

Acquisition of genericity in L2 English: the effect of multilingualism

Marta Velnić, Roumyana Slabakova & Anne Dahl

To cite this article: Marta Velnić, Roumyana Slabakova & Anne Dahl (04 Jun 2025): Acquisition of genericity in L2 English: the effect of multilingualism, International Journal of Multilingualism, DOI: [10.1080/14790718.2025.2508854](https://doi.org/10.1080/14790718.2025.2508854)

To link to this article: <https://doi.org/10.1080/14790718.2025.2508854>



© 2025 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



[View supplementary material](#)



Published online: 04 Jun 2025.



[Submit your article to this journal](#)



Article views: 594



[View related articles](#)



[View Crossmark data](#)

Acquisition of genericity in L2 English: the effect of multilingualism

Marta Velnić^a, Roumyana Slabakova^{b,c} and Anne Dahl^{a,c}

^aDepartment of Language and Literature, NTNU- Norwegian University of Science and Technology, Trondheim, Norway; ^bDepartment of Languages, Cultures, and Linguistics, University of Southampton, Southampton, United Kingdom; ^cDepartment of Language and Culture, UiT- The Arctic University of Norway, Tromsø, Norway

ABSTRACT

This study explores the acquisition of genericity in English as a second language (L2) by analysing judgments of singular noun phrases' acceptability across generic contexts. We sampled three groups acquiring L2 English: L1-Norwegian L2-English learners, L1-Polish L2-English learners (bilingual group), and L1 Polish L2 English learners also acquiring Norwegian as a third language (multilingual group). Our findings confirm a selective effect of native language transfer in the Norwegian group, arguably due to L1–L2 similarities. Within the Polish groups, we found that knowledge of another language with articles positively impacted the understanding of genericity, with the multilingual group showing more nuanced acceptance of the target-like form–meaning choices, compared to the bilingual group. At the same time, the bilingual group performed better on two proficiency measures. Furthermore, we assessed participants' knowledge of the English article system. The multilingual group outperformed the bilingual group, thus suggesting that a better grasp of the L2 article system correlated with the ability to comprehend generic forms more accurately.

ARTICLE HISTORY

Received 27 May 2024
Accepted 14 May 2025

KEYWORDS

Genericity; singular noun phrases; English as a second language; multilingualism; form–meaning mapping

Introduction

Research on second language (L2) acquisition typically includes one or more learner groups chosen strategically. Participants' first language (L1) typically differs from the target language on the property under investigation, so that they must acquire a contrast without the aid of their first language. In such studies, including another participant group with a native language similar to the target language in the respective property strengthens the research design. However, participants are often not completely identical in their learning histories, some speaking or learning other languages beyond the target language. Current research is unclear on what additional language exposure brings to the

CONTACT Marta Velnić  marta.velnic@ntnu.no, marta@velnic.net  Edvard Bulls veg 1, 7049 Trondheim, Norway
 Supplemental data for this article can be accessed online at <https://doi.org/10.1080/14790718.2025.2508854>

© 2025 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

second language acquisition experience. In this study, we address this question by evaluating learners of L2 English with three different backgrounds. One group has Norwegian as L1 (L1Nor) and can potentially benefit from close morphological similarity between their L1 and L2 with respect to the property under investigation. A second group has Polish as L1 and English as their only additional language (L1Pol-bi). Our third participant group are also Polish L1 speakers with L2 English but learning a third language (L3) – Norwegian (L1Pol-multi).

The property under discussion is genericity, a universal set of meanings expressing generalizations, characterizations, or assertions about kinds. Although universal, generic meanings are rendered through different morphological means and depend on other lexical items in the sentence. Therefore, acquiring genericity, specifically how generic expressions are mapped onto meanings in the L2, presents distinct hurdles for adult learners. Due to the absence of dedicated markers of genericity, functional morphemes such as plurals and articles, which may also express other concepts such as plurality, specificity or (in)definiteness, are employed. Thus, the generic markers' polysemy leads to ambiguity between generic and non-generic meanings.

In this study, we analyse how bilingual and multilingual speakers evaluate generic statements in L2 English by focusing on singular noun phrases (NPs). While English and Norwegian mark genericity in similar ways, English and Polish differ in terms of the availability of functional morphemes. Polish lacks articles and the bare singular form is ambiguous between generic and non-generic readings. Thus, *a priori*, Polish L1 speakers learning English are predicted to have difficulties in acquiring L2 English genericity marking, as generic meanings are part of the meanings reflected in the article system.

The innovative aspect of our study lies in its exploration of differences between bilingual and multilingual speakers. We ask whether knowledge of an additional language with marking similar to the target language facilitates acquisition. As we focus on the acquisition of genericity, we investigate whether multilinguals have an advantage through increased sensitivity to article meanings more generally, even when sensitivity to L3 *genericity* marking may not be fully established. Thus, we explore reverse crosslinguistic influence from L3 into L2, and whether linguistic experience across all the languages of a speaker may contribute to acquiring a given property. This approach builds and substantiates on Cook's (2007, 2016) concept of multi-competence; namely that the different languages of a multilingual create one connected system, rather than remaining separate systems.

Theoretical background

Genericity as a semantic category

In their seminal work, Krifka et al. (1995) outline the semantic complexity of genericity. Two types of genericity are identified: kind and characterising. *Kind*-denoting NPs (Krifka et al., 1995) refer to a whole category of entities. Consider the example in (1) where *the rabbit* does not refer to an individual animal but rather to the species *Oryctolagus cuniculus*. In comparison, (2) no longer describes the species but a single unspecified member thereof; we call such sentences 'episodic'. Some predicates such as *to be extinct* as in (3) or *to be widespread* inherently impose a kind reading, as individual entities or

groups cannot possess such attributes (Ionin et al., 2011). As shown in (4), it is infelicitous to express kind level generics with an indefinite form in English. In the literature, kind generics are also referred to as NP-level generics, as the locus of genericity is the NP itself (Carlson, 1995).

- (1) The rabbit reached Great Britain in the eleventh century.
- (2) A rabbit is eating my carrots.
- (3) The mammoth is extinct.
- (4) *A mammoth is extinct.

Conversely, *characterizing generics* generalize over the typical representatives of a category as in (5)–(6). In contrast to transient characteristics, these pertain to normative or inherent qualities of the NP (Carlson, 1995, p. 13).

- (5) The/A lion has a mane.
- (6) The/A lemon contains vitamin C.
- (7) The/A lemon dropped out of the bag.

Characterizing generics are also known as ‘sentence-level generics’, since the generic meaning is derived from the whole sentence and not just from the NP. In English, both definite and indefinite singulars can occur in characterizing sentences with generic meanings (5)–(6). Characterizing sentences are static in nature, describing an attribute rather than narrating a specific event (Carlson, 1995, p. 17). In the current task, we compared them to ‘episodic’ sentences describing a concrete situation as in (2) and (7).¹ In English, the definite or indefinite article can be used depending on whether the context has already mentioned a lemon.

We also include a third type of generic statements, inspired by Borthen’s (2003) work on bare singular forms in Norwegian. We refer to these as *type-denoting*.² These forms refer to an abstract entity, unlike tokens which refer to an individual or an instance. They are expressed with the indefinite singular in English (8), whereas the definite singular denotes a token, i.e. a specific dog, rather than the type.

- (8) It is healthy to have *the/a dog.

Generic marking in Polish and Norwegian

Polish has no articles: the only singular form available is the bare singular,³ which can thus express all three types of genericity outlined above, see examples (9–11). The form itself remains ambiguous between generic and specific/episodic readings and is disambiguated by context.

- (9)

Królik	dotarł	do	Wielkiej	Brytanii	w	11	wieku.
rabbit.SG.NOM	reach.3RD.SG	to	Great.SG.GEN	Britain.SG.GEN	in	11	centrurysG.LOC

‘The rabbit reached Great Britain in the eleventh century’.

- (10)
 Mamut wyginał.
 mammoth.SG.NOM become-extinct. 3RD.SG

'The mammoth is extinct'.

- (11) Zdrowo jest Mieć psa
 healthy is.3RD.SG have dog.SG.ACC
 'It is healthy to have a dog'.

Like English, Norwegian has articles, although there are some key differences between the two article systems. In English, both the definite and indefinite articles are free morphemes that appear before the noun. In Norwegian, the indefinite article appears as a free morpheme before the noun, comparable to English, but the definite article is a bound suffix on the noun. In Norwegian the definite form can denote Kind generics (12) (Halmøy, 2016), but also characterizing generic reading as exemplified in (13). The indefinite singular is described as having the capacity for signalling characterizing genericity (Halmøy, 2016), as demonstrated in (13). A crucial difference between Norwegian and English is that the former uses bare singulars in examples like (8), where the latter uses indefinite articles, see (14). A recent empirical study has found that the bare singular form is overall well accepted across the three generic contexts in Norwegian, but it is accepted most strongly in what we have defined here as type-denoting generic contexts (Velnić et al., 2025). This is related to the fact that Norwegian bare singulars are type-emphasizing rather than token-emphasizing; they refer to an abstract entity, unlike tokens, which refer to an individual or an instance (Borthen, 2003). The indefinite form is also acceptable in type-denoting contexts (14). Nevertheless, it is crucial to highlight the subtle semantic distinction between the bare and indefinite forms. The bare form aligns more closely with the intended generic interpretation, as illustrated in (14). Specifically, choosing the bare noun suggests that owning a dog, in general, is healthy, without specifying quantity. In contrast, the indefinite form can imply that having exactly one dog – rather than multiple – is beneficial.

- (12) Mammuten / *En mammut / *Mammut er utryddet.
 mammoth-DEF / a mammoth / mammoth is extinct
 'The mammoth is extinct'.
- (13) Løven / en løve / *løve har manke.
 lion-DEF / a lion / *lion has mane
 'The lion has a mane'.
- (14) Det er sunt å ha hund / en hund / *hunden
 it is healthy to have dog / a dog / *dog-DEF
 'It is healthy to have a dog'.

An overview and comparison of generic form-to-meaning mappings is displayed in Table 1, where shading indicates unavailability of a form, while X signals that the meaning is not expressed by that form.

Table 1. Overview and comparison of generic form-to-meaning mappings across the three languages.

	Definite singular	Indefinite singular	Bare singular
<i>English</i>			
Kind	✓	x	
Characterising	✓	✓	
Type-denoting	x	✓	
<i>Polish</i>			
Kind			✓
Characterising			✓
Type-denoting			✓
<i>Norwegian</i>			
Kind	✓	x	✓
Characterising	✓	✓	✓
Type-denoting	x	✓	✓

Note: Mass nouns are excluded from the current study; consequently, the bare singular form in English is marked as unavailable.

Acquisition of genericity in English L2

The acquisition of genericity in L2 English has been investigated in various learner groups including native speakers of Russian, Korean (Ionin et al., 2011), Japanese, Turkish, Chinese and Spanish (Snape, 2013; Snape et al., 2009). Our brief overview only discusses singular NPs.

Ionin et al. (2011) investigated how L2 English learners with either Russian or Korean as L1 acquire genericity distinctions. They found that the participants were more successful with indefinite than definite generics in L2 English and with characterizing over kind generics. They argued that definite NPs in English are more complex because in addition to a [+definite] feature, they also have a [+taxonomic] feature (i.e. they denote Kind), while indefinite generics have the semantics of regular indefinites [–definite]. Nevertheless, there was high individual variation among participants and mastery of the indefinite readings did not always precede mastery of the definite ones.

Summarizing the studies by Snape et al. (2009) and Snape (2013), L1 Spanish speakers were found to outperform L1 Chinese, Turkish and Japanese speakers, arguably due to the presence of an article system in their L1. Turkish speakers tended to omit the definite article in singular generic contexts, as Turkish only has the indefinite equivalent, while Japanese learners used the indefinite instead of the definite in generic contexts. Thus, in support of the predictions in Ionin et al. (2011), English definite singular generics remained problematic for Snape's L1 Turkish and Japanese speakers.

In a nutshell, acquiring the genericity mapping of singular NPs in English has been found to be more challenging if the learner's L1 does not possess articles; differences in acceptance of the two articles in generic contexts were also uncovered. Our experimental study aims to add to these findings.

The current study: aims and research questions

Since the three languages in this study map the available NP forms differently onto the universal generic meanings, the L2 speakers will need to reassemble their morphological mapping to convey the target meaning in the L2. The outline of properties in Table 1 demonstrates that the available nominal morphology in Polish and in English are in

stark contrast, and this is the main reason for predicted difficulties. Specifically, L1 Polish speakers have to acquire the definite and indefinite articles in L2 English with definite and indefinite meanings together with mapping them to generic expressions. Hence, (in)definiteness marking is expected to be a bottleneck on the way to genericity knowledge. Norwegian and English, on the other hand, show similarities in how the definite and indefinite singular map to generic meanings, although the bare singular is acceptable in Norwegian.

In the case of genericity, a further acquisition challenge is the pervasive polysemy of genericity-marking morphemes. L1 Norwegian learners may not have to pass through a morphological bottleneck compared to L1 Polish learners, but the acquisition of English generic expressions might still be subject to some ‘exponent remapping’, or adjusting which form reflects which meaning. Specifically, L1 Norwegian speakers must realize that singular count nouns in English cannot be bare.

The challenges outlined above stem from L1–L2 contrasts. However, our second goal is to look for differences between our L1Pol-bi and L1-multi groups, compared to English native controls (L1Eng) and to L1Nor. This is because L1Pol-multi have been exposed to two additional languages with articles, while L1Pol-bi have been exposed to English only. Respective levels of proficiency are taken into consideration. Our research questions are as follows:

1. Does having definite and indefinite articles in the L1 help the acquisition of generic expressions in L2 English?
2. Does knowledge of an L3 with similar morphological expressions influence knowledge of genericity expression in the L2?

Overall, we expect L1Nor to experience facilitation and be more accurate in judgments compared to both L1Pol groups, although proficiency may obscure the picture somewhat (RQ1). However, as much as the presence of the article system in Norwegian is expected to have a positive effect on the form-to-meaning mapping process in L2 English as the Norwegian group does not need to go through the bottleneck of acquiring the article system, the Norwegian and English systems are not identical, as Norwegian makes a much more extended use of the bare form compared to English (Velnić et al., 2025). Thus, over-acceptance of bare singulars is also possible in L1Nor (Table 1), suggesting that form-to-meaning mappings proceed one by one, based on the structural distinctions between the concrete L1 and L2 morphemes.

If knowing another language with articles has a positive effect on acquiring the morphological expression of genericity, we anticipate L1Pol-multi to exhibit better performance compared to L1Pol-bi (RQ2). A vast body of research suggests that knowing more than one language is beneficial in acquiring yet another. However, these studies focus on the acquisition of an L3 by already bilingual speakers (Jensen et al., 2021; Kolb et al., 2022; Leung, 2005; Westergaard et al., 2017). Our RQ relates to an inverted chronology in order of acquisition, with our L1Pol-multi’s Norwegian being acquired chronologically after L2 English.

In order to address the effect of the inverted chronology, the L1Pol-multi completed the same task in L3 Norwegian (as part of a larger study). We found no discernible knowledge of Norwegian genericity marking in that task (Velnić et al., 2023). Thus, transferring genericity form-to-meaning mappings from L3 Norwegian into L2 English is not possible

for these participants. We also checked their article use in specific (second mention) and episodic indefinite contexts (both non-generic) and found that they were more target-like with the indefinite form than with the definite form (for examples, see Table 2 in the Methodology section).⁴ A potential reason lies in the position of the definite and indefinite morphemes in Norwegian: the indefinite form is a self-standing morpheme (*en katt*- ‘a cat’), while the definite article is attached to the noun (*katt-en*- ‘cat-DET’). These learners also accepted the bare form in both of these contexts, while the native Norwegian controls did not. We attribute this to the influence from their L1 Polish. In summary, while not completely mastered, the L1Pol-multi group have attained some knowledge of the Norwegian definiteness marking paradigm. Therefore, we may see a positive effect of multilingualism due to experience with articles in two languages. Regrettably, our research design does not allow us to distinguish between a pure multilingualism effect and an enhanced-experience-of-articles effect. In order to make that distinction, we would need an additional group with an article-less language as an L3. This would be a good avenue for future research into establishing how languages can influence each other in a chronological inversion.

Methodology

Design and materials

The task was part of a larger online study comprising three tasks,⁵ with the current task as the second one. It was a contextualized Acceptability Judgment task (AJT) designed in OpenSesameWeb (Mathôt et al., 2012) and distributed through a JATOS server (Lange et al., 2015).

In the current AJT, each target sentence was preceded by a context sentence to clarify the generic or non-generic reading. Three generic (*kind*, *characterizing*, and *type-denoting*) and two non-generic (*specific second-mention* and *episodic indefinite*) conditions were included; the latter two to evaluate accuracy on articles, with the first being an appropriate condition for the definite article and the second for the indefinite article. Note that the target NPs were placed in object position in the type-denoting condition, as that is the most natural position for those generics to appear (see Table 2). Each test sentence had its subject expressed as either definite, indefinite or bare singular. Since the bare form is

Table 2. Example of contexts and test items used in the task- the test item in bold is the expected response.

Condition	Context	Test item
Kind	In biology classed we discussed the origin of various fruits and vegetables. I have just learnt that ...	the potato /a potato/potato comes from America
Characterising	Today at school we learnt some unknown facts of the animal kingdom. For example, ...	the giraffe/a giraffe /giraffe has a purple tongue
Type-denoting (generic)	During the pandemic, a lot of people suffered from loneliness. Research has found that ...	it is healthy to have the dog/ a dog /dog
Specific (second-mention)	I like looking at African animals at the zoo. They have a lot of zebras and one giraffe. Yesterday the zebras were running around while ...	the giraffe/a giraffe /giraffe was enjoying the sun
Episodic (indefinite)	Yesterday I was coming home from the store when I slipped and dropped my shopping bag	The potato/ a potato /potato rolled out of the bag

ungrammatical with English count nouns, our target sample thus contained ungrammatical, infelicitous, and felicitous test items. The participants saw each context only once; three lists were created to test the full array of conditions and forms. Each list contained the same examples, but with the target NP being expressed with a different form (definite, indefinite, bare) across the three lists; each list contained 30 target items, 6 for each condition (see Table 2), distributed equally (2 per condition) among the three NP forms. Each list consisted of two blocks, so that the participants had a chance to take a planned break within the task. With the full experiment consisting of three tasks, we considered it necessary to plan for the breaks, so that the participants would be able to keep their focus for the full duration of the tasks. An overview of contexts and test items is presented in Table 2. Figure 1 depicts how items were displayed on the screen.

The fillers had the same presentation format as the target sentences. An equal number of grammatical and ungrammatical fillers (total $n = 24$) targeted subject–verb agreement. They consisted of dialogue examples (e.g. *Have you met the new boss? No, I haven't/*hasn't met him yet.*), or statements (e.g. *Marie has been on safari many times. But she has/*have never seen the Siberian tiger.*).

As displayed in Figure 1, we opted for a binary scale instead of the fine-grained Likert scale to avoid the participants choosing the middle values and thus reducing item variation. This is a different approach from previous tests on genericity: genericity has been previously tested in English, Spanish, and Brazilian Portuguese (Ionin et al., 2011), Greek (Lazaridou-Chatzigoga & Alexiadou, 2019), and in Danish, Norwegian, and Swedish (Skrzypek et al., 2022), but in these studies the generic sentences appeared in all the relevant NPs following a context, and the participants had to judge (not rate)

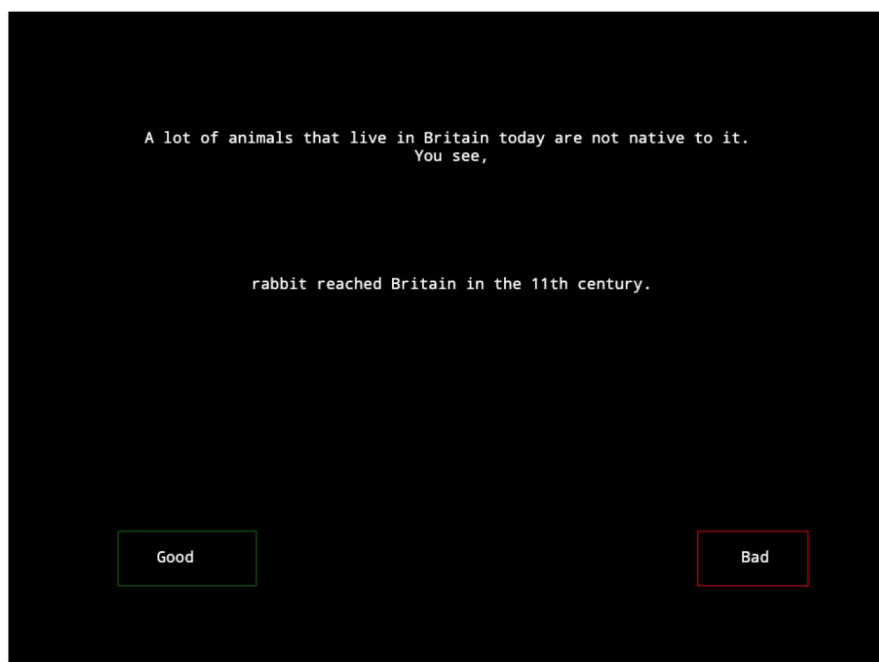


Figure 1. Example of test item presentation.

Table 3. Participant characteristics.

Group	Number	Age range	Age average	Educational average*
L1Eng	44	18–77	43.6	3.48
L1Nor	23	19–52	29.1	2.96
L1Pol-bi	22	18–50	27.9	2.64
L1Pol-multi	24	20–28	22.8	2.45

Note: * Values are averages based on a scale where 1 represents elementary school, 2 represents high school or vocational school, 3 represents a bachelor's degree, 4 represents a master's degree, and 5 represents a doctoral degree.

each of the sentences. We opted for showing only one item to be judged, in order to isolate the judgment for a single NP form in particular, instead of risking a subconscious comparison between the available forms. By giving the participants only a binary choice of Good and Bad, we forced them to make a categorical distinction for each tested item. We still anticipated gradience in the judgments at a group level and were able to observe it, as the results will show.

Procedure

The instructions were presented in written and aural format, the participants were not able to move from one screen to the next before the instructions were read out. Participants were instructed to place their left index finger on the letter E, their right index finger on the letter O, and both thumbs on the space bar. The letter keys were used to judge items, while the space bar was used to progress in the task. For each item, a blue dot appeared in the centre of the screen for 500 ms, and then a context sentence appeared. Participants were instructed to read that sentence carefully as it provided the context for the target sentence. After they had read the context sentence, they pressed the space bar for the test sentence to appear. Here, they had to press E for Good and O for bad.⁶

Participant groups

Our groups can be perceived as a subtractive language group design (Westergaard et al., 2022): L1Nor without knowledge of Polish, L1Pol-bi without knowledge of Norwegian; and finally, L1Pol-multi with two additional languages. This setup allows us to discuss results based on the effects that the addition/subtraction of Polish or Norwegian may have on knowledge of generics in L2 English. All of the groups, except of the native controls, had English as the L2, and were exposed to it in a school setting. We thus consider all the participants to be sequential bi/multilinguals.

A total of 113 participants across 4 groups completed the task. All were recruited through social media and/or email invitations; they received gift cards as a reward for participation. The experiential characteristics of the participants are summarised in Table 3.

The L1Eng control group had diverse English-speaking backgrounds but all resided in Norway at the time of testing. L1Nor were also recruited in Norway. L1Pol-bi consisted of participants who declared to speak no language beyond Polish and English. L1Pol-multi were recruited from Norwegian classes at the Universities of Poznan and Szczecin; they were exposed to English through regular instruction at school and started acquiring Norwegian at university, making the two languages their L2 and their L3, respectively. Both groups of Polish native speakers resided in Poland at the time of testing.

Results

Data coding

The E and O keypresses were coded into 1 and 0 values, respectively, and analyses are based on these values. All responses faster than 1000 ms were excluded from the analyses as likely accidental button presses.

Proficiency measures

Explicit L2 English proficiency measures were not incorporated in our study; we thus employ our fillers as a proficiency measure. It is a limitation of the study that a more widely used proficiency measure was not employed, in order to make our participants comparable to the participants of other English L2 studies. This was a methodological choice as the current study reports only one out of the three tasks that the participants had to complete. Additionally, all groups except our Pol-Bi group also completed the equivalent task in Norwegian (the task in the two languages were administered on separate days). Considering this experimental load, we opted against an additional proficiency task. Although this means our participants are not directly comparable to those in other studies, the crucial comparison between the groups in our study remains valid, as they were assessed using the same filler items. Furthermore, since the three participant lists contained identical fillers, all participants encountered the same items, allowing us to compute the comprehension measure consistently across the study.

Participants showed high accuracy on the fillers (Figure 2), but some group differences emerged. As expected, L1Eng were almost at ceiling. We fitted two Generalized Linear Mixed-Effects Models [GLMM using the *glmer* function from the lme4 package in R

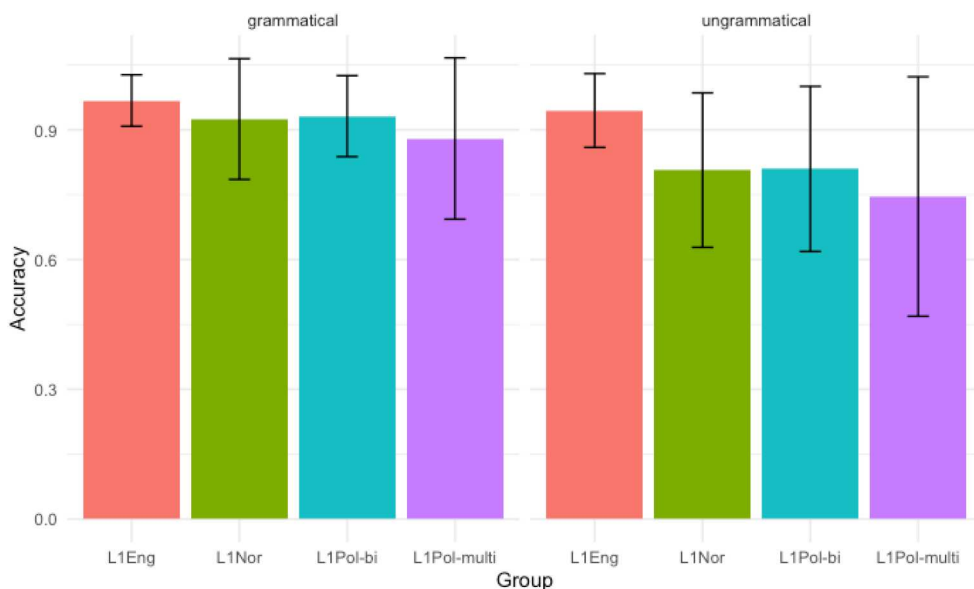


Figure 2. Accuracy on fillers by grammaticality and participant group.

(Bates et al., 2015)], separately on grammatical and ungrammatical fillers, with response as the dependent variable and group as the independent variable; test item and participant were set as random effects. L1Eng were set as the intercept. In the grammatical model, the only group significantly less accurate than L1Eng was L1Pol-multi ($p < .05$). The ungrammatical model indicated further differences, as all groups differed significantly from L1Eng ($p < .001$), although no differences emerged between the other groups.

Additionally, we used comprehension questions from another task to create a *comprehension measure* for evaluating participant performance. These comprised a description of a picture and a short summary; the participants were asked to say whether the summary was True or False. The task contained a total of 24 fillers, equally divided by True and False descriptions. An example of each is provided in (16) and (17).

- (16) Context: My cat was a great hunter when he was young. He caught mice all the time. But now he is old and doesn't hunt anymore. He just sleeps all day long!
Summary: My cat hunted mice. TRUE
- (17) Context: Yesterday Craig returned from holiday and had a lot of laundry to wash. Unfortunately, the machine broke and he couldn't do it. Now he has to wait for the repairman.
Summary: Craig washed his clothes. FALSE

Figure 3 shows individual comprehension, with significant differences found via ANOVA and follow-up Tukey's post-hoc test. L1Eng outperformed all other groups, with L1Nor outperforming L1Pol-multi ($p < .001$) and marginally also L1Pol-bi ($p = .0564$). As in the proficiency test, L1Pol-multi had the lowest scores, significantly lower than L1Pol-bi ($p < .0001$).

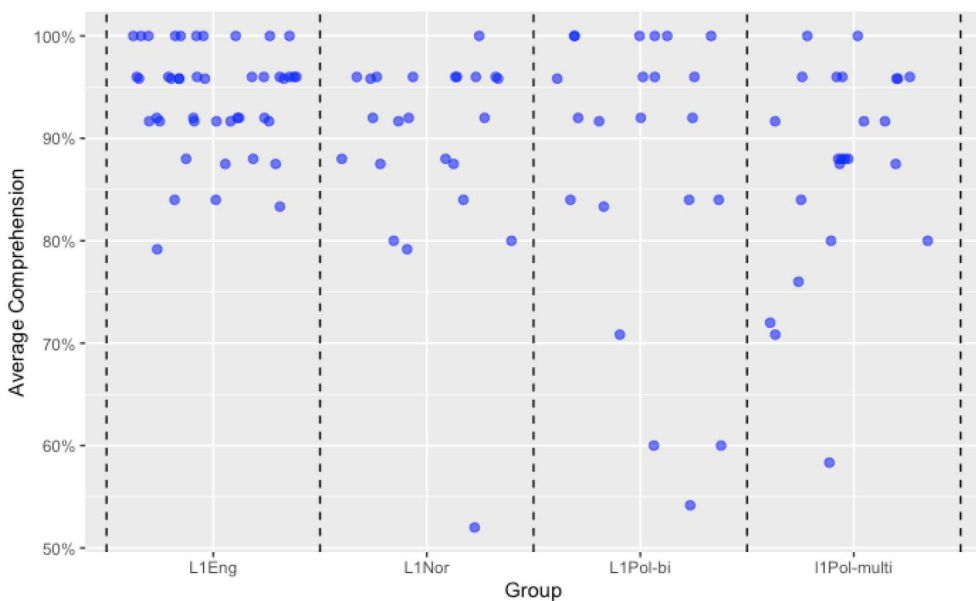


Figure 3. Overview of responses on the comprehension measure.

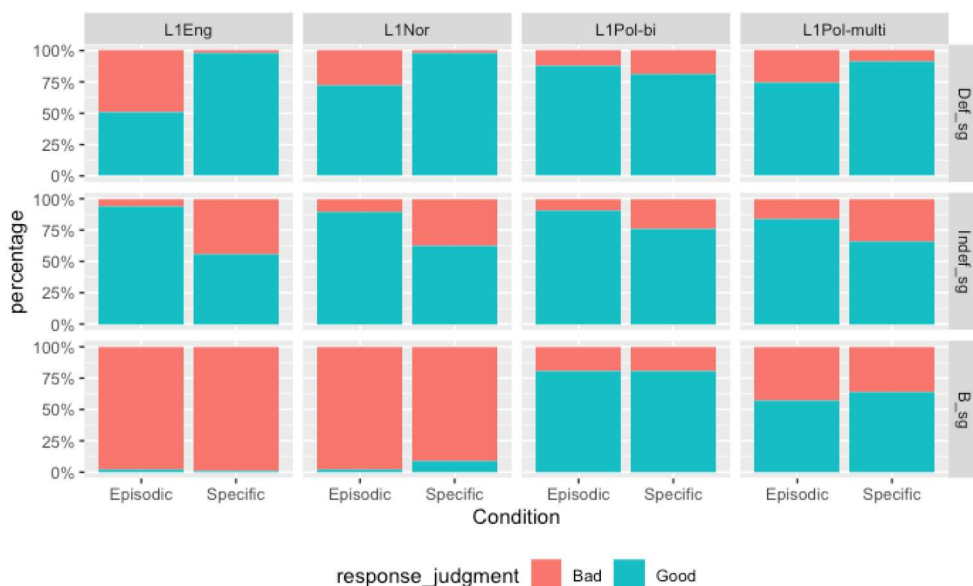


Figure 4. Overview of the responses in the non-generic conditions.

Acquisition of the article system

If participants have not acquired the English article system, they cannot be expected to master nuanced distinctions in genericity marking. To gauge general knowledge of articles, we utilized the non-generic test conditions. The *specific second-mention* condition tested maximality and uniqueness as necessary meanings of the definite NP; the *episodic indefinite* condition created contexts for indefinite NPs. Figure 4 provides an overview of responses.

The results of the *GLMM* for the definite form in the non-generic conditions are presented in Table 4. Responses were binary, coded as 0 for Bad and 1 for Good, and set as the dependent variable. Group and condition were the independent variables. L1Eng, along with the Specific second-mention condition, served as the reference category in the model, based on the presumption of definite article usage in this context. Participant and test item were set as random slopes.

From the model's intercept, we infer strong acceptance of the definite article in the Specific second-mention condition for L1Eng. Neither L1Nor's nor L1Pol-multi's responses

Table 4. Summary of the model on the definite form in non-generic conditions.

	Estimate	Standard error	z-value	p-value	Significance level
Intercept	4.3047	0.7726	5.571	2.53e ⁻⁰⁸	***
L1Nor	0.0332	1.3028	0.026	0.9796	No
L1Pol-bi	-2.3028	0.8616	-2.673	0.0075	**
L1Pol-multi	-1.3890	0.9743	-1.426	0.1539	No
Episodic	-4.2436	0.7884	-5.382	7.35e ⁻⁰⁸	***
L1Nor&Episodic	1.1108	1.3354	0.832	0.4055	No
L1Pol-bi&Episodic	4.8847	0.9347	5.226	1.73e ⁻⁰⁷	***
L1Pol-multi&Episodic	2.7676	1.0253	2.699	0.0069	**

*** $p < 0.001$; ** $p < 0.01$.

Table 5. Summary of the model on the indefinite form in non-generic conditions.

	Estimate	Standard error	z-value	p-value	Significance level
Intercept	3.1100	0.5670	5.485	4.13e ⁻⁰⁸	***
L1Nor	-0.7452	0.7023	-1.061	0.2887	No
L1Pol-bi	-0.5343	0.6357	-0.840	0.4007	No
L1Pol-multi	-1.1997	0.6459	-1.857	0.0632	No
Specific	-2.8796	0.6480	-4.444	8.83e ⁻⁰⁶	***
L1Nor&Spec	1.1525	0.7955	1.449	0.1474	No
L1Pol-bi&Spec	1.6919	0.7214	2.345	0.0190	*
L1Pol-multi&Spec	1.7208	0.7502	2.294	0.0218	*

*** $p < 0.001$; * $p < 0.05$.

differed significantly from L1Eng in this condition. Conversely, L1Pol-bi differed in rejecting this form significantly more often ($p < .01$). As anticipated, the definite form was not highly accepted by L1Eng in the Episodic indefinite condition. From the interactions we see that L1Nor's acceptance of the definite form in this condition was not statistically different from that of L1Eng, but both L1Pol groups showed significant differences. Both groups accepted the definite form more than L1Eng and L1Nor, but acceptance was more pronounced for L1Pol-bi ($p < .001$) than for L1Pol-multi ($p < .01$). This suggests that L1Pol-multi were more attuned to the English article system compared to L1Pol-bi.

The output of the model for the indefinite form is displayed in Table 5. Here, L1Eng remained the intercept; condition was set to the Episodic indefinite, based on the anticipation of indefinite article usage in this context. L1Eng accepted the indefinite form significantly less in the Specific second-mention conditions, consistent with linguistic descriptions of English. There was no significant distinction between the L2 groups in the Episodic indefinite conditions. Interaction effects revealed that both L1Pol groups exhibit heightened acceptance of the definite form in the Episodic condition ($p < .01$), diverging from the patterns observed for L1Nor and L1Eng.

The model on the data subset which included bare forms indicated a singular boundary fit. This suggests potential issues with including test item as a random effect, evidenced by its variance component estimated as effectively zero ($2.855e^{-15}$). We thus chose to maintain remove the test item form the plotted random effects. The analysis (Table 6) revealed that both L1Pol groups diverged significantly from L1Eng in the intercept, which was set to the Episodic indefinite condition ($p < .001$). No significant interactions were observed between group and condition. This indicates that both L1Pol groups accepted the bare form to a significantly greater extent than L1Eng and L1Nor, and this preference was consistent across conditions.

Overall, the L1Pol-multi group was better attuned to the English article system as compared to L1Pol-bi, something that could offer an advantage for the generic conditions under investigation in this study. This may consequently entail that the multilinguals had a better grasp of the morphological forms and could thus proceed to the form-to-meaning mapping with relatively less difficulty.

Acquisition of generics

Figure 5 depicts the overall ratio of singular NP forms' acceptance across the three generic contexts. Subsequently Figures 6, 7, and 8 present the distribution of acceptance in each of the NP forms.

Table 6. Summary of the model on the bare form in non-generic conditions.

	Estimate	Standard error	z-value	p-value	Significance level
Intercept	−5.0697	0.9470	−5.353	8.64e ^{−08}	***
L1Nor	−0.4042	1.5022	−0.269	0.788	No
L1Pol-bi	7.3344	1.2156	6.033	1.60e ^{−09}	***
L1Pol-multi	5.5743	1.1310	4.928	8.29e ^{−07}	***
Specific	−0.7635	1.2676	−0.602	0.547	No
L1Nor&Spec	2.5531	1.7964	1.421	0.155	No
L1Pol-bi&Spec	0.7052	1.3461	0.524	0.600	No
L1Pol-multi&Spec	1.2260	1.3867	0.884	0.377	No

****p* < 0.001.

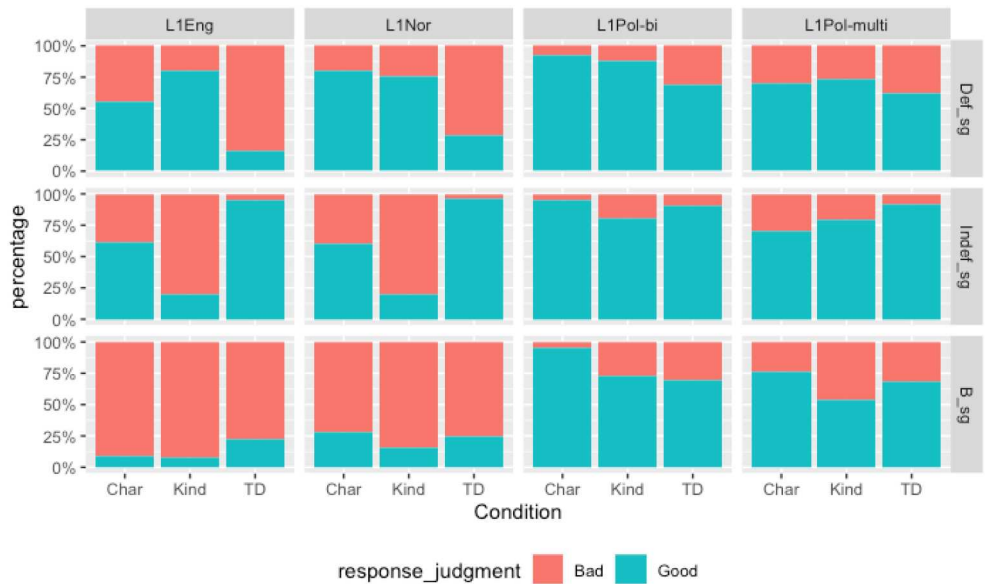


Figure 5. Overview of responses in the generic condition.

We plotted Generalized Linear Mixed Effects Models on each NP separately. Ideally, a comprehensive model incorporating all three variables (group, context, and NP form) could have been employed. However, the complexity introduced by the three-way interactions made the results challenging to interpret. Given the nature of our research questions, we opted to group the analyses by NP form, rather than by learner group. This approach allowed us to focus on group comparisons of the acceptance of the NP forms across conditions, thereby providing insights into the differences between the two Polish learner groups, the native English speakers, and the L1Nor group. The dependent variable, representing binary responses (0,1), was modelled for group and condition. To account for potential sources of variation, random effects were introduced for test item and participant. The models used the *glmer* function in R from the lme4 package (Bates et al., 2015), employing a binomial family to accommodate the binary nature of the response variable. Model optimization was achieved through the *bobyqa* optimizer, and we controlled the maximum number of function evaluations (maxfun) at $1e^{+05}$. L1Eng was always set as the intercept, whereas the condition intercept was adjusted

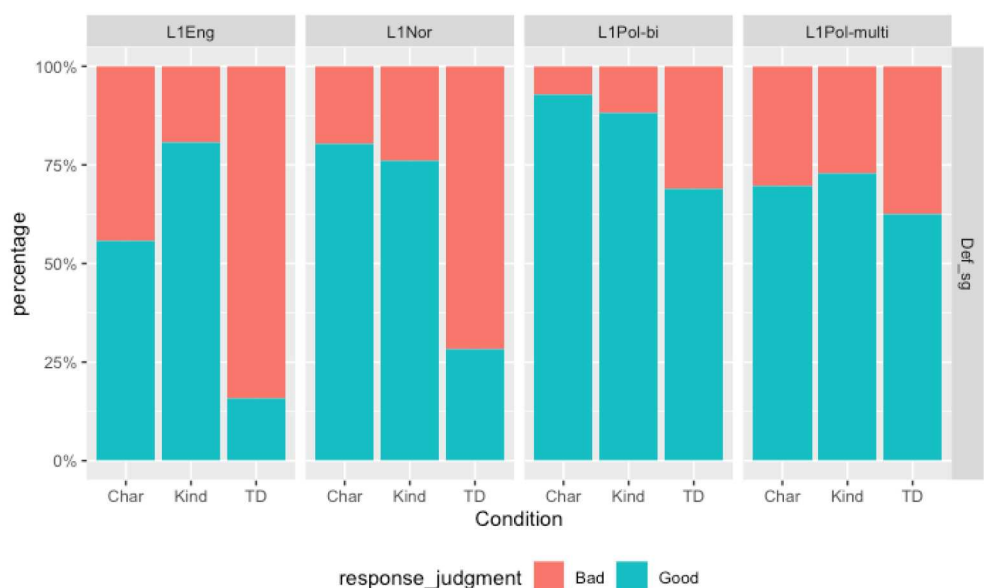


Figure 6. Acceptance of the definite form.

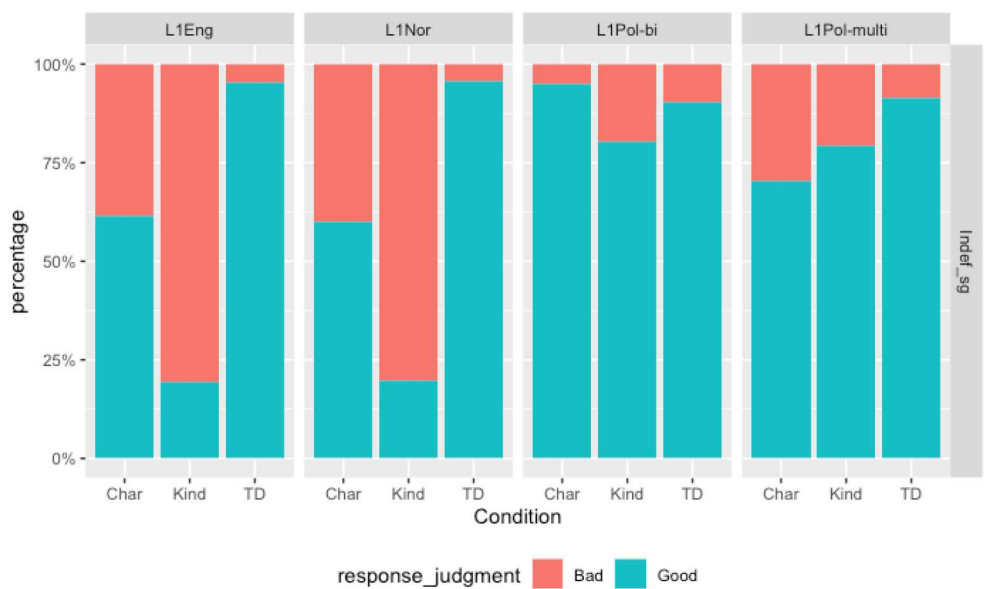


Figure 7. Acceptance of the indefinite form.

for each model to represent the condition in which the analysed NP should be most natural.

We first describe the model including items with definite singular NPs (Figure 6, Table 7). The Kind condition serves as the baseline comparison. A generalized linear mixed-effects model revealed significant main effects of sentence type. Both the Type-

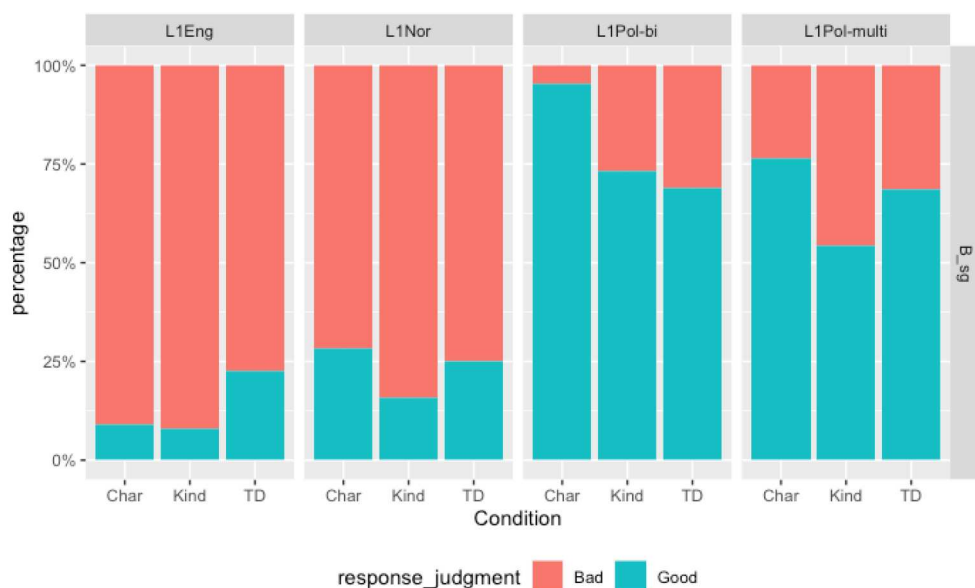


Figure 8. Acceptance of the bare form.

Table 7. Summary of the results of the definite NP form.

	Estimate	Standard error	z-value	p-value	Significance level
Intercept	1.6986	0.3661	4.640	3.48e ⁻⁰⁶	***
L1Nor	-0.3449	0.5240	-0.658	0.5103	No
L1Pol-bi	0.6093	0.5242	1.162	0.2451	No
L1Pol-multi	-0.5332	0.5131	-1.039	0.2987	No
TD	-3.7006	0.5170	-7.158	8.17e ⁻¹³	***
Char	-1.4141	0.4451	-3.177	0.0014	**
L1Nor&TD	1.2861	0.6792	1.893	0.0583	.
L1Pol-bi&TD	2.4648	0.6483	3.802	0.0001	***
L1Pol-multi&TD	3.1400	0.6660	4.715	2.42e ⁻⁰⁶	***
L1Nor&Char	1.7199	0.6609	2.602	0.0092	**
L1Pol-bi&Char	2.1156	0.6956	3.041	0.0023	**
L1Pol-multi&Char	1.2268	0.6296	1.948	0.0513	.

$p < 0.1$; ** $p < 0.01$; *** $p < 0.001$.

denoting and Characterising conditions were less accepted than the Kind baseline ($p < .001$; $p < .001$, respectively). The model found no significant differences between groups in acceptance of the definite form within the Kind condition. Several interaction effects were significant. Notably, participants in the L1Pol-bi and L1Pol-multi groups showed a significantly higher acceptance of the definite form for Type-denoting sentences compared to the L1Eng group ($p < .001$; $p < .001$, respectively). Similarly, L1Nor and L1Pol-bi participants showed a higher acceptability for Characterising contexts ($p = .009$; $p = .002$).

To better understand the significant group*type interaction, we conducted pairwise comparisons of estimated marginal means using the *emmeans* package (Lenth, 2025). We will focus on the within condition comparisons between the control group and each of the learner groups. In the Type-denoting comparison the L1Nor group did not differ from the L1Eng controls, while both Pol-Bi and Pol-Multi accepted the definite

Table 8. Summary of the glmer of the indefinite NP form.

	Estimate	Standard error	z-value	p-value	Significance level
Intercept	3.7150	0.6549	5.672	1.41e ⁻⁰⁸	***
L1Nor	-0.0093	0.9738	-0.010	0.9923	No
L1Pol-bi	-0.6650	0.7712	-0.862	0.3885	No
L1Pol-multi	-0.6959	0.8510	-0.818	0.4134	No
Char	-3.0035	0.7230	-4.154	3.27e ⁻⁰⁵	***
Kind	-5.5893	0.7919	-7.058	1.69e ⁻¹²	***
L1Nor&Char	-0.1900	1.0245	-0.186	0.8528	No
L1Pol-bi&Char	3.6574	0.9447	3.872	0.0001	***
L1Pol-multi&Char					
Char	1.1336	0.9159	1.238	0.2158	No
L1Nor&Kind	0.0016	1.082	0.002	0.9987	No
L1Pol-bi&Kind	4.3784	0.8675	5.047	4.49e ⁻⁰⁷	***
L1Pol-multi&Kind	4.2880	0.9708	4.417	1.00e ⁻⁰⁵	***

*** $p < 0.001$.

more than the controls ($p < .0001$). In the comparison for the Characterizing context, the L1Nor and L1Pol-Multi group did not show any significant differences from the controls, but the L1Pol-Bi group accepted the definite form more ($p < .0001$).

Next, we ran a *glmer* on the indefinite form (Figure 7, Table 8), setting the Type-denoting condition as the baseline, reflecting its high acceptance ratio in the native speakers. The group reference level and random effects are consistent with the previous model. In L1Eng, the indefinite was accepted significantly less than in Characterising and Kind conditions ($p < .001$). In the fixed effects we see no significant group difference.

Once again, we turned to the pairwise comparisons to examine the interactions. Here we found that both L1Pol-bi and L1Pol-multi accepted the indefinite significantly more in Kind condition compared to L1Nor and L1Eng ($p < .0001$), while there was no difference between L1Nor and L1Eng. In the pairwise comparison of the Characterising condition there was once more a difference between L1Pol-Bi and L1Eng ($p < .01$), while the other two groups did not differ from L1Eng. All observed differences were in the direction of overacceptance by the L1Pol group(s).

Lastly, we outline the *glmer* for the bare NP forms (Figure 8, Table 9). The bare form is ungrammatical for English count nouns, making the choice of the condition reference level difficult. Therefore, the reference level was set to the Type-denoting condition, as the form was rejected the least in that condition by L1Eng. The model's findings indicate

Table 9. Summary of the glmer of the bare NP form.

	Estimate	Standard error	z-value	p-value	Significance level
Intercept	-1.6377	0.4768	-3.435	0.0005	***
L1Nor	0.2682	0.5792	0.463	0.6432	No
L1Pol-bi	2.7302	0.5416	5.041	4.63e ⁻⁰⁷	***
L1Pol-multi	2.6674	0.5732	4.654	3.26e ⁻⁰⁶	***
Char	-1.3487	0.6840	-1.972	0.0486	*
Kind	-1.4769	0.6890	-2.144	0.0320	*
L1Nor&Char	1.4562	0.7462	1.951	0.0510	.
L1Pol-bi&Char	4.2961	0.8697	4.940	7.81e ⁻⁰⁷	***
L1Pol-multi&Char	1.8766	0.7608	2.467	0.0136	*
L1Nor&Kind	0.7869	0.7879	0.999	0.3179	No
L1Pol-bi&Kind	1.7875	0.6791	2.632	0.0084	**
L1Pol-multi&Kind	0.7204	0.7244	0.995	0.3199	No

$p < 0.1$; * $p < 0.5$; ** $p < 0.01$; *** $p < 0.001$.

a strong L1Eng inclination to reject bare NPs in the baseline Type-denoting condition, a trend that L1Nor also follows.

In contrast, both L1Pol groups demonstrated a statistically significant higher acceptance of bare NPs ($p < .001$) compared to L1Eng. In the Characterising and Kind conditions, L1Eng rejected this form more than in the baseline condition ($p < .05$). Examining the interaction effects, both L1 Polish groups over accept the bare form in characterising conditions (Pol-Bi $p < .001$, Pol-Multi $p < .05$), while only the Pol-Bi group accepts the bare form significantly more than the controls in Kind condition ($p < .01$). Nevertheless, these differences are less pronounced with the pairwise comparisons, as both L1Pol groups show a considerable over-acceptance of the bare form in both Kind and Characterizing conditions compared to L1Eng ($p < .0001$).

Before we proceed to the discussion, we reiterate that the L1Pol-multi group did not exhibit a distinction on any of the NP forms across the generic contexts in our L3 Norwegian study (not reported here), indicating that genericity in their L3 Norwegian had not yet been mastered.⁷ Thus, the advantage that is noticed in this dataset is not due to a reverse transfer of expressions of genericity from the L3 to the L2; we argue in the discussion that it is the effect of being exposed consistently to (the article system of) an additional language.

The English controls and length of residence

A note is in order on the choice of L1Eng as a control group. Native speaker evaluations of generic sentences are never unanimous (Ionin et al., 2011) and it was considered important to have a baseline for our test instruments. The current task was part of a larger project targeting the acquisition of L2/L3 Norwegian. Consequently, L1Eng comprised English native speakers residing in Norway at the time of testing. This choice was beneficial for the overall project, ensuring that the participants were not monolingual, akin to the other groups being studied. However, it also introduced the potential confound that their English might have been affected by prolonged exposure to Norwegian.

We assessed the responses of L1Eng by categorizing them according to Length of Residence (LoR) in Norway in a binary fashion of ± 5 years. Results from *glmer* models for each NP form with LoR as the independent variable (otherwise set as the models in the previous sections) show that, crucially, LoR affected acceptance of the bare form, as participants who had resided in Norway longer tended to accept this form more in the Kind condition ($p < .01$), but not in the Characterising condition ($p = 0.51542$), when compared to those with shorter LoR.

We found no statistical difference in acceptance of the indefinite form based on LoR. In the previous section, we observed that L1Pol-bi accepted the indefinite form in Characterizing conditions more frequently than L1Eng, aligning more closely with what the literature suggests for English. However, since we found no difference within L1Eng regardless of LoR, we cannot say that their lower acceptance is due to exposure to Norwegian.

Discussion

We investigated the acquisition of genericity in L2 English taking into consideration factors such as L1, multilingual experience, and relative comprehension of the L2. The

semantics of genericity is acquired quite early in child language (Gelman & Raman, 2003; Leslie et al., 2011); we thus expect all participants to understand generic concepts. However, for the current task, learners needed to have acquired new L2 expressions of familiar meanings and to distinguish between subtle differences in the different types of genericity.

The answer to RQ1 is rather straightforward. We expected L1Nor to be more accurate than both L1Pol groups, due to the presence of an article system in Norwegian. However, we noted that the Norwegian system of genericity marking is not exactly parallel to that of English, and some readjustment is still needed. In particular, unlike English, Norwegian allows bare singular nouns. We thus expected divergence from L1Eng in L1Nor accepting more bare nouns across all contexts. Indeed, L1Nor's acceptance of bare nouns is descriptively higher than L1Eng's (see Figure 8). In addition, L1Nor accepted definite NPs in the characterizing condition to a higher degree than L1Eng.⁸ This likely stems from a Norwegian dispreference for the indefinite forms placed in subject position (Søfteland, 2014), a dispreference that is not manifested in English. The responses observed here reflect the preferences of the participants' native Norwegian: the indefinite form was less preferred to the definite for expressing characterizing generics (Velnić et al., 2025).

In all other conditions, L1Nor consistently patterned with L1Eng. This indicates that knowledge of Norwegian is generally beneficial for acquiring generic marking in L2 English. However, we also observed that L1 influence was selective: it did not provide uniformly nativelike judgments on all genericity marking, aiding form–meaning mappings only where English and Norwegian forms are identical. This selective influence can be explained by Feature Reassembly (Lardiere, 2009) and the Bottleneck Hypothesis (Slabakova, 2009), in the sense that three meanings (Kind, Characterizing, TD) are expressed by three singular forms in Norwegian but only two in English.⁹ Realignment of meanings to exponents is inevitable. As predicted, transfer from Norwegian into English appears to work at the level of individual form–meaning mapping, or property by property (Slabakova, 2017; Westergaard et al., 2022). At the same time, L1Nor scored higher than both L1Pol groups on our proficiency and comprehension measures. Thus, we cannot exclude that we are observing fractional, property-by-property L1 influence augmented by higher proficiency in L2 English.

The learning task for the L1Pol groups was more complicated, as their definiteness marking system is quite distinct from English. RQ2 pertained to the effect of multilingualism on the acquisition of genericity in L2 English. Crucially, we tested L1Pol-multi on the same task in Norwegian and found that Norwegian genericity had not been acquired, as demonstrated by no significant distinction between acceptable and unacceptable form–meaning mappings (Velnić et al., 2023). Thus, after discarding direct L3 transfer into the L2, we aimed to assess what *general exposure* to articles through multiple languages might do for knowledge of the L2 generic system.

L1Pol-multi was indeed more accurate than L1Pol-bi in acceptance/rejection of the articles in their generic uses. This was the case for the bare and definite forms in characterizing contexts and the indefinite form across all conditions. Furthermore, L1Pol-bi showed minimal distinctions in acceptance of the three forms across the generic conditions. These group differences cannot be attributed to proficiency, as L1Pol-multi scored lower on our English proficiency measures when compared to L1Pol-bi.

Looking at the acquisition of the article system in non-generic conditions proposed some interesting explanations. L1Pol-bi's performance was less target-like than L1Pol-multi's, suggesting that the latter's Norwegian knowledge may have helped with articles *in general*, although knowledge of Norwegian genericity marking was not available for transfer. L1Pol-multi scored higher on definite article use, while the differences were less pronounced for the indefinite and bare forms. Thus, comparing the two L1Pol groups, L1Pol-bi's ability to form associations between forms and meanings for generic expressions may have been hindered by more limited intuitions about the English article system. L1Pol-multi's familiarity with Norwegian could have improved their general English article intuitions. This finding provides relevant pedagogical implications: namely, that the acquisition of the article systems in specific and episodic contexts, i.e. the basic and more frequent article usage, likely precedes acquisition of generic mappings. Thus, structuring foreign language curricula informed by this natural order of article acquisition could be beneficial for learners. This has already been observed in Master (1994) in a study directly manipulating the explicit instruction of foreign language learners of English; the definite/indefinite distinction was given more time and was introduced earlier in the instruction than the specific/generic distinction. This was done because the generic distinction was considered a less significant portion of article usage (Master, 1994).

Our data also affords further pertinent observations. As we pointed out, previous research had identified that L2 learners struggled more with definite singular generics, compared to indefinites (Ionin et al., 2011; Snape, 2013). We did not establish similar differential difficulties. As Figures 5 indicates, all learner groups accepted the definite in Kind conditions similarly to the L1Eng. All groups aligned with the controls by accepting the indefinite article in Characterizing conditions (Figure 6); L1Pol-bi accepted it to a higher degree than L1Eng. Thus, in evaluating how closely learners align with native choices, we do not see them doing worse with definite than indefinite singulars.

However, it is also interesting to analyse where learners' choices diverged from the control group's. In a break with the natives, the L1Pol-bi group overgeneralized the definite forms in Characterizing conditions. Furthermore, both L1Pol groups overaccepted indefinites in Kind conditions, while only L1Pol-bi overaccepted them in TD conditions. All these interaction effects suggest that the Polish learner groups are still feeling their way through the complex system of genericity marking in English. If anything, they err on the side of observing native choices to a higher degree. The difficulty in getting genericity marking just right is augmented by the non-categorical nature of native judgments, which are indicative of what learners' input contains. Although L1Eng prefer definites with kind meanings and indefinites with characterizing meanings, the contrasts with the dis-preferred form are not as sharp as in other grammatical domains. This linguistic situation predicts that complete alignment with native choices might be achieved only at advanced levels of proficiency and with a lot more exposure to native input. This is in line with previous studies such as Trenkic (2007) and Montrul and Ionin (2010).

Cook's (2007, 2016) multi-competence approach provides a good explanatory basis for our findings. He argues that after a learner acquires an L2, their L1 changes in subtle, indelible ways. In our experimental findings, we show that after an L3 is acquired, the L2 usage is affected. How exactly do languages influence each other in the minds of multi-lingual speakers? If we consider our participant groups from the perspective of the

subtractive language group design (Westergaard et al., 2022), we submit that all their languages exert influence: The addition of Norwegian seems to be beneficial, but knowledge of Polish somewhat detrimental to acquiring the subtleties of genericity mapping in L2 English. This is evidenced in L1Pol-multi falling between L1Nor and L1Pol-bi in accuracy. This tiered accuracy also implies that multilingual experience must be considered as a whole, and that exposure to an additional language, regardless of chronology, can influence the other languages in the mind.

Additionally, one can speculate that having experience with more languages, and especially instructed exposure, makes learners *notice* linguistic properties more. Metalinguistic awareness has been found to increase with the number of languages that a speaker knows (Kemp, 2001). Herdina and Jessner (2002) also claim that metalinguistic awareness is a crucial part of multilingualism; it only develops in multilingual, as opposed to bi- and monolingual systems. A multilingual speaker may be able to develop an enhanced monitoring system which expands with the number of languages that she knows. One of the functions of such a system is to draw on common resources that are of use in more than one language systems (Jessner, 2006).

Conclusions

In conclusion, our investigation into the acquisition of genericity in L2 English yielded several interesting findings. Notably, the study corroborated the hypothesis that an L1 with grammatical features similar to the L2, such as the Norwegian article system, can significantly enhance the learning of subtle L2 structures. However, this L1 influence works like a scalpel at the level of individual form–meaning mappings (Slabakova, 2017). Furthermore, we found a distinct advantage for multilingual speakers in the subtleties of L2 semantics. We argued that this advantage was due to these learners' exposure to another language with articles, allowing them to develop conscious or unconscious appreciation of article meanings.

Notes

1. The label 'specific' may refer to NPs while 'episodic' refers to sentences. Table 3 illustrates that the two readings are quite similar, describing a concrete, unfolding situation.
2. The concept of 'type-denoting' was originally introduced by Gundel et al. (1999) to describe the use of nominal expressions for naming a category of entities or substances. We adopt this concept in alignment with Borthen's, 2003 definition of 'type-emphasizing'.
3. Even though some researchers have found that the Polish numeral *one* is beginning to have an article-like status (Hwaszcz & Kędzierska, 2018), this form cannot convey generic meaning.
4. The examples are presented in English. The Norwegian task was an equivalent of the English task, but the individual participants were not assigned to the same list, and thus saw different target test items.
5. All three tasks tested genericity. The first one was a written elicitation task, then the task we are focusing on in this study, and the third task was a truth-value-judgment task testing plural forms. All groups except the L1Pol-bi group were also tested in Norwegian. The order of Norwegian/English tasks was counterbalanced between participants, and they were asked to take the tasks a few days apart. The two sets of language tasks were identically constructed, but the participants were assigned to different lists.
6. Full instructions can be viewed in the Appendix.

7. We conducted a *glmer* analysis on this group with response and the dependent variable and generic context and NP form as the independent variables, with test item and participant set as random effects: no comparison level was significant, signaling that they accepted all the Norwegian forms across the three generic contexts with the same proportion.
8. In the interactions of the *glmer* model, but not in the pairwise comparisons of the model.
9. The FR hypothesis argues that universal semantic features having to be reassembled on different exponents increases acquisition difficulty, while the Bottleneck hypothesis singles out the functional morphology, in this case the genericity exponents, as the hardest part of L2 acquisition.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by EEA Grants/Norway Grants [grant number DEC-2019/34/H/HS2/00495].

Ethics approval

This study was approved by Sikt (Norwegian Agency for Shared Services in Education and Research) under reference number 235174.

Generative artificial intelligence use

OpenAI's ChatGPT (version v2) was utilized to assist with the refinement of the code for the statistical models and the creation of the graphs presented in this article. All outputs generated by the AI were reviewed and validated to ensure their appropriateness and alignment with the research objectives.

Data availability statement

The dataset used to conduct the analysis in this study can be found here: https://osf.io/2qbsv/?view_only=1a4cf1095dc942ba83a7fbb959d199c6

References

- Bates, D., Machler, M., Bolker, B., & Walker, S. (2015). Fitting linear mixed-effects models using lme4. *Journal of Statistical Software*, 67(1), 48. <https://doi.org/10.18637/jss.v067.i01>
- Borthen, K. (2003). *Norwegian bare singulars. Doctoral degree dissertation*. NTNU-Norwegian University of Science and Technology.
- Carlson, G. N. (1995). Truth conditions of generic sentences: Two contrasting views. In G. N. Carlson, & F. J. Pelletier (Eds.), *The generic book* (pp. 224–237). The University of Chicago Press.
- Cook, V. J. (2007). Multi-competence: Black hole or wormhole for second language acquisition research?. In H. ZhaoHong (Ed.), *Understanding second language process* (pp. 16–26). Multilingual Matters. <https://doi.org/10.21832/9781847690159-004>
- Cook, V. J. (2016). Premises of multi-competence. In V. Cook & L. Wei (Eds.), *The Cambridge handbook of linguistic multi-competence. Cambridge handbooks in language and linguistics* (pp. 1–25). Cambridge University Press.

- Gelman, S. A., & Raman, L. (2003). Preschool children use linguistic form class and pragmatic cues to interpret generics. *Child Development*, 74(1), 308–325. <https://doi.org/10.1111/1467-8624.00537>
- Gundel, J. K., Borthen, K., & Fretheim, T. (1999). The role of context in pronominal reference to higher order entities in English and Norwegian. In P. Bouquet, M. Benerecetti, L. Serafini, P. Brézillon, & F. Castellani (Eds.), *Modeling and using context CONTEXT'99* (pp. 475–478). Springer.
- Halmøy, M. (2016). *The Norwegian nominal system*. De Gruyter Mouton.
- Herdina, P., & Jessner, U. (2002). *A dynamic model of multilingualism: Perspectives of change in psycholinguistics*. Multilingual matters Ltd.
- Hwaszcz, K., & Kędzierska, H. (2018). The rise of an indefinite article in Polish: An appraisal of its grammaticalisation stage (part 1). *Studies in Polish Linguistics*, 13(2).
- Ionin, T., Montrul, S., Kim, J.-H., & Philippov, V. (2011). Genericity distinctions and the interpretation of determiners in second language acquisition. *Language Acquisition*, 18(4), 242–280. <https://doi.org/10.1080/10489223.2011.610264>
- Jensen, I. N., Mitrofanova, N., Anderssen, M., Rodina, Y., Slabakova, R., & Westergaard, M. (2021). Crosslinguistic influence in L3 acquisition across linguistic modules. *International Journal of Multilingualism*, 20(3), 717–734. <https://doi.org/10.1080/14790718.2021.1985127>
- Jessner, U. (2006). *Linguistic awareness in multilinguals: English as a third language*. Edinburgh University Press.
- Kemp, C. (2001). *Metalinguistic awareness in multilinguals: Implicit and explicit grammatical awareness and its relationship with language experience and language attainment* [Doctoral degree dissertation]. University of Edinburgh.
- Kolb, N., Mitrofanova, N., & Westergaard, M. (2022). Crosslinguistic influence in child L3 English: An empirical study on Russian-German heritage bilinguals. *International Journal of Bilingualism*, 26(4), 476–501. <https://doi.org/10.1177/13670069211054891>
- Krifka, M., Pelletier, F. J., Carlson, G. N., ter Meulen, A., Chierchia, G., & Link, G. (1995). Genericity: An introduction. In G. N. Carlson, & F. J. Pelletier (Eds.), *The generic book* (pp. 1–124). University of Chicago Press.
- Lange, K., Kühn, S., & Filevich, E. (2015). 'Just another tool for online studies' (JATOS): An easy solution for setup and management of web servers supporting online studies. *PLoS One*, 10(7), e0134073. <https://doi.org/10.1371/journal.pone.0134073>
- Lardiere, D. (2009). Some thoughts on the contrastive analysis of features in second language acquisition. *Second Language Research*, 25(2), 173–227. <https://doi.org/10.1177/0267658308100283>
- Lazaridou-Chatzigoga, D., & Alexiadou, A. (2019). Genericity in Greek: An experimental investigation. In A. Gattnar, R. Hörnig, M. Störzer, & S. Featherston (Eds.), *Proceedings of linguistic evidence 2018: Experimental data drives linguistic theory* (pp. 245–260). University of Tübingen.
- Lenth, R. V. (2025). *emmeans: Estimated Marginal Means, aka Least-Squares Means*. <https://rvinlenth.github.io/emmeans/>
- Leslie, S.-J., Khemlani, S., & Glucksberg, S. (2011). Do all ducks lay eggs? The generic overgeneralization effect. *Journal of Memory and Language*, 65(1), 15–31. <https://doi.org/10.1016/j.jml.2010.12.005>
- Leung, Y.-k. I. (2005). L2 vs. L3 initial state: A comparative study of the acquisition of French DPs by Vietnamese monolinguals and Cantonese-English bilinguals. *Bilingualism: Language and Cognition*, 8(1), 39–61. <https://doi.org/10.1017/S1366728904002044>
- Master, P. (1994). The effect of systematic instruction on learning the English article system. In T. Odlin (Ed.), *Perspectives on pedagogical grammar* (pp. 229–252). Cambridge University Press. <https://doi.org/10.1017/CBO9781139524605.011>
- Mathôt, S., Schreij, D., & Theeuwes, J. (2012). Opensesame: An open-source, graphical experiment builder for the social sciences. *Behavior Research Methods*, 44(2), 314–324. <https://doi.org/10.3758/s13428-011-0168-7>
- Montrul, S., & Ionin, T. (2010). Transfer effects in the interpretation of definite articles by Spanish heritage speakers. *Bilingualism: Language and Cognition*, 13(4), 449–473. <https://doi.org/10.1017/S1366728910000040>
- Skrzypek, D., Kurek-Przybilski, A., & Piotrowska, A. (2022). Expressions of genericity in Mainland Scandinavian languages. *The Journal of Comparative Germanic Linguistics*, 25(1), 43–78. <https://doi.org/10.1007/s10828-022-09133-z>

- Slabakova, R. (2009, March 13–15). What is easy and what is hard to acquire in a second language. *Proceedings of the 10th Generative Approaches to Second Language Acquisition Conference (GASLA 2009)* (pp. 280–294). Cascadilla Proceedings Project. University of Illinois, Urbana-Champaign.
- Slabakova, R. (2017). The scalpel model of third language acquisition. *International Journal of Bilingualism*, 21(6), 651–665. <https://doi.org/10.1177/1367006916655413>
- Snape, N. (2013). Japanese and Spanish adult learners of English: L2 acquisition of generic reference. *Studies in Language Sciences: Journal of the Japanese Society for Language Sciences*, 12, 70–94.
- Snape, N., García Mayo, M. d. P., & Gürel, A. (2009, March 13–15). Spanish, Turkish, Japanese and Chinese L2 learners' acquisition of generic reference. *Proceedings of the 10th Generative Approaches to Second Language Acquisition Conference (GASLA 2009)*. University of Illinois, Urbana-Champaign.
- Søfteland, Å. (2014). *Utbrytingskonstruksjonen i norsk spontantale / Cleft constructions in Norwegian spontaneous speech* [Doctoral degree dissertation]. University of Oslo.
- Trenkic, D. (2007). Variability in second language article production: Beyond the representational deficit vs. processing constraints debate. *Second Language Research*, 23(3), 289–327. <https://doi.org/10.1177/0267658307077643>
- Velnić, M., Slabakova, R., & Dahl, A. (2023, September 13–15). Singular generic noun phrases in L3 Norwegian- Conference presentation. In *PLM- Poznan Linguistic Meeting (THEMATIC SESSION: Exploring Multilingual Acquisition Across Domains, Populations and Contexts.)*, Poznan.
- Velnić, M., Slabakova, R., Dahl, A., & Listhaug, K. F. (2025). Singular NPs and the expression of genericity in Norwegian. *Nordic Journal of Linguistics*, 1–31. <https://doi.org/10.1017/S0332586524000258>
- Westergaard, M., Mitrofanova, N., Mykhaylyk, R., & Rodina, Y. (2017). Crosslinguistic influence in the acquisition of a third language: The linguistic proximity model. *International Journal of Bilingualism*, 21(6), 666–682. <https://doi.org/10.1177/1367006916648859>
- Westergaard, M., Mitrofanova, N., Rodina, Y., & Slabakova, R. (2022). Full transfer potential in L3/Ln acquisition: Crosslinguistic influence as a property-by-property process. In J. Cabrelli, A. Chaouch-Orozco, J. G. Alonso, S. M. Pereira Soares, E. Puig-Mayenco, & J. Rothman (Eds.), *The Cambridge handbook of third language acquisition and processing* (pp. 219–242).