Cwynar, Andrzej; Porzak, Robert; Nowak, Paweł; Cwynar, Magdalena

Article

Gender and spoken language use in consumer finance

Financial Internet Quarterly

Provided in Cooperation with:
University of Information Technology and Management, Rzeszów

Suggested Citation: Cwynar, Andrzej; Porzak, Robert; Nowak, Paweł; Cwynar, Magdalena (2025) : Gender and spoken language use in consumer finance, Financial Internet Quarterly, ISSN 2719-3454, Sciendo, Warsaw, Vol. 21, Iss. 2, pp. 19-32, https://doi.org/10.2478/fiqf-2025-0009

This Version is available at:
https://hdl.handle.net/10419/329900

sciendo

Financial Internet Quarterly 2025, vol. 21 / no. 2, p. 19-32

10.2478/fiqf-2025-0009

Financial Internet Quarterly

GENDER AND SPOKEN LANGUAGE USE IN CONSUMER FINANCE

Andrzej Cwynar[1], Robert Porzak[2], Paweł Nowak[3], Magdalena Cwynar[4]

Abstract

Finance is still stereotypically perceived as a male domain, and social group divisions have linguistic consequences. This study examines whether language use in consumer finance exhibits gendered characteristics by identifying linguistic patterns used by non-expert women and men in this domain. To this end, we analyzed a corpus of spoken language collected through focus group interviews with 36 consumers of both genders, representing a full socio-demographic cross-section. The linguistic analysis was conducted using the Quanteda package in R, as well as tools from generative grammar, textology, ethnolinguistics, and cognitive linguistics. Additionally, respondents' statements were categorized into speech acts: assertions, directives, commissives, expressives, and constatives. Our findings indicate that while gender differences in language use are subtle, they are nonetheless distinct. Women's language tends to be more colloquial, descriptive, relational, figurative, and experience-oriented, often carrying greater emotional load. In contrast, men's language is more professional (or stylized as such), argumentative, factual, and informational, emphasizing a sense of expertise, agency, and self-efficacy. These findings contribute to a deeper understanding of gendered communication patterns in financial discourse.

JEL classification: G5, J16, Z13

Keywords: Consumer Finance, Language, Gender, Polish

Received: 10.02.2025 Accepted: 17.04.2025

Cite this:

Cwynar, A., Porzak, R., Nowak, P. & Cwynar, M. (2025). Gender and spoken language use in consumer finance. Financial Internet Quarterly 21(2), pp. 19-32.

[1] WSEI University, Institute of Public Administration and Business, Lublin, Poland, e-mail: andrzej.cwynar@wsei.pl, ORCID: https://orcid.org/0000-0003-2702-0397.

[2] WSEI University, Institute of Psychology and Human Sciences, Lublin, Poland, e-mail: robert.porzak@wsei.pl, ORCID: https://orcid.org/0000-0002-1263-1315.

[3] Maria Curie-Sklodowska University, Institute of Social Communication and Media Sciences, Lublin, Poland, e-mail: pawel.nowak@mail.umcs.pl, ORCID: https://orcid.org/0000-0001-8267-1198.

[4] Roskilde University, International Bachelor of Social Sciences Student, Roskilde, Denmark, ORCID: https://orcid.org/0009-0008-7431-6469.

Introduction

Linguistic, sociological, and discourse studies show that women's language differs from men's in both speech and writing (Meier et al., 2020; Newman et al., 2008; Park et al., 2016; Piersoul & Van de Velde, 2023), although these differences are not large (Plug et al., 2021). For instance, male linguistic production is interpersonally colder and more hostile, characterized by more references to object properties and impersonal topics, while female linguistic production is characterized by more references to psychological and sociological processes, interpersonally warmer, complimentary, and polite. However, there is a lack of research on the interaction between gender and language in specific domains which have their own linguistic specificities. Consumer finance is such a domain. The few studies devoted to the relation between gender and language in this field suggest that the language used in the domain of finance is gendered (Ben-Shmuel et al., 2024) with a clear prevalence of masculinization, manifested in the use of metaphors that refer to male conceptual domains (competition, warfare, physical activity, etc.) (Boggio et al., 2015).

On a meta-level, the use of language with which only one gender identifies is at odds with the pursuit of equal treatment, expressed, among other things, in efforts to make languages more gender-neutral or gender-fair (Lenhart & Heckel, 2025; Lindqvist et al., 2019; Szczesny et al., 2016; Vergoossen et al., 2020). At the level of consumer finance research, the fact that domain-specific language resonates with only one gender may account for the gender gap in financial literacy to the disadvantage of women, which is very well documented in literature (Bucher-Koenen et al., 2017; Cupák et al., 2021; Cwynar et al., 2019; Fonseca et al., 2012; Ooi, 2020; Potrich et al., 2024; Preston & Wright, 2024). The social and economic implications of identifying possible interactions between gender and the language used in the domain of finance could therefore be significant.

These potential benefits prompted us to study what and how non-expert women and men say when they talk about finances. To this end, we conducted focus interviews with six groups of six consumers each. During these interviews, we talked about the full spectrum of financial issues that ordinary consumers face: earning and spending money, saving, investing, retirement planning, borrowing and managing debt, insurance, and seeking financial information. Our goal, which is also the purpose of this article, was to identify and assess the language used by women and that used by men in the domain of finance - if such a distinction is warranted. Hence, the research question that guided this study is the following: Does the spoken language of women differ from that of men in the domain of consumer finance?

Our study contributes to two strands of literature. First, we add to the literature on gender differences in language use by identifying differences between women and men in the domain of finance. Our key contribution, however, is to the literature on consumer finance, as this is the first study to identify gender differences in language use in this field with a corpus of spoken language obtained through interviews with ordinary consumers representing a full socio-demographic cross-section.

The gender differences in language use known from linguistics, psychology, and communication studies, described at the level of discourse macrostructures, and communicative textology, are general. However, in spontaneous speech - including focus group discussions, despite their structured nature and moderator influence - formal, semantic, and pragmatic differences between women's and men's speech become more pronounced than in other linguistic corpora (e.g., obtained from surveys, social media posts, journalistic materials, or academic texts). Unlike in written sources, where authors can refine their messages before publication, focus group participants deliver their statements spontaneously, without prior revision. This distinction makes both our analysis and its conclusions unique in studying the impact of gender on financial communication and discourse on financial concepts and instruments.

Literature review

The well-verified gender similarities hypothesis, proposed by Hyde (2005), states that males and females are similar on most, but not all, psychological variables, and gender differences are only small or trivial in size and most differences occur in adulthood or are caused by context. Essentially, the gender similarities hypothesis is also confirmed for communication. Meta-analysis conducted by Leaper and Ayers (2007) shows that the verbal behavior of men and women is generally quite similar, and situational factors are significant, including methodological moderators caused by the study's assumptions.

However, there is some empirical evidence that women tend to use more affiliative speech, while men are more likely to use assertive speech (Leaper & Ayers, 2007). Women's language is warmer, more sympathetic, and polite (Thomson et al., 2001), whereas men's language is colder, more hostile, and less personal (Park et al., 2016). Women also use more words related to psychological and social processes, while men focus more on object properties and impersonal topics, though their overall word count is similar (Newman et al., 2008). Notably, gender differences in adolescent communication impact school achievement (Reilly et al., 2019), suggesting that differences in men's and

women's communication about personal finance may also influence financial test results and, ultimately, financial outcomes.

Gender differences in communication can stem from cultural influences or physiological differences between the sexes. The biological hypothesis is supported by neuropsychological research, which shows that while women are better at recognizing and expressing emotions, men respond more strongly to threats, often with dominant or aggressive reactions differences likely rooted in biology and evolution (Kret & de Gelder, 2012).

The social hypothesis is backed by developmental studies. For example, exposure to spatial language in early childhood influences later gender differences in spatial speech. Research found that differences in children's use of dimensional adjectives (e.g., big, small) at 34–46 months were fully mediated by parental use of spatial language at 14–26 months; before this stage, no gender differences were observed (Pruden & Levine, 2017). Additionally, gender differences in language processing are considered a factor in girls' arithmetic advantage at ages 8-11 (Wei et al., 2012).

Bui (2021) provides a review of theories that can serve as an adequate framework for empirical investigation of the relationship between gender and language in general. However, domain-specific interactions between gender and language use in the domain of finance is a new research topic. As such, it does not have a well-established theoretical basis. Despite this lack, we believe that any study of gender differences in language use in finance is naturally situated within the theoretical framework of stereotyping. Despite social changes and shifts in gender roles (Guiso & Zacchia, 2023), finance is still stereotyped as the domain of men (Allen & Gervais, 2017; Tinghög et al., 2021; Von Hippel et al., 2015) with consequences for how people perceive other human beings in this domain.

People tend to think of themselves and others in terms of the groups with which they identify or do not identify, as Tajfel and Turner have convincingly presented in social identity theory (Tajfel & Turner, 1979). Language is both shaped by and expresses this social categorization (Farrow et al., 2018; Newman et al., 2008). Park et al. (2016) found noticeable language differences between women and men in self-identification. Women describe themselves through relationships with friends, family, and social life, while men focus more on swearing, anger, objects rather than people, and argumentative language, that is, terms related to men's self-identification. This is why we consider theories related to stereotyping - starting with the aforementioned social identity theory - to be particularly useful for understanding the results of our study, as we explain in the Discussion section.

The research on the relationship between gender and language use has quite a long history, started by Lakoff (1973). The literature on this issue concludes that there are clear, statistically significant (though often small in terms of effect sizes) differences between the linguistic production of women and men, and that they are observed at various linguistic levels: phonetic, lexical, morphosyntactic, etc.

There is evidence that women use language in a more relational way, while men use it in an informational way, as Lakoff (1973) has already pointed out. Since emotions are central to setting up a relationship, women's language is deemed more tentative, characterized by greater attention and consideration to the interlocutor, and more intensive use of measures aimed at building an emotional bond with the interlocutor (Leaper & Robnett, 2011; Mulac et al., 2001; Newman et al., 2008; Park et al., 2016). Hence, women's language is sometimes described as more 'affective' or 'emotional'. These differences are expressed in various ways: in the use of sentence-initial adverbs, uncertainty verbs, modal auxiliary verbs, emotion words or intensifying adverbs.

Tannen (1994) calls these differences 'rapport talk' (women) and 'report talk' (men), while Biber and Burges (2000) refer to them as 'involved style' (women) and 'informative style' (men). A particular example of this male 'information emphasis' (Biber & Burges, 2000) is their more frequent reference to quantities and locations (Mulac & Lundell, 1986) and more focus on objects - as opposed to women who are more focused on interlocutors (on other people) when speaking (Newman et al., 2008; Park et al., 2016). These differences can also be put somewhat differently: as more personal (and interpersonal) language characterizing women and more impersonal (socially distant) language characterizing men. Newman et al. (2008) describes these differences as language related to psychological and social processes in women and language related to object properties and impersonal topics in men.

Emerging research on language use in finance seems to confirm these general differences. In a recent study Ben-Shmuel et al. (2024) have shown that the language of financial advice is gender-specific: male finfluencers focus on quantitative aspects, using numbers and graphs to convey their messages, while female finfluencers are more likely to use narratives and personal stories, linking financial topics to broader life goals and personal experiences.

Taking the results of the research presented in this section as a basis, in this article we verify the following hypothesis: The spoken language used by women in the domain of consumer finance differs from that used by men, and the differences are manifested primarily in

the following bipolarities - relational (women) vs. informational (men) and personal (women) vs. impersonal (men).

Method

Data and participants

We conducted an exploratory, mixed - that is, both qualitative and quantitative - study on gendered language in consumer finance, selecting this approach for its suitability in examining complex, context-dependent phenomena (Creswell & Poth, 2017). The study took place in 2023 in an urban area of Poland.

Using purposive sampling, we recruited native Polish speakers (aged 18 - 65) whose declared gender matched their biological sex and who had not previously participated in focus groups. To examine gender differences, we formed six focus groups: two all-female, two all-male, and two mixed, each with six participants. This sample size aligns with established methodological guidelines for qualitative research, particularly focus group interviews (Fusch et al., 2022). Research suggests that three to six focus groups are typically sufficient to capture the majority of relevant themes, as data saturation – the point at which no new insights emerge - can often be reached within this range (Guest et al., 2016). A market research firm recruited participants from a national database, ensuring that the research sample represented a full socio-demographic cross-section characteristic of the Polish adult population. Recruitment ran from May 10 to September 4, 2023, with all 36 invited participants completing the study.

The study received approval from the Bioethics Committee of WSEI University (Decision No. 01/01/2023, January 31, 2023). Participants provided written informed consent, archived by the Principal Investigator. No minors were involved.

Table 1: Socio-demographic structure of the research sample

Characteristic	Number	Percent (%)
Sex		
Female	17	47.2
Male	19	52.8
Education		
Vocational	2	5.6
Secondary	17	47.2
Tertiary	17	47.2
Size of place of residence		
< 50,000 residents	2	5.6
> 300,000 residents	34	94.4

Source: Authors' own work.

Six focus groups were conducted between May and September 2023 at WSEI University. Two trained moderators (one female, one male) led the discussions, each facilitating one session for the female, male, and mixed-gender groups. Following an interview guide, they encouraged open dialogue in line with focus group best practices (Archer, 2007; Turner, 2010). Both moderators were experienced researchers and trainers. At the start of each session, they introduced themselves and provided a general overview of the study.

The Principal Investigator (male) observed the sessions through a one-way mirror, taking field notes. A technician managed audio and video recordings. Each session lasted 1 - 1.5 hours and was transcribed verbatim and anonymized by the recruiting market research company.

Materials

A semi-structured interview guide, developed from a literature review, structured the discussions. It included:

1) Introduction - to put participants at ease and explain the study.
2) Main body - covering consumer finance topics such as earning, spending, saving, investing, borrowing, retirement planning, based on the consumer finance literature (Dew & Xiao, 2011; Huston, 2010). Each topic had 3 - 4 questions.
3) Financial tasks - six exercises designed to assess financial literacy, covering interest rates, inflation, the time value of money, and investment basics. The tasks were adapted from established financial literacy tests (Allgood & Walstad, 2016; Lusardi & Tufano, 2015). Only one task had a definitive answer, the rest allowed for multiple valid responses.

The guide was pilot-tested with four individuals (two economists, two without formal economic education, one woman and one man in each pair). Revisions were made based on their feedback, with conflicting issues resolved through team discussions.

[5] The full interview guide is available in the Supplementary materials: https://osf.io/82z56/?view_only=26e0ed6b083641cca42cb8286d21231d.

Data analysis

To examine gender differences in speech, a linguistic analysis was conducted using Quanteda in R. Quanteda is a robust R library designed for the quantitative analysis of textual data, offering a wide range of tools for tokenization, feature extraction, and statistical text analysis (Benoit et al., 2018). In this study, we utilized Quanteda to process and analyze qualitative data from focus group interviews by extracting key linguistic features, including word frequency and syntactic patterns. Key measures included word frequency, assertive expressions (e.g., *I want, we must*), non-assertive expressions (e.g., *maybe, I am not sure*), and imperatives (e.g., *do this, go now*). Statements were grouped by gender, normalized by word count, and analyzed for statistical significance using Mann-Whitney U-tests. Spoken statements from 17 women and 19 men underwent natural language processing (NLP). Language complexity was measured by the number of bigrams and trigrams used.

Qualitative linguistic analyses consisted of comparisons between men's and women's responses to the same questions, analyses of the linguistic collocations of word combinations in the statements of both genders, and assessments of the frequency of specific combinations. Subsequently, we conducted a semantic analysis of smaller linguistic constructions, sentences, paragraphs, and entire utterances. Based on this syntagmatic and semantic analysis, we reconstructed the intentions behind individual statements, with particular focus on the illocutionary force of the speech acts they comprised.

To examine biolects - speech patterns specific to biological groups like gender or age - we applied generative grammar tools to identify similarities and differences in the deep and surface structures of women's and men's statements (Wołkowski, 2010). Our analysis focused on:

1) Syntactic structures: Thematic-remedial patterns and syntagmatic connections.
2) Semantic roles: Valences and roles of statement component (Fillmore, 1969).
3) Generative influence: How deep structure shapes surface linguistic forms (Chomsky, 1982, 2010).

Next, we examined extracted linguistic patterns using textological, ethnolinguistic, and cognitive linguistics methods (de Beaugrande & Dressler, 1990). This approach helped reconstruct the linguistic image of finance, identifying gender-based differences in categorization, axiology, onomastics, and metaphorization (Bartmiński, 2012; Nowak, 2002; Tokarski, 2014). Ethnolinguistic and cognitive tools further enabled us to analyze conceptual metaphors (Lakoff & Johnson, 2003) and assess the presence of masculine metaphors (Boggio et al., 2015).

Results

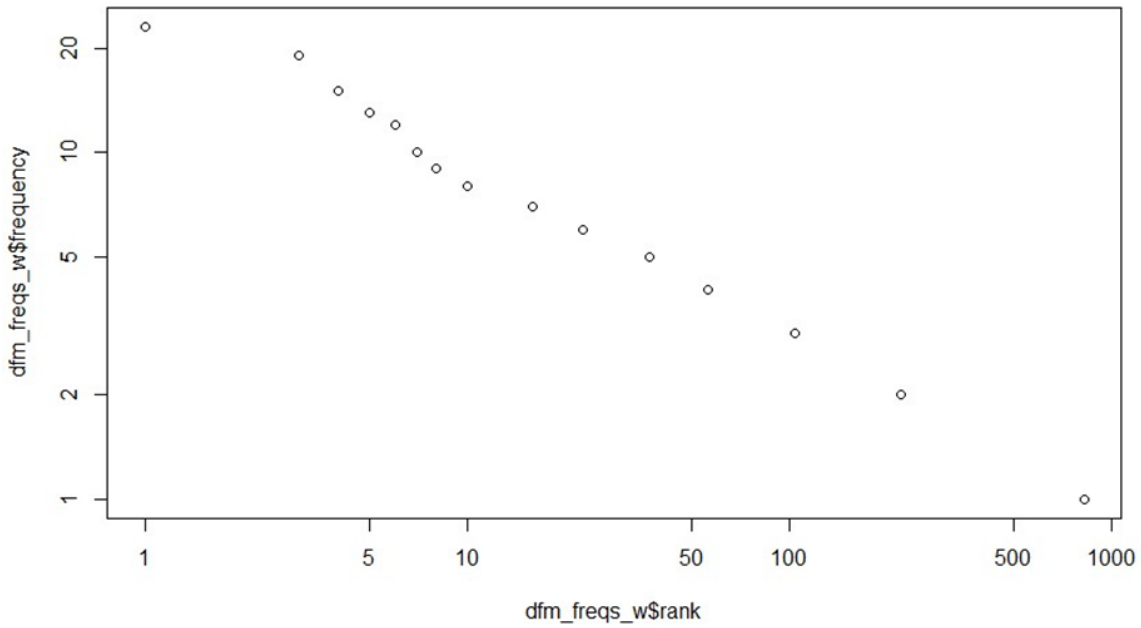
The linguistic corpus resulting from face to face interviews has its own peculiarities. It is a spontaneous communication, focused on the 'here and now', which makes the statements of interview participants different from secondary spontaneous and thoughtful statements - as in the case of social media posts or survey questionnaire responses. For this reason, many formal (e.g., grammatical) characteristics of women's language and men's language are not as visible and expressive as in other (written) communications about finance. Besides, the very (specialized) subject matter of our interviews probably resulted in the fact that, except for the obvious ones, some of the grammatical features considered to be characteristic of women and men (Biber & Burges, 2000; Newman et al., 2008; Park et al., 2016) did not reveal themselves to a great extent.

However, we noted clear differences between the language of women and that of men in the pragmatics, semantics and, in part, syntax of the statements formulated by those who participated in the interviews. We present the most pronounced differences below. However, we start with the results of the Quanteda analysis.

We found that women used a comparable number of words as men (N words-women = 928, N words-men = 930, U Mann-Whitney = 419906.5, p = 0.315), confirming findings from previous studies (Hyde, 2005; Newman et al., 2008; Thomson et al., 2001).

Statement complexity was assessed by analyzing unique bigrams and trigrams. Men's statements contained 16,607 unique bigrams and 21,291 trigrams, while women's contained 17,774 and 23,392, respectively. Women produced more word combinations, potentially allowing for more detailed descriptions of financial terms, whereas men's language was more general, likely helping them extract key information more efficiently (Isbilen et al., 2022).

Figure 1: Zipf's trigram frequency distribution for female participants

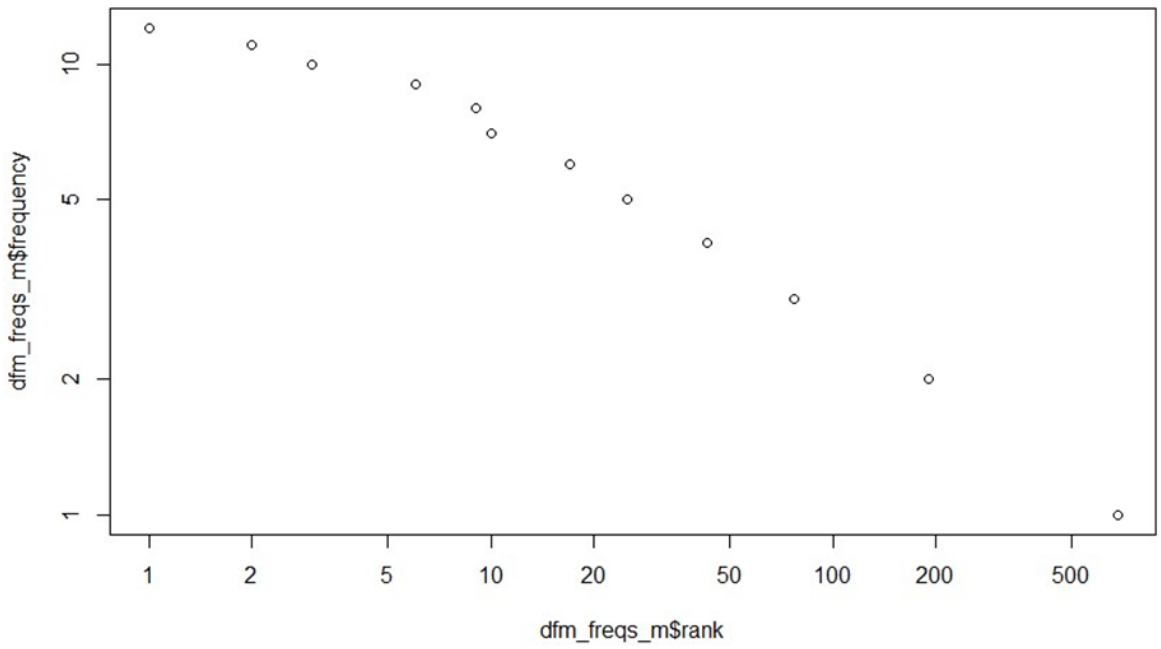


Note: In women, the most common tentative (less assertive) phrase *wydaje mi się (it seems to me)*, stands out clearly in frequency from the next ones

Source: Authors' own work.

Assertiveness was examined through frequent n-grams. Women commonly used phrases like *wydaje mi się (it seems to me)* and *nie wiem (I don't know)*, while men used *to po prostu (it is simply)* and *jest tak, że (it is that)*. This supports the idea that women express opinions less assertively (Leaper & Ayers, 2007), potentially making them appear less confident in financial test responses. Zipf's distribution further supports this observation, showing a stronger dominance of *wydaje mi się* in women's speech, while men's language exhibited a more balanced distribution (Figure 1 and Figure 2).

Figure 2: Zipf's trigram frequency distribution for male participants



Note: Men use several definite phrases with similar frequency

Source: Authors' own work.

The application of generative grammar tools to identify similarities and differences in the deep and surface structures of women's and men's speech resulted in the following findings.

Time and temporal perspective

Time and temporal perspective are less important in women's statements compared to men's. The two words most often used in these contexts - *jeszcze (yet*) and *już (already)* - appear in women's statements almost three times less often than in men's. This is particularly evident in statements about retirement.

We also noted clear differences in the designata of the word *saving*. These differences were specifically related to temporal perspective. For women, saving is often a part of day-to-day functioning that consists largely of spending less and putting aside unspent money. For men, saving is an activity that clearly has intertemporal consequences.

Space perspective

The distribution of spatial terms is different for women and men. Attributed to men better spatial orientation and focus on this aspect of reality is not confirmed in the use of the word *tu (here)* (comparable distribution in the statements of both sexes). However, it is more evident in the use of the word *tam (there)* (in women it is mostly an indefinite pronoun, while in men - a word expressing orientation in space) and is marked in the use of specific indications of places (in women this is almost absent, while in men it is very important due to male emphasis on their expertise and/or achievements).

An example of how expressive and intense references to space (combined with references to movement and in a mathematical context) can be in the language of men is the following statement:

'Earlier, my installments were lower, so it was kind of like I just threw them in with my expenses, but now it's more like I draw a line over this loan, and from that total minus the loan, that's where I make my budget' (C-F-M).

Large quantifiers

Women are less likely to talk about their knowledge and prospects (e.g., socioeconomic advancement), and when they do, they are less categorical. In contrast, men are more likely to use words that generalize and emphasize necessity and infallibility, e.g., *każdy/każda/każde (each or every)* is used twice as often by men and in a different function. In women, this quantifier refers to actions and to things, while in men to other people as an argument to support the opinion of the speaker. A good example of this is the following statement by a male participant, in which the tendency to portray himself as an expert in finance (giving rise to lecturing others), about which we write a little further on, is additionally evident:

'You have to trust the state, which just shifts money from one empty pot to another because there hasn't been any money for a long time. Everyone knows that, I hope. That's how it is, and that's why these fundamental capital plans are being created' (M-M-M).

I don't know, I don't have

Women are more likely to admit to a lack of financial resources, as well as to not knowing *Nie mam/Nie wiem (I don't have/I don't know)* occurs twice as often in women's statements as in men's). In women, the verb *brakować (to lack)* and the noun *brak (lack)* also appear to denote the fact of too little money or any other resources. In men, these words refer to an assortment, opportunity, or perseverance. Such differences can also be seen in the distribution of the verb *może (can)*. In men, most often this verb is a sign of communication about other possibilities, it is associated with showing the degree of truthfulness, such as *może fundusze (maybe funds)*, and in women as a modality of their actions, such as *może wyjadę (maybe I will leave)*.

This difference in the readiness to admit *Don't know/Don't have* is particularly evident in conversations about investing. When asked, '*Do you invest? What do you think about investing?*' in one group, the women answered in turn:

'No, I wouldn't have anything to be invested'; 'No, investing is good when you have something to invest for' 'It seems to me that I might not be good at it' (F-M-F).

I must / we must (External necessity vs. internal necessity)

Gender differences similar to those for the verb *może (can)* are also seen in the case of the modal verb must (in the forms of *muszę (I must)* and *musimy (we must)*. This verb occurs several times more often in the statements of men and, as a rule, in a completely different function - in women it means external necessity, resulting from circumstances, and leading to submission or adaptation, and in men it expresses internal states: a sense of agency, internal need or determination.

[6] Note: The coding is in a letter-letter-letter system: The first letter indicates the group structure (F-women only; M-men only; C-mixed group); the second letter indicates the gender of the group moderator (F-female; M-male); the third letter indicates the gender of the speaker (F-female; M-male). E.g., C-F-F indicates a wo-man speaking in a mixed group moderated by a woman.

Experiences vs. makers

There are also clear differences in the macro-structures and construction of texts in women and men. Women care about the expressiveness, descriptiveness, and narrative nature of communication about finances. This can be illustrated by the frequency in their language of the noun *zakupy (shopping)*. In men, on the other hand, the verb *kupować (to buy)* dominates in such contexts. This also confirms other observations that indicate the analyticity (complex structure) of judgments in women's speech and the dynamicity (single word) of judgments in men's speech.

Men use compound judgments in their 'expert' statements when talking about the financial market situation or what is worth doing and what is not worth doing with their finances. They take on the role of educators who are competent in the field of finance. This is reflected, among other things, in the more frequent use of professional finance-specific (or at least stylized as professional) terms than among women. The following statements illustrate males' tendency to take on the role of experts and educators:

'First of all, people don't know how to calculate. If they see that a 2% loan for young people is now available, they think it's just 2% per year. But in reality, over 30 years, they'll end up paying 60% of the loan amount, plus inflation, plus the bank's margin, plus other costs. They think that 2% is the total cost of the loan. No, that's not how it works, unfortunately' (M-M-M). '

If a crisis happens within the next twenty years, I'm saving by transferring 800 złotys every month, so I reduce the risk of losing money by doing it systematically rather than making a one-time purchase for a certain amount and then realizing I bought at the peak, and there's a big drop, leaving me with almost nothing there' (M-M-M).

Additionally, males are more active in their statements about finances, emphasizing their agency. Women, on the other hand, by constructing stories and analytical forms of judgments, situate themselves inside the financial processes they undergo. In contrast, men situate themselves outside these processes. They are the ones who initiate their course, and if they talk about what they had to engage in (what they had to do), they very often disagree with the negative consequences of what happened and take up arms against it (metaphorics of war or action). These differences can be seen well in the following statements about the same issue - saving. The woman's statement suggests that the events in the financial sphere happen to her:

'Money doesn't stick with me because the more I have, the bigger my needs become' (...). 'We had some savings - if you can even call it that. Then suddenly, it was like, 'Quick, let's buy a car,' because otherwise, the money would just disappear - 100 here, 200 there, spent on this and that. If we don't buy something sensible, the money will be gone' (F-M-F).

In contrast, the man's statement draws attention to his conviction that whether his saving behavior will be successful depends primarily on himself: *'It makes sense if you have a plan for saving'* (M-M-M).

In men, the sense of self-efficacy and agency is sometimes very far-reaching, as evidenced, for example, by this statement: *'I pay by card, for example, to help eliminate the black market'* (male C-F-M).

As mentioned, such statements are often accompanied by the use of metaphors that refer to conceptual domains considered masculine, such as military and war: '*There's no such possibility. I'm at the age where I'm what they call 'unemployable.' From the age of sixty, you're basically shot down'* (M-M-M). Or *'We're not competitive in terms of price, and that's not even what we're fighting with'* (M-M-M).

People vs. simulacra

In women's statements, people are specific, real-life individuals associated with the stories they tell. In men's, they are simulacra (groups or individuals) who represent men's ideas and beliefs about the world, rather than flesh-and-blood people.

Factuality vs. imagery

There are significantly more professional and erudite terms and information in men's statements (their statements are significantly more 'vague' (difficult) than women's statements on the same topic). Men try to demonstrate their knowledge and expertise, while women communicate more vividly and figuratively. Women's communication is full of references to their life experience and emphasizes the emotionality of the information. Women's language is more colloquial and down-to-earth. These differences can be clearly seen in two statements about how our respondents chose loans. Men often operated with numbers, facts, and professional terms, such as here: *'The Swiss franc just wasn't (available-authors' note). It was in euros, costing 2.05. After a year I was already paying 6.20 per euro conversion rate and I had more'* (C-M-M).

Women, on the other hand, put it very simply, such as here: '*I cut my coat according to my cloth*' (C-M-F).

One woman asked another this way about breaking a deposit at a bank (no professional term appears in this question - e.g., 'deposit,' 'interest,' 'breaking the deposit early'): '*And if you took it out earlier, would some money be deducted?*' (F-M-F).

Another woman, speaking of price fluctuations in the market, used the phrase '*ups and downs*' (F-M-F).

[7] Note: In Polish, it is more pronounced: *'wzloty i upadki',* which is closer to the English *'flying up and falling'*.

An interesting example of a male statement that uses professional terminology and refers to domain-specific mechanisms (suggesting the speaker's familiarity with them) is this one: '*I buy most things on installments because it helps build a good credit history. If you pay them off regularly and quickly, the banks see in the BIK (i.e., the credit bureau - authors' note) that you're responsible and reliable, and your creditworthiness increases*' (M-F-M).

In turn, this statement well illustrates the 'storytelling' nature of women's language, which refers to their life experiences and is more emotionally saturated: '*No, I'm so put off by insurance. My daughter does wrestling, and last year at a competition, she cut her chin and needed a few stitches. From her sports insurance, she got, I think, 130 złotys, as far as I know. She has a big scar, and from the school insurance that I pay for, she got about 100 złotys. On top of that, I had to pay the doctor 20 złotys just for issuing a certificate stating that her treatment was finished. So we just stood there, and she looked at me and said, 'If you don't pay, will he not finish treating me?*' (F-M-F).

Explicit assertions and expressives vs. declaratives and directives

Through their statements, women describe reality - both external and internal (the emotional). Thus, from the perspective of linguistic pragmatics, they primarily use overt assertions and expressions. In contrast, men try to linguistically make (create, shape) the world, so their statements are, from the perspective of linguistic pragmatics, very often overtly or covertly declaratives (resolutions about how the world is) and directives (orders, requests), as in this statement: '*This is logical to me. The system won't hold, a system that was bad from the beginning, that can't be fixed in any way right now, because you would have to cut out all the pensioners and then start all over again*' (M-M-M).

Probability assertion vs. Commissives

Unlike women, in conversations about the future, men often do not use probability assertions but instead use self-commissives (commitments to themselves that they try to give agency to).

Designata of financial terms

Our analysis also revealed that women and men refer to slightly different designata of words that are key in consumer finance. This pertains particularly to saving and investing. For women, saving is more about keeping an eye on spending and spending less because of it. An oft-cited form of saving is 'buying cheaper.' A common synonym for the word saving is putting aside. Men, on the other hand, distinguish between the two behaviors (saving and putting aside) - one male participant expressed it this way: '*I put aside rather than I save.' (...) 'And it's so much more putting aside, not saving, in a regular account*' (M-M-M).

The words and examples that men use with regard to saving clearly show that they are closer to a professional understanding of this activity as aimed at least at protecting the value of their resources (but rather, primarily, at multiplying them). Unlike women, for whom saving is an activity that mainly comes down to the 'here and now,' in men saving is intertemporal. This is often accompanied by a blurring of the line between saving and investing. One male respondent put it this way: '*Investing for me is also saving, because these investments can be withdrawn at any time and have cash from it. Six of one and half a dozen of another*' (M-M-M).

For women, investing is primarily about putting money in real estate: plots of land, apartments, service points. Male respondents also mention immovables (e.g. property) as investment objects, but their statements cover a much wider range of investment for example antiques, works of art, currencies, cars imported from abroad, franchises, cryptocurrencies, gold and other bullion. One male wondered aloud whether betting in bookmaker shops could also be an investment. In the men's statements about investing, the association of investing with risk is clear. In contrast, women's use of the term investing also more often includes human capital *(I invest in myself)* and relational capital *(I invest in my children)*.

Discussion

This study aimed to determine whether spoken language use in consumer finance differs between women and men. Our analysis of face-to-face group interviews with 36 consumers revealed notable gender differences, though, in line with the gender similarities hypothesis (Hyde, 2005) and linguistic research (Plug et al., 2021), these differences are not large. In some aspects, such as the total number of words used, we found no significant gender differences.

The most salient differences in language use between women and men, summarized in Table 2, can be encapsulated as follows: women's language is more colloquial, descriptive, relational, figurative, and experience-oriented, often carrying greater emotional load. In contrast, men's language is more professional (or stylized as such), argumentative, factual, and informational, emphasizing a sense of expertise, agency, and self-efficacy. Such findings support our hypothesis that spoken language in finance differs by gender, particularly in relational (women) vs. informational (men) and personal (women) vs. impersonal (men) dimensions.

The observed pattern - women using more experiential, relational, and figurative language while men using more factual, argumentative, and informational language - are also consistent with broader studies on gender differences in language (Ben-Shmuel et al., 2024; Biber & Burges, 2000; Leaper & Robnett, 2011; Mulac & Lundell, 1986; Newman et al., 2008; Park et al., 2016; Tannen, 1994; Thomson et al., 2001).

Table 2: Key gender differences in language use in consumer finance identified in this study

Language variables	Women	Men
Time and temporal perspective	Less present	More present
Space perspective	The use of specific indications of places almost absent	Spatial references aim to enhance the impression of expertise
Large quantifiers	Less present	More present
Don't know, don't have	More present	Less present
I must, we must	More often external necessity (surrender, adaptation)	More often internal necessity (agency, determination)
Experiencers vs. Makers	Passive semantic value, in which the speaker is affected by the actions, rather than being the main initiator of them	Active semantic value, in which the speaker is the main initiator of actions
Imagery vs. Factuality	More colloquial words and phrases More vivid and figurative communication with many references to experiences and emotional states	More expert and erudite words and phrases (or stylized as such) More factual communication, often referring to numbers, cause-effect relations, objects and their properties
Designata of financial terms	Saving as frugality or thrift (spending less) and putting aside Investing represented mainly by real estate	Saving as an intertemporal choice Investing represented by a wide range of assets
Linguistic pragmatics	A linguistic description of the world - overt assertions and expressives	A linguistic making the world - declaratives and directives (orders, commands, requests)

Source: Authors' own work.

Our analysis of phrase frequency (e.g., *I don't know and I don't have*) and bigram patterns supports the notion that women express fewer opinions (Leaper & Ayers, 2007), potentially making them appear less confident in financial tests. This phenomenon is well-documented in consumer finance literature, where studies show that women choose the *I don't know* or *I prefer not to answer* option significantly more often than men (Bucher-Koenen et al., 2017; Chen & Garand, 2018; Cwynar et al., 2019; Klapper & Lusardi, 2020; Ooi, 2020). This tendency has been attributed to lower financial confidence or higher risk aversion among women.

Regarding the latter, our findings also suggest that gendered language use in consumer finance reflects broader gender differences in risk attitudes. Women's use of a more experience-based and figurative relational language, along with their linguistic withdrawal from investment topics, suggests greater risk aversion. This is further supported by the different connotations of the Polish words *oszczędzać (to save)* and *oszczędzanie (saving)*, which for women imply thrift and frugality (spending less), while for men they align with intertemporal choice and financial planning that requires consideration of risk.

A novel insight from our study is men's pronounced use of language that signals agency (active semantic value) versus women's language, which reflects an 'experiencer' stance (passive semantic value). This may stem from deeply ingrained stereotypes that frame finance as a male domain, leading men to feel social pressure to demonstrate efficacy in financial matters - hence the strong linguistic manifestation of agency in our data.

Our study does not address whether the language used in financial literacy tests or educational materials is more masculine or feminine, which warrants further research. However, our findings suggest that women and men use language differently in consumer finance, with potentially important implications for financial literacy measurement and education. To ensure fairness, financial literacy tests and educational materials

may need linguistic adjustments to avoid favoring any gender. If financial assessments and educational content are linguistically masculinized, this bias could contribute to the gender gap in consumer finance.

Thus, our findings have significant implications for both academia and practice. Academically, they highlight the need to examine financial literacy tests for gendered language bias. Practically, they underscore the importance of designing financial education that is equally effective for both women and men.

Conclusions

The findings of this study underscore notable gender differences in spoken language use within consumer finance, revealing that while men tend to use more professional, argumentative, and informational language, women exhibit a preference for colloquial, descriptive, and relational expressions with a greater emotional load. These linguistic patterns align with broader research on gendered communication and may contribute to observed disparities in financial confidence and risk attitudes. Notably, women's greater reliance on experiential and figurative language, coupled with their higher likelihood of linguistic withdrawal from investment topics, suggests a heightened risk aversion compared to men. Moreover, men's language consistently conveyed a stronger sense of agency, reflecting deep-seated societal expectations that associate financial expertise with masculinity. These findings have important implications for financial literacy assessment and education, indicating that current materials and tests may inadvertently favor masculine linguistic styles. Future research should explore whether financial literacy evaluations are biased in this regard and consider linguistic adjustments to ensure equitable access to financial education for both genders.

Acknowledgments

This research was funded by the National Science Centre, Poland (grant number 2021/43/B/HS4/00401).

References

Allen, J. & Gervais, S.J. (2017). The femininity-money incongruity hypothesis: Money and femininity reminders undermine women's cognitive performance. Psychology of Women Quarterly, 41(4), 407-419, https://dx.doi.org/10.1177/0361684317718505.

Allgood, S. & Walstad, W.B. (2016). The effects of perceived and actual financial literacy on financial behaviors. Economic Inquiry, 54(1), 675-697, https://dx.doi.org/10.1111/ecin.12255.

Archer, T.M. (2007). Using guidelines to support quality moderation of focus group interviews. Mid-Western Educational Researcher, 20(1), 38-41.

Bartmiński, J. (2012). Językowe podstawy obrazu świata. UMCS, Lublin.

Ben-Shmuel, A.T., Hayes, A. & Drach, V. (2024). The gendered language of financial advice: Finfluencers, framing, and subconscious preferences. Socius: Sociological Research for a Dynamic World, 10, First View, https://dx.doi.org/10.1177/23780231241267131.

Benoit, K., Watanabe, K., Wang, H., Nulty, P., Obeng, A., Müller, S. & Matsuo, A. (2018). Quanteda: An R package for the quantitative analysis of textual data. Journal of Open Source Software, 3(30), 774-778, https://dx.doi.org/10.21105/joss.00774.

Biber, D. & Burges, J. (2000). Historical change in the language use of women and men: Gender differences in dramatic dialogue. Journal of English Linguistics, 28(1), 21-37, https://dx.doi.org/10.1177/00754240022004857.

Boggio, C., Fornero, E., Prast, H.M. & Sanders, J. (2014). Seven ways to knit your portfolio: Is investor communication neutral? CeRP Working Paper; Vol. 140/14. CeRP - Center for Research on Pensions and Welfare Policies, Turin.

Bucher-Koenen, T., Lusardi, A., Alessie, R. & van Rooij, M. (2017). How financially literate are women? An overview and new insights. Journal of Consumer Affairs, 51(2), 255-283, https://dx.doi.org/10.1111/joca.12121.

Bui, V. (2021). Gender language in modern advertising: An investigation. Current Research in Behavioral Sciences, 2, 1-6, https://dx.doi.org/10.1016/j.crbeha.2020.100008.

Chen, Z. & Garand, J.C. (2018). On the gender gap in financial knowledge: Decomposing the effects of don't know and incorrect responses. Social Science Quarterly, 99(5), 1551-1571, https://dx.doi.org/10.1111/ssqu.12520.

Chomsky, N. (1982). Zagadnienia teorii składni. Ossolineum, Wroclav.

Chomsky, N. (2010). O naturze i języku. AXIS, Warsaw.

Creswell, J.W. & Poth, C.N. (2017). Qualitative inquiry and research design. Choosing among five approaches. Sage Publications Inc, Thousands Oaks.

Cupák, A., Fessler, P., Silgoner, M. & Ulbrich, E. (2021). Exploring differences in financial literacy across countries: The role of individual characteristics and institutions. Social Indicators Research, 158, 409–438, https://dx.doi.org/10.1007/s11205-021-02713-8.

Cwynar, A., Cwynar, W. & Wais, K. (2019). Debt literacy and debt literacy self-assessment: The case of Poland. Journal of Consumer Affairs, 53(1), 24-57, https://dx.doi.org/10.1111/joca.12190.

de Beaugrande, R.-A. & Dressler, W.U. (1990). Wstęp do lingwistyki tekstu. PWN, Warsaw.

Dew, J. & Xiao, J.J. (2011). The financial management behavior scale: Development and validation. Journal of Financial Counseling and Planning, 22(1), 43-59.

Farrow, K., Grolleau, G. & Mzoughi, N. (2018). What in the word! The scope for the effect of word choice on economic behavior. International Review for Social Sciences, 71(4), 557-580, https://dx.doi.org/10.1111/kykl.12186.

Fillmore, C.J. (1969). The case for case. In: Bach, E. & Harms, R. (Eds.), Universals in linguistic theory. Holt, Rinehart & Winston, New York.

Fonseca, R., Mullen, K.J., Zamarro, G. & Zissimopoulos, J. (2012). What explains the gender gap in financial literacy? The role of household decision making. Journal of Consumer Affairs, 46(1), 90-106, https://dx.doi.org/10.1111/j.1745-6606.2011.01221.x.

Fusch, P., Fusch, G.E., Hall, J.A., Walker, N.A. & Booker, J.M. (2022). How to conduct a focus group interview: Tips, strategies, and examples for novice researchers. Education for Information, 38(2), 171-187, https://dx.doi.org/10.3233/EFI-211520.

Guest, G., Namey, E. & McKenna, K. (2016). How many focus groups are enough? Building an evidence base for nonprobability sample sizes. Field Methods, 29(1), 3-22, https://dx.doi.org/10.1177/1525822X16639015.

Guiso, L. & Zacchia, G. (2023). From patriarchy to partnership: Gender equality and household finance. Journal of Financial Economics, 147(3), 573-595, https://dx.doi.org/10.1016/j.jfineco.2023.01.002.

Huston, S.J. (2010). Measuring financial literacy. Journal of Consumer Affairs, 44(2), 296-316, https://dx.doi.org/10.1111/j.1745-6606.2010.01170.x.

Hyde, J.S. (2005). The gender similarities hypothesis. American Psychologist, 60(6), 581-592, https://dx.doi.org/10.1037/0003-066X.60.6.581.

Isbilen, E., Frost, R.L.A., Monaghan, P. & Christiansen, M.H. (2022). Statistically based chunking of nonadjacent dependencies. Journal of Experimental Psychology: General, 151(11), 2623-2640, https://dx.doi.org/10.1037/xge0001207.

Klapper, L. & Lusardi, A. (2020). Financial literacy and financial resilience: Evidence from around the world. Financial Management, 49(3), 589-614, https://dx.doi.org/10.1111/fima.12283.

Kret, M.E. & de Gelder, B. (2012). A review on sex differences in processing emotional signals. Neuropsychologia, 50(7), 1211-1221, https://dx.doi.org/10.1016/j.neuropsychologia.2011.12.022.

Lakoff, R.T. (1973). Language and woman's place. Language and Society, 2(1), 45-80.

Lakoff, R.T. & Johnson, M. (2003). Metaphors we live by. University of Chicago Press, Chicago.

Leaper, C. & Ayers, M.M. (2007). A meta-analytic review of gender variations in adults' language use: Talkativeness, affiliative speech, and assertive speech. Personality and Social Psychology Review, 11(4), 328-363, https://dx.doi.org/10.1177/1088868307302221.

Leaper, C. & Robnett, R.D. (2011). Women are more likely than men to use tentative language, aren't they? A meta-analysis testing for gender differences and moderators. Psychology of Women Quarterly, 35(1), 129-142, https://dx.doi.org/10.1177/0361684310392728.

Lenhart, J. & Heckel, F. (2025). Effects of gender-fair language on the cognitive representation of women in stereotypically masculine occupations and occupational self-efficacy among primary school girls and boys. Sex Roles, 91(1), 1-15, https://dx.doi.org/10.1007/s11199-024-01552-4.

Lindqvist, A., Renström, E.A. & Sendén, M.G. (2019). Reducing a male bias in language? Establishing the efficiency of three different gender-fair language strategies. Sex Roles, 81, 109–117, https://dx.doi.org/10.1007/s11199-018-0974-9.

Lusardi, A. & Tufano, P. (2015). Debt literacy, financial experiences, and overindebtedness. Journal of Pension Economics and Finance, 14(4), 332-368, https://dx.doi.org/10.1017/S1474747215000232.

Meier T., Boyd R.L., Mehl M.R., Milek A., Pennebaker J.W. & Martin M. (2020) Stereotyping in the digital age: Male language is "ingenious", female language is "beautiful" – and popular. PLoS ONE, 15(12), 1-29, https://dx.doi.org/10.1371/journal.pone.0243637.

Mulac, A., Bradac, J.J. & Gibbons, P. (2001). Empirical support for the gender-as-culture hypothesis. Human Communication Research, 27(1), 121-152, https://dx.doi.org/10.1111/j.1468-2958.2001.tb00778.x.

Mulac, A. & Lundell, T.L. (1986). Linguistic contributors to the gender-linked language effect. Journal of Language and Social Psychology, 5(2), 81-101, https://dx.doi.org/10.1177/0261927X8652001.

Newman, M.L., Groom, C.J., Handelman, L.D. & Pennebaker, J.W. (2008). Gender differences in language use: An analysis of 14,000 text samples. Discourse Processes, 45(3), 211-236, https://dx.doi.org/10.1080/01638530802073712.

Nowak, P. (2002). SWOI i OBCY w językowym obrazie świata. UMCS, Lublin.

Ooi, E. (2020). Give mind to the gap: Measuring gender differences in financial knowledge. Journal of Consumer Affairs, 54(3), 931-950, https://dx.doi.org/10.1111/joca.12310.

Park, G., Yaden, D.B., Andrew, S.H., Kern, M.L., Eichstaedt, J.C., Kosinki, M., Stillwell, D., Ungar, L.H. & Seligman, M.E.P. (2016). Women are warmer but no less assertive than men: Gender and language on Facebook. PLoS ONE, 11(5), 1-26, https://dx.doi.org/10.1371/journal.pone.0155885.

Piersoul, J. & Van de Velde, F. (2023). Men use more complex language than women, but the difference has decreased over time: a study on 120 years of written Dutch. Linguistics, 61(3), 725-747, https://dx.doi.org/10.1515/ling-2021-0022.

Plug, I., Stommel, W., Lucassen, P.L.B.J., olde Hartman, T.C., van Dulmen, S. & Das, E. (2021). Do women and men use language differently in spoken face-to-face interaction? A scoping review. Review of Communication Research, 9, 43-79, https://dx.doi.org/10.12840/ISSN.2255-4165.026.

Potrich, A.C.G., Matheis, T.K. & Vieira, K.M. (2024). Gender differences in financial literacy between and within generations. Journal of Financial Counseling and Planning, 35(3), 381-399, https://dx.doi.org/10.1891/JFCP-2023-0058.

Preston, A.C. & Wright, R.E. (2024). When does the gender gap in financial literacy begin. Economic Record, 100(328), 44-73, https://dx.doi.org/10.1111/1475-4932.12785.

Pruden, S.M. & Levine, S.C. (2017). Parents' spatial language mediates a sex difference in preschoolers' spatial-language use. Psychological Science, 28(11), 1583-1596, https://dx.doi.org/10.1177/0956797617711968.

Reilly, D., Neumann, D.L. & Andrews, G. (2019). Gender differences in reading and writing achievement: Evidence from the National Assessment of Educational Progress (NAEP). American Psychologist, 74(4), 445-458, https://dx.doi.org/10.1037/amp0000356.

Searle, J.R. (1987). Czynności mowy: rozważania z filozofii języka. PAX, Warsaw.

Szczesny, S., Formanowicz, M. & Moser, F. (2016). Can gender-fair language reduce gender stereotyping and discrimination? Frontiers in Psychology, 7, 1-11, https://dx.doi.org/10.3389/fpsyg.2016.00025.

Tajfel, H. & Turner, J. (1979). An integrative theory of intergroup conflict. In: Austin, W.G. & Worchel, S. (Eds.). The social psychology of intergroup relations (pp. 33–57). Wadsworth, Ohio.

Tannen, D. (1994). Gender and discourse. Oxford University Press, Oxford.

Thomson, R., Murachver, T. & Green, J. (2001). Where is the gender in gendered language? Psychological Science, 12(2), 171-175, https://dx.doi.org/10.1111/1467-9280.00329.

Tinghög, G., Ahmed, A., Barrafrema, K., Lind, T., Skagerlund, K. & Västfjäll, D. (2021). Gender differences in financial literacy: The role of stereotype threat. Journal of Economic Behavior and Organization, 192, 405-416, https://dx.doi.org/10.1016/j.jebo.2021.10.015.

Tokarski, R. (2014). Światy za słowami. Wykłady z semantyki leksykalnej. UMCS, Lublin.

Turner, D.W. (2010). Qualitative interview design: A practical guide for novice investigators. The Qualitative Report, 15(3), 754-760, https://dx.doi.org/10.46743/2160-3715/2010.1178.

Vergoossen, H.P., Renström, E.A., Lindqvist, A. & Sendén, M.G. (2020). Four dimensions of criticism against gender-fair language. Sex Roles, 83, 328-337, https://dx.doi.org/10.1007/s11199-019-01108-x.

Von Hippel, C., Sekaquaptewa, D. & McFarlane, M. (2015). Stereotype threat among women in finance: Negative effects on identity, workplace well-being, and recruiting. Psychology of Women Quarterly, 39(3), 405-414, https://dx.doi.org/10.1177/0361684315574501.

Wei, W., Lu, H., Zhao, H., Chen, C., Dong, Q. & Zhou, X. (2012). Gender differences in children's arithmetic performance are accounted for by gender differences in language abilities. Psychological Science, 23(3), 320-330, https://dx.doi.org/10.1177/0956797611427168.

Wołkowski, P. (2010). Biologiczne aspekty teorii zdolności językowej Chomsky'ego. Diametros, 23, 145-161.