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Research Article

Acquisition of –Ing in English by Multilingual Adult Speakers in Germany and the US

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Abstract: The number of the multilingual speakers all over the world has been increasing steadily, which calls for closer analyses of multilingualism as a phenomenon. The current study aims at investigating multilingual speakers' spoken and written English productions in formal and informal contexts within the boundaries of social context of migration. As for the purposes of the study, data coming from four groups in Germany and the US (32 participants and 24 speakers from RUEG corpus, 56 people in total) via data collection tools such as Language Situations (Wiese 2018), Linguistic Background Questionnaire and c-tests were analyzed both qualitatively and quantitatively. The results were divergent. The comparison of -ing use only revealed that the acquisition of the progressive marker in L3? English differs in Germany and the US while -ing use in total Communication Units (henceforth CU) ratio signaled some cross-linguistic effects. However, there was no difference in within group comparisons obscuring multilingual-monolingual dichotomy within both Germany and the US. Also, task modality and registers were found to have a prominent effect on L3 patterns of English progressive morpheme -ing.

Keywords: Second Language Acquisition, Verbal morphology, English Language Teaching, Multilingualism

1. Introduction

In line with the improvements in technology and mobility among countries, multilingualism has rapidly increased all over the world in recent years (Kachru, 1992). Thus, this has had its reflections on the scientific inquiry which seeks to understand the underlying mechanisms of multilingualism from different perspectives (Cenoz & Genesee 1998; Herdina & Jesner 2000, 2002; Aronin & Hufeisen 2009; Szubko-Sitarek, 2015 among many others). Yet, the studies have been diverted into two major areas as purely structuralist ones highlighting the linguistic differences mostly (i.e. Clyne 1997; Williams & Hammarberg 1998; De Angelis & Selinker 2001; Falk & Bardel 2011; Garcia-Mayo & Rothman 2012; Hall & Ecke 2013) and as studies stressing the sociolinguistic aspects (i.e. Appel & Muysken 1987; Harris & Campell 1995; Clyne 2000; Thomason & Kaufman 2001; Auer 2005). Studies in the former group indicate "variability" in the overt use of linguistic tools, which is highly dependent on factors such as instruments, modality (spoken vs. written), age of acquisition, previously acquired languages, etc. Similarly, studies in the latter group also reveal variability which predominantly resulted from context (formal vs. informal), register, modality, etc. All these studies diverge to a great extent in terms of the first language, linguistic phenomenon under investigation, theoretical background and data collection tools.

Thus, the aim of the current study is to investigate factors such as task modality, formality and cross-linguistic influence of L1 morpho-syntax on both spoken and written English in a multilingual context. More specifically, the study investigates whether the availability of an aspect marker –(I)yor (i.e. progressive) in Turkish has an impact on Turkish heritage speakers' (who were born in Germany and learned English as a foreign language in a formal setting) use of aspectual morpheme (i.e. progressive suffix -ing) in English spoken and written productions at both formal and informal settings.

1.1 Literature Review

There are a number of attempts to understand multilingualism from different perspectives. Nevertheless, when compared to Second Language Acquisition (henceforth SLA) studies, research on

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multilingualism, third language acquisition (i.e. L3A) or Ln acquisition has been in its infancy. Until recently, many researchers tended to involve any study including more than one language under SLA studies. However, a number of researchers caution that SLA and multilingualism are fundamentally different. To illustrate, following Grojean's (1989) analogy of "a bilingual is not the sum of two monolinguals", "a multilingual is not three or more separate monolingual brains in one individual's head" (Slabakova, 2017). Moreover, in the case of multilingualism cross-linguistic influence (henceforth CLI) may come from a variety of sources. These theories have based their accounts on CLI coming only from L1 (Hermas, 2010; Jin 2009; Leung, Slabakova, Montrul & Prevost, 2006), only from L2 (Bardel & Falk, 2007, 2012; Falk & Bardel, 2011), from a cumulative account of previously acquired languages (i.e. CEM: Cumulative Enhancement Model) (Flynn et al., 2004) or either from L1 or L2 based on (psycho)/typological similarities (i.e. TPM: Typological Primacy Model) (Rothman, 2011, 2015). In brief, there is no consensus on what transfers where in multilinguals' brain.

Especially, in countries like Germany and the US with a long migration history, studies on multilingualism have been notably significant. Particularly in Germany, since the classrooms consist of a large number of heritage speakers in addition to monolingual speakers, acquisition of a third language namely English turns out to be an intriguing area for research purposes.

For the sake of clarity, monolingual as a descriptor will be used to refer to English native speaker participants residing in United States and German native speaker participants who were monolingually raised, learned English as L2 in school contexts, and reside in Germany at the time when this study was conducted. Their language background was crosschecked via Linguistic Background Questionnaire and none reported early exposure to any other languages. In a similar vein,, multilinguals were those participants with either heritage language backgrounds (i.e. Turkish speakers residing in Germany) or early exposure to the target language (i.e. German speakers residing in the US).

Under these circumstances, English language could be presumed to be the third language acquisition for heritage speakers and second language acquisition for native speakers residing in Germany. Although the definitions for these terms might be blurry in some contexts it is highly probable that acquirers follow distinct paths in their acquisition process due to a number of variables involved. For instance, morpheme order studies of English suggested that the progressive marker was one of the earliest morphemes emerging in both native and non-native speakers' grammar (Dulay & Burt, 1974; Goldschneider & DeKeyser, 2001). Yet, whether it holds true for multilingual contexts where at least two typologically (dis)similar languages involved calls for further scrutinization. Thus, there are some studies which investigated acquisition of English by multilingual speakers in Germany. These studies target children or adolescents different from the current study targeting adults, and they provide invaluable insight as to type of CLIs and intervening factors.

One of these is Sağın-Şimşek's (2006) study. In her study, 14 Turkish heritage speakers who were students at various secondary schools in Hamburg at the time of the study were employed and their written productions in English were analyzed in terms of CLIs in word order. The results revealed that although there were CLIs from both heritage Turkish and majority German, the latter had a predominant effect multiplied with (psycho)/typological influence. More specifically, German being V2 language was particularly a source language for CLIs related to topicalization in word order. Thus, Sağın-Şimşek (2006) claims that participants were resorting to German by overriding their Turkish-mode based on the typological similarities shared by German and English.

Likewise, Şahingöz (2014) examined L3 English written and spoken productions of Turkish-German, Russian-German bilingual ninth graders and German monolingual speakers. The results signaled German effect in object placement and verb-raising while all groups differed from one another fundamentally.

Another study was conducted by Hopp and Lemmerth (2018) to search for possible transfer effects on receptive and productive skills of Turkish-German bilingual children in English as L3. In the study 31 Turkish-German bilingual and 31 German monolingual children (who were strictly matched in linguistic and cognitive tests such as vocabulary, grammar, working memory, phonological awareness, etc.) were compared and contrasted in their word order, verb raising, and subject and definite article omissions. Data collected via sentence repetition and picture story production tasks revealed no statistically significant difference between monolingual and bilingual participants. The analysis of grammatical transfer indicated that participants in both groups transferred from German irrespective of task type and their L1s. Yet, Hopp and Lemmerth (2018) warn that this might also be related to language dominance since all participants were born and raised in Germany. More explicitly, Turkish heritage speakers might have German as their dominant language, which was also supported by their high scores for productive vocabulary in German than in Turkish (Hopp & Lemmerth, 2018, p. 580). In terms of theories of multilingualism, Hopp and Lemmerth (2018) further argue that the findings support TPM while L2 status factor model was ruled out due to its basis on maturation argument and age of acquisition. In brief, in line with findings of Sağın-Şimşek (2006), Şahingöz (2014), Hopp and Lemmerth's (2018) study demonstrate that German (either because of typological similarities or being the dominant language) is the source language for transfer in acquisition of English as L3.

There is another project called Linguistic Diversity Management in Urban Areas conducted between 2009 and 2013. It consisted of written data in English gathered from both heritage speakers (i.e. Turkish, Russian, Vietnamese) and monolingual English, German, Russian, Turkish, and Vietnamese speakers aged between 12 and 16 years. The study tested whether there was a multilingual advantage resulting from multiplied metalinguistic awareness supported by access to grammar of more than two languages. Specifically, Lorenz (2018) checked whether the multilingual participants outperformed the monolinguals in the accurate use of the progressive aspect in English. 209 picture story telling texts were collected in total. In this task participants were shown six pictures and requested to write at least two sentences for each picture within a total amount of 30 minutes. The results demonstrated that two groups differed in the number of missing auxiliaries signaling a monolingual advantage. Also, monolingual English, Turkish and Russian participants wrote more "typical" progressive constructions sticking to "be Ving" frame. On the other hand, the results revealed a high correlation between "formal correctness" and "school types" (Lorenz & Siemund, 2019). In particular, Vietnamese-German participants attending Gymnasium (one of the top high school types) produced more "target-like" progressive constructions than Turkish-German participants who were students in schools Gesamtschule, Stadtteilschule. All in all, Lorenz (2018) claimed that researchers could not find a multilingual advantage over monolinguals in the use of progressive in English. Besides, participants' proficiency in their heritage languages as well as other intervening factors such as type of school, type and amount of formal instruction in English were not controlled, which might have a crucial significance in multilingual acquisition.

In brief, even though there are studies stressing the acquisition of English at a multilingual setting in Germany from different perspectives, none of them have targeted adult multilinguals' acquisition of the progressive marker in English broader repertoires (i.e. both written and oral productions in formal and informal contexts). Thus, the current study aims to fill this gap by providing data from both written and spoken productions of Turkish heritage speakers residing in Germany and comparing it to data from both heritage and native speakers residing in the US.

2.1. The issue under investigation

The present study will focus on one of the inflectional morpho-syntactic units in English. There are eight English inflectional morpho-syntactic units (i.e. plural -s, third person singular -s, possessive -s, past tense -ed, comparative -er, superlative -st, past participle -en, progressive -ing). Among these, the

progressive aspect suffix -ing was chosen to understand the heritage language's effect on L3 English. Specifically, in German there is no inflectional morpheme that marks the progressive although it is a Germanic language as English. However, in heritage Turkish, aspect is grammaticalized in the form of a suffix (-(I)yor and -(A)mAktA) similar to English. Then, the investigation of the progressive in English will reveal whether the availability of such a suffix in heritage language facilitates L3 acquisition of English progressive. In a similar vein, whether the non-availability of it in non-heritage German has an impact on the same process will be shown. Additionally, possible CLIs will provide support for L3 acquisition theories, revealing which theory (L1 transfer, L2 status factor, CEM, or TPM) has more explanatory power. The research questions are as follows:

(1) Do L3 (or Ln) English multilingual speakers residing in Germany differ from monolingual English speakers residing the US in their correct suppliance of -ing? [L1 vs. L2 & L3]
(2) Do L3 (or Ln) English multilingual speakers with the same level of English proficiency differ from monolingual German speakers residing in Germany in both written and oral production of -ing in English? [L2 vs. L3]
    a) If yes, are there any CLIs or transfer effects stemming from previously acquired languages (i.e. Turkish)?
(3) Are there any context/register differences in correct suppliance of -ing as formal tested via imaginary police call and official report vs informal in the form of Whatsapp texts among groups?

2.2. Linguistic background

In the grammar of languages, verbs are inflected for tense, aspect and modality. Tense marks the time of the event while aspect refers to viewpoint (Comrie 1976; Smith 1999). Specifically, if the event is viewed as a whole (with specific references to the starting and endpoints) it is called a perfective. If not, then it is referred to as imperfective. Within imperfective aspect, events may be either viewed as "specific incomplete" (i.e. progressive) or "incomplete repetitive" (i.e. habitual). In this study, the progressive aspect that is grammaticalized in various ways will be discussed for the languages under investigation. In addition to the grammatical aspect, there is also lexical aspect in languages, which is also called "Aktionsart, actionality, aspectual class or situation aspect" (Filip, 2012) and it refers to the inherent viewpoint of verbs' semantic content. As for the purposes of the current study grammatical aspect, that is the overt use of -ing in English, will be investigated.

In English, the progressive is marked with an auxiliary and -ing suffix on the verb. Besides, the use of progressive aspect with statives and achievements yield ungrammatical sentences in English (de Swart, 2012). However, it has been noted that there might be cases where the progressive suffix is also used with stative verbs like "love" as it is the case in McDonald's slogan "I'm loving it") (de Swart, 2012; p. 5).

Being another Germanic language, German differs from English in the progressive aspect. That's, there is no overt morpheme to mark progressive aspect. Instead, as Blevins puts it "while there is no standard morphological marking for the progressive aspect in Standard German, there are several colloquial and dialectical constructions that can be used to express progressivity, or something similar to it." (2018, p. 76). König and Gast (2012) state that a German equivalent for the following sentence "Charles is working." will be "Karl arbetitet gerade."; "Karl ist am Arbeiten."; "Karl ist beim Arbeiten."; "Karl ist arbeiten." (p. 93).

On the other hand, one of the agglutinative languages, Turkish is highly rich in inflectional morphology. Thus, Turkish marks aspect as perfective and imperfective (Taylan 2001). Within imperfective category there are both progressive and habitual aspects all of which are overtly realized in the form of suffixes (Göksel & Kerslake, 2005). As for progressive aspect, there are two suffixes (i.e. -(I)yor and -mAktA) which can be used to refer to progression interchangeably with a slight difference in formality. The

former is way more common than the latter and both can be used to extend the meaning of a sentence to habitual aspect in combination with time adverbials. Hence, it is possible to use suffixes for aorist and progression interchangeably as can been seen in 2a and 2b. Besides, different from English, the progressive suffix in Turkish can be used with statives and achievements.

(1) a. I know this book very well.
b. *I am knowing this book very well.

(2) a. Ben bu kitab-ı çok iyi bil-iyor-um.
I this book-ACC very much know-PROG-1SG
'I know this book very well.'
b. Ben bu kitab-ı çok iyi bil-ir-im.
I this book-ACC very much know-AOR-1SG
'I know this book very well.'

To sum up, although none of the languages under investigation have exactly the same progressive aspect morpheme as English, Turkish seems to have more features in common than German. In brief, both English and Turkish mark progression with an explicit and regular suffix attached to the verb, which might alter how acquirers attain it.

3. Method

3.1. Participants

Data for this study come from two groups of speakers. The first group consists of 32 participants who are Turkish heritage speakers and German monolingual speakers residing in Berlin, Germany. 16Turkish heritage and 16 German native speakers were recruited to compare L1 vs. L2 effects on L3 English acquisition. They were found via convenient and snowball sampling. The criteria for the participants were as follows: They were adult heritage speakers of Turkish or German native speakers aged between 25 to 35, either born in Germany or migrated to Germany before the age of 2, earned at least a high school degree in Germany (i.e. to make sure that they get similar type of English language exposure). They were paid 15 Euros for their participation.

The second group of speakers were 14 randomly chosen L1 English and 10 heritage German speakers' data in RUEG corpus which was compiled in the USA as exactly the same way via the same data collection tools (Wiese et al. 2019). The same inclusion criteria with the first group (i.e. aged between 25 and 35, born in the US or migrated to the US before the age of 2, and at least a high school degree) were applied. Data were downloaded from ANNIS corpus version 3.7.1 (http://corpus-tools.org/annis/.) The aim was to compare and contrast monolinguals to multilinguals in two settings. In short, data coming from four distinct groups of speakers were utilized. The following labels will be used to refer to each group.

(1) EngM: English monolinguals residing in the US
(2) H-Ger: Heritage German speakers in the US
(3) GerM: German monolinguals residing in Germany
(4) H-Tur: Heritage Turkish speakers in Germany

3.2. Instruments

There were three data collection tools in this study. The first one is called "Language Situations" which help to elicit a wide range of data across speakers and registers within a controlled setting (Wiese, 2018). More explicitly, participants are shown a silent video of a car accident and requested to imagine themselves as a passer-by. Then, they are asked to recount what happened to both their close friend (i.e. as an informal setting) and to a police officer (i.e. as a formal setting). Also, both written and spoken descriptions of the same event are collected. In brief, although no statistical analysis of the instrument

(i.e. reliability) is available, its design has been based on longitudinal comparisons of both naturalistic and elicited data (Wiese, 2018). Hence, it has been claimed to enable researchers to collect data in an efficient way for a variety of research foci since it triggers natural language productions in a controlled setting (Wiese, 2018).

The second data collection tool is Linguistic Background Questionnaire in which participants' language habits are investigated via both online and pen-and-paper tests. With the online questionnaire the aim is to identify language(s) and contexts where these languages are used. Including English monolinguals all participants responded to it. Some of the participants (13 of them) have already taken it since they have already participated in the German and Turkish phases of the study. 19 new participants were asked to fill this online questionnaire at the end of the elicitation period. In addition to this online questionnaire, all participants were also asked to fill out a pen-and-paper questionnaire in English, which targets their English learning history with questions such as when and where they started to learn English or if they have ever been to English-speaking countries.

The third and last data collection tool is a C-test that was used to make sure that any difference among groups is due to some other variables but not their English proficiency. Also, Grotjahn, Klein Braley, and Raatz (2002) claim that c-tests are one of the most effective instruments to test foreign language proficiency as they assess distinct linguistic competencies in a contextualized manner. Thus, two texts with 20 gaps in total were chosen to measure English proficiency of all participants and administered at the very end. A one-way ANOVA was conducted to compare means of all groups. Results revealed significant differences between EngM and others $F(3, 56) = 15.25$, $p < 0.05$ although H-Ger (H-Tur, p=0.623; GerM, p=0.347), H-Tur (H-Ger, p=0,632; GerM, p=0.076), and GerM (H-Ger, p=0623; H-Tur, p=0.076) groups did not differ from one another in terms of their English proficiency.

3.3. Data collection

In line with RUEG project and requirements of Language Situations, data collection was carried out by two researchers (one playing the bad cop to elicit formal data and handle with paper work for the purposes of creating a more formal setting and the other playing the good cop to elicit informal data and carry out the informal ice-breaker chit-chat session). Thus, one of the researchers was the bad cop and a student assistant from a project was the good one. Two rooms at the university were determined and prepared as formal and informal settings. Also, the technical devices such as a voice recorder, a laptop (15inch laptop borrowed from Humboldt University) and a smart phone were set and all necessary software was downloaded. Consent forms (i.e. ethical approval by the Deutsche Gesellschaft für Sprachwissenschaft (– no: #2017-06-171120) as well as all other paper work were prepared and copied. The researchers at different meetings rehearsed the study. Then, a call for participants was sent and elicitation sessions were set up in accordance with participants' and researchers' schedules. The order of elicitation was randomized with all eight possible cases (see Table 1). Each participant started the study with the consent form and ended with the c-test. Prior to the elicitations, the video was shown and they were asked if they had any questions. The voice recorder was on throughout the whole session. Informal written (henceforth IW) data were collected via Whatsapp text messages while for formal written (henceforth FW) data participants were instructed to write the text directly on the blank page on the laptop. All spoken data (both formal and informal as indicated FS and IS) were collected via the voice recorder. Each session took 45 minutes to one hour depending on the participants' pace.

Table 1

Order of Elicitation.

Order1	Order2	Order3	Order4	Order5	Order6	Order7	Order8
IS	IW	IS	IW	FS	FW	FS	FW
IW	IS	IW	IS	FW	FS	FW	FS
FS	FS	FW	FW	IS	IS	IW	IW
FW	FW	FS	FS	IW	IW	IS	IS

3.4. Data analysis

Both qualitative and quantitative analyses were conducted. Initially, to identify -ing progressive use two sets as exclusion and inclusion criteria were determined. In specific, exclusion criteria suggest that -ing constructions in all gerund uses, reduced relative clauses and in adjectives (i.e. The accident was shocking/annoying) were excluded. Similarly, S-V agreement violation was ignored since it is beyond the scope of the study. On the other hand, all "be Ving" constructions were accepted based on the inclusion criterion. Then, all communication units (henceforth CUs) were examined in line with the following classification:

- Accurate Use (i.e. He was walking.)
- Variation 1 (V1): missing -ing (i.e. *I am see it.)
- Variation 2 (V2): missing aux. (i.e. *A guy playing with it.) (making sure that it is not a gerund use or reduction in relative clause)
- Variation 3 (V3): there constructions (i.e. There was coming a woman.)
- Variation 4 (V4): verb type: non-activity verbs (i.e. He was stopping.)

There was only one researcher who coded the data to group the variations. In cases of uncertainty, the researcher discussed variations with the project coordinator but no formal assessment was carried out to check the interrater reliability. Then, in line with the purposes of the study, since variables are categorical Chi-Square tests were run in SPSS 23.0 to figure out distinctions among and within four groups.

4. Results

As there were two diverse groups in two countries, each setting was examined separately at the initial stage. Thus, first of all groups in Germany were examined to reveal the effects on multilingualism on -ing uses in L3 English setting. All groups were found to be highly accurate in their both oral and written productions while slight differences were observed in terms of the types of variations based on the above inclusion criteria. Table 2 and Table 3 below demonstrate the distribution.

Table 2

Heritage Turkish (H-Tur) Speakers' Progressive Use (N=14)

	Accurate	V1	V2	V3	V4
FS	46	1	1	-	-
FW	28	-	-	1	1
IS	24	-	-	1	1
IW	21	-	-	-	-
TOT	119	1	1	2	2
%	95.2	0.8	0.8	1.6	1.6

Table 3

German Monolingual (Germ) Speakers' Progressive Use (N=14)

	Accurate	V1	V2	V3	V4
FS	60	1	1	2	1
FW	48	-	-	1	1
IS	62	-	-	2	2
IW	27	-	-	2	1
TOT	197	1	1	7	5
%	92.9	0.5	0.5	3.6	2.5

As it is obvious from Table 2 and Table 3, all participants were highly accurate in their -ing suppliance irrespective of their being mono or multilingual. In specific, availability of progressive morpheme in Turkish heritage language seems to have no facilitative effect. More explicitly, German monolingual speakers produced more -ing although there is no such morpheme in German. Yet, "There constructions" (V3) seemed to pose a problem for GerM speakers more than heritage speaker groups, which might stem from V2 property of German language (i.e. which suggests that the finite verb must occur in the second position of the sentence).

All groups in Germany were compared and contrasted statistically as well. The comparison of GerM and H-Tur revealed no statistical difference (X^2 (1, N = 32) = 17.83, p = .429). Then, in an English as a Foreign Language context previously acquired languages (be it either L1 or L2) seem to have no statistically significant effect on the acquisition of English progressive morpheme. This again suggests no facilitative effect of L1 Turkish.

The second setting in the US was required to discern multilingual vs. monolingual dichotomy. Furthermore, English data from H-Ger speakers were also involved to further discuss the same issue. Table 4 indicates the results across four tasks.

Table 4

Heritage German (H-Ger) Speakers' Progressive Use (N=10)

	Accurate	V1	V2	V3	V4
FS	28	-	1	-	-
FW	27	-	-	-	-
IS	27	-	-	-	-
IW	11	-	-	-	1
TOT	93	-	1	-	1
%	97.9	-	1.05	-	1.05

Table 5

English Monolingual (Engm) Speakers' Progressive Use (N=14)

	Accurate	V1	V2	V3	V4
FS	36	-	-	-	1
FW	30	-	1	-	-
IS	26	-	-	-	-
IW	16	-	-	-	-
TOT	108	-	1	-	1
%	98.2	-	0.9	-	0.9

Following the same reasoning, all groups in the US were scrutinized. EngM and H-Ger speakers were found to be similar in their progressive use (X^2 (1, N = 24) = 15.61, p = .85) obscuring the effects of an additional language.

As Table 2, Table3, Table 4, and Table 5 indicate, four groups differed in their progressive aspect marker -ing uses to a great extent. The results indicated that the difference between language background and progressive morpheme use was statistically significant X^2 (3, N = 56) = 11.78, p = .019. More specifically, further comparison of H-Ger and GerM groups showed that they differed in their progressive use significantly (X^2 (1, N = 26) = 14.92, p = .029). GerM used English progressive morpheme more often than H-Ger. This might be interpreted as some other factors such as English language proficiency, place of acquisition, type of exposure (natural vs. instructional), amount and type of input having a prominent role in multilingual acquisition.

Further analyses were run to see whether -ing use in overall CU ratio differs. More explicitly, all groups did not produce the same number of CUs. Isolation of -ing might obscure some groups producing significantly few CUs. Thus, for each group CUs were also found and the ratio of -ing marked verbs to overall CUs was calculated as shown in Table 6.

Table 6

Ratio of -Ing Marked Verbs

	TOT CUs	TOT -ing	Ratio (%)
EngM	492	108	21.9
H-Ger	374	93	24.8
H-Tur	404	119	29.5
GerM	770	197	25.5
TOT CUs	2265	593	26.1

Although the statistical comparisons of CU/-ing ratios revealed no significant effect; X^2 (3, 56) = 26.4 (p = .22), it is evident that H-Tur had higher -ing/CU ratio than other groups. This might stem from the similarity between their heritage languages (namely Turkish) and English in terms of the progressive use. That is, participants in this group might find it far easier to employ -ing in English than other groups. Furthermore, the difference between H-Ger and GerM that was found in the comparison of total -ing uses faded away. Lastly, the number of ing- productions by H-Tur exceeded the ones produced by EngM, which calls for closer investigation. Within the framework of this study, the only difference between two groups is their proficiency. Thus, it could be speculated that higher proficiency might equip native speakers with a variety of linguistic tools that could have masked the necessity to use progressive marked verbs.

In brief, the results revealed that all groups irrespective of their linguistic background were highly accurate in their -ing uses. However, there are some differences among groups based on the distinctions in data analyses. To begin with, the results of the first analysis revealed that groups residing in Germany and the US differ with respect to quantity of their -ing. There might be some possible reasons for this finding. Firstly, English language proficiency and input might be significant variants in these contexts. No statistical differences were found in English proficiency tests between groups GerM and H-Ger. Yet, this might be closely related to the construct validity of the c-tests. These are supposedly the most prominent differences between H-Ger and GerM speakers. Yet, the inverse proportion of -ing uses of H-Ger and EngM speakers might stem from the likelihood of employing some other linguistic tools available to them (i.e. time adverbials and other tense aspect and modality markers) instead of the progressive morpheme. Similarly, their being more proficient may equip them with such linguistic tools. Secondly, the way English language is acquired might result in such a difference. More specifically, all participants in Germany learn English in an EFL context at schools while in the US participants are also immersed in English language and culture. This would typically have an effect on the type and amount of input.

On the other hand, the second data analyses indicated that groups' -ing/CUs ratios differ signaling heritage language effect. More specifically, H-Tur preferred to use more -ing marked verbs within their all CUs. This might stem from language specific properties of Turkish. As such, availability of a similar unit that carries morphosyntactic information may cause acquirers to exploit their heritage language resources in acquiring another language. This might also be accepted as a further support for TPM (Rothman, 2011, 2015) since typological similarities seem to have a facilitative effect in the frequent use of English progressive in this highly multilingual context.

In terms of variations, divergent -ing marked CUs are highly limited when compared to accurate uses in general, which might be a further support for the first claim related to English language proficiency.

However, there is a slight difference between the type of variations between participants residing in Germany and the US. There are more V3 and V4 type variations in EFL context whereas this was not the case for H-Ger and EngM speakers. Then, similar to results of many other studies (Stutter-Garcia 2019), it might be claimed that less proficient multilingual learners are more prone to cross-linguistic effects of previously acquired languages. Yet, this argument calls for further investigation which would examine these linguistic phenomena in isolation.

Task-wise analyses of data indicated that all groups produced more English progressive in spoken than in written tasks based on frequencies. Likewise, they used -ing least in IW task. As for the comparison of different registers, four groups employed -ing more in formal ones instead of informal ones. Specifically, in Germany, H-Tur and GerM speakers tended to use -ing more in formal contexts. The following table indicates the use of -ing across four registers for each group from mostly employed to the least employed ones.

Table 7

Registers and Tasks Across Groups

Group	Frequency order
H-Tur	FS > FW > IS > IW
GerM	IS > FS > FW > IW
H-Ger	FS > FW = IS > IW
EngM	FS > FW > IS > IW

–ing marked units were calculated as in Table 6 and the frequency order across various registers and modalities was formulated. As it is indicated in the Table 7, task modality appears to be related to the use of progressive marker in English. Particularly, oral data tended to involve more -ing while this was not the case for written one. In terms of the registers, even though the tendencies do not reveal clear-cut results, it is possible to claim that formal contexts dominate its use more than informal ones.

5. Discussion

The current study tested the acquisition of -ing in a multilingual context in Germany. The first research question taps whether there is a difference in English progressive morpheme suppliance between EngM and multilingual speakers residing in Germany. The results indicated that multilingual speakers in Germany produced significantly more -ing marked CUs than EngM and H-Ger residing in the US. Yet, divergent forms for both groups were very restricted. Besides, heritage languages in Germany (i.e. Turkish) had facilitative cross-linguistic effect on English.

The second research question of the current study investigated the use of -ing by heritage and monolingual speakers in Germany. Results revealed no significant difference among groups in terms of accurate uses in isolation while comparison of -ing/total CU ratios signal some distinctions. More specifically, H-Tur group was found to employ -ing marked verbs more than any other groups. As discussed earlier, this might have its roots in linguistic similarity of progressive aspect in these languages, which would provide further support for Rothman's (2011, 2015) TPM.

Even though multilingual speakers in Germany signaled some difficulty with "there constructions" and "stative verbs", there were only few cases. Still, this might signal L2 (German) effect instead of L1 which is structurally more similar to English in terms of progressive aspect for heritage speakers, which was also echoed in many other studies as Sağın-Şimşek (2006), Şahingöz (2014), Hopp and Lemmerth

(2018). However, these singled out cases of CLIs do not provide any support for any specific L3 acquisition theories.

Additionally, the data seem to unveil task and formality effects on the use of progressive morpheme in English. For instance, -ing was used more frequently in spoken data than written one. Also, all groups employed more -ing in formal contexts than informal ones, which might stem from speakers' urge to be more precise in their aspect choices. Thus, the study revealed that formality and task modality are two prominent factors in L3 acquisition in addition to many other factors.

6. Conclusion

Overall, the study indicated that the English progressive morpheme is used differently in Germany and US in terms of both variations and total CU/-ing ratios. Moreover, within the same contexts such as Germany this difference is evident among H-Ger, H-Tur, and GerM in their use of –ing. Thus, although the comparisons did not reveal statistically significant differences regarding the accurate suppliance of –ing the results demonstrated that heritage languages in multilingual contexts might influence the acquisition of English as a foreign language. Furthermore, English proficiency and exposure, task type/modality (as spoken and written), and formality seem to play substantial role in the use of progressive aspect in English. Besides, linguistic feature to be acquired might have strong influence on L3 acquisition as well. More specifically, compared to other seven inflectional suffixes in English, -ing might be less troublesome to acquire with highly restricted and straightforward contexts to appear.

In brief, the study unveiled error-free acquisition of English progressive marker with some probable L1, context, proficiency, task, and formality bound effects on it. Yet, the current study is not without its limitations. It might be better to investigate CLIs such as V3 and V4 in isolation in future studies as there are varied approaches to account for the structural information provided by them.

References

Aronin, L., & B. Hufeisen. (Eds.). (2009). *The Exploration of Multilingualism: Development of Research on L3, Multilingualism and Multiple Language Acquisition.* John Benjamins.

Auer, P. (2005). A postscript: Code-switching and social identity. *Journal of Pragmatics*, *37*(3), 403-410. https://doi.org/10.1016/j.pragma.2004.10.010

Bardel, C., & Falk, Y. (2007). The role of the second language in third language acquisition: The case of Germanic syntax. *Second Language Research, 23*(4), 459-484. https://doi.org/10.1177/0267658307080557

Blevins, M. (2018). Towards a constructional analysis of the progressive aspect in Texas German. *Constructions in Contact: Constructional perspectives on contact phenomena in Germanic languages*, 73-113. Retrieved from https://www.torrossa.com/en/resources/an/5001406#page=80

Borik, O. (2002). *Aspect and reference time* (LOT Dissertation Series 64). Utrecht: Landelijke Onderzoekschool Taalwetenschap.

Cenoz, J., & Genesee, F. (1998). Psycholinguistic perspectives on multilingualism and multilingual education. In J. Cenoz & F. Genesee (Eds.), *Beyond bilingualism: Multilingualism and multilingual education* (Vol. 110) (pp.16–32). Multilingual Matters Ltd.

Clyne, M. (1997). Some of the things trilinguals do. *International Journal of Bilingualism, 1*(2), 95–116. https://doi.org/10.1177/136700699700100201

Clyne, M. (2000). Lingua franca and ethnolects in Europe and beyond. *Sociolinguistica, 14*, 83–89. https://doi.org/10.1515/9783110245196.83

Comrie, B. (1976). *Aspect: An introduction to the study of verbal aspect and related problems* (Vol. 2). Cambridge University Press.

Comrie, B. (Ed.). (2009). *The world's major languages*. Routledge.

De Angelis, G. (2007). *Third or additional language acquisition* (Vol. 24). Multilingual Matters Ltd.

De Angelis, G., & Selinker, L. (2001). Interlanguage transfer and competing linguistic systems in the multilingual mind. In J. Cenoz, B. Hufeisen & U. Jessner. (Eds.), *Cross-linguistic influence in third language acquisition: Psycholinguistic perspectives* (Vol. 31) (pp.42–58). Multilingual Matters Ltd.

De Swart, H. (2012). Verbal aspect. Robert I. Binnik (Ed.) *The Oxford handbook of tense and aspect* (pp.752–780). Oxford University Press.

Dollnick, M., & Pfaff, C. W. (2013). *Entwicklung von Diskursorganisation in verschiedenen Sprachen: Einführung und Schluss in narrativen und in erörternden Texten in Türkisch, Deutsch und Englisch bei Schülern mit türkischer Erstsprache in Berlin [Development of discourse organization in different languages: introduction and conclusion in narrative and expository texts in Turkish, German and English for students whose first language is Turkish in Berlin].* In Wieler, Petra & Tabea Becker (eds.), Erzählforschung und Erzähldidaktik heute. Entwicklungslinien - Konzepte - Perspektiven. Tübingen: Stauffenburg-Verlag (pp.147-164).

Dulay, H. C., & Burt, M. K. (1974). Natural sequences in child second language acquisition *Language Learning, 24*(1), 37-53. https://doi.org/10.1111/j.1467-1770.1974.tb00234.x

Falk, Y., & Bardel, C. (2011). Object pronouns in German L3 syntax: Evidence for the L2 status factor. *Second Language Research, 27*(1), 59–82. https://doi.org/10.1177/0267658310386647

Filip, H. (2012). Lexical aspect. *The Oxford handbook of tense and aspect* (pp.721-751).

Flynn, S., Foley, C., & Vinnitskaya, I. (2004). The cumulative-enhancement model for language acquisition: comparing adults' and children's patterns of development in first, second and third language acquisition of relative clauses. *The International Journal of Multilingualism 1*, 3–16. https://doi.org/10.1080/14790710408668175

Harris, A. C., & Campbell, L. (1995). *Historical syntax in cross-linguistic perspective* (Vol. 74). Cambridge University Press.

Herdina, P., & Jessner, U. (2000). The dynamics of third language acquisition. In J. Cenoz & U. Jessner (Eds.), *English in Europe: The acquisition of a third language* (Vol. 19) (pp. 84–98). Multilingual Matters Ltd.

Herdina, P., & Jessner, U. (2002). *A dynamic model of multilingualism*. Multilingual Matters.

Hermas, A. (2010). Language acquisition as computational resetting: Verb movement in L3 initial state. *International Journal of Multilingualism, 7*(4), 343-362. https://doi.org/10.1080/14790718.2010.4879.41

Garcia Mayo, M. P., & Rothman, J. (2012). L3 morphosyntax in the generative tradition: The initial stages and beyond. In J. C. Amaro, S. Flynn & J. Rothman (Eds.), *Third Language Acquisition in Adulthood* (pp. 9–32). John Benjamins Publishing Co.

Goldschneider, J. M., & DeKeyser, R. M. (2001). Explaining the "natural order of L2 morpheme acquisition" in English: A meta-analysis of multiple determinants. *Language learning, 51*(1), 1-50. https://doi.org/10.1111/1467-9922.00147

Göksel, A., & Kerslake, C. (2005). *Turkish. A comprehensive grammar.* (Comprehensive Grammars) Routledge.

Group, R. (2018, October 7). *RUEG Language Situations Elicitation 2018/19.* Retrieved from osf.oi/qhupg on March 20, 2020.

Grosjean, F. (1989). Neurolinguists, beware! The bilingual is not two monolinguals in one person. *Brain and Language, 36*(1), 3-15. https://doi.org/10.1016/0093-934X(89)90048-5

Grotjahn, R., Klein-Braley, C., & Raatz, U. (2002). C-Tests: an overview. University language testing and the C-Test, 93-114. Retrieved from http://www.c-test.de/deutsch/originalia/pdf/3_Coleman_ua_2002_university%20language%20testing%20and%20the%20ctest/02_grotjahn_ua_2002_ctest_an%20overview.pdf

Hopp, H., & Lemmerth, N. (2018). Lexical and syntactic congruency in L2 predictive gender processing. *Studies in Second Language Acquisition, 40*(1), 171-199. https://doi:10.1017/S02722631160004.37

Jin, F. (2009). Third language acquisition of Norwegian objects: Interlanguage transfer or L1 influence. *Third language acquisition and universal grammar*, *37*, 144-161. https://doi.org/10.21832/9781847691323-010

Leung, Y. K. I., Slabakova, R., Montrul, S., & Prévost, P. (2006). Full transfer vs. partial transfer in L2 and L3 acquisition. *Inquiries in linguistic development: in honor of Lydia White.* John Benjamins.

LIMA. (2009-2013). Linguistic Diversity Management in Urban Areas-Lips, Lima Panel Study. *Projektkoordination LiPS:* Prof. Dr. Dr. H. C. Ingrid Gogolin; ©LiMA-LiPS 2013. Hamburg: LiMA.

Kachru, B. B. (1992). *The other tongue: English across cultures.* University of Illinois Press.

Kallmeyer, W. & Inken, K. (2003). Linguistic variation and the construction of social identity in a German-Turkish setting. In: Androutsopoulos, Jannis (Ed.), *Discourse Constructions of Youth Identities* (pp. 29-46). John Benjamins.

König, E., & Gast, V. (2012). *Understanding English-German contrasts/Grundlagen der Anglistik und Amerikanistik.* Erich Schmidt.

Lorenz, E. (2018). One day a father and his son going fishing on the Lake. - A study on the use of the progressive aspect of monolingual and bilingual learners of English. In Andreas Bonnet & Peter Siemund (eds.). *Foreign Languages in Multilingual Classrooms*. Hamburg Studies on Linguistic Diversity. John Benjamins.

Lorenz, E. & Siemund, P. (2019). Differences in the acquisition and production of English as a foreign language. A study based on bilingual and monolingual students. E. Vetter & U. Jessner (eds), In *International Research on Multilingualism. Breaking with the Monolingual Perspective*, (pp. 81–102). Springer Nature Switzerland AG.

Poplack, S. & Levey, S. (2010). Contact-induced grammatical change: a cautionary tale. In: Auer, Peter & Jürgen Erich Schmidt (Eds.), *Language and Space. An International Handbook of Linguistic Variation: Theories and Methods*, (pp. 391-419). Mouton de Gruyter.

Rothman, J. (2011). L3 syntactic transfer selectivity and typological determinacy: The typological primacy model. *Second Language Research, 27*(1), 107-127. https://doi.org/10.1177/0267658310386439

Rothman, J. (2015). Linguistic and cognitive motivations for the Typological Primacy Model (TPM) of third language (L3) transfer: Timing of acquisition and proficiency considered. *Bilingualism: Language and Cognition, 18*(2), 179-190. https:// doi:10.1017/S136672891300059X

Sağın-Şimşek, S. Ç. (2006). *Third language acquisition: Turkish-German bilingual students' acquisition of English word order in a German educational setting*. Waxmann.

Slabakova, R. (2017). The scalpel model of third language acquisition. *International Journal of Bilingualism, 21*(6), 651-665. https://doi.org/10.1177/1367006916655413

Smith**,** C. S. (1999). Activities: states or events?. *Linguistics and Philosophy*, 479-508.

Şahingöz, Y. (2014). Schulische Mehrsprachigkeit bei türkisch-deutschen bilingualen Schülern: Erwerb und Auswirkungen [Unpublished doctoral dissertation, University of Hamburg]. Retrieved from https://ediss.sub.uni-hamburg.de/handle/ediss/5998

Szubko-Sitarek, W. (2015). *Multilingual lexical recognition in the mental lexicon of third language users.* Springer.

Taylan, E. E. (2001). On the relation between temporal/aspectual adverbs and the verb form in Turkish. In: Eser Erguvalı Taylan (ed.) *The verb in Turkish*, (pp.97-129). John Benjamins.

Thomason, S. G., & Kaufman, T. (2001). *Language contact*. Edinburgh University Press.

Wiese, H. (2018). Language Situations: A method for capturing variation within speakers' repertoires. In: Yoshiyuki Asahi (Eds.), *Methods in Dialectology XVI*. (pp. 105-117). Peter Lang.

Wiese, H., Alexiadou, A., Allen, S., Bunk, O., Gagarina, N., Iefremenko K., & Zuban, Y. (2019). *RUEG Corpus (Version 0.2.0) [Data set]. Zenodo.* http://doi.org/10.5281/zenodo.3236069

Williams, S. & Hammarberg, B. (1998). Language switches in L3 production: Implications for a polyglot speaking model, *Applied Linguistics, 19*(3), 295–333. https://doi.org/10.1093/applin/19.3.295

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