



Sylwiusz Żychliński*, Anna Skałba and Magdalena Wrembel

The perception of gradient acceptability among L1 Polish monolingual and bilingual speakers

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Abstract: Gradient acceptability, which characterizes partially acceptable constructions within a given population of speakers, is a phenomenon whose cognitive underpinnings are yet to be fully understood. In this paper we share insights from a study where the causes of gradient acceptability were investigated from a language-external, speaker-oriented perspective. Specifically, we tested whether the mono- and bilingual status and age play a role in the perception of partially acceptable subject-oriented possessive pronouns and post-verbal adverb placement in Polish. To that end, we performed an acceptability judgement task involving four groups of native speakers of Polish (N = 99), differing in bilingual status (monolingual vs. bilingual) and age (young adult vs. middle-aged). The data were analyzed with mixed-effects ordinal logistic regression models. The results showed that only age was a significant predictor of the ratings of ungrammatical sentences with subject-oriented possessive pronouns. Conversely, the ratings of sentences with adverb placement were influenced by bilingual status. While the findings may be partly explained by different sources of partial acceptability in the two tested constructions, they also show that age and bilingual status impact different areas of cognitive processing.

Keywords: gradient acceptability; ungrammaticality; markedness; bilingualism; age; acceptability judgments

1 Introduction

The notion of gradient acceptability emphasizes the fluidity of acceptability judgments and the role of partial acceptability, often annotated in studies with symbols like a question mark, reflecting the indeterminacy in how language users perceive

*Corresponding author: Sylwiusz Żychliński, Adam Mickiewicz University, Faculty of English, Poznań, Poland, E-mail: sylwiusz@amu.edu.pl

Anna Skałba and Magdalena Wrembel, Adam Mickiewicz University, Faculty of English, Poznań, Poland

and evaluate sentences or other linguistic units. Although theories of grammar often rely on idealizations, such as the binary distinction between grammatical and ungrammatical or acceptable and unacceptable, actual language users can provide a spectrum of acceptability judgments for identical structures, regardless of their formal grammatical classification. Recent years have witnessed a growing body of literature exploring the nature of linguistic gradience, e.g., Schindler et al. (2020) or Francis (2022). While most of these studies adopt a language-internal perspective, aiming to identify linguistic factors influencing gradient judgments, this paper takes a language-external and speaker-oriented approach to exploring the sources of gradience.

The primary objective of this article is to empirically assess the claim, found in language acquisition studies (e.g., Gürel and Yılmaz 2011; Sorace 2005, 2019), that bilingual (or multilingual¹) individuals tend to be more tolerant of gradience (also termed as optionality) in their native language (L1). Apart from bilingual status, we also consider age as a relevant variable which may influence the perception of gradient acceptability. This is partly motivated by the fact that older generations of Polish speakers, typically in their late 40s and older, are more likely to be functionally monolingual, providing an opportunity to investigate the impact of bilingualism. However, age is also relevant due to a commonly held belief, now to be empirically confirmed, that older generations of speakers tend to hold more conservative linguistic judgments compared to younger ones.

This work is directly inspired by the interim findings of a previous longitudinal study (Żychliński et al. 2025) in which we examined the cross-linguistic influence of Polish (the first language) and English (the second language) in the acquisition of Norwegian (the third language). During the pilot phase of testing Polish constructions for the prior study, we identified a partially acceptable distribution of possessive pronouns in positions that, according to prescriptive rules, would typically require reflexive possessive pronouns. The situation was further complicated by discrepancies in acceptability judgments identified between participants, who were primarily students in their early twenties, and some research team members, who were in their forties and older. It became clear that the issue required further investigation, and this article aims to provide a deeper understanding of bilingual status and age as factors influencing partial acceptability in a broader context.

1 We believe that our findings extend to multilingual speakers, but in the study we only controlled for the knowledge of English as the second language.

2 Gradient acceptability judgments

Traditionally, linguistic constructions are evaluated in terms of grammaticality or ungrammaticality. However, when language users are asked to share their linguistic intuitions about specific linguistic examples, they do not necessarily base their judgments on grammatical considerations (e.g., they may be simply unaware of certain rules of grammar). Thus, their judgments become opinions on acceptability rather than grammaticality. In fact, there is a clear difference between grammaticality, which is typically binary, and acceptability, which is not an all-or-nothing term and represents a spectrum, or gradience, of judgments along the acceptability continuum.² To further illustrate the disjointed nature of grammaticality and acceptability, let us consider (1–2):

- (1) a. Mary likes the new apartment.
b. *Mary like the new apartment.
- (2) a. %The data is stored on external hard drives.
b. %The data are stored on external hard drives.

The sentence in (1a) is fully grammatical and, presumably, acceptable to most speakers of English. (1b), on the other hand, is ungrammatical (because of the lack of subject-verb agreement), and very likely unacceptable to most speakers (though there may be some who will remain unencumbered by the blatant grammatical error). The status of the sentences in (2a-b) is less clear. Prescriptively speaking, the noun *data* is plural and should require the plural agreement, as in (2b). However, the Latin origin of the word obfuscates the number distinction, and in common usage, the word is typically interpreted as a mass noun, which requires the singular agreement, shown in (2a). Therefore, while grammaticality and acceptability largely go hand in hand in (1a-b), the acceptability judgments of (2a-b) will be influenced by the speakers' knowledge of Latin borrowings in English and are expected to vary, as indicated by the percentage marks.

In this study, we focus on partially acceptable judgments in Polish as resulting from mild prescriptive ungrammaticality (i.e., the distribution of possessive and reflexive possessive pronouns in 3rd person singular) and markedness (i.e., the non-canonical position of adverbs of frequency). The choice of the constructions was motivated by certain resemblances between Polish and Norwegian, which were relevant to the previous study (Żychliński et al. 2025). Whereas in the case of the

² The views on the nature of acceptability and grammaticality vary. In fact, Chomsky (1965/2015: 9–10) recognizes both as gradient. Sprouse (2007), on the other hand, shows experimental study results pointing to the categorical nature of grammaticality.

marked word order, the grammatical status of the tested sentences was never in question (but their lower frequency suggests more variability in acceptability), the sentences involving possessive pronouns in contexts which imply the use of reflexive possessive pronouns constitute a breach of grammar. The rule of grammar responsible for the grammatical distribution, however, is rarely taught explicitly; therefore, the assessment must rely on tapping into implicit knowledge and individual language attitudes.

3 Constructions under investigation

Two constructions, which included 3rd person subject-oriented (reflexive) possessive pronouns (henceforth, SO pronouns) and the position of adverbs of frequency, involving partially acceptable variants in Polish have been selected for the study. As mentioned in Section 1, these constructions were chosen due to certain similarities and differences between Polish and Norwegian, which were investigated in our prior study. Unexpected results in terms of acceptability judgments from native speakers of Polish, especially as regards the distribution of 3rd person singular reflexive possessive and possessive pronouns, prompted the effort to conduct a more detailed examination of these constructions. We also aimed to control for such factors as bilingual status and age during this investigation.

3.1 Subject-oriented reflexive possessive and possessive pronouns

Polish has two pronominal paradigms for the expression of possession. Reflexive possessive pronouns are used when referring to the clausal subject possessor, whereas possessive forms are co-referent with the non-subject possessor. This is illustrated in (3a-b), where the subject-oriented *swój* refers to the subject in (3a), whereas in (3b) the possessive *twój* refers to somebody else, but not the subject.

- (3) a. Muszę umyć swój samochód.
 need wash self's car
 'I need to wash my car.'
- b. Muszę umyć twój samochód.
 need wash your car
 'I need to wash your car.'

These rules may suggest a clear picture of distribution, but in reality, things are more complicated. Although this aspect of grammar is not explicitly taught in school,

careful inspection reveals that the distribution of the two types of pronouns is at least partly parallel, which is further confirmed in Danielewiczowa (2019) or Jadacka (2013). While the use of the reflexive possessive is not controversial and problematic, it appears that the first and second person possessive pronouns in the subject-oriented reading are acceptable to some speakers, especially when combined with a contrastive focus, as illustrated in (4).

- (4) Najpierw muszę rozwiązać moje problemy, a nie twoje.
 first need solve my problems and not yours
 ‘I need to take care of my problems first, not yours.’

In our previous study, which served as motivation for the one we are reporting on now, we constructed sentences with 3rd person singular possessive and reflexive possessive pronouns. The restriction to 3rd person forms was necessitated by the fact that Norwegian, whose acquisition was the focus of that study, does not have reflexive possessive forms for the 1st and 2nd person pronouns. Thus, we used sentences such as (5):

- (5) Janek sprzedał swój / jego samochód.
 Janek sold self’s his car
 ‘Janek sold his car.’

It turned out that possessive forms, such as *jego* ‘his’ in (5), in the subject-oriented reading (Section 5.2 demonstrates how the subject-oriented interpretation was forced by the introductory sentence) were partially acceptable to some speakers. The fact that such sentences, though not recommended on prescriptive grounds (Bańko 2009), are partially acceptable suggests that the problem is not in the syntax, but in the semantics. When we compare Polish to English, we see that the semantic restriction is language specific:

- (6) John sold his car.

In the context of (6), the pronoun *his* can be interpreted in both subject-oriented and antisubject-oriented³ ways. This ambiguity is likely a result of the absence of reflexive possessive pronouns in English, which effectively enables both interpretations. In languages such as Polish, where the syntax can accommodate both types of pronouns, the semantic component, guided by the principles of simplicity and clarity, favors a single, unambiguous interpretation, a preference satisfied by the choice of one of the two pronouns.

³ Hestvik (1992: 557) uses the term *antisubject orientation* to describe the distribution of possessive pronouns in Norwegian.

3.2 Placement of adverbs of frequency

Polish adverbs of frequency, which include *zawsze* ‘always’, *często* ‘often’, *czasem* ‘sometimes’, and *rzadko* ‘seldom’, are canonically placed in the preverbal position, which makes Polish similar to English (7a-b), but different from German or Norwegian (7c-d), where they are placed post-verbally.

- (7) a. Jan *rzadko* czyta e-booki.
 Jan seldom reads e-books
 b. Jan *seldom* reads e-books.
 d. Jan liest selten E-books
 Jan reads seldom e-books
 c. Jan leser *sjelden* e-bøker.
 Jan reads seldom e-books

In fact, it is commonly assumed that the surface position of these adverbs is strictly connected with the syntactic behavior of the verb. Since adverbs of frequency are typically assumed to occupy the left periphery of a verb phrase, their pre-verbal position signals that the verb has not moved out of the verb phrase, whereas their post-verbal position shows the verb movement to a higher position in a clause. The Polish verb, by default, does not move overtly; however, movement is optionally possible.

- (8) %Jan czyta *rzadko* e-booki.
 Jan reads seldom e-books

The resulting word order in (8) is considered slightly marked and may be less preferable to some speakers, but it remains grammatical and, as such, it differs from the subject-oriented use of possessive pronouns.

4 The sources of gradient acceptability

Gradient acceptability, as suggested in Section 2, usually has its primary source directly in the language itself. What it means is that the choice of words, syntactic structures or word order directly influences people’s judgments about the language. Thus, we may refer to these aspects as language-internal sources of gradience. However, there are also factors influencing acceptability which are linked directly to those who assess the language. After all, it is a commonplace situation that the same sentence may elicit distinct judgments across a population of speakers. These factors, which are often claimed to be influenced by one’s profession, education or social status, can be called language-external or speaker-oriented factors, although in many

respects they overlap with the term language attitudes. In the subsequent sections the main language-internal sources will be briefly described, to be followed by the discussion of the selected two language-external factors that have been more closely investigated in this study.

4.1 Language-internal sources

Francis (2022) categorizes the linguistic factors causing gradience in judgments into prosodic, syntactic, semantic, pragmatic, and processing-related categories. The identification of a specific category influencing a gradient interpretation is not always easy, as illustrated with examples in (9–10).

- (9) *Idąc do szkoły, zaatakował mnie pies sąsiadów.
 walking to school attacked me dog neighbors
 ‘I was attacked by my neighbor’s dog as I was walking to school.’
- (10) %Idąc do szkoły, przypomniała mi się stara piosenka.
 walking to school remembered me REFL old song
 ‘I remembered an old song as I was walking to school.’

While both sentences are syntactically ill-formed, as both feature dangling participles (i.e., the implicit subject of the participial clause does not match the subject of the main clause), (9) is markedly worse than (10).⁴ The plausible explanation for this state of affairs may be that the object arguments in (9) and (10) bear different thematic roles and are characterized by different discourse prominence. The Patient argument in (9) is less semantically prominent than the Experiencer in (10) (see Grimshaw 1991 for the discussion of thematic roles and prominence). The semantic prominence, then, appears to salvage (10) at least to some speakers, in spite of the prescriptive inadequacy.

The gradient acceptability of the constructions examined in this study appears to result from their interface nature, which involves the intersection of syntax with discourse and pragmatic factors. It is likely that the partially acceptable distribution of SO possessive pronouns is pragmatically conditioned, potentially linked to an ambiguity avoidance strategy (which is why in our questionnaires we used introductory sentences to enhance the plausibility of the subject-oriented reading). Similarly, the post-verbal placement of adverbs of frequency also results in a focus

⁴ It should be added that both (9) and (10) feature syntactic subjects, which are, however, not plausible matches for the implicit subject of the participial clause. Thus, the second-best matching arguments are considered, which in this case are the object arguments.

shift, which affects the information structure of a sentence and, thus, has discourse-related consequences.

It is important to note that while all these language-internal factors are significant in understanding linguistic gradience, their detailed discussion is beyond the scope of this article. Nonetheless, these factors collectively illustrate the complex and heterogeneous nature of the gradient acceptability from the language-internal perspective.

4.2 Language-external sources

We have selected two language-external and speaker-oriented sources of gradient judgments to be examined in this study. Firstly, claims in the L_n acquisition literature (e.g., Hicks and Dominguez 2019; Sorace 2019) suggest that knowledge of foreign languages may lead to a more lenient treatment of grammar. Consequently, we will consider the bilingual status of speakers as the first potential factor influencing gradient judgments. Additionally, we believe that we have amassed sufficient evidence to support the notion that age also affects linguistic gradience, especially given that, in a country such as Poland, age is often directly correlated with the bilingual status (the bilingual status tends to diminish with growing age⁵) in the population of adults. However, we also recognize that age is closely intertwined with the concept of language attitudes, which we will describe first, subsequently exploring how the two concepts are connected.

4.2.1 The bilingual status of speakers

The literature on second and third language acquisition provides clear indications of the presence of what we shall term the bilingual status effect (e.g., Gürel and Yılmaz 2011; Hicks and Dominguez 2019; Sorace 2019). The general idea is that proficiency in additional languages may result in reduced sensitivity to prescriptive grammaticality in one's native language. However, existing evidence is often based on research on L2-influenced L1 attrition among heritage speakers. Thus, supplementing that claim with empirical evidence based on non-heritage speakers (active L1-L2[-L_n] speakers) and comparing them with monolinguals is a natural step forward towards gaining more insight into the effect of additional languages on the L1. Additionally, as

⁵ This state of affairs is a consequence of the fact that until 1990 Russian was the main foreign language imposed in Polish schools, and for many learners that language was not functionally used after finishing school. As a result, it is easy to find people in their 40s and older who are functionally monolingual.

claimed in Dewaele and Wei (2013), multilingual speakers are characterized by greater acceptance of ambiguity, which we consider as being interconnected with the notion of linguistic gradience / optionality.

Gürel and Yılmaz (2011) define language attrition as “an unconscious rearrangement or restructuring of the L1 grammar due to L2 contact” (2011: 222). In the context of heritage language, it is argued to affect second and third generation immigrants, while first generation immigrants “are predicted to demonstrate only marginal and localized changes in their L1 grammar” (2011: 222). In a similar context, Hicks and Dominguez (2019) report “fluctuation between L1-based and L2-based grammatical options rather than the complete loss of L1 forms” (2019: 16). The presence of optionality is also recognized in Sorace (2005, 2019), who notices that “[attrition] does not affect grammar itself but rather how the grammar is accessed” (2019: 2). In Sorace (2005: 69), it is additionally claimed that features which are not strictly syntactic, but which apply at interfaces of syntax and other domains, such as discourse or pragmatics, are more susceptible to the L2-influence. If so, the constructions examined in this study, which involve the intersection of syntax and discourse/pragmatics, provide a solid testing ground for verifying these claims. Although we are not investigating attrition as such, it is our goal to find out whether the L1 optionality and the onset of micro-changes can already be perceived at the bilingual stage.

A compelling argument is also presented in Dewaele and Wei (2013). Based on the research of monolinguals, bilinguals and multilinguals, it is concluded that the knowledge of multiple languages and the experience of having to survive in a foreign language and culture make individuals more tolerant of ambiguity (2013: 238). In that research, however, the increased tolerance of ambiguity was linked to ambiguous situations, not linguistic structures. Thus, in this study we are testing whether Dewaele and Li’s concept can also be extended to the realm of linguistic ambiguity.

4.2.2 The role of age in the Polish prescriptive tradition

We consider age to be a relevant factor in perceiving gradient acceptability, as gradient acceptability is strictly related to linguistic attitudes, and these are subject to change over time. We shall explain these relationships by making a general note on language attitudes and their connection with the prescriptive approach to language. We will then expound on the correlation between prescriptivism and age.

The study of language attitudes is one of the central fields in sociolinguistics, and the literature on language attitudes in English has been extensive (e.g., Garrett 2010; Kircher and Zipp 2022). While a substantial part of the discussion centers around the perception of different accents and its implications, language attitudes are also shaped by judgments based on factors such as dialect, ethnicity, and social class

(Giles and Rakić 2014: 15). At the same time, the literature is lacking as regards language attitudes (and, more importantly, what affects them⁶) in relation to the perception of non-standard, prescriptively flawed language, including mildly ungrammatical or marked forms, which constitute the main focus of this study.

In Polish sociolinguistic studies, language attitudes have been assigned a slightly different meaning. The term is mainly associated with the notions of linguistic awareness, linguistic norm and language policy (Hącia 2020: 147), and includes such attitudes as linguistic purism, conservatism and liberalism, among others (Markowski 2005: 126–140). While these attitudes (e.g., linguistic conservatism vs. liberalism) suggest direct implications for the perception of gradient acceptability – with linguistic conservatists showing less openness to deviations from prescribed language standards than linguistic liberals – studies examining interpersonal factors shaping these attitudes, such as age, are scarce. Furthermore, openness to linguistic innovation is typically considered in terms of lexical innovation, especially borrowings from other languages, not syntactic innovation, as explored in this study.

Several notable efforts have been made over the past decades to maintain highly prescriptive standards of the Polish language (for a comprehensive overview in English, see Kułak 2019). To begin with, there is a selection of publications dedicated to grammatical correctness in Polish, the more recent of which include Bugajski (1999), Bańko (2006), Karpowicz (2012), Markowski (2012), or Jadacka (2013). It is worth noting that these publications are not solely grammar books in the traditional sense; they often delve into the discussion of specific language problems, providing recommended solutions to challenges that Polish speakers might encounter. Furthermore, in 1996, the Polish Language Council was established as an advisory and consultative institution responsible for regulating the use of the Polish language. This council consists not only of linguists, but also individuals from various other fields, such as physics and law, to mention but two. It regularly issues opinions and contributes to the development of the state's language policy, working closely with the Ministry of Education and Science. Over the years, several council members have gained significant visibility in national media by hosting television and radio programs that focus on the proper use of the Polish language. Finally, there is a distinct branch of Polish language studies known as 'kultura języka' (Eng: proper language use), which, among other objectives, directly addresses the need to enhance the linguistic awareness of Polish speakers. Courses in proper language use are offered

6 What we mean here is the lack of discussion of individual factors, such the ones investigated in this study, i.e., age and bilingual status, but also education, reading rate, etc., in the context of gradient acceptability.

to students of various philologies, some of whom later become teachers and incorporate the normative approach in their own teaching.

All of the above constituted the broad context in which people born in the pre-1990s were growing up. For younger generations, especially those born after 2000, this context has changed. Starting in the early 2000s, the linguistic landscape in Poland underwent significant transformation. During that period, Internet access in Poland became more affordable and available to a wider population, leading to an exponential increase in exposure to foreign languages, notably English. Additionally, Poland's accession to the European Union in 2004 facilitated international travel (especially within the EU) and language contact, and, only a few years later, social media platforms gained widespread popularity. Amidst these changes, it appears that, as a general rule, younger generations of speakers have become less concerned with the notion of prescriptive correctness. This is not only because formal teaching of grammar has been severely reduced in the elementary and high school curricula, but also because grammatical accuracy has assumed a secondary role in what modern ways of digital communication look like. A cursory glance at the language used in text messaging and social media communication reveals a style that is often informal, with a lack of punctuation and grammatical precision. While the pervasive influence of social media and other informal information sources, such as YouTube channels, extends to people of all ages, it is the younger generations who have grown up within this linguistic context and are most immersed in it. Coupled with the officially reported steadily declining reading habits, the longstanding Polish prescriptive tradition seems to be facing a challenging period. In this context, age should be naturally taken into consideration while studying speakers' attitudes to partially acceptable structures. Thus, the main question we are addressing is whether age can be empirically proven to be a significant factor contributing to the diminishing influence of prescriptivism as manifested in partially acceptable judgments assigned to ungrammatical or marked constructions.

5 The study

The current study aimed to investigate perception of gradient acceptability among L1 Polish monolingual and bilingual speakers. In order to examine the extent to which bilingual status and age may be involved in the processing of gradient acceptability by Polish speakers, an acceptability judgment study was conducted. Four different groups of Polish native speakers, distinguished on the basis of their bilingual status and age, were asked to complete the linguistic questionnaires, with the bulk of the data collection taking place between January and May 2023.

5.1 Research questions and hypotheses

In this study we investigated the role of bilingual status and age in the processing of partially acceptable sentences in L1 Polish. To that end, we asked the following research question:

RQ: Are acceptability judgements for ungrammatical and marked constructions in L1 influenced by age and bilingual status?

Given the general nature of the research question, we also formulated two more specific hypotheses, which followed directly from the arguments presented in the previous sections:

H1: There will be higher acceptability ratings for grammatical/unmarked constructions than for ungrammatical/marked ones.

H2: There will be an increase in acceptability ratings for ungrammatical and marked constructions in L1 with growing English proficiency and younger age.

The rationale behind the hypotheses is based on a few assumptions, which appear well-grounded in the light of the argumentation presented so far. For the role of age, we argue that the older the participants, the more conservative, thus prescriptively-oriented, their judgments will be, especially in the group of functional monolinguals. This conclusion derives from the fact that older generations of monolingual Polish speakers grew up in the more prescriptively-oriented setting, which promoted stricter adherence to the standard norm of use. We describe the group as functionally monolingual because even though most of the participants had obligatory courses of Russian in school, they reported that they did not use the language actively later in life. However, even if they retained some knowledge of Russian, we would not predict that to be a source of any influence, as Polish and Russian are identical for both tested constructions.⁷ A difference in the judgments of older monolingual and bilingual groups would be understandable, as the latter one was exposed to English, which, especially for possessive pronouns, could be considered a source of interference, or non-facilitative influence.

In terms of bilingual status, our research predicts the opposite outcomes. We anticipated that younger bilingual speakers would exhibit a greater tolerance for ungrammatical or marked constructions. This prediction stems from their increased

⁷ Nikolaeva (2014) reports that subject-oriented possessive pronouns in Russian are also acceptable to “a minority of speakers” (2014: 44).

exposure to English, which is likely to influence their judgments, particularly in the case of possessive pronouns, where Polish and English are at odds. The prediction is further bolstered by the effect of bilingual status, claimed to weaken the sensitivity to grammatical correctness. Also, younger individuals have grown up in an era of thriving social media and instant communication platforms, where grammatical accuracy may have become less of a priority. This changing linguistic landscape is expected to be manifested in their perceptions of language norms. As for the potential difference between the two groups of younger speakers, we predict the judgments of younger monolinguals to show less gradience, if only because of a lack of the bilingual status effect. Also, lesser exposure to English corresponds to a decreased influence of English possessive pronouns, whose syntactic behavior is different from Polish.

5.2 Participants

In order to investigate the role of age and bilingual status in the acceptance of marked and prescriptively incorrect constructions in L1, we recruited four groups of native speakers of Polish. We operationalized the variable of bilingual status as the knowledge of English, reflected in the score in the Cambridge general English placement test, comprising 25 multiple choice grammar and vocabulary questions. Although some participants also knew other foreign languages, their proficiency levels were relatively low, mostly up to the A2 level (Council of Europe 2020). The participants were grouped as follows:

1. younger bilinguals
2. younger monolinguals
3. older bilinguals
4. older monolinguals.

The first group consisted of 23 young adults with an advanced knowledge of English. Their mean age was 20 years old. They were all first-year university students of Norwegian philology, following an intensive course of English as their second foreign language. The participants' mean score in the English test was 18 out of 25 points. Given that testing took place within three months of the onset of Norwegian learning, their proficiency in this language was still limited. The participants also reported the knowledge of other foreign languages, such as German (12 participants), Spanish (4), Russian (2), French (1), and Korean (1).

As all Polish students obligatorily start learning at least one foreign language at primary school, finding a group of fully monolingual young adults was impossible. Therefore, for the second group we recruited 31 students of a technical high school,

where the level of English is relatively low.⁸ The group's mean age was 19 years old. Their mean score at the English proficiency test was 12 points. Over half of the participants also reported a limited knowledge of German (up to A2 level).

The third group consisted of 25 older Polish-English bilinguals, recruited via personal contacts. Their mean age was 49 years old. On average, they obtained 17 points in the English proficiency test. The majority of them also reported the knowledge of other foreign languages, including Russian (13 participants), German (9), Spanish (6), French (3), Italian (3), and Esperanto (1).

The fourth group of older monolingual Polish speakers was recruited through personal contacts and included 26 participants with the mean age of 67 years old. As we were sure that they had never learnt English, we did not ask them to complete the English proficiency test. Instead, we inserted the value of 0. Although it could be argued that they would certainly have scored at least a few points by guessing, this would not reflect their actual linguistic competence. The great majority of them were truly monolingual Polish speakers, whose only contact with a foreign language was limited to Russian classes at school. Yet, they have almost never used it afterwards.

The participants' profile is presented in Table 1. As the four groups were not fully matched on age and English proficiency, we decided to treat them both as continuous variables in the subsequent statistical analyses.

Table 1: Summary of the four experimental groups. With the exception of sample size, main values correspond to means, and values in parentheses, standard deviations.

		Monolingual	Bilingual
Younger	Sample size	31	23
	Age	18.94 (0.25)	19.87 (0.87)
	English score	48.12 % (17.84 %)	72.96 % (16.24 %)
Older	Sample size	26	25
	Age	66.67 (9.58)	48.80 (10.05)
	English score	0 % (0 %)	67.04 % (22.44 %)

⁸ Of note, high school students who want to pursue their formal education at a university level need to pass a state exam called Matura in (at least) Polish, mathematics, and a foreign language, most frequently English. The proficiency level of the foreign language exam is B1 (Council of Europe 2020). The passing threshold is 30 %.

5.3 Stimuli

The stimuli used for the purposes of the study consisted of 10 items including SO pronouns and 10 items containing adverbs of frequency. Each item consisted of two sentences, namely an introductory sentence setting the context, which was followed by the target sentence to be assessed by participants.

Each item within the construction of SO pronouns had its grammatically correct version and a prescriptively incorrect one. This alternation was reflected in the use of the reflexive possessive pronoun *swój* ‘self’s’ in the correct condition, and the possessive pronoun *jego/jej* ‘his/her’ in the incorrect one. Since possessive pronouns are gender-marked in Polish, we made sure that participants judge their subject-oriented interpretations in the incorrect condition by including a coordination of a female and a male name in the introductory sentence, one of which was repeated as the subject of the target sentence. Additionally, although possessive pronouns can have a referent outside the context provided, this interpretation was made highly unlikely by the introductory sentence. An example item with SO pronouns is shown in (1).

- (1) Introductory sentence: Paweł i jego współniczka Helena zarobili na giełdzie sporo pieniędzy.
Paul and his business partner Helen made a lot of money on the stock exchange.
- Target sentence: Paweł₁ wydał **swoje**₁ / ***jego**₁ pieniądze na nowy samochód.
*Paul spent **self's** / **his** money on a new car.*

The construction with adverb placement included unmarked and marked conditions, both of which were prescriptively correct. This opposition was attained through pre-verbal and post-verbal adverb placement, respectively. Introductory sentences contained a general statement, to which the target sentence stood in opposition by the use of an appropriate adverb of frequency. An example of an experimental item including adverb placement is shown in (2).

- (2) Introductory sentence: Większość pracowników dojeżdża do pracy pociągiem.
The majority of employees commute to work by train.
- Target sentence: Ale Stanisław **rzadko jeździ** / %**jeździ** **rzadko** pociągiem.
*But Steven **seldom takes** / **takes seldom** the train.*

The stimuli were divided into two lists, so that participants saw either a grammatically correct or incorrect version of each experimental item with SO pronouns, and either an unmarked or marked version of each experimental item with adverb placement. As the constructions under investigation were distinctly different, they served as fillers to each other.

5.4 Procedure

The acceptability judgement task was administered as a Microsoft Forms online questionnaire. First, participants provided their informed consent to participate in the study and read the instructions. Item presentation started with the introductory sentence, which was directly followed by the target one, marked in bold. Participants were requested to read the first sentence carefully and, considering the context, decide whether the second one sounded natural to them. They marked their judgements on a five-point Likert scale. In order to ensure appropriate comprehension of the task, it was preceded by two example items, one judged as 1 (very unnatural), and the other 5 (very natural). While assessing the sentences, participants were asked to follow their first intuitions, rather than concentrate on grammatical rules.

Having finished the task, participants (with the exception of the older monolingual group) completed the Cambridge general English placement test. They were also asked to self-assess their proficiency levels in all foreign languages they knew, and to provide their year of birth. The whole experimental procedure took about 10–15 min.

5.5 Results

Statistical analyses were performed with the use of the R software (R Core Team 2022). We used the *ordinal* package (Christensen 2022) for significance testing and the *ggplot2* package (Wickham 2016) for data visualization. Effects with *p*-values smaller than 0.05 were deemed statistically significant.

When it comes to descriptive statistics, sentences with SO pronouns yielded more extreme ratings than those with adverbs. The mean ratings for SO pronouns in the grammatically correct condition was 4.37 (SD = 1.06) and in the incorrect condition – 2.79 (SD = 1.55). In the case of adverb placement, unmarked sentences had the mean rating of 3.52 (SD = 1.45), whereas marked ones – 3.15 (SD = 1.39). Figure 1 presents differences in ratings between grammatical and ungrammatical sentences for SO pronouns and between unmarked and marked sentences for adverb

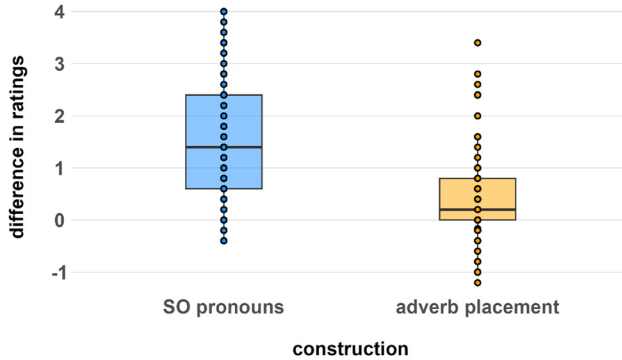


Figure 1: Differences in ratings between grammatical and ungrammatical conditions for SO pronouns and between unmarked and marked conditions for adverb placement.

placement. Positive values for differences indicate that grammatical/unmarked sentences were rated higher than ungrammatical/marked ones, whereas negative values signify lower ratings for grammatical/unmarked than for ungrammatical/marked sentences.

5.5.1 SO pronouns

In order to assess the influence of age and bilingual status on acceptability ratings, we used mixed-effects ordinal logistic regression modelling. We ran separate models for the two constructions. In both cases, the categorical variable of *grammaticality* was treatment-coded, with *grammatical/unmarked* as baseline, and the continuous variables of *age* and *English score* were centered and standardized.

The first model predicted the ratings of sentences with SO pronouns from the interaction between *grammaticality* (grammatical, ungrammatical), *age*, and *English score*. The model included by-participant and by-item random intercepts, and a by-participant random slope for grammaticality. For the baseline level of *grammaticality* (i.e., ungrammatical), the model showed statistically significant simple effects of *grammaticality* ($p < 0.001$), *age* ($p = 0.008$), and *English score* ($p = 0.023$). For ungrammatical sentences, there was a significant interaction with *age* ($p < 0.001$) only. Subsequently, we conducted likelihood ratio tests, which revealed significant main effects of *grammaticality* ($p < 0.001$) and *age* ($p < 0.001$), but not *English score* ($p = 0.258$). Table 2 presents a tabulated summary of the main model predicting the ratings of SO pronouns, and Figure 2 visualizes a linear prediction of the ratings from *age* and *English score*.

Table 2: Summary of the mixed-effects ordinal logistic regression model predicting the ratings of SO pronouns.

Predictors	Rating			
	Odds Ratios	Std. Error	Statistic	<i>p</i>
1 2	0.01	0.00	-13.58	<0.001
2 3	0.04	0.01	-10.79	<0.001
3 4	0.13	0.04	-7.35	<0.001
4 5	0.38	0.10	-3.57	<0.001
Grammaticality [ungrammatical]	0.05	0.01	-10.11	<0.001
Age	1.87	0.44	2.67	0.008
English score	1.74	0.43	2.28	0.023
Grammaticality [ungrammatical] × age	0.26	0.08	-4.60	<0.001
Grammaticality [ungrammatical] × English score	0.70	0.21	-1.19	0.234
Age × English score	0.83	0.20	-0.77	0.443
(Grammaticality [ungrammatical] × age) × English score	1.05	0.31	0.16	0.869
Random effects				
σ^2	3.29			
τ_{00} participant	2.05			
τ_{00} sentence	0.17			
τ_{11} participant.grammaticalityungrammatical	3.10			
ρ_{01} participant	-0.51			
ICC	0.43			
N participant	98			
N sentence	10			
Observations	990			
Marginal R ² / Conditional R ²	0.330 / 0.619			

5.5.2 Adverb placement

We ran an analogous mixed-effects ordinal logistic regression model for the construction of adverb placement. The only difference pertained to the levels of the predictor variable of *grammaticality*, which included unmarked and marked constructions (instead of grammatical and ungrammatical). For the baseline level of *grammaticality* (i.e., unmarked), the model showed significant simple effects of *grammaticality* ($p = 0.008$) and *English score* ($p = 0.014$). For marked sentences, neither the interaction with *grammaticality*, nor with *age* was statistically significant. In order to identify main effects of the model, we performed likelihood ratio tests, which showed a significant main effect of grammaticality ($p < 0.001$), but not of

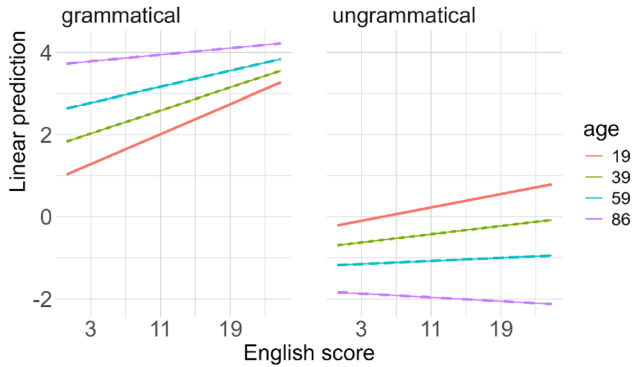


Figure 2: Interaction plot of estimated marginal means based on the model predicting the ratings of grammatical and ungrammatical sentences with SO pronouns from *English score* and *age*. Given the constraints of visualizing a linear prediction of an interaction between two continuous variables, the figure presents four representative values of the variable *age*: lower quartile (19), median (39), upper quartile (59), maximum (86). The minimum value is not included due to its overlap with the lower quartile.

age ($p = 0.12$) or *English score* ($p = 0.061$). A tabulated summary of the main model predicting the ratings of sentences with adverb placement is presented in Table 3. Linear predictions of the outcome variable from *age* and *English score* are shown in Figure 3.

6 Discussion

The aim of the study was to examine the influence of age and bilingual status on acceptability ratings for ungrammatical and marked constructions in L1, represented by SO possessive pronouns and post-verbal adverb placement, respectively. In order to address this research question, we conducted an acceptability judgement task with native speakers of Polish, who differed along two scales: age (from younger to older) and bilingual status (from functionally monolingual to bilingual). Since these two variables are not categorical in nature, we entered them as continuous variables in statistical analyses, performed separately for SO pronouns and adverb placement with mixed-effects ordinal logistic regression modelling. Our hypotheses predicted (1) higher acceptability ratings for grammatical/unmarked constructions than for ungrammatical/marked ones and (2) an increase in acceptability ratings for ungrammatical and marked constructions with growing English proficiency and younger age.

Table 3: Summary of the mixed-effects ordinal logistic regression model predicting the ratings of adverb placement.

<i>Predictors</i>	<i>Rating</i>			
	<i>Odds Ratios</i>	<i>Std. Error</i>	<i>Statistic</i>	<i>p</i>
1 2	0.03	0.01	-8.12	<0.001
2 3	0.15	0.06	-4.71	<0.001
3 4	0.83	0.33	-0.46	0.642
4 5	4.50	1.81	3.74	<0.001
Grammaticality [marked]	0.55	0.12	-2.66	0.008
Age	1.55	0.57	1.19	0.235
English score	2.70	1.09	2.47	0.014
Grammaticality [marked] × age	1.12	0.26	0.51	0.609
Grammaticality [marked] × English score	0.62	0.15	-1.93	0.054
age × English score	0.60	0.24	-1.29	0.197
(Grammaticality [marked] × age) × English score	1.61	0.39	1.95	0.051
Random effects				
σ^2	3.29			
τ_{00} participant	7.58			
τ_{00} sentence	0.14			
τ_{11} participant.grammaticalitymarked	1.73			
ρ_{01} participant	-0.49			
ICC	0.67			
N participant	98			
N sentence	10			
Observations	990			
Marginal R^2 / Conditional R^2	0.058 / 0.693			

A significant main effect of grammaticality found in both models confirmed the first hypothesis. As predicted, the participants perceived sentences with SO reflexive possessive pronouns and with pre-verbal adverb placement as more acceptable than those with ungrammatical SO possessive pronouns and with marked post-verbal adverb placement, respectively. The analyses also confirmed clear differences in acceptability ratings between the two tested constructions, which are attributed to their divergent nature. Sentences with SO pronouns had grammatical and ungrammatical conditions, whereas for adverb placement the opposition was between unmarked and marked sentences.

The second hypothesis was partially confirmed for the construction of SO pronouns, since age proved a significant predictor of the ratings for ungrammatical

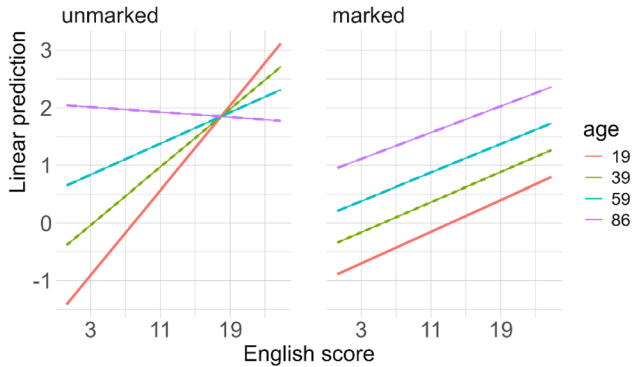


Figure 3: Interaction plot of estimated marginal means based on the model predicting the ratings of unmarked and marked sentences with adverbs from *English score* and *age*. Given the constraints of visualizing a linear prediction of an interaction between two continuous variables, the figure presents four representative values of the variable *age*: lower quartile (19), median (39), upper quartile (59), maximum (86). The minimum value has not been included due to its overlap with the lower quartile.

sentences. Our model showed an age-related decrease in the ratings of ungrammatical sentences, irrespective of English proficiency level. This finding suggests a more relaxed attitude towards ungrammaticality for younger native Polish speakers, which does not seem to be directly related to contact with English, or potential cross-linguistic influence.

Additionally, Figure 2 indicates an age-related increase in the ratings of grammatical sentences, which is most pronounced at lower English proficiency levels. The juxtaposition of these two findings indicates that younger participants tended to assign intermediate values to both types of grammaticality conditions, whereas older participants rated them in a more binary-like way. This is in line with the claim made before that grammatical accuracy is less highly prioritized among younger individuals, whose greater reliance on instant digital communication can make them less sensitive to more subtle grammatical distinctions. Also, lower grammatical awareness as a consequence of the reduced formal grammar teaching at lower levels of education could be a contributing factor, too. Apart from shedding light on Polish speakers' perception of SO pronouns as a function of age, this discrepancy might also be modulated by the participants' experience with Likert scales. While young adults are typically used to filling out questionnaires requiring them to rate statements in a nuanced way, this is not necessarily the case for older people (who, for the most part, have less contact with the digital media, where Likert scales are commonly utilized). Additionally, older speakers may be more influenced by linguistic prescriptivism, whose importance used to be stressed to a much greater degree during

their formal education, and whose role has been diminishing over the last two decades or so, as discussed in Section 4.2.2.

Despite an absence of three-way interaction between grammaticality, age, and English proficiency, data visualization suggests that English proficiency played the greatest role in acceptability ratings at younger ages, whereas it failed to exert any meaningful influence for older participants. For both grammaticality conditions, the ratings of younger participants increased the most with growing English proficiency. This factor made a smaller contribution to ratings for participants at the ages around the mean, up to showing a decreasing trend for the oldest participants in the ungrammatical condition.

Although our model for the construction of adverb placement provided rather inconclusive results, it showed a trend towards increased acceptability ratings for marked sentences with growing English proficiency as a proxy for bilingual status. In contrast to SO pronouns, for which age turned out to be a significant predictor of acceptability ratings, English proficiency seemed to play a greater role in the ratings of marked sentences with post-verbal adverb placement. We interpret the fact that the participants with higher English proficiency tended to be more lenient in their judgements of the marked sentences as a possible result of their bilingual status, which prompts greater tolerance of optionality and ambiguity (Gürel and Yılmaz 2011; Hicks and Dominguez 2019; Sorace 2005, 2019). Even though the previous claims related to increased optionality were largely made on the basis of the research on L1 attrition, our results show that micro-changes may start at a much earlier stage. Cross-linguistic influence could be a potential factor influencing acceptability judgements in L1, but it cannot explain the current findings, as pre-verbal adverb placement is the default word order both in Polish and in English, and the marked, post-verbal adverb placement is strictly ungrammatical in English. Hence, we tentatively attribute this finding to bilingual status, pending further research.

The different results in the processing of the two constructions could also be attributed to non-identical language-internal sources of their gradient acceptability. While both subject-oriented possessives and post-verbal adverb placement can be linguistically situated at the syntax-discourse (/pragmatics) interface, the interpretive consequences of using SO possessive pronouns seem more costly than in the case of post-verbal adverb placement. In the former case, the subject-oriented interpretation always competes with the non-subject-oriented one, whereas in the latter case, only the focus is affected (but the interpretive ambiguity is less consequential). It may be the case, then, that age is a factor which affects semantic interpretation to a greater extent (younger generations less concerned with not only grammatical but also semantic accuracy, thus more tolerant of semantic ambiguity in the case of SO possessive pronouns). On the other hand, bilingual status, while not impactful enough to override the semantic ambiguity, does in fact contribute to the increased

tolerance of (largely) syntactic optionality (Sorace 2005, 2019). As for the claim, put forward in Dewaele and Wei (2013), that bilingual status increases tolerance of ambiguity, our results show that it does not extend to semantic ambiguity (only age proved to be a significant factor for SO possessives), but it may apply to syntactic optionality, manifesting itself in greater acceptability of the marked word order.

Finally, the study addressed only two variables which might affect native speakers' ratings of ungrammatical and marked sentences. However, neither age nor bilingual status are independent from other factors, which might also play their role in acceptability ratings. For instance, young adults tend to be more exposed to social media, which generally promote liberal attitudes towards language, than older people. Additionally, while many older people are truly monolingual speakers, this is not the case of younger ones, who obligatorily followed foreign language classes since primary school. Bilingual status is also closely linked to education, since the completion of formal education is frequently linked with discontinued contact with foreign languages. Hence, young adults who decide not to pursue education at a university level tend to have lower proficiency levels in English and/or other foreign languages than their counterparts who complete university studies. Furthermore, graduating from a university involves writing a bachelor's and/or master's thesis, whose language must meet the required formal criteria.

In the light of the complex interaction between variables influencing the acceptability of ungrammatical and marked constructions, which makes it difficult to tease them apart, future research could strive to obtain a fuller picture of participants' background by investigating in more depth not only their age and language use, but also formal education, social status, time spent using social media, or reading preferences. Additionally, it might be interesting to delve deeper into their perception of language by including questions related to participants' outlook on prescriptivism and language change. However, we believe that our study has contributed to the growing body of literature showing potential ongoing changes to the native language under the influence of language-external factors.

7 Conclusions

This study was directly inspired by Żychliński et al. (2025), where the role of gradient acceptability was first discussed in the context of cross-linguistic influence. The current investigation is innovative and unique as it has addressed several issues that have yet to receive more recognition, both in the studies of L2/Ln influence on native languages and in the investigation of linguistic gradience. To begin with, we have employed the empirical method of testing to examine the influence of L2 on the perception of ungrammaticality and markedness in the L1. While the L2/Ln effect on

the L1 has been studied before, the extant research is mainly focused on language attrition among heritage speakers, and our goal was to determine if the onset of L2-induced changes can be detected earlier among active L1 speakers. Furthermore, in this study we have tried to acknowledge the role of language-external factors, such as age and bilingual status, as contributing to the phenomenon of linguistic gradience. Most studies focus on the language-internal explanations of gradience, so we feel that by shedding light on the language-external, speaker-oriented factors, we have contributed in a novel way to the broader discussion of gradient acceptability. We have shown that both age and bilingual status play a role in the perception of L1 acceptability, although they do not necessarily affect identical areas of cognitive processing. We are also aware that the two variables we have studied cannot be fully disentangled from other potential variables, which is why we believe our study should serve as an incentive for further research, whose aim should be to explore the role of and the interactions between other variables. Finally, in the process of conducting the study, we have also touched on the status of prescriptive instruction. Prescriptivism as an approach to language tends to be criticized for often being detached from the actual language practice. We have shown that our understanding of prescriptive rules, rooted in tradition and subjective language policy decisions, can also benefit from empirical scrutiny by language users. Consequently, our findings could have significant pedagogical implications, and as such contribute to the further development of language awareness raising approaches in foreign language pedagogy.

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Data availability: Experimental stimuli prepared for the study and statistical analyses performed for the purpose of the present article are available at https://osf.io/bfvk2/?view_only=ff4656337b024fa5891ddaa9e40555a5.

References

- Bańko, M. (ed.). 2006. *Polszczyzna na co dzień*. Warsaw: PWN.
- Bańko, M. 2009. *Mój i swój*. Poradnia Językowa PWN. <https://sjp.pwn.pl/poradnia/haslo/moj-i-swoj;10404.html>.
- Bugajski, M. 1999. *Pół wieku kultury języka w polsce, 1945–1995*. Warsaw: PWN.
- Chomsky, N. 1965/2015. *Aspects of the theory of syntax*. Cambridge, Mass.: MIT Press.
- Christensen, R. H. B. 2022. Ordinal – Regression models for ordinal data. *R package version 2022*. 11–16. <https://CRAN.R-project.org/package=ordinal>.

- Council of Europe. 2020. *Common European framework of reference for languages: Learning, teaching, assessment companion volume*. Strasbourg: Council of Europe Publishing.
- Danielewiczowa, M. 2019. *Swój ma swoje tajemnice. Prace Filologiczne* 78. 49–66.
- Dewaele, J.-M. & L. Wei. 2013. Is multilingualism linked to higher tolerance of ambiguity. *Bilingualism: Language and Cognition* 16. 231–240.
- Francis, E. J. 2022. *Gradient acceptability and linguistic theory*. Oxford: OUP.
- Garrett, P. 2010. *Attitudes to language*. Cambridge: CUP.
- Giles, H. & T. Rakić. 2014. Language attitudes: Social determinants and consequences of language variation. In T. M. Holtgraves (ed.), *The Oxford handbook of language and social psychology*, 11–26. Oxford: OUP.
- Grimshaw, J. 1991. *Argument structure*. Cambridge, Mass.: MIT.
- Gürel, A., & G. Yılmaz 2011. Restructuring in the L1 Turkish grammar: Effects of L2 English and L2 Dutch. *Language, Interaction and Acquisition* 2(2). 221–250.
- Hącia, A. 2020. Postawy wobec języka – nowe-stare ujęcie zagadnienia. In A. Hącia, K. Kłosińska & P. Zbróg (eds.), *Polszczyzna w dobie cyfryzacji*, 147–155. Warsaw: PAN.
- Hestvik, A. 1992. LF movement of pronouns and anti-subject orientation. *Linguistic Inquiry* 23. 557–594.
- Hicks, G. & L. Dominguez. 2019. A model for L1 grammatical attrition. *Second Language Research* 36(2). 1–23.
- Jadacka, H. 2013. *Kultura języka polskiego: Fleksja, słowotwórstwo, składnia*. Warsaw: PWN.
- Karpowicz, T. 2012. *Kultura języka polskiego: Wymowa, ortografia, interpunkcja*. Warsaw: PWN.
- Kircher, R. & L. Zipp (eds.). 2022. *Research methods in language attitudes*. CUP.
- Kułał, K. 2019. Linguistic prescriptivism in present-day Poland: The normative attitudes of the speakers of Polish. In S. D. Brunn & R. Kehrein (eds.), *Handbook of the changing world language map*, 2291–2310. Cham: Springer.
- Markowski, A. 2005. *Kultura języka polskiego*. Warsaw: Wydawnictwo Naukowe PWN.
- Markowski, A. 2012. *Kultura języka polskiego: Teoria. Zagadnienia leksykalne*. Warsaw: PWN.
- Nikolaeva, L. 2014. *The secret life of pronouns. Doctoral dissertation*. Cambridge, Mass.: MIT.
- R Core Team. 2022. *R: A language and environment for statistical computing [Computer software]*. R Foundation for Statistical Computing. <https://www.R-project.org/>.
- Schindler, S., A. Drożdżowicz & K. Bröcker (eds.). 2020. *Linguistic intuitions: Evidence and Method*. Oxford: Oxford University Press.
- Sorace, A. 2005. Selective optionality in language development. In L. Cornips & K. P. Corrigan (eds.), *Syntax and variation: Reconciling the biological and the social*, 55–80. Amsterdam/Philadelphia: John Benjamins.
- Sorace, A. 2019. L1 attrition in a wider perspective. *Second Language Research* 36(2). 1–4.
- Sprouse, J. 2007. Continuous acceptability, categorical grammaticality, and experimental syntax. *Biolinguistics* 1. 118–129.
- Wickham, H. 2016. *ggplot2: Elegant graphics for data analysis*. New York: Springer-Verlag.
- Żychliński, S., A. Skałba, M. Wrembel & K. Kaźmierski. 2025. How syntactic gradience in L1 affects L3 acquisition. *Linguistic Approaches to Bilingualism* 15(3). 275–310.