Abstract

Due to their complex morphological, syntactic, and semantic properties, PPs in German are a challenge for acquisition, especially for children who learn German as their second language. This research report presents the results of an experiment conducted with Turkish and Italian speaking children in the process of acquiring German as an L2 to study the particular difficulties the complex nature of PPs poses for learners. The data drawn from the experiments is evaluated with respect to two possible influence factors on the L2 acquisition: the L1 of the L2ers and the age that the learners had been at when they had their first contact with the target language. The results of the study suggest that both factors may have an influence on the L2 acquisition of the German PP, at least in some domains. Tendencies that the subjects’ L1 matters for the L2 acquisition are attested for many properties of the PP – the position of the preposition and the cliticization of prepositions and determiners being the main exceptions. Regarding the relevance of the age of first contact, my data shows that the younger the children were when starting to acquire German, the better they perform.

1 Introduction

In this paper, I will present the findings of my research on the German prepositional phrase in second language (L2) acquisition. Due to their complex morphological, syntactic, and semantic properties, prepositional phrases (PPs) already raise challenges to children acquiring German as a first language (L1ers).
For children in second language acquisition (L2ers), they should pose even more obstacles. In order to examine the L2 acquisition of the PP, I ran experiments with Turkish and Italian speaking children. My main aim is to present the empirical results of the experiment run, instead of interpreting them with respect to a specific framework of language acquisition. Therefore, this paper is meant to be a research report rather than a deep analysis.

The structure of this paper is as follows. In the next section, I will present two factors that can have an influence on how the L2 acquisition of the German PP proceeds and which may lead to various difficulties. These factors are (i) the L1 of the L2ers and (ii) the age that the learners had been at when they had their first contact with the target language (TL). From these factors, I will derive various predictions for my experiments, especially what difficulties can be expected for which subject group. For predicting any inference of the L1, I will also sketch the structure of the PPs in German, Italian, and Turkish. In section 3, I will illustrate the experiment design and present the subjects and the different tasks I used to elicit my data. In section 4, I will discuss the results of my experiments with respect to the two influence factors. I will conclude with a short summary.

2 Factors of Influence

I will evaluate the results of my study with respect to two possible factors of influence. First, I examine the question of whether the L1 of the subjects – that is, Turkish or Italian – has any relevance for the acquisition of PPs in the TL. An influence of L1 on the acquisition of the L2 morpho-syntax has already been attested by various studies, especially within the nominal domain but also for the PP. For instance, Pfaff (1984: 294) reports that in a study with Turkish and Greek subjects, prepositions are frequently omitted by learners of both L1s. However, concerning a possible transfer, she also claims “the grammatical categories of the L1 Turkish play no role or only a limited role in the development of German L2” (Pfaff 1992: 293). In contrast to this claim, when comparing Turkish and Polish L2ers with respect to the question of whether prepositions are used, Kuhberg (1990: 27) observes a slower acquisition rate for the Turkish subjects. For determiners, studies by Parodi (1998: 181) and Jeuk (2006) document higher omission rates for Turkish L2ers than for learners with a Roman L1. For the development of gender, which is realized at the determiner in German, Wegener (1993: 106) observes difficulties for those learners whose L1 exhibits no gender, like Turkish, while children with Russian and Polish L1 have
lesser problems with gender. Pfaff & Portz (1980: 87) make the same observation for Turkish learners when compared to Greek children.

The second possible factor of influence I examine is the relevance of the age that the L2ers were at when they came into first contact with their L2. A difference between early infantile language acquisition and child language acquisition has been established for several aspects of language development. For example, Bast (2003: 255ff) studies two Russian girls, 8 and 14 years old, and observes that after a period of 16 months after starting to learn German, the younger girl does not omit determiners, while the older one still does. For other domains of L2 acquisition, several studies show that younger L2ers have an advantage over older ones, see e.g. Dimroth (2007) for the acquisition of word order. However, Pienemann (1981) claims that the age at the beginning of the L2 acquisition does not have any influence on the quality of the development of the L2 but on the rate of acquisition. In contrast, Dimroth (2007: 134) notices similar acquisition rates for two girls that were at an age of 8 and 14 when they had their first contact with German. Rothweiler (2006) and Thoma & Tracy (2006) both detect that the German verb placement shows the same acquisition process in early child acquisition as in the L1 acquisition of the German verb syntax. Given these contrary findings, Dimroth (2007: 134) notes that the question of whether and how age is a relevant factor for L2 acquisition cannot be predicted in general, but has to be evaluated for each matter of acquisition separately.

At this point, I would like to stress again that the data in section 4 are not interpreted against the background of a particular theoretic framework. Therefore, I will keep the predictions and hypothesis simple and relatively general.

2.1 Relevance of the L1 of the subjects

The first hypothesis I will examine when evaluating the data of my study concerns the relation between the L1 of the subjects and the TL of the L2 acquisition.

(H1) The L1 of the L2ers can have positive or negative influence on the acquisition of the TL.

This hypothesis concerns the proficiency in usage as well as the acquisition rate and language development. In order to predict any transfer from L1 to L2, I will first sketch the structure of the PP in the TL, followed by a short description of the PP in Turkish and Italian.
The term *preposition* has a narrow and a broad sense. In the broad one, it is equivalent to *adposition* and does not refer to the position in which the adposition shows up with respect to its complement. The more frequent sense however is the narrow one in which it refers to adpositions that precede their argument. The prototypical German PP is headed by a preposition in the narrow sense. Prepositions in German can select a variety of other phrases as their complement, e.g. determiner phrases (DPs), adjective phrases (APs), adverbial phrases (AdvPs), verbal phrases (VPs) or sentences (CPs). Therefore, following Jackendoff (1973), we can assume the following generalized phrase structure for PPs in German:

(1) a. $PP \rightarrow [P [XP]]$
b. $XP \in \{DP, AP, AdvP, PP, VP, CP\}$

However, the prototypical German PP is one in which the preposition selects a DP, which in turn consists of a determiner and a noun, as illustrated by the following example:

(2) a. Ger. *Tom schwimmt [PP in [DP die Bucht.]]*; $PP \rightarrow [P [DP]]$

   Engl. *Tom swims into the bay*.

In German, prepositions govern the case of the DP they subcategorize. For instance, in the following examples, the preposition *mit* ‘with’ in (3a) assigns dative case to its complement DP, while in (3b), the preposition *ohne* ‘without’ selects for an accusative DP. There are also prepositions like *statt* ‘instead of’ in (3c) that govern genitive case.\(^1\)

(3) a. Ger. *Sie verreist [PP mit ihrer Familie.]*\(_{DAT}\)

   *She travels* $P$ $DET$ *family*

   Engl. *She travels with her family.*

b. Ger. *Sie verreist [PP ohne ihre Familie.]*\(_{ACC}\)

   *She travels* $P$ $DET$ *family*

   Engl. *She travels without her family.*

c. Ger. *[PP Statt ihrer Familie]\(_{GEN}\) nimmt sie ihre Freunde mit.*

   $P$ $DET$ *family*  takes  she her friends with

   Engl. *Instead of her family, she takes her friends with her.*

\(^1\)For further references regarding the syntax as well as the semantics of prepositions, cf. Wunderlich 1984.
Like the majority of prepositions, these are prepositions with fixed case assignment. The relationship between the case they assign and their semantics is mostly arbitrary. Therefore, the case governed by a certain preposition cannot easily be predicted and must be learned separately for each preposition. However, there is a class of (mostly local) two-way prepositions that can either govern the accusative or dative case. For these prepositions, the case used systematically corresponds to semantic differences and hence is semantically motivated. For instance, the preposition *in* can either select a dative or an accusative DP.

(4)  
\[ \text{a. Ger. Die Kinder sind [PP in [DP der [NP Schule.]]]} \]
\[
\text{The children are P DET school}
\]
\[
\text{Engl. The children are in the school.}
\]
\[ \text{b. Ger. Die Kinder gehen [PP in [DP die [NP Schule.]]]} \]
\[
\text{The children go P DET school}
\]
\[
\text{Engl. The children go into the school.}
\]

A PP with a preposition selecting a dative DP receives a local static interpretation as in (4a). In this case, the German *in* can be translated by English *in*. However, if the same preposition has an accusative argument as in (4b), it is interpreted directionally and implies a change in position, corresponding to English *into*. More examples of German two-prepositions include *an, auf, in, hinter, neben, über, unter, vor, and zwischen*.2

Within the DP, there is agreement between the determiner and the noun with respect to case, gender, and number.

(5)  
\[ \text{a. Ger. Er spielt [PP mit [DP der [NP Schwester.]]]} \]
\[
\text{He plays P DET:DAT.FEM:SG sister:DAT.FEM:SG}
\]
\[
\text{Engl. He plays with the sister.}
\]

However, gender is an inherent feature of the noun and only observable at the determiner. For most noun classes, case is also only marked at the determiner, except for the genitive case.

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2Furthermore, two-way prepositions also depend on the semantics of the main verb of the sentence. For this, Leys (cf. 1989).
To produce a PP, the children on the one hand have to choose a preposition that is suitable to express the intended semantics. On the other hand, they have to correctly use a DP, which is selected by the preposition in question and whose case is governed by the preposition. The case has to be realized on the determiner and, if present, on adjectives. If the case governed by the preposition is the genitive case, it is also marked at the noun. In addition, there is agreement within the DP between the determiner, adjectives and the noun concerning gender and number. Therefore, there are various features to be marked. The many possible combinations of features lead to many syncretic forms within the German nominal inflection paradigm.

In German, determiners can be cliticized to prepositions (Hartmann 1978; Schmöe 2004). This holds for dative and accusative forms of singular definite articles (6a). Regarding the feminine article, only the preposition *zu* can be cliticized with the dative article.4

(6) a. Ger. im/in dem Wald
    P+DET.DAT.SG *forest*
    Engl. in the forest
b. Ger. zur/zu der Schule
    P+DET.DAT.FEM.SG *school*
    Engl. to school

In Italian, there are prepositions like in German. They are positioned in front of the DP. Since there is no case marking on determiners, nouns and adjectives, there is no overt case marking in a prototypically Italian PP and therefore, no case assignment of the preposition to its complement DP can be observed. Nouns bear grammatical gender, but in contrast to German, there are only two genders: masculine and feminine. The neuter that exists in German is missing in Italian. In the DP selected by the preposition, there is agreement with respect to gender and number:

(7) Ital. [PP con [DP questo ragazzo ] ]
    P DET.MASK.SG *boy:MASK.SG*
    Engl. with the boy

3For references on the semantics of local prepositions, Herweg (cf. 1989); Wunderlich & Herweg (1991).
There are no two-way prepositions in Italian, while cliticizations of determiners to prepositions are frequent and are obligatory in many contexts:

(8) Ital. andare alla posta
    go P+DET Post
    Engl. go to the post office

In contrast to both German and Italian, there is no gender in Turkish. Furthermore, there are no definite articles in the syntactic sense. The Turkish DP\(^5\) shows case agreement between optional pronouns in determining usage and the noun, but not between the noun and a possible adjective. Three of the six suffixes which mark case can build phrases which can best be translated by prepositional phrases. These suffixes are the locative, which expresses a local meaning, the dative, which expresses a directional meaning, and the ablative, which yields a source-related meaning:

(9) a. Turk. ev -de
    house -LOK
    Engl. in/at/by/… the house
b. Turk. ev -e
    house -DAT
    Engl. into/to the house
c. Turk. ev -den
    house -ABL
    Engl. from the house

These examples show that the English PP consists of a preposition and a DP with a determiner and a noun,\(^6\) while the Turkish equivalent only consists of a noun with a case suffix without any determiner or observable gender. The semantics of the Turkish expression is very underspecified, but there is another possibility to produce a phrase which corresponds to an English PP. These phrases involve a postposition which is positioned after the noun and governs a fixed case at the noun:

    PRO.2.sg -DAT POST not

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\(^5\)Concerning the question of whether there are determiners in Turkish, Arslan Kechriotis (cf. 2009).

\(^6\)In the German PP, there is also agreement in case, gender and number in the DP.
Engl. They’re not against you. (Göksel & Kerslake 2005: 246)

In this example, the postposition *karşı* assigns the dative to the complement pronoun. But due to the lack of definite articles in Turkish, these PPs\(^7\) consist only of the case marked (pro)noun and the postposition.

There are other kinds of postpositions in Turkish which are called ‘secondary postpositions’ in contrast to ‘primary postpositions’. These postpositions consist of a local noun bearing a possessive suffix and one of the three just illustrated case suffixes, which determine the semantics of the PP. Independent from the case of the postposition itself, all secondary postpositions govern the genitive:

\[
\text{(11) a. Turk. } [\text{pp Ev } \text{-in} \text{ iç-i-nde } \text{ne var?} \\
\text{Engl. What is inside the house?}]
\]

\[
\text{b. Turk. Topu [pp masa -nin alt-in-a attı.} \\
\text{Engl. He threw the ball under the table.}
\]

In these examples, the case of the postpositions changes with the semantics of the PP. This is reminiscent of the German two-way prepositions. The difference regards the expression where case changes. While in Turkish the case suffix changes on the postposition itself, the case changes on the complement noun in German.

Given these structural differences between the German, Italian and Turkish PP, I will now make some predictions for my experiments based on a possible influence between the L1 of the L2ers and the TL. For the Turkish subjects, I expect more problems than for the Italian subjects with respect to the linearization of the preposition, since Turkish uses postpositions if any, while Italian has obligatory prepositions. The same contrast also leads to the expectation that the Turkish subjects use less prepositions than the Italians subjects do in the first place and, if a preposition is chosen, that it may be harder for the Turkish children to choose the correct one. In a similar vein, if the subjects’ L1 has an influence on their performance in the TL, we can expect the Turkish L2ers to have more problems with using a determiner, since their L1 does not exhibit these functional categories in a systematic way as Italian or German do. Re-

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\(^7\)Which also means ‘postpositional’ phrase in this article.
lated to this is the prediction that marking of gender on the determiner poses more obstacles to the children with Turkish L1. The last aspect in which these subjects are likely to have more problems are cliticizations, which happen in Italian but not in Turkish.

As the short comparison between Italian and German has shown, there are also several aspects in which the Italian L2ers are more likely to have difficulties than the Turkish ones, if the L1 is an influence factor. The most prominent difference between the Italian and German PP is that Italian lacks overt case marking, and therefore, we can expect more errors by the Italian subjects in this domain. The other aspect in which the Italian subjects can be assumed to perform worse than the Turkish ones is the semantically driven case government in PPs with two-way prepositions, which do not exist in Italian, while with the secondary postpositions, Turkish exhibits an at least semantically comparable construction.

2.2 Relevance of the age at starting acquisition

The age that the L2ers had been at when they came into first contact with their L2 is the last possible factor of influence according to which I will examine my data. Even if a relevance of the age of contact has been attested by previous studies for some aspects of L2 acquisition, this cannot generally be assumed and has to be tested for each domain of acquisition on its own, as already noted by Dimroth (2007: 134).

(H2) The younger the children were when they started to acquire German, the better they perform.

This regards the use of prepositions, case and gender marking, and the use of determiners.

3 Experiment design

Before I will present and evaluate the results of my study, I will first sketch the design of the experiments I have conducted to gather the data on the L2 acquisition of the German prepositional phrase.
3.1 Subjects

For my study, I collected data from two main and three control groups. All data I investigated is cross-sectional data. The main subjects were L2ers of German with Turkish or Italian L1. Children acquiring German as their L1 served as a first control group. Two further control groups consisted of children with German as their L1 and Turkish speaking L2ers, who all were acquiring German for three to four years, whereas the Turkish control group started to learn German at the beginning of primary school. The last two control groups can be used to evaluate the relevance of age at the first point of language contact if compared to those subjects of the main group that were also learning German for three to four years.

In more detail, the five groups were as follows:

(12) **Main group I: L2ers with Turkish L1**
40 children with Turkish L1 who visited a primary school; 10 from each of the four grades. All of them had their first contact with German at the age of three or four.

**Main group II: L2ers with Italian L1**
16 children with Italian L1 who visited a primary school; 4 from each of the four grades. All of them had their first contact with German at the age of three or four.

**Control group I: L1ers**
16 children with German L1 who visited a primary school; 4 from each of the four grades.

**Control group II: younger L1ers**
8 children with German L1 who visited a kindergarten and were three to four years old.

**Control group III: older L2ers with Turkish L1**
4 older school children with Turkish L1. In contrast to Main group I, these children did not have any contact with German before they started to visit the primary school. They had contact with German for three to four years.
Table 1 provides an overview of all five groups.

<table>
<thead>
<tr>
<th></th>
<th>L1</th>
<th>grade</th>
<th>age of contact</th>
<th>contact time</th>
<th>number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main I</td>
<td>Turkish</td>
<td>1–4</td>
<td>3–4</td>
<td>3–7</td>
<td>40</td>
</tr>
<tr>
<td>Main II</td>
<td>Italian</td>
<td>1–4</td>
<td>3–4</td>
<td>3–8</td>
<td>16</td>
</tr>
<tr>
<td>Control I</td>
<td>German</td>
<td>1–4</td>
<td>0</td>
<td>7–10</td>
<td>16</td>
</tr>
<tr>
<td>Control II</td>
<td>German kindergarten</td>
<td>0</td>
<td>3–4</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Control III</td>
<td>Turkish</td>
<td>3</td>
<td>6–7</td>
<td>3–4</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 1: Subjects

3.2 Tasks

The experiments encompassed four parts in which the subjects had to perform different tasks which should elicit the production of PPs. The last two tasks focused on PPs containing local prepositions. All tasks were conducted by myself in a separate room with the subjects one at a time. The elicited responses were recorded using a microphone which was introduced in the first task that playfully simulated an interview with the children. In most instances, the subjects seemed to forget the microphone in the progress of the tasks, such that I often had to remind them to use it. This shows that the children felt comfortable in the situation. In average, the complete experiment lasted around 15 minutes per child.

(13) **Task I**

During an interview, the subjects were asked questions requiring PPs in the expected answers to evoke the controlled production of PPs. The interview consisted of 30 questions, including, for instance, questions like *Where are you from?* or *Where are you going after school?* These questions also had the function to establish a relationship with the subjects. In order to keep the interview as natural as possible, I did not force to ask every question and tried to respond to their answers by spontaneous follow-up questions.

**Task II**

The task involved a picture story that the subjects were supposed to narrate in order to encourage them to produce PPs freely. The story consisted of a total of 21 pictures.

**Task III**

This task focused on the semantics of the preposition and made use
of pictures that showed different characters in various situations all of which can only be described correctly with a particular preposition. Six of these pictures aimed at static-local prepositions, while five could be described with directional ones.

Task IV
The fourth task tested the two-way prepositions *in* ‘in’ and *auf* ‘on’. Two characters were used: a mouse that jumps into or onto some reference object, while a cat is located in or on it. I used six different reference objects for the preposition, two of each grammatical gender. Each object was used four times, twice with a directional scene (the mouse) and twice with a static scene (the cat), using either green or red reference objects. There was a total of 24 pictures which the children were supposed to describe. The colors were used to elicit more explicit case marking on an additional adjective.

3.3 Evaluation
The data produced by the subjects were transcribed and evaluated with regards to the subjects’ knowledge of the semantics and the morpho-syntax of the PP. In more detail, this includes number, grammatical gender, and case (mostly marked at the determiner) and the question of whether determiners are present in the first place. Furthermore, the existence of the preposition and the correct meaning of the preposition were also crucial factors. During all tasks, a total of 3624 PPs were produced. 1740 were produced by main group I and 686 by main group II. Together, the various control groups, produced 1198 PPs. In more detail control group I produced 717, control II 295, and control III produced 186 PPs.

4 Results
The following figure shows the ratio of correct and incorrect PPs produced by the German school children (Control I) and the children with a non-German mother language (Main I & II). Of the 2426 PPs which the two main groups produced, 877 are produced correctly. In contrast, the German school children (control I) produced 621 out of 717 PPs correctly.

It is obvious from this chart that the L1ers produce more PPs correctly than the L2ers. Only 36.2% of all PPs produced by the L2ers are correct, while the
L1ers produce 86.6% of the PPs correctly. This difference is significant with .000.

The boxplot in figure 2 presents concisely all differences. In addition, it shows the values of the German kindergarten children (Control II). The L2 chil-
Children are separated into the Turkish subjects (Main I) and the Italian subjects (Main II).

The line in the boxes indicates the median of the subject group in question. Inside the box, there are the middle 50% of all values. The upper border of the box shows the 75%-percentile, while the lower one shows the 25%-percentile. The horizontal bars above and beneath the boxes show the maximum and minimum, which means the highest and the lowest mean of a subject.

The mean of the best German kindergarten child from Control group II (90.0%, the maximum of this group) is almost equal to the median of the group of German school children from Control group I (89.1%). The mean of the best Turkish child (78.9%) almost reaches the median of the German kindergarten children group (80.8%) and is located in the lower quartile of control group I, that is, the range between the median and the 25%-percentile. The German kindergarten children perform less secure than the German school children, but are more confident than the L2ers.

The median of the Turkish subjects (33.7%) almost equals the median of the Italian ones (34.4%). However, the upper and lower borders of percentiles of the Turkish L2ers are higher and lower respectively. It is remarkable, that the minimum of the Turkish L2ers (0.0%) falls short of the one of the Italian speakers, while their maximum (78.9%) clearly exceeds the one of the Italian subjects (61.4%). The PP-correctness of the Turkish subjects shows a high dispersion.

The next figure focuses on incorrect PPs of both groups, the L1 school children and the L2 children. The first bar shows the percentage of correctly produced DPs, while the second one gives the rate of correct prepositions, which
means that the preposition both is not omitted and has the meaning that is required by the context. Both subject groups have more problems with the DP. The L1ers form 95.8% of all prepositions correctly (687 out of 717), but only 89.3% of all DPs (640 out of 717). The L2 children produce 68.1% of all prepositions correctly (1651 out of 2426), while the DP is more often incorrect than correct (48.1%, 1166 out of 2426).

Reasons for incorrectly produced DPs include case marking, gender and number, and the omission of the determiner. The preposition can also be omitted or be chosen incorrectly. Figure 4 illustrates the distribution of correct values for the different PP-categories.

![Figure 4: Distribution PP-categories](image)

With regards to every possible error type, the L1 school children show the best results. The values for correct case marking constitute the lowest values for both the L1ers and the L2ers. 91.3% of all PPs produced by the German school children show correct case marking (565 out of 619), whereas in case of the non-German children, only 54.2% (1074 out of 1983) of the case markings are correct.8 While gender is correctly marked in 93.3% of the PPs of the

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At this point, it is necessary to mention that the total for calculating the proportion of correct case markings does only include the ones in which a preposition is used in the first place. This total is of course much lower than the total of all PPs produced. Furthermore, the remaining percentages are not only the values of incorrect case markings. In addition to the values of correct PPs, there are PPs in which the determiners are omitted and there are ambiguous cases in which, due to syncretism or homonymy, it is not possible to decide if there is an error concerning case or gender. For example, in 15.7% of the PPs produced by the L2ers that include a preposition the determiner is omitted. In 4.0% of the PPs it...
L1 school children, the L2ers form only 56.9% of PPs correctly. The marking of number is easy for both groups: 99.4% of the German school children’s PPs and 98.3% of non-German subjects’ PPs have the correct number. Prepositions are used less often than determiners (L1ers: 95.5% (determiner) vs. 97.2% (preposition); L2ers: 79.3% vs. 90.3%). The choice of prepositions is correct in 98.6% of the PPs of the German children and in 75.4% of the PPs of the non-German children.

In the next two paragraphs, I evaluate the results of the experiments with regards to the predictions I made in section 2.

4.1 Relevance of the L1 of the subjects

An influence of the L1 can be attested only partially, since the results are mostly not statistically significant (n.s.). The reason for this can be the size of the subject groups. However, I will nevertheless present the results here, because there are some tendencies that are interesting, as they at least suggest that the L1 may play a role in L2 acquisition. I must leave it for further research to prove that these are more than tendencies.

For example, almost two thirds of the errors of the Italian children concerning the gender regards the neuter, which is absent in Italian.

For the Turkish children, it is remarkable that they do not postpone the prepositions even if this could be expected from their L1. In my data, not a single preposition occurs at the right edge of its DP.

In 10.2% (177 out of 1740) of all PPs produced by the Turkish speakers, the preposition is omitted, while the Italian speakers only omit the head in 8.5% of the PPs (58 out of 686). A higher omission rate was expected since in contrast to Italian, Turkish is lacking overt prepositions. In the same vein, there are no determiners in Turkish, and accordingly, the Turkish children omit the head of the DP in 348 out of 1544 DPs. That is more often than the D-omission by the Italian subject (15.7%, 91 out of 578). A similar observation can be made for gender, which does not exist in Turkish, either. 15.9% of all PPs produced by the Turkish speakers show erroneous gender marking, while the Italian L2ers mark only 13.8% incorrectly. However, as already noted, two thirds of the incorrect gender assignments made by the Italian subjects concern the neuter that is unknown in Italian.

9 cannot clearly be determined. Accordingly, there remain 26.2% of the PPs in which there is an incorrect case marking. The same applies to the marking of gender and number.

9 Since the PP does not subcategorize a DP in all cases, the total number of DP is lower than that of the PPs.
The Turkish children do not show particular problems with respect to the cliticization of determiners to prepositions. With 13.2%, 230 out of 1740, the Turkish L2ers produce even more cliticized forms than the Italian ones (7.9%, 54 out of 686), even though cliticizations are frequent in Italian and in many cases obligatory. However, the Turkish subjects produce more incorrect cliticized forms than the Italian ones (42.6% vs. 33.3%).

As it was expected, since Italian has no overt case marking, the Italian children show more difficulties regarding case marking (30.9% vs. 24.3%). Case marking is the source for the majority of errors, but also for the Turkish L2ers and the control groups. Furthermore, since two-way prepositions and double case government are absent in Italian, it was expected that the Italian L2ers have more difficulties with case marking after two-way prepositions. This seems to be the case as they mark case incorrectly in 31.0% (144 out of 464) of those PPs, while the Turkish school children do so in 24.2% (278 out of 1148).

The following table shows if there are tendencies that the L1 has an influence on L2 acquisition:

<table>
<thead>
<tr>
<th>more problems for the Turkish subjects</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>the position of the preposition in the PP</td>
<td>✗</td>
</tr>
<tr>
<td>preposition presence and choice</td>
<td>✓ (n.s.)</td>
</tr>
<tr>
<td>determiner presence</td>
<td>✓ (n.s.)</td>
</tr>
<tr>
<td>gender marking on the determiner</td>
<td>✓ (n.s.)</td>
</tr>
<tr>
<td>cliticizations</td>
<td></td>
</tr>
</tbody>
</table>

| more problems for the Italian subjects                                   |                               |
| case government and marking on the determiner                            | ✓ (n.s.)                      |
| the semantically driven case government in PPs with two-way-prepositions | ✓ (n.s.)                      |

Table 2: Tendencies with respect to the L1 of the subjects

4.2 Relevance of the age at starting acquisition

To examine the relevance of the age that the subjects had been at when they had their first contact with German, I compare four groups of subjects that were all acquiring German for 3–4 years, but were of different age when they began learning. From the two main groups of L2ers, I chose 8 Italian and 15 Turkish speaking children from the first and second grade that had their first contact with German at an age of 3–4. These two groups are compared to the 8 German kindergarten children (Control II), which have German as their L1 and are 3–4 years old, and the 4 older Turkish school children (Control III) who had started to learn German 3 years ago when they were 6–7 years old.
In section 2, I expected that the age at the time of its beginning might have a crucial impact on L2 acquisition. The data my experiments delivers, affirms this hypothesis. The L1 kindergarten children perform significantly better than all the other subject groups with the same contact time but a different age of contact. Furthermore, the subjects of the Turkish control group show the worst results, even though the difference to the other L2ers is not significant most of the time. For each category of evaluation, table 3 shows whether the young L1 children yield better results than the Turkish and Italian speakers, as well as whether the Turkish control group performs worse.

<table>
<thead>
<tr>
<th>CATEGORIES</th>
<th>Control Group II significantly better</th>
<th>Control Group III significantly worse</th>
</tr>
</thead>
<tbody>
<tr>
<td>PP confidency</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>preposition omission</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>preposition selection</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>determiner omission</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td>case marking</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>case reception</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>gender marking</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>PP semantics</td>
<td>✓</td>
<td>×</td>
</tr>
</tbody>
</table>

Table 3: Relevance of the contact age

These results suggest that the age of contact has an impact on L2 acquisition: the earlier the contact with the L2, the better are the chances for good acquisition results.

There are however three cases in which this correlation is not supported by my data. Regarding the omission of prepositions, both L2 groups perform very well (Turk. L2ers: 90,9%, Ital. L2ers: 87,8%), such that the difference to the value of the younger L1ers (98,6%) is not significant. For the omission of determiners, the results are similar. Even though with 70,6% and 77,7% respectively, the Turkish and Italian speaking L2ers use less determiners than prepositions, the difference to the kindergarten children, who use determiners in 93,6% of all PPs, is not significant. In contrast, determiner omission is one of the two categories in which the control group yields significantly worse results (40,9%) than the selected groups of L2ers. The other category in which the control group differs significantly from the other Turkish and Italian speakers is gender marking. While the L1 children show 86,9% correct gender marking and the Turkish and Italian subjects mark gender correctly in 43,9% and 49,1%, the control group only produces 16,4% of the gender marking correctly.
5 Summary

In this paper, I presented the data of my research on the German prepositional phrase in L2 acquisition by learners with Turkish and Italian L1. I checked the results of the L2 learners regarding two factors. First, I focused on the influence of the L1 of the subjects. The structure of the PP in the TL German differs in various ways from the PP structure in the L1s Turkish and Italian. The results of this comparison, however, are for the most parts not statistically significant. The reason for this may be the number of subjects, which although relatively large for such kinds of linguistic experiments, is still rather small from a statistical point of view. Nevertheless, I wanted to present the outcomes of my experiments, since they still show some tendencies that the structure of the L1 may have an influence on the acquisition of the TL German. Trying to obtain significant results may provide a good starting ground for further research. For two aspects however, an influence of the L1 cannot even be hinted at, namely the position of prepositions in the PP and cliticizations. Even if there is a possibility to express an equivalent of a German PP by means of a postpositional phrase in Turkish, the Turkish learners did not postpone prepositions in their L2. In contrast to Italian, which has cliticizations, of which some are obligatory, there are no cliticizations in Turkish. Nevertheless, the Turkish subjects produce more clitical forms than the Italian speakers. However, there are more cliticization errors in the data of the Turkish subjects than in that of the Italian children, but these results are only tendencies, since due to the size of the subject groups, they are not significant in most cases.

Secondly, I tested the data for the relevance of the age at which the acquisition begins. Those children who were the youngest when starting acquisition of the TL German (Control I) performed the best. Those children who started to learn German at the beginning of primary school and therefore have the shortest contact time to the TL (Control II) yielded the worst results. However, in most cases, their results do not differ significantly from the results of the test groups of L2ers that were at an age of 3–4 when starting the acquisition of German, except for the usage of determiners and the semantics of the PP. The results of the youngest group are significantly better than those of all other subjects groups, except for the omission of determiners and prepositions.

As I have already noted, this paper is meant to be understood more as a research report rather than a theoretical analysis of my findings. I leave it for further research to work out the implications that my results may have for the particular theoretical frameworks of second language acquisition.
References


