

Cognitive-narrative strategy of feminisation in Bonnie Garmus's novel *Lessons in Chemistry* and its Ukrainian translation

Serhii Omelchuk^a, Alla Tsapiv^a, Olena Stavenko^{a, *}

^a *Kherson State University, Ukraine*

Received October 5, 2025; Revised October 21, 2025; Accepted November 8, 2025

Abstract. Feminist narratives represent compelling and intellectually provocative forms of literary expression that address sensitive and urgent societal issues. This study examines the conceptual, narrative, and linguistic properties of feminist narratives and their Ukrainian translations, focusing on Bonnie Garmus's novel, *Lessons in Chemistry*. The novel exemplifies contemporary feminist literature by exploring the intersection of gender, professional identity, and societal expectations through both personal and collective women's experiences. Using a multi-layered analytical framework that integrates conceptual, narrative, lexical-semantic, and translation analyses, this research investigates the strategic construction of feminist narratives and reveals cognitive and narrative modeling within the strategy of feminisation in the original text and its Ukrainian translation. The analysis emphasizes key narrative elements such as the narrator and focaliser and their cognitive foundations. The results show close relationships among author, narrator, main character, and focaliser in feminist narratives, which are overtly feminist, as the story is presented with profound support for and understanding of the female protagonist's position. In *Lessons in Chemistry*, the strategy of feminisation shapes the narrative and is realized at conceptual, narrative, and lexical levels through cognitive and narrative tools including conceptual metaphor, plot, narrator, focalisation, character, and lexical and stylistic means. This approach presupposes "herstory" as the foundation underpinning the plot, while the conceptual metaphor WOMEN'S LIFE IS A GLASS CEILING permeates the narrative structure. In the Ukrainian translation, the feminisation strategy is also evident through the systematic use of feminitives.

Keywords: cognitive-narrative strategy, feminisation, female narrator, focaliser, conceptual metaphor, feminitives.

Омельчук Сергій, Цапів Алла, Ставенко Олена. Когнітивно-нарративна стратегія фемінізації в романі Бонні Гармус «Уроки хімії» та його українському перекладі.

Анотація. Феміністичні наративи становлять неабиякий науковий інтерес як переконливі й інтелектуально провокаційні форми літературного вираження, що

* Corresponding author. Olena Stavenko,  0000-0003-0857-3359,  ostavenko@ksu.ks.ua

© Omelchuk, Serhii; Tsapiv, Alla; Stavenko, Olena, 2025. This is an Open Access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 International Licence (<http://creativecommons.org/licenses/by/4.0>).

East European Journal of Psycholinguistics, 12(2), 294–308, <https://doi.org/10.29038/ome>

відображають чутливі й актуальні суспільні питання. Це дослідження присвячено розкриттю концептуальних, наративних і лінгвістичних особливостей феміністичних наративів та їхніх українських перекладів, що висвітлено на прикладі роману Бонні Гармус «Уроки хімії». Роман є прикладом сучасного феміністичного художнього наративу, що апелює до питань гендеру, професійної ідентичності та суспільних очікувань крізь призму особистого й колективного жіночого досвіду. Ця наукова розвідка ґрунтується на багаторівневій аналітичній структурі, що інтегрує концептуальний, наративний, лексико-семантичний та перекладацький аналіз для дослідження стратегічної будови феміністичного наративу й виявлення когнітивного й наративного моделювання в межах стратегії фемінізації в оригінальному тексті та його українському перекладі. Фокусом уваги є фундаментальні наративні елементи, зокрема наратор і фокалізатор, та їхня когнітивна основа. Результати показують, що феміністичні наративи мають тісні зв'язки між автором, наратором, головним персонажем і фокалізатором, який у таких наративах є відверто феміністичним, оскільки історія подається читачеві з глибокою підтримкою та розумінням позиції головної героїні. У романі «Уроки хімії» Бонні Гармус наративна стратегія фемінізації формує наратив, що відображає певну позицію, і реалізується на концептуальному, наративному й лексичному рівнях через низку когнітивних та наративних інструментів: концептуальну метафору, сюжет, наратора, фокалізацію, персонажів, лексичні та стилістичні засоби. Ця стратегія передбачає, що «її-історія» лежить в основі сюжету роману, а концептуальна метафора ЖІНОЧЕ ЖИТТЯ – ЦЕ СКЛЯНА СТЕЛЯ пронизує всю його наративну структуру. В українському перекладі роману стратегія фемінізації реалізується також через системне використання фемінітивів.

Ключові слова: когнітивно-нاراتивна стратегія, фемінізація, жіночий наратор, фокалізатор, концептуальна метафора, фемінітиви.

Introduction

Gender studies have been of top interest for many linguists, sociologists, writers, as “*herstory*” is never-ending and its significance can hardly be overestimated (Fludernik, 1999; Lanser, 1986). The “waves or generations” of female narrative formation have passed their way through the ages. Suffragettes, women’s rights abolitionists, writers, scholars, academics, politicians, and activists have done a lot to make the voice of a woman strong and widespread (Dworkin, 1974; Guest, 2016). Nowadays *fairy tales* (Favilli, 2020; Favilli & Cavallo, 2016, 2017; Harrison, 2017), *autobiographies and memoirs* (Obama, 2021; Harris, 2019)), *novels* (Atwood, 1996, 2020)), as well as *public speeches and interviews* (Obama, 2016; Winfrey, 2018), tend to motivate women to be released from the artificial bondages and make steps towards the recognition of their intellect and creativity. Women’s narratives are shaped through the personal experience and memories of women who dared to make their own way in science, business, culture, politics and many other spheres (Bojko, 2021; Martynyuk, 2021). Giving women voices, providing them freedom

to uncover their experience, and prioritising a female point of view have become a core concept of feminist research (Thorne et al., 1983; Thorne & Henley, 1975). The focus shifts to feminist narrative studies (Herman et al., 2010, pp. 245–246) and feminist stylistics (Mills, 1995) provide tools to research how gender issues are encoded linguistically, as well as non-verbally and in the multimodal perspective (Burke, 2017, pp. 346–347).

Gender studies have a broad approach to understanding the concept of gender as a socio-cultural construct which accumulates beliefs, expectations, opinions and views about females and males both in society and language (Butler, 1990, 1993). Female studies tend to prioritise woman's role, reveal the obstacles and prejudices, make "her" voice be heard and realised (Lanser, 1986; Page, 2006). Feminist narratives have gained much attention within literature and language studies (Czarnowska et al., 2021; Kostruba, 2021; Lanser, 1986, 2013; Woodiwiss et al., 2017; Zasiakin & Zasiakina, 2016). Narratology has also made a great contribution by giving its tools to concentrate on female characters, female writers, female narrators, as well as on female narratives which cover these aspects (Page, 2006).

Contemporary women's narratives have emerged as particularly compelling and intellectually provocative forms of literary expression, addressing sensitive and urgent societal issues. The significance of women's voices in contemporary discourse was constantly underscored (Cameron, 1985, 2007; Holmes & Meyerhoff, 2003; Lakoff, 1975, 1990).

The literary landscape has been significantly enriched by authors such as Bonnie Garmus, who transitioned from her career as a copywriter and creative director in the United States to become a novelist at the age of 65. Her debut novel achieved remarkable commercial success, being translated into 42 languages and maintaining prominent positions on prestigious literary rankings, including *The New York Times* and *The Sunday Times* bestseller lists, for two consecutive years. The work has achieved sales exceeding seven million copies worldwide.

Feminist narratology encompasses the gender identity of the text's author and numerous other factors, such as cultural and ideological dimensions, which significantly influence narrative construction. This particularly concerns the specificity of female and male discourse (Lakoff, 1975). The notions of femininity and masculinity are embodied in fictional characters who serve as gender models for readers. This approach underpins our investigation of how the feminisation strategy is realised in fictional narratives and which linguistic tools are employed for its implementation.

In Ukrainian translations, a notable tendency emerges whereby translators overtly harness the expressive potential of the Ukrainian language to

foreground women's agency and autonomy. Consequently, this research addresses two primary objectives: examining how the feminisation strategy is realised in the source narratives and exploring its manifestation in Ukrainian translations.

Methods

In order to reveal the means of realising the strategy of feminisation in feminist narrative, we conduct the research within the framework of narrative analysis theory (Fludernik, 2002, 2009; Genette, 1980; Prince, 2012; Ryan, 1991; Toolan, 2001), comprising its core elements: narrator and focaliser (Genette, 1980; Herman et al., 2010). The theoretical foundation integrates gender and feminist narrative studies (Glazer & Gurney, 1979; Lakoff, 1975; Lanser, 1986; Woodiwiss et al., 2017) and the realisation of the category of gender in linguistics (Kostruba, 2021; Martynyuk, 2004; Zasiékina et al., 2019). The achievements of translation studies (Karaban, 2004; Kolomiyets, 2017; Zasiékin & Zasiékina, 2016) enable us to reveal the Ukrainian language mechanisms which enhance the feminisation strategy at the lexical-semantic level.

It is argued that the narrative "Lessons in Chemistry" by Bonnie Garmus is shaped by the cognitive-narrative strategy of feminisation. Narrative strategy (Case, 1999; Warhol, 1989) is claimed to cover a set of narrative and linguistic tools: story, narrator, focaliser (Genette, 1980), character, lexical and stylistic means, configuration of narrative situations (Stanzel, 1971) to achieve a certain goal. All these tools serve to shape a narrative which reflects a certain position – a woman's voice should be heard.

The strategy of feminisation presupposes *herstory* as the foundation underpinning the plot: a story of a woman who navigates creating both a family and a career, faces obstacles in being recognised as a scientist, and proves her strength despite societal stereotypes.

The focaliser in this narrative is overt, feminist, as the story is presented to the reader with profound support for and understanding of the female protagonist's position. The focaliser articulates a female perspective on societal discrimination against women aspiring to scientific careers. This focalisation can be reconstructed through examination of the relationship between the feminist focaliser and the construction of "*herstory*" – Elizabeth's narrative.

On the lexical and semantic levels, the strategy is realised in feminist contexts, gender-marked lexical units which reflect the senses of female discrimination and stereotypes of society. In some contexts, it is shaped via oppositions female position::male position, female position::societal stereotypes.

We distinguish conceptual, narrative and lexical levels at which the strategy of feminisation is realised. This research employs a multi-layered analytical framework integrating conceptual, narrative, lexical-semantic, and translation analysis methodologies to examine the strategic construction of a feminist narrative.

The methodological background encompasses several analytical techniques. First, linguistic techniques within gender studies are employed for identifying gender-marked contexts and gender-marked nominative units (Cameron, 1985; Martynyuk, 2004; Mills, 1995; Page, 2006). Second, conceptual analysis is applied to reconstruct conceptual metaphors (Bieliekhova, 2002; Kövescses, 2010; G. Lakoff & Johnson, 1980; Semino, 2008) that serve as the foundation for narrative creation and unfold throughout the text, providing its core feminist framework (Chrzanowska-Kluczewska, 2013). Third, narrative analysis is utilised to reveal key narrative strategies, encompassing the construction of the narrative, including the selection of story content, narrator and focalisation patterns (Bal, 2017; Booth, 1983; Herman, 2009), and the choice of linguistic tools that constitute its language level. Finally, translation analysis is employed to identify the mechanisms of the Ukrainian language, with particular focus on the usage and creation of feminitives, which expand the expressive capacities of Ukrainian and its mechanisms for realising the core narrative strategy (Karaban, 2004; Simon, 1996; Venuti, 1995, 2000).

The strategy of feminisation operates according to a three-tiered model. At the **conceptual level**, it is represented by the conceptual metaphor WOMEN'S LIFE IS A GLASS CEILING. Within the narrative text, this metaphor acquires the properties of a megametaphor (Chrzanowska-Kluczewska, 2013), as it extends to the tacit layer of textual semantics. In this context, it conveys gender stereotypes, ideological assumptions, cultural norms, and hidden critique. It permeates the entire narrative structure, influences lexical choices and focalisation, and serves as the foundational framework for storytelling. The megametaphor operates as an element of the narrative-forming strategy, as it is systematically deployed throughout the fictional narrative, particularly in gender-marked contexts that constitute the core framework for shaping *herstory*.

At the **narrative level**, the feminisation strategy is realised through three primary mechanisms: a *herstory* plot structure, a female narrator, and a feminist focaliser. These narrative devices work in concert to privilege female experience and perspective throughout the text.

At the **lexical-semantic level**, the strategy manifests through feminist contexts that expose societal gender stereotypes, articulate the tension between women's aspirations and social constraints, and foreground the conflict between female agency and patriarchal scepticism.

In the Ukrainian translation, the feminisation strategy is amplified through systematic deployment of feminines, which saturate the text with explicitly gendered feminine markers, thereby exploiting the grammatical resources of the Ukrainian language to enhance the visibility of female subjects and experience.

Results

A scientific “boom” within gender studies has enhanced the emergence of nominative units that conceptually reflect the inequality existing in society toward women. One such unit is the “*glass ceiling*”, which became a real motto, a metaphor which symbolises an invisible obstacle that appears non-existent to society but represents real barriers that women must confront (Amaechi, 2018). This term appeared in 1978 during a panel discussion at the Women’s Exposition in New York. Its author, Marilyn Loden, used it to describe invisible barriers which women face on their way to leadership, promotion, and career ladder (Vargas, 2018). Though these difficulties are invisible to the broader public, they are obvious and urgent for women attempting to advance their careers in politics, science, and business.

At the conceptual level, the conceptual metaphor WOMEN’S LIFE IS A GLASS CEILING (Lakoff & Johnson, 1980) unfolds throughout the entire narrative and serves as the text-shaping core. On the textual and stylistic levels, the metaphor *women’s life is a glass ceiling* refers to the **megatrop**e (Chrzanowska-Kluczevska, 2013), which belongs to the tacit layer of the text’s semantics. It possesses a capacity to operate as large figures, text/discourse-forming strategies (Chrzanowska-Kluczevska, 2013, p. 23). The story of a woman-scientist who faces male dominance and abuse, stereotypes of the society considering women’s roles, scepticism of male colleagues and imposition of male opinion.

On the lexical level, the concept of GLASS CEILING obstacles is realised through the nominative unit *scientist and chemist* in the context of its opposition woman-scientist::societal stereotypes, which is gender-neutral in the original text but acquires gendered implications within the context:

- (1) “The lab tech, noting her growing dissatisfaction, asked her **why she wanted to be a scientist anyway**. ‘**I don’t want to be a scientist**,’ she snapped. ‘**I am a scientist!**’” (Garmus, 2022, p. 27).

Both obstacles, invisible to society, and entrenched gender stereotypes are implemented in the aforementioned context. The prejudice and disbelief that a

woman can be a legitimate scientist, as demonstrated in the lab technician's words, exemplifies gender inequality.

In the novel as well as in the above-mentioned context, the megametaphor *glass ceiling* unfolds in a number of gender-marked contexts, which is reflected at the lexical level in nominative units and word combinations in terms of opposition woman-scientist-societal stereotypes (2):

- (2) a. "Oh, I see,' she said. 'But surely, women had the same opportunities elsewhere, correct? So how **many women scientists do you know?** Do not say Madame Curie.'" (Garmus, 2022, p. 31);
- b. "**I'm a scientist**, Calvin, **remember?** I knew." (Garmus, 2022, p. 44);
- c. "'The best part was,' she said wistfully, 'he knew about me, too.' 'Knew you were –'
'**A scientist!**' Elizabeth snapped." (Garmus, 2022, p. 44);
- d. "A **freelance scientist**. I've never heard of such a thing. **How does that work?**" (Garmus, 2022, p. 136);
- e. "Dr. Meyers, Dr. Donatti – very important **chemists** – were quoted in Life magazine as having said she wasn't really **a scientist**." (Garmus, 2022, p. 359).

Elizabeth struggles against stereotypes (3), emphasising that men and women must have equal opportunities for professional growth, decision-making, and achievements:

- (3) a. "'A **mother** and a **scientist**,' she said, brushing sawdust off her sleeve. 'You're a father, aren't you? A **father** and a **scientist**.'" (Garmus, 2022, p. 126);
- b. "'I'm a **scientist**,' Elizabeth said." (Garmus, 2022, p. 150);
- c. "'I'm a **scientist**,' she snapped." (Garmus, 2022, p. 201);
- d. "She tucked a few stray hairs behind her ears. 'But **I am a scientist**,' she argued. '**It's who I am**.'" (Garmus, 2022, p. 214).

The Ukrainian translation (4b, 5b, 6b) facilitates the manifestation of the feminist context, which is actualised and encoded through gender-marked nominative units: "науковиця", "науковиці", "жінки-науковиці", for example:

- (4) a. "'I'm not going to marry,' Elizabeth told her. 'I'm going to be a scientist. Successful **women scientists** don't marry.'" (Garmus, 2022, p. 57);
- b. "Я не збираюся виходити заміж, – запевнила її Елізабет. – Займатимуся наукою. А успішні **науковиці** не мають чоловіків." (Garmus, 2024, p. 59);
- (5) a. "'When you were at Cambridge,' she said carefully, placing her hands back on the table, 'how many **women scientists** did you know?'" (Garmus, 2022, p. 31);
- b. "Коли ви вчилися в Кембриджі, – обережно почала вона, поклавши руки на стіл, – скільки там було **жінок, що займалися наукою**." (Garmus, 2024, p. 33);
- (6) a. "I had no idea there were other **women scientists** – besides you and Curie, I mean." (Garmus, 2022, p. 347);
- b. "Навіть гадки не мала, що, крім тебе і Кюрі, є інші **жінки, які займаються наукою**." (Garmus, 2024, p. 356).

The main character, Elizabeth Zott, is a chemist working at the Hastings Research Institute. In her first encounter with Calvin Evans, a talented scientist, he assumes she is a secretary without knowing her background or considering that she might be anything other than secretarial staff. Stereotypically, young women in serious institutions occupy service-oriented positions more frequently than scientifically important ones.

The following exchange (7) illustrates the manifestation of gender bias through linguistic assumptions:

- (7) “Maybe I’d better speak **with a chemist** down there. You tell your boss to call me.’ He turned back to his work, flipping the hi-fi back on as he did. Elizabeth didn’t move. ‘You want to speak **to a chemist?** Someone **other than ME?**’ she yelled over Frank. ‘Yes,’ he answered. And then he softened slightly. ‘Look, I know it’s not your fault, but they shouldn’t send a **secretary** up here to do their dirty work. Now I know this might be **hard for you to understand, but I’m in the middle of something important.** Please. Just tell your boss to call me.” (Garmus, 2022, p. 18)

In this excerpt, both job titles, “*chemist*” and “*secretary*”, are explicitly gender neutral. The context enables the inference that “*chemist*” is believed to be a male job, while “*secretary*” is considered a female position. Stereotypes are implicitly realised in the text, as the meaning can be reconstructed with the help of context. Explicitly a male character of Calvin Evans and a female character of Elizabeth Zott are the embodiments of the stereotypes. Such patterns reflect societal expectations regarding gender-appropriate professional domains.

The following tendencies in creating gender-marked contexts in Ukrainian translation have been revealed:

The main character of the novel, Elizabeth Zott, is a young chemist whose achievements are often not recognised properly. Her academic status is emphasised by means of adding the suffix *-уня* to the stem of the word in the Ukrainian translation (8b, 9b, 10 b). It creates a necessary gender-marked unit and facilitates a woman’s voice in the scientific world, promoting gender equality. At the same time, in its original English version (8a, 9a, 10a), a gender-neutral nominative unit “*chemist*” is used:

- (8) a. “I’m a **chemist**. Not a **woman chemist**. A **chemist**. A damn good one!” (Garmus, 2022, p. 181);
b. “Я – **хімікуня**. Не **жінка-хімік**. А **хімікуня**. І, чорт забирай, непогана!” (Garmus, 2024, p. 182);
- (9) a. “But I’m not an entertainer. I’m a **chemist**.” (Garmus, 2022, p. 207);
b. “Але я не артистка. Я – **хімікуня**.” (Garmus, 2024, p. 209);
- (10) a. “I’m not really a TV cooking show host. I’m a **chemist**.” (Garmus, 2022, p. 324);
b. “...я не просто ведуча кулінарного шоу на телебаченні. Передусім я **хімікуня**.” (Garmus, 2024, p. 331);

In the narrative “Lessons in Chemistry”, a female narrator explicitly supports Elizabeth’s scientific background (11), at the same time leaving space for other characters to encourage her scientific ambitions (12, 13):

- (11) a. “**She** was a **chemist**, not a TV cook.” (Garmus, 2022, p. 13);
- (12) a. “I know you’re a **chemist**, Miss Zott, but surely you expected this. Surely you’ve studied biology.” (Garmus, 2022, p. 113);
- (13) a. “Here’s an interesting twist, Phil. Did I tell you that Mrs. Zott can cook? I mean, really cook. She’s an actual **chemist**.” (Garmus, 2022, p. 204).

The narrator prioritises Elizabeth’s profession – she is a chemist – in order to highlight and support her professional and intellectual abilities. Through a number of gender-marked expressions, the narrator’s storytelling emphasises her right to be a scientist and a chemist, and to be recognised as such by others.

Discussion

In the Ukrainian translation, the strategy of feminisation is realised in gender-marked contexts and is established at the lexical level through the addition of gender-specific endings. The majority of feminine nouns in the Ukrainian translation (38 instances) denoting women according to profession, activity type, social and familial relationships, religious, philosophical and political affiliations, behavioural patterns and lifestyle, as well as physical and mental characteristics, are formed through suffixation with *-ка / -ки* (plural forms) to masculine noun stems: *секретарка* (39 instances), *вчителька* (15), *домогосподарка* (15), *глядачка/-ки* (14), *бібліотекарка* (12), *друкарка* (6), *лаборантка* (5), *реєстраторка* (5), *сусідка* (4), *атеїстка* (3), *пацієнтка* (3), *перукарка* (3), *артистка* (2), *докторка* (2), *кухарка* (2), *(фронтowa) лікарка* (2), *незнайомка* (2), *авторка* (2), *акторка*, *асистентка*, *вегетаріанка*, *веселунка*, *вихователька*, *гуманістка*, *діячка (громадська діячка)*, *докторка наук*, *католичка*, *комуністка*, *крадійка сніданків*, *маккартистка*, *організаторка масових акцій*, *покоївка*, *рекордсменка*, *родичка*, *студентка*, *телеглядачки*, *товстунка*, *тугодумка*.

The challenges inherent in translating from English into Ukrainian arise from multiple linguistic factors, including divergences in conceptual frameworks, polysemy, lexical gaps in the target language, and distinctive patterns of word formation (Karaban, 2004, p. 275). Translation from a gender-neutral language (English) into a grammatically gendered language (Ukrainian) presents particular difficulties in rendering gender categories, as contemporary Ukrainian systematically employs feminines across various

semantic categories when referring to women, whereas English applies a neutralisation strategy.

In Garmus's (2022), English-language narrative the implementation of gender neutralisation is clearly evident in lexical items denoting professions and human activities. Such terms as *scientist(s)* in Ukrainian “науковець, науковиця (науковці, науковиці)”, *chemist(s)* “хімік, хімікиня (хіміки)”, *lab tech* “лаборант, лаборантка”, *librarian* “бібліотекар, бібліотекарка”, *viewers* “глядачі, глядачки”, *neighbor* “сусід, сусідка”, *patient(s)* “пацієнт, пацієнтка (пацієнтки)”, *rower(s)* “веслувальник, веслувальниця (веслувальники)”, *doctor (Dr.)* “доктор, докторка”, *cook(s)* “кухар, кухарка”, *psychologist* “психолог, психологиня”, *student(s)* “студент, студентка (студенти)” are employed in the text when referring to both men and women, without distinguishing either gender. In translating these lexical items, translator Iryna Shahova employs a strategy of selecting variant equivalents – either feminines or unmarked masculine forms – depending on the context.

In the Ukrainian text of the novel (Garmus, 2024), the majority of feminines (74 in total) are formed contextually during translation. This is determined by the presence in individual sentences or textual fragments of feminine pronouns *she, her*, female names, titles with surnames such as *Miss, Mrs.* (for example, *Miss Zott, Miss Parker, Miss Frask, Mrs. Mudford, Mrs. Sloane, Mrs. Pine, Mrs. Fillis/ Mrs. George Fillis*), and gender-marked nouns with semantic meaning denoting female referents, for example *woman/women, girl, wife, girlfriend, mother, daughter, granddaughter, aunt*, among others.

Specifically, in the case of the lexical items *scientist, scientists* (55 instances), gender-marked equivalents “науковиця/науковиці” and “науковець/науковці” are distributed nearly equally in translation. The feminines “науковиця/науковиці” occur in 18 cases.

The translation of the *scientist* using the feminine “науковиця” is contextually and linguistically conditioned. In 15 cases, it refers to the novel's protagonist Elizabeth Zott (Garmus, 2024), in 3 cases, it refers to other women in science, designated by the gender-marked adjective-noun phrase *women scientists*, translated into Ukrainian with the plural feminine “науковиці” (Garmus, 2024, pp. 33, 59, 349).

The lexical items *scientist/scientists* are rendered as “науковець” in 12 instances (Garmus, 2024) in reference to Calvin, Dr. Donatti, or other male scientists, and as “науковці” in 11 instances (Garmus, 2024) with respect to male scientists specifically or to scientists generically (both men and women in science).

Significantly, when translating the plural form *scientists*, the masculine form “науковці” predominates, thereby conveying the dominance of men in

this field and representing gender stereotyping characteristic of the historical period depicted in the Ukrainian translation of the novel.

Similarly, the lexical item *chemist(s)*, which appears 40 times in the novel, is translated into Ukrainian as “хімік”, “хіміку”, and “хімікуня”. In translating the plural noun *chemists* (Garmus, 2022, pp. 21, 174, 177, 328), the translator employed the masculine dictionary equivalent “хіміку”, since the textual fragments referred specifically to male chemists (Garmus, 2024, pp. 175, 178, 335), contextual substitution using the lexeme “колеги” (Garmus, 2024, p. 22), as well as lexical omission to avoid repetition (Garmus, 2024, p. 367). The term is translated with the feminine “хімікуня” in 15 cases when referring to the novel’s protagonist or conveying her words or thoughts about herself.

Below we present selected results of the quantitative assessment of nominative units denoting female professions and their Ukrainian equivalents rendered as feminines (Table 1).

Table 1

Quantitative Assessment of Nominative Units Representing Female Professions and Their Ukrainian Equivalents (Feminines)

| Gender neutral nominative units in the original text | Instances | Feminines in the Ukrainian translation | Instances |
|---|------------------|---|------------------|
| secretary | 39 | секретарка | 39 |
| scientist | 18 | науковиця | 20 |
| housewife | 10 | домогосподарка | 15 |
| housemaker | 5 | | |
| chemist | 14 | хімікуня | 15 |
| librarian | 14 | бібліотекарка | 12 |
| teacher | 13 | Вчителька | 15 |
| typist | 6 | друкарка | 6 |
| lab tech | 5 | лаборантка | 5 |
| heart surgeon | 3 | кардіохірургиня | 3 |
| research chemist | 3 | дослідниця в галузі хімії | 3 |

Such feminines amplify women’s voices and function as linguistic instruments for implementing the strategy of feminisation. All these linguistic decisions in translation enhance the strategy of feminisation, proving the linguistic Sapir-Whorf Hypothesis (Whorf, 2012) that language shapes our thoughts and world perception.

Conclusions

The research has provided a deeper insight into the cognitive-narrative strategy of *feminisation*, which is considered to be a core strategy to design the narrative *Lessons in Chemistry* by Bonnie Garmus. The research has established that it presupposes creating *her-story* of life: a female main character, an overt female narrator and a feminist focaliser. The feminist perception of the story has become crucial for uncovering stereotypes, prejudice and obstacles which the society creates for women. Moreover, it enables to uncover the sceptical attitude towards women in science, those women who conduct research, scientific discovery and make a big impact on the development of science.

The study has proved conclusively that the realisation of the cognitive-narrative strategy of *feminisation* in translation on the lexical level by means of using feminitives is designed to enhance gender consciousness and facilitate linguistic transformation through systematic reorganisation of textual elements to amplify female voices within fictional narratives. Gender-marked linguistic units function as catalysts for heightening awareness of women's roles at both conceptual and narrative levels. Nominative units, which encompass both semantic and gender-specific meanings, constitute powerful instruments for constructing feminine meaning systems.

Conceptual and narrative analysis facilitated the identification of core narrative strategies operating at both conceptual and textual levels. This approach enabled the examination of how abstract conceptual structures manifest in narrative form and shape the overall storytelling framework.

Translation analysis identified and examined gender-marked nominal units, which in the context of this research are designated as feminitives. This approach illuminates the translational strategies employed to render gender distinctions from a gender-neutral source language into a grammatically gendered target language.

Disclosure Statement

The authors reported no potential conflicts of interest.

References

- Amaechi, E. C. (2018). The future of women in leadership, breaking the glass ceiling: A global perspective. In B. Thakkar (Ed.), *The future of leadership* (pp. 145–167). Palgrave Macmillan. https://doi.org/10.1007/978-3-319-73870-3_6
- Bal, M. (2017). *Narratology: Introduction to the theory of narrative*. University of Toronto Press.

- Bieliekhova, L. (2002). *Slovesnyi poetychnyi obraz v istoryko-typolohichnii perspektyvi: Linhvokohnityvnyi aspekt (na materialy amerykanskoj poezii)* [Verbal poetic image in a historical-typological perspective: Linguocognitive aspect (based on American poetry)]. Ailant.
- Bojko, M. (2021). Editorial: Understanding women's lives and trauma through narrative research and analysis. *East European Journal of Psycholinguistics*, 8(1), 8–11. <https://doi.org/10.29038/eejpl.2021.8.1.boj>
- Booth, W. C. (1983). *The rhetoric of fiction (2nd ed.)*. University of Chicago Press.
- Burke, M. (2017). *The Routledge handbook of stylistics*. Taylor & Francis. <https://doi.org/10.4324/9781315795331>
- Butler, J. (1990). *Gender trouble: Feminism and the subversion of identity*. Routledge.
- Butler, J. (1993). *Bodies that matter: On the discursive limits of 'sex'*. Routledge.
- Cameron, D. (1985). *Feminism and linguistic theory*. Macmillan Press.
- Cameron, D. (2007). *The myths of Mars and Venus: Do men and women really speak different languages?* Oxford University Press.
- Case, A. A. (1999). *Plotting women: Gender and narration in the eighteenth- and nineteenth-century British novel*. University Press of Virginia.
- Chrzanowska-Kluczevska, E. (2013). *Much more than metaphor: Master tropes of artistic language and imagination*. Peter Lang Edition.
- Czarnowska, P., Vyas, Y., & Shah, K. (2021). Quantifying social biases in NLP: A generalization and empirical comparison of extrinsic fairness metrics. *Transactions of the Association for Computational Linguistics*, 9, 1249–1267.
- Dworkin, A. (1974). *Woman hating*. Plume.
- Fludernik, M. (1999). *Defining (in)sanity: The narrator of The Yellow Wallpaper and the question of unreliability; for F.K. Stanzel on his seventy-fifth birthday*. Narr.
- Fludernik, M. (2002). *Towards a 'natural' narratology*. Taylor & Francis.
- Fludernik, M. (2009). *An introduction to narratology*. Taylor & Francis.
- Genette, G. (1980). *Narrative discourse: An essay in method*. Cornell University Press.
- Glazer, J. I., & Gurney, W. I. (1979). *Introduction to children's literature*. McGraw-Hill.
- Guest, C. (2016). *Becoming feminist: Narratives and memories*. Macmillan.
- Hellinger, M., & Bussman, H. (2001). *Gender across languages: The linguistic representation of women and men* (Vol. 1). John Benjamins Publishing Company.
- Herman, D. (2009). *Basic elements of narrative*. Wiley.
- Herman, D., Jahn, M., & Ryan, M.-L. (2010). *Routledge encyclopedia of narrative theory*. Routledge Taylor & Francis Group.
- Herman, L., & Vervaeck, B. (2019). *Handbook of narrative analysis*. University of Nebraska Press.
- Holmes, J., & Meyerhoff, M. (2003). *The handbook of language and gender*. Blackwell Publishing. <https://doi.org/10.1002/9780470756942>
- Karaban, V. (2004). *Pereklad anhliiskoi naukovoï i tekhnichnoi literatury: Hramatychni trudnoshchi, leksychni, terminolohichni ta zhanrovo-stylistychni problemy* [Translation of English scientific and technical literature. Grammatical difficulties, lexical, terminological and genre-stylistic problems]. Nova Knyha.
- Kolomiyets, L. (2017). Identifying shifts in the allusiveness of a source text through post-Soviet translation as deconstruction of the target-language audience's Soviet identity. In I. Hostová (Ed.), *Identity and translation trouble*. Cambridge Scholars Publishing.

- Kostruba, N. (2021). Social restrictions in the COVID-19 pandemic as a traumatic experience: Psycholinguistic markers. *East European Journal of Psycholinguistics*, 8(1), 28–40. <https://doi.org/10.29038/eejpl.2021.8.1.kos>
- Kövescses, Z. (2010). *Metaphor: A practical introduction*. Oxford University Press. <https://doi.org/10.7764/onomazein.61.12>
- Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. University of Chicago Press.
- Lakoff, R. (1975). *Language and woman's place*. Harper & Row.
- Lakoff, R. (1990). *Talking power: The politics of language in our lives*. Basic Books.
- Lanser, S. (1986). Toward a feminist narratology. *Style*, 20(3), 341–363.
- Lanser, S. (2013). *Gender and narrative: The living handbook of narratology*. <https://www-archiv.fdm.uni-hamburg.de/lhn/node/86.html>
- Martynyuk, A. (2004). *Konstruiuvannia henderu v anhlomovnomu dyskursi* [The construction of gender in English-language discourse]. Konstanta.
- Martynyuk, A. (2021). Transition trauma metaphor in transgender narrative. *East European Journal of Psycholinguistics*, 8(1), 70–82. <https://doi.org/10.29038/eejpl.2021.8.1.mar>
- Mills, S. (1995). *Feminist stylistics*. Routledge.
- Page, R. (2006). *Literary and linguistic approaches to feminist narratology*. Palgrave Macmillan. <https://doi.org/10.1057/9780230286665>
- Prince, G. (2012). *Narratology: The form and functioning of narrative*. De Gruyter.
- Ryan, M.-L. (1991). *Possible worlds, artificial intelligence, and narrative theory*. Indiana University Press.
- Semino, E. (2008). *Metaphor in discourse*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511816802.015>
- Simon, S. (1996). *Gender in translation: Cultural identity and the politics of transmission*. Routledge.
- Stanzel, F. K. (1971). *Narrative situations in the novel: Tom Jones, Moby-Dick, The Ambassadors, Ulysses*. Indiana University Press.
- Thorne, B., & Henley, N. (Eds.). (1975). *Language and sex: Difference and dominance*. Newbury House.
- Thorne, B., Kramarae, C., & Henley, N. (Eds.). (1983). *Language, gender, and society*. Newbury House.
- Toolan, M. (2001). *Narrative: A critical linguistic introduction* (2nd ed.). Routledge.
- Vargas, T. (2018, March 1). She coined the term 'glass ceiling.' She fears it will outlive her. *The Washington Post*. <https://www.washingtonpost.com/news/retropolis/wp/2018/03/01/she-coined-the-phrase-glass-ceiling-she-didnt-expect-it-to-outlive-her/>
- Venuti, L. (1995). *The translator's invisibility: A history of translation*. Routledge.
- Venuti, L. (Ed.). (2000). *The translation studies reader*. Psychology Press.
- Warhol, R. (1989). *Gendered interventions: Narrative discourse in the Victorian novel*. Rutgers University Press.
- Whorf, B. L. (2012). *Language, thought, and reality: Selected writings of Benjamin Lee Whorf*. MIT Press.
- Woodiwiss, J., Smith, K., & Lockwood, K. (2017). *Feminist narrative research: Opportunities and challenges*. Palgrave Macmillan. <https://doi.org/10.1057/978-1-137-48568-7>
- Zasiekin, S., & Zasiekina, D. (2016). Henderna kohnityvna ta povedinkova asymetriia v perekhadi [Gender cognitive and behavioral asymmetry in translating]. *East European Journal of Psycholinguistics*, 3(2), 121–131. <https://doi.org/10.29038/eejpl.2016.3.2.zas>

Zasiekina, L., Kennison, S., Zasiakin, S., & Khvorost, K. (2019). Psycholinguistic markers of autobiographical and traumatic memory. *East European Journal of Psycholinguistics*, 6(2), 119–133. <https://doi.org/10.29038/eejpl.2019.6.2.zas>

Sources

- Atwood, M. (1996). *The Handmaid's Tale*. Penguin Random House UK.
- Atwood, M. (2020). *The Testaments*. Vintage.
- Favilli, E. (2020). *Good Night Stories for Rebel Girls: 100 Immigrant Women Who Changed the World* (Vol. 3). Rebel Girls.
- Favilli, E., & Cavallo, F. (2016). *Good Night Stories for Rebel Girls: 100 Tales of Extraordinary Women* (Vol. 1). Particular Books.
- Favilli, E., & Cavallo, F. (2017). *Good Night Stories for Rebel Girls* (Vol. 2). Rebel Girls. <https://www.rebelgirls.com/products/good-night-stories-for-rebel-girls-volume-2>
- Garmus, B. (2022). *Lessons in Chemistry*. Knopf Doubleday Publishing Group.
- Garmus, B. (2024). *Uroky Khimii [Lessons in Chemistry]*. KSD.
- Gilbert, E. (2017). *City of Girls*. Riverhead.
- Harris, K. (2019). *The Truths We Hold: An American Journey*. Penguin Press.
- Harrison, V. (2017). *Little Leaders: Bold Women in Black History*. Little, Brown Books for Young Readers. <https://www.vashtiharrison.com/little-leaders>
- Obama, M. (2016, July 25). *Remarks by the First Lady at the Democratic National Convention*. Whitehouse.Gov. <https://obamawhitehouse.archives.gov/the-press-office/2016/07/25/remarks-first-lady-democratic-national-convention>
- Obama, M. (2021). *Becoming*. Penguin Books.
- Winfrey, O. (2018, January 8). *Oprah Winfrey: Full transcript of Golden Globes 2018 speech*. <https://www.bbc.com/news/entertainment-arts-42600486>