifts in core motifs and "émigré nostalgia", increasing narrative complexity, the emergence and refinement of readerly gamesmanship, evolving patterns of allusion and self-reflexivity, the growing prominence of intertextuality metafictional techniques (Johnson, 1979, 1991; Pier, 1992; Scherr, 1995, 2005; Loison-Charles, 2015; Boyd, 1999). A pivotal factor in Nabokov's stylistic transformation is often identified as his transition from Russian to English as a literary language - a shift temporally anchored to his 1940 emigration to America. In 1939, his poem "To Russia" famously declared Russian foundation of his being, yet by 1940, following his relocation to the U.S., he asserted his complete adoption of English and proclaimed himself an American writer (Nabokov, 1969, 1990).

The multifaceted nature of Nabokov's linguistic transition has been examined in numerous studies, including monographic works (Borisova and Daineko, 2023: Cornwell, 2005; Mullins, 2016/2017; Morris, 2005/06; Jottkandt, 2024; Loison-Charles, 2022; Raguet, 2017; Shvabrin, 2019). However, many scholars challenge periodization based exclusively on place of residence and linguistic environment. A. Dolinin (2004) argues that Nabokov's stylistic evolution began long before his American emigration, with significant shifts detectable as early as the late 1920s. M. Malikova (Malikova, 2002: 30) suggests that analogous changes took place in poetry in the mid-1930s. B. Boyd (1991: 70) contends that Nabokov's English novels remain fundamentally Russian in essence, preserving core stylistic and thematic continuities. V. Orlova (2016), through extensive textual analysis, demonstrates that Nabokov's linguistic style remained consistent despite the switch to English, suggesting deeper invariants beneath the surface of language choice.

It should be noted that, in this respect, studies on Nabokov's stylistic evolution have overwhelmingly focused on his prose, paying only marginal attention to his poetic works. This study seeks to address this gap by examining one key aspect of his stylistic transformation through the lens of his Russian-language poetry.

Though overshadowed by his globally celebrated prose, Nabokov's poetry - which both he and scholars acknowledge as the genesis of his creative journey - remains integral to understanding his evolution. Writing under the pseudonym Vladimir Sirin, Nabokov debuted as a poet and continued to compose and publish verse throughout his career. He himself emphasized the intrinsic connection between his poetry and prose, stating: "I have never been able to see any generic difference between poetry and artistic prose. As a matter of fact, I would be inclined to define a good poem of any length as a concentrate of good prose, with or without the addition of recurrent rhythm and rhyme" (Nabokov, 1990: 44).

Scholars further note that many images and themes fully realized in Nabokov's prose first emerged in Sirin's poetry (Dolinin, 2004: 31–34).

The first works of the young author appeared the collection *Poems*, published in Petrograd in 1916 when he was only 17 years old. These were followed in 1918 by new poems in the joint collection Two Ways with A.V. Balashov. The next stage of his literary career was the Berlin period (1922–1937), during which Nabokov not only wrote his first novels – Mary, The Luzhin Defense, The Gift, and others - but also published poetry collections: A Bunch (1923), The Empyrean Path (1923), and The Return of Chorb. Stories and Poems (1930). Subsequently, Nabokov continued writing and publishing poetry throughout his career. In 1952, he released and Poems, 1929–1951 several other collections incorporating from verse periodicals. The analysis demonstrates that Nabokov's poetic style exhibits its own complex and evolution of attributes, which remained a permanent and integral component of his artistic identity. Therefore, Nabokov's poetry must under no circumstances be underestimated or ignored in any comprehensive study of his creative life (Boyd, 1999; De Vries, 1991; Morris, 2010).

Research Materials and Features

This study examines poems from four collections (Nabokov, 2002) that represent the major phases of Nabokov's Russian-language poetic career: "Two Ways" (TW1, 1916) - the early Crimean period, "A Bunch" (BN, 1923) - the early Berlin period, "The Return of Chorb. Stories and Poems" (RT, 1930) - the late Berlin period and "Poems, 1929-1951" (PM, 1952) - the American period (Nabokov, 2002). Although PM was published after Nabokov's emigration to America, collection includes poems written Germany, England, and France prior to his relocation. For the final collection (PM), which spans both his late European and American periods, our analysis includes only those poems written after his move to the United States. The total volume of the analyzed material across the four collections amounts to 10,112 words (Two Ways - 768 words, A Bunch - 3,897 words, The Return of Chorb. Stories and Poems - 2,956 words, and *Poems*, 1929–1951 – 2,491 words).

For statistical analysis, we used the Statistica software package (v. 6.1, StatSoft).

The purpose of the study is to establish the character of the evolution of Nabokov's style in poetry. The primary hypothesis of this study is that Vladimir Nabokov's stylistic evolution was not a sudden rupture caused by his emigration to America, but the culmination of a prolonged and intensifying developmental process that began much earlier in his career.

To investigate Nabokov's stylistic idiosyncrasies, we analyze descriptive

patterns –specifically, the types of attributes he employs. This focus is justified by the unique syntactic behavior of modifiers: unlike predicate structures, attributive constructions are independent of verbal valency. They are syntactically (and often semantically) optional and their usage reflects authorial choice rather than grammatical necessity. Consequently, attribute selection serves as a key stylistic marker, revealing an author's descriptive preferences with minimal interference from syntactic constraints (Andreev et al., 2017b).

The use of adnominals (attributive modifiers) in poetic style has been explored in numerous studies, examining aspects such as the distribution of attribute types within texts, diachronic shifts in attributive patterns, crossauthor comparisons of modification structures, latent trends in attribute frequency, the interplay of different attribute types across textual segments and other related issues (Khokhlova, 2021; Andreev et al., 2017a; Andreev et al., 2017b; Andreev et al., 2018; Popescu et al., 2013; Popescu et al., 2007; Gu, 2025, etc.).

It should be noted that Nabokov himself regarded attributes as a crucial element of poetry. In his (negative) assessment of his first poetry collection, published in 1916, he specifically criticized his own use of modifiers: "I did not venture far for epithets in those days" (Nabokov, 2000).

This study combines stylochronometry and quantitative linguistics to trace syntactic evolution in Nabokov's Russian poetry. Using a corpus of four collections (1916-1952), we quantify attributive patterns (including inversion and polyfunctional modifiers) via frequency analysis, Euclidean distance, and exponential modeling. The application of quantitative analysis to stylistic research enables objective measurement of attribute frequencies across different periods Nabokov's poetic career. Specific methodological requirements and limitations are detailed in their respective sections.

The taxonomy of attributes is based on the part-of-speech characteristics of words

¹ In brackets the abbreviated name of the collection and the year of publication are given.

occupying the syntactic position of a modifier. Depending on additional linguistic criteria, this framework can be expanded (through finer subcategorization) or shortened (analyzed at a higher level of feature generalization).

The initial list of attributive types (AT) found in the analyzed poems includes the following categories. Each entry provides: Abbreviation, Attributive type, Definition, Examples from Nabokov's works (with translation in parentheses).

Abbr.	Type	Definition	Examples			
A	Adjective	Descriptive modifier agreeing with the noun in gender, number, and case	"в приморском городке" (a seaside town); "железный улей" (iron hive); "чужими людьми" (alien people)			
D	Pronominal adjective	Pronoun functioning as ar adjective	«этим трепетом» (this tremor); «мой августовский день» (ту August day)			
G	Genitive	Noun in genitive case modifying another noun	«тень <i>руки</i> » (shadow of a <i>hand</i>); «гвозди <i>звезд</i> » (nails of stars)			
PR	Prepositional phrase	Modifier introduced by a preposition	«свиданье $no\partial$ тем $\kappa aumanom$ » (a date $under$ that chestnut $tree$)			
PT	Participle	Verbal adjective	«синеющую мглу» (haze turning blue)			
SC	Subordinate clause	Relative (adjective) clause	«часы, что лежат здесь» (the clock that is here); «слова, что в будущем найдет воспоминанье» (words that memory will find)			
AV	Adverbial	Adverb modifying a noun (rare)	«здравствуй, счастье впереди!» (Hello, happiness ahead!)			
AP	Appositive	Noun phrase renaming another noun	«ангел дикий, полупавлинье существо» (a wild angel, a half-peacock creature)			
OBL	Oblique-case noun	Noun in oblique case (non-genitive) without a preposition	«конец веселью» (end to merriment); «радость голубям» (joy to the pigeons)			
rare an	d was excluded from	roved exceptionally m separate analysis.	in BN – 993 (25.48%), in RT – 644 (22.35%), and in the PM collection their count was 509 (20.43%). Overall, the number of attributes			
ı	Results and Discus	SIOH	remains approximately consistent throughout			

The analysis of attributes in the poems from four collections, conducted manually, allowed us to determine their frequency of

In the TW collection, the total number of attributes was 169 (22.01% of all words),

the author's works, averaging about 1 attribute per 5 words.

Table 1 presents the frequencies of the main types of attributes across all collections. Since the poems vary significantly in length, relative frequencies (calculated per 100 words) will be used henceforth, unless otherwise specified. This means that absolute

values are divided by the total number of words in the work and multiplied by 100.

Table 1. Frequencies of Attribute Types across the Four Collections

Таблица 1. Частоты типов атрибутов в четырех сборниках

AT	TW	BN	RT	PM
A	13.54	14.16	11.21	8.03
D	2.47	3.36	3.30	3.61
G	2.47	3.62	2.85	3.45
PR	0.91	1.62	1.11	2.85
PT	1.82	1.85	2.57	0.92
SC	0.52	0.38	0.80	0.68
AV	0.13	0.05	0.03	0.16
AP	0.13	0.44	0.28	0.68

Judging by the table, it can be noted that there are certain changes in attribute frequencies from one collection to another. For instance, attribute A appears with a frequency of 11.21 in the RT collection but only 8.03 in PM. Attribute PR is relatively rare in TW (0.91), while in other collections, particularly in PM (2.85), it occurs more frequently. A chi-square test of independence, performed on the absolute frequency counts, revealed a statistically significant difference in the distribution of attribute types across the four collections, $\chi^2(21, N = 2472) = 110.21$, p < 0.001. Post-hoc pairwise comparisons showed that while the distributions between the first two collections (TW and BN) did not

differ significantly, all subsequent consecutive pairs (BN-RCH and RCH-POEMS) exhibited significant differences (p < 0.05 and p < 0.001, respectively).

To assess the degree of variation in the frequencies of AT across collections, the coefficient of variation was used, which is expressed as:

$$V = \frac{\sigma}{M} \times 100\%,$$

where σ is the standard deviation and M is the arithmetic mean.

The results of applying this coefficient are presented in Table 2.

Table 2. Coefficients of variation for various attribute types **Таблица 2.** Коэффициенты вариации для различных типов атрибутов

A	D	G	PR	PT	SC	AV	AP
23.7	15.5	17.2	53.7	37.6	30.4	64.5	61.9

There are various approaches to interpreting the magnitude of the coefficient, which appear to largely depend on the subject of analysis (Reed et al., 2002; Warner, 2008, p.100-104). However, in any case, a value of V < 20% can be considered an indicator of

low variability, while V < 33% suggests moderate variation.

Judging by Table 2 data, the variability in attribute frequencies across different collections proves relatively minor. The most stable patterns emerge in pronouns and genitives, which maintain remarkably consistent frequency.

Similarly low variation characterizes A and, quite unexpectedly, SC, an infrequent attribute that typically shows greater variability in other writers' works.

The frequencies of extremely rare attributes such as PR, AV, and AP show more significant variation from one collection to another. However, even for these, the coefficient of variation is not as high as might be expected.

The author's stylistic preferences for attribute types demonstrate exceptional stability over time, revealing an attributive system of striking uniformity. A noteworthy observation: when excluding the final "American" collection, variability diminishes for A, PR, PT and AP, while increasing for other ATs (Table 3).

The data in Table 2 indicate that the author's core attributive system is highly stable. While the rarest attributes (PR, PT, AV, AP) understandably show greater dispersion, their degree of variation (37-65%) is not as extreme as is commonly found in linguistic corpora for features of such low frequency. This suggests an underlying uniformity in the author's stylistic choices, even with regard to optional elements.

Table 3. Variability of attribute types excluding the final collection **Таблица 3.** Вариативность типов атрибутов без учета последнего сборника

A	D	G	PR	PT	SC	AV	AP
12.0	16.3	19.6	30.0	20.3	37.1	70.8	54.4

To more clearly determine the degree of similarity (or difference) between attributive patterns in the four collections, we can employ Euclidean distance, calculated using the formula:

$$d(p,q) = \sqrt{\sum_{i=1}^{n} (q_i - p_i)^2}$$
,

where p and q represent the attributive patterns being compared, p_i and q_i are the frequencies of specific attributes in collections p and q. This metric provides a quantitative measure of stylistic divergence, with smaller values indicating greater similarity in attribute usage across collections.

The Euclidean distance metric requires variables measured in comparable units. In this study, we analyze different types of the same parameter (attributive constructions), all of which vary within highly similar ranges. Frequencies of attributive types (AT) across collections are taken from Table 3.

The step-by-step computation process is illustrated in Table 4:

- 1. **Pairwise Differences**: For each AT type, we calculate frequency differences between collection pairs (e.g., TW vs. BN; Columns 2-4).
- 2. **Squared Differences**: These values are squared to eliminate directionality (Columns 5-7, upper section).
- 3. **Aggregation**: The squared differences are summed for each collection pair (Columns 5-7, lower section).
- 4. **Distance Metric**: The square root of each sum yields the Euclidean distance between collections in the multidimensional feature space (Columns 5-7, lower section).

Table 4. Measuring Euclidean across between collections within the attribute type feature space **Таблица 4.** Измерение Евклидова расстояния между сборниками в признаковом пространстве типов атрибутов

		$x_i - y_i$		$(x_i-y_i)^2$			
	TW-BN	BN-RT	RT-PM	TW-BN	BN-RT	RT-PM	
1	2	3	4	5	6	7	
A	-0.62	2.96	3.18	0.39	8.75	10.10	
D	-0.89	0.07	-0.32	0.79	0.00	0.10	
G	-1.14	0.77	-0.61	1.31	0.60	0.37	
PR	-0.71	0.51	-1.74	0.50	0.26	3.03	
PT	-0.02	-0.72	1.64	0.00	0.52	2.70	
SC	0.14	-0.41	0.12	0.02	0.17	0.01	
AV	0.08	0.02	-0.13	0.01	0.00	0.02	
AP	-0.31	0.16	-0.40	0.09	0.03	0.16	
S	um of square	ed differenc	3.10	10.32	16.50		
	Distance (s	quare root)		1.76	3.21	4.06	

The distance between the first two collections (TW and BN) is the smallest observed, indicating their high degree of similarity. The scale of divergence increases significantly between BN and RT, reaching its maximum between RT and PM. Notably, the distance between the "American" collection (PM) and the "Crimean" collection (TW) is even greater (6.13).

To capture the distribution patterns of AT, we employed an exponential function plus one, as proposed in several studies (Mistečký & Altmann, 2019; Kelih, 2024):

$$y = 1 + a * e^{-b*x}$$

where a and b – parameters.

The coefficient a represents magnitude of the most frequent feature. Of greater analytical interest is coefficient b, individualized which serves as an characteristic reflecting the steepness of decline between high-frequency and lowfrequency units. The goodness-of-fit is evaluated using the r^2 coefficient, where values approaching 1 indicate stronger correspondence between modeled predictions and empirical observations.

The distribution of attributive types frequencies, ranked in descending order, was fitted using the aforementioned function. The fitting results are presented in Table 5.

Table 5. Fitting an exponential function plus one to the distribution of attributive types **Таблица 5.** Аппроксимация распределения атрибутивных типов с помощью экспоненциальной функции плюс один

	TW			BN			RT			PM	
AT	Obs	Exp	AT	Obs	Exp	AT	Obs	Exp	AT	Obs	Exp
A	13.54	13.51	A	14.16	14.03	A	11.21	11.05	A	8.03	7.85
D	2.47	2.88	G	3.62	4.53	D	3.30	4.17	D	3.61	4.45
G	2.47	1.28	D	3.36	1.96	G	2.85	2.00	G	3.45	2.74
PT	1.82	1.04	PT	1.85	1.26	PT	2.57	1.32	PR	2.85	1.88
PR	0.91	1.01	PR	1.62	1.07	PR	1.11	1.10	PT	0.92	1.44
SC	0.52	1.00	AP	0.44	1.02	SC	0.80	1.03	SC	0.68	1.22
AV	0.13	1.00	SC	0.38	1.01	AP	0.28	1.01	AP	0.68	1.11
AP	0.13	1.00	AV	0.05	1.00	AV	0.03	1.00	AV	0.16	1.06
	$r^2 = 0.97$	•		$r^2 = 0.97$	1	$r^2 = 0.95$		$r^2 = 0.92$			
	a = 83.14	_		a = 48.15	i	a =31.85		a =13.59			
	b = 1.89			b = 1.31			b = 1.15			b = 0.69	

Figures 1-4 visually present the fitted curves (exponential function +1) approximating the frequency distributions of attributive types in each poetry collection.

The r^2 values range from 0.92 to 0.96 across collections (see Table 5), indicating excellent goodness-of-fit for this function.

Figures 1-4. Graphical representation of fitting frequency distribution of attributive types. Solid lines show fitted exponential curves, dots represent observed frequencies

Рисунки 1-4. Графическое изображение аппроксимации распределения частот атрибутивных типов. Сплошные линии – графики экспоненциальных функций, точки – наблюдаемые частоты

Figure 1. TW **Рисунок 1.** Два пути

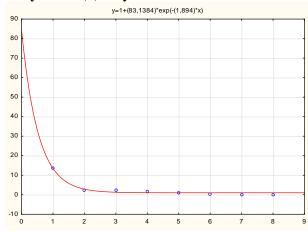


Figure 2. BN Рисунок 2. Гроздь

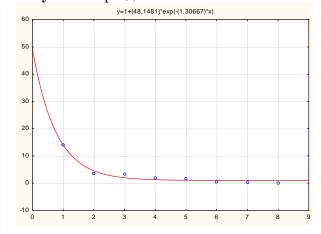
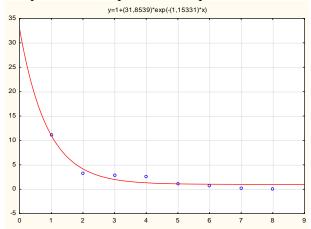


Figure 3. RT **Рисунок 3.** Возвращение Чорба



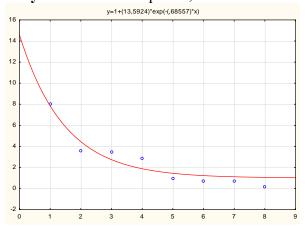
As shown in Table 5, parameter b (the function's decay rate) exhibits cross-collection variability and demonstrates a consistent downward trend. The lowest value occurs in PM (Figure 4), with gradual decline between initial collections and a marked drop by PM. Consistent with previous patterns, we observe gradual progression across all collections, with notably accelerated divergence in the American corpus.

Attribute Inversion

The attributive system contains a special aspect closely tied to authors' individual characteristics – inversion. Along with enjambment, syntactic inversion serves as a primary method for modifying text structure and shifting the informational focus of utterances through deviation from syntactic canons (Chen, 2003). This syntactic device is unique in its capacity to alter text structure by departing from canonical word order.

While Russian permits considerable word order flexibility, empirical studies reveal systematic constraints on attributenoun positioning Deviations from these patterns, perceptible to native readers as inversion, acquire stylistic salience 2012). The markedness (Gasparov, inverted structures creates a double stylistic effect: high frequency establishes

Figure 4. PM **Рисунок 4.** Стихотворения, 1929–1951



idiosyncratic pattern, while low predictability enhances foregrounding (Chen, 2003; Shen, 2007).

In this study, we classify the following cases (examples drawn from the collections) as inversion:

Adjective in postposition (A-R), i.e., following the modified noun:

"платочком машет *изумрудным*" (Waves a handkerchief *emerald*); "особенный привкус *анисовый*" (a distinctive aftertaste *aniseed*).

Determiner in postposition (D-R):

"He согрешу пред музою *твоей*" (I will not sin before muse thine); "на престолах *своих* матерых" (*upon grizzled thrones *their*).

Genitive in preposition (G-L):

"вокзалов призраки" (*of stations ghosts); "сонных *мыслей* и *умыслов* сводня" (of drowsy *thoughts* and *schemes* a bawd".

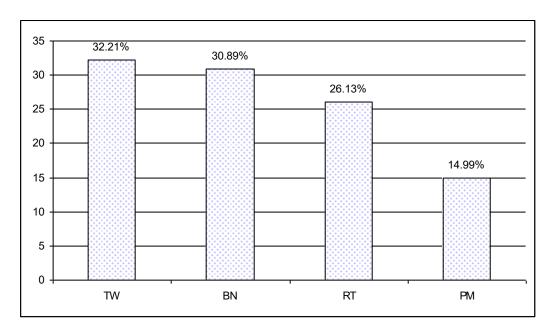
Prepositional phrase in preposition (PR-L):

"в балканской новелле влиянье" (*in the Balkan tale an influence).

Quantitative analysis yielded data on the frequency of inverted attributes. Figure 5 illustrates the percentage of inverted constructions relative to all attribute types in the texts.

Figure 5. Histogram showing the distribution of inverted ATs as a percentage of total attributive type

Рисунок 5. Гистограмма распределения инвертированных атрибутов в процентах от общего числа атрибутов



First and foremost, what stands out is the gradual decline in inversion frequency across successive collections. A particularly sharp drop occurs in the "American" collection, where inversion rates are more than twice as low compared to the first and second collections (the Crimean and early Berlin periods). That said, the late Berlin period remains closer to its early phase (26.13% in RT and 30.89% in BN) than to the American period, which records only 15% inversions. The distribution of inversions by individual attribute types is shown in Table 6.

Table 6. Proportion of inverted attribute types (expressed as percentages relative to all attributes in the collection)

Таблица 6. Доля инвертированных атрибутивных типов в процентах к общему числу атрибутов в данном сборнике

Collections	Types of Inverted Attributes (%)						
Conections	A-R	D-R	G-L	PR-L			
TW	26.17	2.01	3.36	0.67			
BN	24.13	4.51	1.47	0.79			
RT	20.49	4.14	1.13	0.38			
PM	11.63	2.68	0.45	0.22			

All AT types except PM exhibit a significant decrease in inversion frequency within the final ("American") collection. Gasparov's (2012) research established that

adjective inversion in attributive position occurs at a rate of 25-26% in canonical Russian poetry. While the TW and BN collections align with these norms, the latter

two diverge significantly, with PM dropping below the boundary of this range.

Analysis of adjectival attributes distribution reveals progressive strengthening of canonical adjective positioning across collections, evidenced by the growing ratio of non-inverted to inverted forms:

- TW: 1.7 : 1 ratio (indicating **a** relative balance with a slight preference for canonical position).
- BN: 1.6 : 1 ratio (near-identical distribution, maintaining the balance).
- RT: 2: 1 ratio (marking an emerging normative preference for the canonical structure).
- PM: 2.8 : 1 ratio (demonstrating a strong canonical bias).

This demonstrates a 64.7% increase in standard word order preference from TW to PM.

The pronounced reduction of inversions in the American collection may manifest Nabokov's stylistic shift toward English-influenced syntactic norms. This trajectory culminates in his English verse (e.g., *Pale Fire*), where inversion frequency drops to merely 3% of attributive constructions (predominantly adjective inversions). These quantitative patterns position inversion as a sensitive metric for cross-linguistic poetic adaptation, as evidenced by comparative analysis of Keats' *The Eve of St. Agnes* and its

Там в доме *с радужной* **верандою**, С **березой** *у дверей*, в халате старом проваландаю остаток **жизни** *сей*.

("The Pilgrim")

The prepositional phrase "с верандою" (with a veranda) modifies "дом" (house), while is modified itself by the adjective "радужной" (rainbow-colored). Similarly, "с березой" (with a birch) modifies "дом" (house), its own modifier being another prepositional phrase "у дверей" (by the doors). The genitive "жизни" (of life) modifies "остаток" (remainder), being

Russian translations. In their Russian translations of this poem, S. Sukharev, E. Vitkovsky and T. Klado meticulously preserve most of the original's syntactic features, yet their use of inversion differs significantly:

Keats's original: 9.5% A inversions

Translations: Vitkovsky: 19% Klado: 23% Sukharev: 27%

The systematic growth of inversion frequencies in translation – despite otherwise faithful syntactic preservation – underscores Russian poetic conventions' gravitational pull.

Attributes with dual syntactic roles

The attributive system's evolution in our study further involves "polyfunctional" attributes — substantive units serving dual modifier-modified roles — performing modification while retaining nominal properties and thus revealing new dimensions of stylistic change (an alternative approach to polyfunctionality is given in Wang et al. (2021).

The following excerpt contains three instances of syntactic embedding (a cascade of attributive relationships), marked in bold. Definitions referring to these polyfunctional attributes are indicated in italics:

There in the house with a *rainbow-colored* veranda, with a birch *at the doors*, in an old robe will idly spend the remainder of *this* life.

modified by the demonstrative pronoun "сей" (this).

The use of polyfunctional attributes introduces significant descriptive complexity by adding multidimensional layers to syntactic and semantic relations. This layering of syntactic functions contributes to the textural density of Nabokov's verse, allowing compact semantic packing while maintaining

grammatical coherence. The aforementioned phrase "ряды лиловых кирпичей" (The rows of purple bricks) creates a semantic cascade: the bricks' purple hue implicitly colors the entire row structure, demonstrating how syntax mirrors perceptual layering.

Nabokov's works exhibit distinct categories of polyfunctional attributes, which operate simultaneously as both modifiers and modified elements within nominal constructions. Primary types include:

Genitive (G-PF): Сохнут чинно ряды лиловых кирпичей (The rows of purple bricks dry demurely). The noun "bricks" (G-PF) modifies the word "rows", and at the same time is modified by the adjective "лиловых" (purple). A similar example is "шум тихой родины моей" (the sound of ту quiet homeland), in which "родины" регforms two functions: "шум — родины" (the sound of homeland") — Modifier, and

"родины — тихой + моей" (homeland - quiet + my) - Head.

Prepositional phrase (**PR-PF**): И женщина *у круглого фонтана* (*And a woman beside the circular fountain*). "У фонтана" – attribute (**PR** – prepositional phrase), is modified by the adjective "круглый" (circular).

Apposition (AP-PF): Мы будем спать, минутные **поэты**. (We'll sleep, we poets of the minute). The noun "поэты" (poets) functions as an appositive to the pronoun "мы", while being modified by the attributive "минутные" (of the minute) — a syntactic doubling that merges identification and qualification.

The quantitative analysis of these polyfunctional attributes yielded the results presented in Table 7 with corresponding graphic representation in Figure 6. Frequencies were normalized relative to the total number of nominal attributive types.

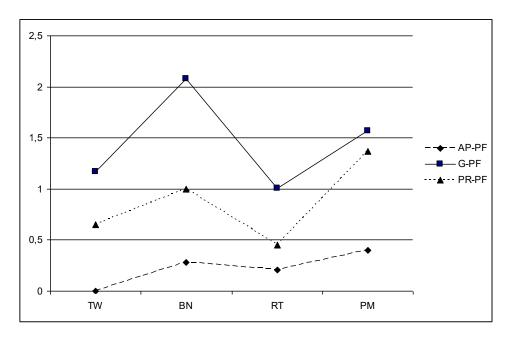
Table 7. Frequency distribution of polyfunctional attributes **Таблица 7.** Распределение частот полифункциональных атрибутов

Сборник	AP-PF	G-PF	PR-PF	TOTAL	Relative to the total number of nominal attributive types (%)
TW	0	1.17	0.65	1.82	51.85
BN	0.28	2.08	1.00	3.36	59.28
RT	0.21	1.01	0.45	1.67	37.50
PM	0.40	1.57	1.36	3.33	48.28

As evidenced by the dataset, polyfunctional unit distribution follows an alternating pattern: frequency increases from

Collection 1 to Collection 2, declines in Collection 3, and rises again in Collection 4.

Figure 6. Distribution of polyfunctional AT frequencies across four collections **Рисунок 6.** Распределение полифункциональных атрибутивных типов в четырех сборниках



Structural complexity peaks in the final collection while remaining equally pronounced in BN (marking the onset of the 'Berlin period'). Following this phase, the author deliberately attenuates such complexity, only to later revisit the experimental approach characteristic of the first Berlin-period collection.

Discussion

The quantitative analysis of attributive patterns reveals a complex picture of stylistic evolution in Nabokov's poetry, characterized by both stability and gradual change. Our findings demonstrate that while the core inventory of attribute types remained remarkably stable, their configuration and the use of specific stylistic devices like inversion underwent significant transformation.

These findings align with Dolinin's (2004) observations regarding Nabokov's prose, where changes in the composition of his novels became noticeable by 1929, prior to his American emigration. This parallel suggests the existence of a deep stylistic shift affecting Nabokov's poetry, which began in the late Berlin period rather than being triggered solely by his geographic and

linguistic transition. The pronounced reduction of inversions, commencing in the late Berlin collection (RT) and intensifying dramatically in the American collection (PM), supports this hypothesis. This trend likely reflects a confluence of two factors: the longterm internal evolution of Nabokov's style toward a more canonical syntactic structure and the accelerating influence of English linguistic norms after his emigration. The fact that the decline began before 1940 indicates that the emigration acted as a catalyst for an existing process rather than its sole cause.

The oscillating dynamics observed in the use of polyfunctional attributes further corroborate the notion of Nabokov's style as a dynamic system. The peak of complexity in the early Berlin collection (BN), followed by a decline and a subsequent resurgence in the American period (PM). Thus, the evolution of Nabokov's poetic style emerges not as a series of abrupt ruptures but as a continuous process of adaptation and recalibration. External factors like country of residence and environment quantitatively linguistic modulated the pace and scope of these changes.

Conclusion

This study has undertaken a quantitative analysis of attributive patterns across four collections of Vladimir Nabokov's Russianlanguage poetry, spanning his major creative periods.

The structure of attributive types in Nabokov's poetry demonstrates a high degree of stability in the frequency of individual attribute types (AT), indicating a consistent structural framework throughout his career.

Multivariate analysis, however, reveals gradual stylistic divergence. While the early collections (TW and BN) are highly similar, a process of differentiation begins in the late Berlin period (RT) and culminates in a very different profile of the American collection (PM).

The analysis of inversion shows a progressive decline that began in the late Berlin period and sharpened dramatically in the American collection.

The distribution of polyfunctional attributes exhibits a non-linear, oscillating pattern, suggesting a complex process of compensatory adaptation within the author's stylistic system.

Nabokov's stylistic evolution in poetry resulted from a prolonged and intensifying internal developmental process rather than an abrupt transformation caused by emigration. While his transition to an Englishlanguage environment accelerated certain preexisting trends, it did not alter their fundamental trajectory. The poet's attributive avoided radical restructuring. exhibiting instead a pattern of gradual evolution.

The prospects for further research include a cross-genre analysis of attributive constructions in Nabokov's prose and poetry, a contrastive analysis of his Russian and English-language poetic systems, and a comparative study with other poets who influenced his work.

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