The acquisition of the English dative alternation by Russian Foreign Language Learners

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Abstract

Ditransitive verbs include a "recipient" and a "theme" argument (in addition to the subject). The choice of putting one argument before the other (i.e., either recipient-theme, or theme-recipient) is associated with multiple discourse-pragmatic factors. Language have different options to code the ditransitive construction. In English, a ditransitive verb can take two alternating patterns ("the dative alternation"): the Double Object Construction (DOC) (John gives Mary a book) and the to-dative construction (to-dative) (John gives a book to Mary). In Russian, theme and recipient are marked by accusative and dative, respectively. In addition, word order is flexible and either the accusative-marked theme (Pjotr dal knigu Marii), or the dative-marked recipient (Pjotr dal Marii knigu) can come first. This article reports on two sentence rating experiments (acceptability judgments) to test whether Russian learners of English transfer their preferences about the theme-recipient order in Russian to the ditransitive construction in English. A total of 284 Russian students were tested. Results for both tests showed a great variability in the ratings. A comparison of the ratings seems to suggest a small positive correlation, but no statistically significant relation was found between the order preferences in both languages. However, we found a small preference for the use of the to-dative, which we relate to the language acquisition process as proposed by Processability Theory.

1.   Introduction

The English dative alternation refers to the alternation between the two ditransitive constructions, the prepositional to-dative and the double object construction (DOC), illustrated in (1) and (2) respectively:

(1)   John gave [the book]$_{THEME}$ [to Mary]$_{RECIPIENT}$.
(2)   John gave [Mary]$_{RECIPIENT}$ [a book]$_{THEME}$.

The alternation involves two formal differences: the reversal of the Theme and Recipient roles (henceforth: Th and Rec), and the use of the preposition *to*.

Russian similarly features a ditransitive alternation which involves the reversal of the Theme and Recipient roles, as illustrated in (3) and (4) respectively (adopted from Mykhaylyk et al., 2013: 271).

(3)   Pjotr dal   [knig-u]$_{TH}$ [Mari-i]$_{REC}$
       Peter gave [book-ACC]$_{TH}$ [Mary-DAT]$_{REC}$
       Peter gave the book to Mary

(4)   Pjotr dal   [Mari-i]$_{REC}$ [knig-u]$_{TH}$
       Peter gave [Mary-DAT]$_{REC}$ [book-ACC]$_{TH}$
       Peter gave Mary the book

Unlike in English, both Russian objects receive morphological case: the Recipient receives the dative case (DAT), whereas the Theme receives the accusative case (ACC). Prepositional ditransitive constructions also exist in Russian. For instance, with an inanimate recipient expressing a spatial goal or direction, a prepositional construction is used, as is illustrated in (5) with the verb *poslat* 'send' (see Levin, 2008).

(5)   Ja   poslal knigu   v   Moskvu
       I.NOM   sent   the/a book.ACC to   Moscow

The prepositional ditransitive construction is taken to be far less frequently used than the bare double object construction. In this study, we focus our attention to the bare ditransitive construction without the use of a preposition. We will refer to this alternation as the object order permutation.

As regards the ordering preferences associated with the English dative alternation and the Russian object order permutation, the motivations behind the speaker's choice for one of both object orders appear to be largely similar in both languages. Research on the English dative alternation demonstrates that the alternation is mostly influenced by semantic (e.g., verb semantics) and discourse-pragmatic factors (e.g., animacy, pronominality, etc., see section 2 for details). And although there exists much less corpus-based research on the Russian object order permutation, the literature on

Russian indicates that similar motivations as those for the English dative alternation are involved here as well and that the object order permutation thus shows similar tendencies as found for the English dative alternation (e.g., given before new, short before long, pronominal before nominal, etc.) (Yokoyama, 1986; Kizach, 2012, Mykhaylyk et al., 2013).

Given this background, one could expect that it should be relatively "easy" for Russian learners of English to acquire the normative preferences associated with the English dative alternation. After all, Russian learners could simply transfer their native norms for the Russian object order permutation to their use of the English dative alternation.

The L2 acquisition of the English dative alternation is a topic that has been extensively investigated with regard to different L1s, including Spanish, Turkish, French, Japanese and Korean (see, for example, Mazurkewich, 1984; Hawkins, 1987; Carroll & Swain, 1993; Hamilton, 1994; Sawyer & Mark, 1995; Whong-Barr & Schwartz, 2002; Marefat, 2005; Radwan, 2005; Oh, 2010; Oh & Zubizarreta, 2003, 2006; Ansarin & Arasteh, 2012). Yet, to the best of our knowledge, the acquisition of the English dative alternation by Russian learners has not been investigated before. Moreover, it should be noted here that the previous studies on the acquisition of the English dative alternation did not actually examine the influence of the respective L1s in detail, but focused on other aspects in the acquisition process, such as developmental sequences and the effectiveness of instruction (see Section 4).

Following the recent development in transfer research that focuses on the transfer of underlying *representations* from one linguistic system to another rather than on the transfer of linguistic structural properties as such (Jarvis 2007; Jarvis & Pavlenko 2008), we are interested in whether Russian learners of English would transfer their preferences associated with the Russian object order permutation to the L2 English dative alternation. The aim of the present paper is twofold. First, we examine whether their preferences for either one of the structures in L2 English correlates with their preference for the corresponding structures in L1 Russian. Second, if there is no or only a small correlation, we investigate whether Russian learners of L2 English generally prefer either the use of the prepositional construction or the use of the double object construction.

To evaluate the preferences for one of both alternates we deployed the 100-split task, a psycholinguistic test originally developed by Bresnan (2007) in the context of the English dative alternation (cf. also Ford & Bresnan,

2010). The 100-split task is a grammaticality judgment experiment that aims to capture the probabilistic preferences of speakers. In this test, participants are asked to "rate the naturalness of alternative forms as continuations of a context by distributing 100 points between the alternatives" (Ford & Bresnan, 2010: 5).

We performed two 100-split tasks, one for each language: Russian L1 speakers were given a 100-split task to judge a sample of 25 Russian sentences which can take two object orders. Russian students of L2 English were given the 100-split task to judge the same set of sentences in English. We then compared the ratings of both groups. Under the transfer-hypothesis, we expected a correlation between the ratings of the two groups. More specifically, we anticipated that Russian learners of English would prefer the Th-Rec order where they would also prefer the Th-Rec order in Russian and vice versa.

The paper is organized as follows. Section 2 provides some background on the English dative alternation and the Russian object order permutation. Section 3 discusses the notion of transfer in SLA, while section 4 presents a brief overview of previous studies on the acquisition of the English dative alternation. In section 5, we explain the methodology of our study and present our results. We conclude with a discussion of those results in section 6.

2. The English dative alternation and the Russian object order permutation

The English dative alternation has been at the heart of much linguistic debate during the past decades. With respect to the speaker's choice for one of both constructions, there is now strong corpus-based as well as psycholinguistic evidence that this choice is mainly motivated by verbal semantics (Levin, 1993; Lapata, 1999; Gries, 2005; Bresnan et al., 2007), the discourse status of the theme/recipient, i.e., whether the object introduces a new referent or refers to a given referent (Halliday, 1970; Erteschik-Shir, 1979; Givón, 1984; Thompson, 1995; Bresnan et al., 2007; Ozón, 2009), the pronominality and definiteness of the theme/recipient (Ransom, 1979; Bresnan et al., 2007), the animacy and person of the recipient (Bresnan & Nikitina, 2007), and the weight (in terms of either length or syntactic complexity) of the theme/recip-

ient (Bock & Irwin, 1980; Bock et al., 1992; Hawkins, 1994; Collins, 1995; Thompson, 1995; Arnold et al., 2000; Prat-Sala & Branigan, 2000; Wasow, 2002; Snyder, 2003; Ozón, 2009).

The following tendencies have repeatedly been observed: All else being equal, animate, definite, pronominal, 1st or 2nd person, singular, and short objects tend to precede inanimate, indefinite, nominal, 3rd person and longer ones (Bresnan et al., 2007; Theijssen, 2008; Ozón, 2009; Theijssen, 2009; Bresnan & Ford, 2010; Kendall, Bresnan & Van Herk, 2011; de Marneffe et al., 2012; Wolk et al., 2012; Theijssen et al., Ms.). That it not to say, of course, that the different factors bear the same impact effect. Research indicates that the effects of the factors differ between varieties of the same language and that speakers are sensitive to small probabilistic differences (Bresnan & Ford, 2010). However, the specific impact effects of the different motivating factors is less relevant for this study, as we are not examining the effects of the different factors.

As regards the choice of the Russian object order permutation, research indicates that the same semantic and discourse-pragmatic factors as in English govern the Russian object order permutation. As in English, it appears that animate, pronominal, and short objects tend to precede inanimate, nominal, and longer ones (Yokoyama, 1986; Kizach, 2012).[1]

A recurring topic of debate, particularly in the generative paradigm, has been which object order or construction is the basic one and which one is the "derived" order or construction. Given that recipients are usually animate, a number of Russian, mainly generativist linguists have argued that the Rec-Th order is the neutral one (Junghanns & Zybatow, 1995; Sirotinina, 1965; Shvedova, 1980; Slioussar, 2007; Dyakonova, 2009). Furthermore, Mykhaylyk et al. (2013) showed that children acquiring Russian as their mother tongue preferred the Rec-Th word order. On the other hand, Bailyn (1995) argues for the opposite order, Th-Rec, to be the basic one. However, Kallestinova (2007) found that both Rec-Th and Th-Rec occur with the same frequency (48.9% Rec-Th vs. 46.4% Th-Rec in her corpus of 280 observations), which suggests that there is no basic object order in the first place. We believe that both object orders are simply two equal alternates and

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[1]   Not everyone would agree that a ditransitive alternation exists in Russian. A first argument against it would be that Russian has no prepositional alternate as for example in English. A second argument would be that IO-DO and DO-IO are not the only word orders possible. Nevertheless, Kallestinova (2007) found that these two word order make up the majority of possible word orders in her corpus.

so the question about which one is the basic object order is pointless from our point of view.

3.   Transfer in SLA

In the field of second language acquisition (SLA) the possible role of the first language (L1) has been much debated. Most SLA researchers acknowledge that learners are influenced by their native language (Gass & Selinker, 1983; Odlin, 1989; White, 1989; Schwartz & Sprouse, 1996; Jarvis, 1998; Jarvis & Pavlenko, 2008). The study of transfer in SLA has traditionally focused on the structural properties of the L1 and the L2, most notably in the domains of syntax, semantics, phonetics, and discourse. Well-researched topics are, for example, word order, relativization, negation, lexical semantics, segmental phonology, and speech acts, such as requests and apologies (see, Odlin, 1989, 2005 and Jarvis & Pavlenko, 2008 for a review of research).

With respect to word order, the major concern has been to examine how the word order pattern in the L2 might be influenced by the structural differences or similarities of the L1 word order pattern (e.g., Fathman & LoCoco, 1989; Odlin, 1990; Rutherford, 1983; Sharwood Smith, 1990; Zobl, 1986). The studies have yielded mixed results: while some studies show that the word in the L2 is influenced by the L1, others did not find a strong influence of the L1. With respect to Russian and English only a handful studies dealing with word order transfer have been performed (Thompson, 1977; Pavlenko & Jarvis, 2002; Isurin, 2005). To illustrate structural transfer, we refer to Thompson (1977) who gives an example of a fixed word order in L2 Russian influenced by L1 English (6). The preferred word order in L1 Russian would be subject-verb inversion (7).

(6)   Ya ochen' rad, chto [muzyka]$_{SUBJ}$ [igrayet]$_{VERB}$
       I very glad, that music is playing

(7)   Ya ochen' rad, chto [igrayet]$_{VERB}$ [muzyka]$_{SUBJ}$
       I very glad that is playing music
       'I'm very glad that the music is playing.'

In addition to negative transfer of structural properties, positive transfer also exists. For example, when it comes to the acquisition of the case system, German learners of Russian or vice versa, Russian learners of German, have

an advantage compared to English learners of Russian or German. In a number of psycholinguistic experiments, Hopp (2010), for example, found that L1 Russian learners of German outperform L1 English and L1 Dutch learners of German, both in terms of acceptability ratings and reading times. According to Hopp (2010), this finding can be explained through the structural similarities between Russian and German with regard to case.

More recently, transfer research has taken the issue beyond the level of a mere comparison of the structural properties of L1 and L2. For example, Processability Theory (Pienemann, 1998) proposed the so-called Developmentally Moderated Transfer Hypothesis, which states that processing constraints govern the language acquisition process (Håkansson et al., 2002; Pienemann & Håkansson, 2007). This implies that the structure which is easier or easiest to process, will be acquired first; structures which are harder to process will be acquired later, even if there are structural similarities between the L1 and the L2. Håkansson et al. (2002) have corroborated their hypothesis through a study on the acquisition of L2 German word order by Swedish learners. These particular languages both have the V2-rule, as shown in (8).

(8) Dann kauft das Kind die Banane. (German)
     Sen   köper barnet   bananen. (Swedish)
     Then   buys   the child the banana
     'Then the child buys the banana.'

Despite the similarities between Swedish and German, the data showed that V2 is not transferred from Swedish to German at the initial state. Beginning learners first produced sentences without V2 (*Dann das Kind kauft die Banane), which are ungrammatical in both languages. Håkansson et al. (2002) argued that the non-transfer of the V2-rule is due to its higher processing cost. Sentences without V2 (i.e., adverb + SVO) are much easier to process.

Another view on transfer is suggested by Jarvis and Pavlenko (Jarvis, 1998, 2000a, 2000b; Pavlenko, 1999, 2002, 2003; Pavlenko & Jarvis, 2001, 2002; Jarvis & Pavlenko, 2008; but see also Graham & Belnap, 1986; Ijaz, 1986; Kellerman, 1978, 1986, 1995), who include the *conceptual* level, in addition to the linguistic level. The conceptual level refers to the conceptual processing underlying the linguistic structural outcome. With this shift in

focus, transfer research in SLA in a way provides a rehabilitation of linguistic relativity or the Sapir-Whorf hypothesis (Odlin, 2005; Jarvis & Pavlenko, 2008). Briefly put, the idea is that differences in thought processes associated with the native language have an effect on the acquisition of a second language. This neo-Whorfian approach in transfer research does not actually concentrate on linguistic relativity per se, but rather on the effects of L1 on the verbalization of thoughts in the L2. The difference is aptly explicated by Jarvis and Pavlenko (2008: 115), who state that "linguistic relativity begins with language and ends with cognition", while the neo-Whorfian approach in transfer research "begins with language and ends, via cognition, with language."

According to Jarvis and Pavlenko (2008; see also Jarvis, 2007, 53) conceptual transfer can originate from two sources; either from the conceptual knowledge or the inventory of learners, or from the processing of that knowledge. The former is linked to lexicalized concepts (i.e., words) or grammaticized concepts (i.e., morphosyntactic categories, such as gender, number, etc.), while the latter refers to the linguistic organization of information in discourse. The latter is termed *Conceptualization Transfer* (Jarvis, 2007). Jarvis and Pavlenko (2008: 185) link this kind of transfer with an effect of frequency, by referring back to Selinker (1969) who found that learners tend to transfer statistical preferences (in terms of frequency of use) from L1 to L2: the frequency of a specific structure determines that structure's candidacy for transfer. Applied to the acquisition of the English dative alternation by Russian learners, this would mean that according to the specifics of a sentence either the Rec-Th order will be transferred (because it would be the most frequent pattern in that specific sentence) or the Th-Rec object order (because it would be the most frequent pattern in that specific sentence). In other words, if Russian speakers preferred a Th-Rec order in a particular Russian ditransitive construction, then we expect them to transfer this underlying theme-prominence to the equivalent English dative construction, thus yielding a to-dative as preferred structural outcome. The same applies to the Rec-Th order in Russian and the double object construction in English.

In their overview, Jarvis and Pavlenko (2008) focused on lexicalized and grammaticized concept transfer, because these are the two areas in which most research has been conducted. By way of illustration, we select two examples here. Related to lexicalized concepts, studies deal with the acquisition of new conceptual categories or the restructuring of already existing cate-

gories. For example, English speakers learning Spanish need to acquire new conceptual categories for *bottle* as it corresponds to seven linguistic categories in Spanish (liquids, dry materials, etc.) (Malt, Sloman & Gennari, 1999, 2003). Analogous for grammaticized concepts, it has been found that Spanish and German speakers transfer their gender attributions – masc./fem. in Spanish and masc./fem./neuter in German – to their L2 English (Boroditsky et al., 2003).

In contrast to the kind of transfer concerning lexicalized and/or grammaticized concepts, little work has been conducted to examine the transfer concerning the linguistic organization of information in discourse. It is, of course, this latter kind of transfer that is particularly interesting to our study on the L2 acquisition of the English dative alternation. In a recent study on German-Turkish bilinguals, Daller et al. (2011) found evidence for transfer of linguistic organization. To examine the possible transfer of linearization patterns, Daller et al. (2011) looked at action-goal sequences, which differ in German (action-goal) and Turkish (goal-action) (examples taken from Daller et al., 2011: 104).

(9)   Der Vater steigt in den Gully [um den Ball zu holen].
        The father climbs into the manhole [to fetch the ball].

(10)   [Top-u al-mak için] baba-sı iniyor
        Ball-Acc fetch-Nom to father-Poss descend-Prog
        'To fetch the ball, his father descends.'

Discussing the rationale behind this research question, Daller et al. (2011) refer to the work of Von Stutterheim et al. (2002) and Von Stutterheim and Nüse (2003), which showed that speakers of various languages also differ in the way they structure and linearize the information they select for verbalization. Daller et al.'s (2011) results showed that the German monolinguals exclusively used action-goal sequences whereas the Turkish monolinguals mainly (i.e., 92%) used goal-action sequences. However, the bilinguals were found to take a middle position. This study follows up on the issue of linearization and structuring of linguistic items.

4. The Acquisition of the English Dative alternation

he acquisition of the English dative alternation has extensively been studied in both L1 and L2 language acquisition research (e.g., Baker, 1979; Gropen et al., 1989, Mazurkewich & White, 1984; Conwell & Demuth, 2007 for first language acquisition, and Mazurkewich 1984; Hawkins, 1987; Tanaka, 1987; Carroll & Swain, 1993; Hamilton, 1994; Sawyer & Mark, 1995; Whong-Barr & Schwartz, 2002; Marefat, 2005; Radwan, 2005; Oh, 2010; Oh & Zubizarreta, 2003, 2006; Ansarin & Arasteh, 2012 for second language acquisition).

With respect to L2 language acquisition, we can distinguish two lines of research: (i) research that aims to uncover developmental (sub)stages in the L2 acquisition of the dative alternation, and (ii) research that investigates the effectiveness of different types of instruction on the acquisition of the English dative alternation. Concerning the first line of research, a recurring finding is that L2 learners consistently judge the to-dative as more acceptable than the DOC, which suggests that the to-dative construction is acquired prior to the DOC (e.g., Mazurkewich 1984; Hawkins, 1987; Tanaka, 1987). This simple developmental sequence conceals, however, a complex set of substages. One intervening feature is, for example, the subclass of the indirect object, i.e., whether it is a noun or a pronoun. Hawkins (1987) thus found that in the initial stages of acquisition the DOCs are reserved for nominal indirect objects, whereas to-datives are mainly used with pronominal indirect objects.

In recent SLA research, it is no longer the objective to uncover developmental (sub)stages in the L2 acquisition of the dative alternation. The focus has rather shifted to what is known as Focus-on-Form instruction (FFI). Ellis (2001: 1-2) defined FFI as "any planned or incidental instructional activity that is intended to induce language learners to pay attention to linguistic form." FFI-Research, in other words, refers to the many studies that have investigated the effectiveness of different types of instruction in different circumstances of learning. For example, Radwan (2005) explored the effects of various types of attention-drawing instructional conditions on the acquisition of the English dative alternation with learners from different linguistic backgrounds (Arabic, Chinese, Korean etc.). A similar study with 75 Turkish learners of English was conducted by Ansarin and Arasteh (2012). Remarkably, these studies on the effectiveness of various types of instruction did not discuss the influence of the L1. In fact, the role of the L1 has been barely an

issue in the studies on the acquisition of English dative alternation. Only Hawkins (1987) briefly mentions the different patterns in French, which is the L1 of the learners in his study, but he does not further examine its influence either. To the best of our knowledge, there is only one research project that has to a certain extent included L1 transfer. Oh and Zubizarreta (2003, 2006) found that the acquisition of English benefactive double objects (e.g. *John baked Mary a cake*) lags behind the acquisition of goal double objects (e.g. *John sent Mary the letter*). They attribute this asymmetry to differences between English and Korean: goal DOCs in the two languages have similar grammatical properties, whereas benefactive DOCs have different grammatical properties. Nevertheless, given this limited interest in L1 transfer, the exact influence of different L1s on the acquisition of the English dative alternation remains an open question, which we wish to tackle with this study.

5. The study

5.1. *Methodology*

100-split task. In this task, participants are presented a set of test sentences (in our case 25) with two optional object orders for each sentence. Sentence (11) is one example from our English test:

(11) (a) And I'll send you all my loving.
    (b) And I'll send all my loving to you.

Participants are asked to rate the acceptability of both options on a scale of 0 to 100 so that the total rating adds up to 100. Higher ratings indicate a higher acceptability. For instance, if a participant finds option (b) to be more natural than (a), then s/he could give (b) a rating of 85 and option (a) a rating of 15. All possible (integer) combinations are allowed as long as the total adds up to 100 (e.g., 15-85, 64-36, 99-1, 23-77, etc.). A rating of 50-50 indicates that the participant finds both options to be equally possible, whereas a rating of 0-100 indicates that only option b is possible for this participant. Once the ratings of all the participants are collected, the mean rating of a particular option (associated with one of two object orders) can then be calculated for each sentence, which is taken to reflect the average preference of a population of speakers for an object order within a particular sentential context.

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Materials. We selected 9 English ditransitive verbs that are known to take the dative alternation (*give, bring, offer, show, deliver, pay, send, tell, sell*) and that have a cognate Russian verb that also allows for the object order permutation.[2] Then we selected for each verb three observations from the *British National Corpus* (spoken component), which we accessed through *BNCweb* (Lehman et al. 2000).[3] We thus selected a total of N = 25 test sentences: 11 with the Rec-Th order and 14 with the Th-Rec order (see Appendix).[4] The English test sentences and the two optional object orders were then translated into Russian, so that the same 100-split task could be performed for both languages.

Participants. The participants were *N* = 272 Russian university students in their first (223; 82.5%) or second (49, 17.5%) year of medicine (193; 71.5%) or psychology (79; 28.5%) at the university of Saint-Petersburg (Russia). Their mean age was 18.7 (SD = 1.4 years); the youngest student was 17, the oldest 26. There were 211 (78.1%) female and 61 (21.9%) male students. The psychology students had 3 hours of English per week in the first and second semester, while the students of medicine had 1,5 hours a week in the first semester and 3 hours a week in the second semester. Most students had also had English in secondary school.[5]

Procedure. A total of 272 Russian students were divided into two groups. A first group of 136 students was administered the English test, a second group of 136 students the Russian test. Both tests were performed during lessons and contained detailed written information about the assignment. In addition, the assignment was explained at the spot by the experimenter. All participants performed the test individually. They were all volunteers and were not paid nor received any other benefits for their participation.

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[2] Our selection of verbs initially also included *to teach* and *to deny* but we then found that these verbs take a prepositional ditransitive in Russian. We therefore dropped both verbs from further investigation.

[3] We also dropped two test sentences with *pay* and *deliver* because their Russian counterparts also only took the prepositional construction. Examples of usage taken from the British National Corpus (BNC) were obtained under the terms of the BNC End User License. Copyright in the individual texts cited resides with the original IPR holders. For information and licensing conditions relating to the BNC, please see the web site at http://www.natcorp.ox.ac.uk.

[4] We also dropped two test sentences with *pay* and *deliver* because their Russian counterparts also only took the prepositional construction.

[5] The small difference in number of hours of English study could perhaps have an effect on the participant ratings. We did not evaluate this.

5.2. Results

An overall summary of the ratings per sentence per Test is presented by means of the boxplots in Figure 1. The higher the rating the more acceptable the Participants thought the Th-Rec order was for a particular sentence (i.e., to-dative in English and Th_{acc}-Rec_{dat} order in Russian). Note that the original ratings were scaled to a probability scale of 0 to 1. The mean rating of each sentence is additionally represented as a red dot. An average or median rating higher than 0.5 indicates that the Th-Rec order was considered to be the most likely or most natural object order for this particular sentence. An average rating lower than 0.5 indicates that the Rec-Th order was considered the most acceptable on average. A rating of 0.5 means that both orders were found to be equally likely. This appeared to be the case for 2 sentences of the English test (2 and 21), but for none of the Russian sentences.
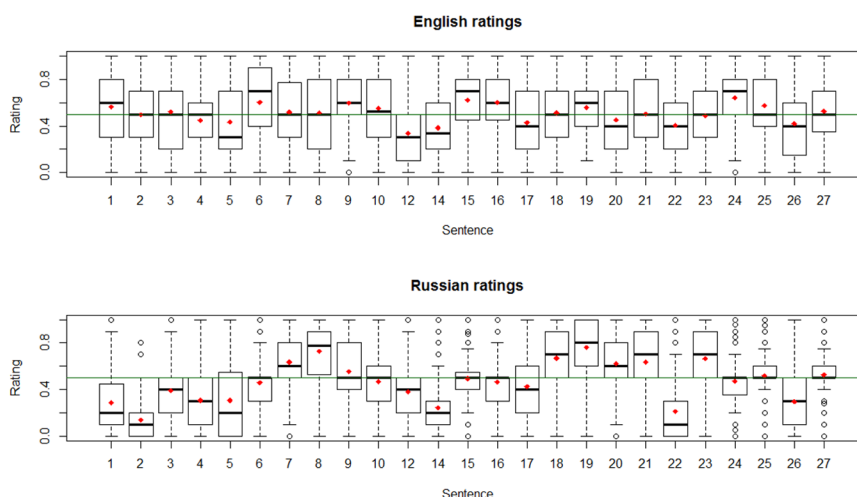

Figure 1. Boxplots of the ratings per sentence in English and Russian. The rating is given for the Theme-Recipient order (i.e., the Eng. to-dative construction and the Russian Th_{acc}-Rec_{dat} order). There are 25 sentences in total. Sentences 11 and 13 were dropped from further analysis. Cf. footnote 6.

In general, we can see that the variability of the ratings was considerably high for the large majority of sentences. Most ratings range between 0 (min) and 1 (max) and most Inter Quartile Ranges overlap 0.5 (marked as a green horizontal line). This is particularly the case for the English sentences, which also seem to have a larger variance than their Russian counterparts. We evaluated

these differences in variance by means of 25 F-tests (i.e, one for each sentence). Of these 25 tests, 2 tests appeared significant at the 5% significance level (after Holm-Bonferroni correction). Only the variances of the ratings of sentences 2 and 8 are larger in English than in Russian, which means that the variance of the ratings for each sentence are largely similar.

A second general observation is that, on average, the Russian Ratings appear more outspoken than the English ones. Not only are there more boxes of the Russian ratings that occur on one side of the 0.5 threshold level (20 of the Russian ratings vs. 3 of the English ones), the mean Russian ratings are also further removed from 0.5 than the mean English Ratings.

The overall variability of the mean ratings per test are illustrated by means of the boxplots in Figure 2. The plot suggests that the variance of the Russian mean ratings is larger than the variance of the English mean ratings. An F-test provides strong evidence that this is indeed the case ($F_{24,24}$ = 4.55, p-value = 0.0004).

Taken together, the overall results suggests that the Participants of the English test had no particular preference for one particular order (they circle around 0.5), while there was a clearer preference for one particular order in the Russian test. This seems to indicate, in turn, that the Participants do not simply transfer their preferences from Russian to English.
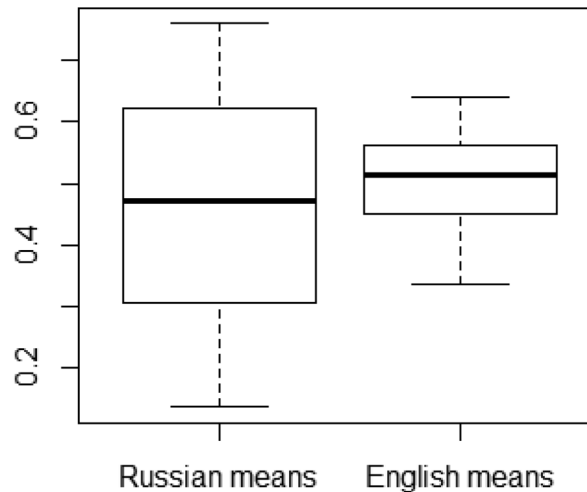

Figure 2. Boxplots comparing the mean ratings for the Russian and English test sentences. Note that this Figure depicts the variability of the mean ratings, whereas Figure 1 depicts the variability of the ratings per sentence.

To evaluate whether the ratings of the English test sentences correlated with the Russian test sentences we performed a simple linear regression with the English mean ratings as the dependent variable and the Russian mean ratings as an independent one. Figure 3 plots the mean ratings for the English sentences against those for Russian. A fitted regression line is added.
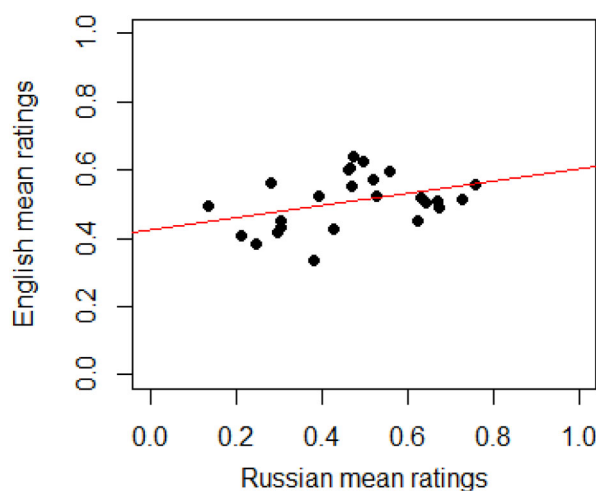

Figure 3. Scatterplot with fitted regression line of the English mean ratings and Russian mean ratings.

The plot seems to suggest a small positive correlation: higher Russian mean ratings seem to correlate with higher English mean ratings. However, the slope of the regression line is not significantly different from zero at the 5% significance level, which means that we have no evidence that the English mean ratings significantly increase together with the Russian mean ratings. The results of our linear regression model are given in Table 1.

Table 1. Regression estimates

	est. coefficient (s.e.)	t-value	*P*-value
Intercept	0.425 (0.045)	9.44	< 0.0001
Russian mean rating	0.179 (0.091)	1.97	= 0.061

Given that there is no evidence of a linear relation, we further examined, whether there is a preference for one of both object orders in the English test.

To evaluate this, we categorized the ratings into two categories associated with the two possible object orders and then cross-tabulated the preferences

found for the English and the Russian test. A rating higher than 0.50 was regarded as in favor of the Th-Rec order, whereas a rating below 0.50 was regarded as in favor of the Rec-Th order. Sentences with a mean rating equal to 0.50 were excluded. Recall that there were two such sentences in the English test. The results of this analysis are given in Table 2.

Table 2. Preferred object orderings for the Russian and the English tests

Russian	English	
	Rec-Th	Th-Rec
Rec-Th	7	7
Th-Rec	2	7

Overall, 14 (64%) out of 23 sentences were preferably used with the same object order in both English and Russian. Note that this proportion provides no evidence of transfer (*p*-value based on the binomial test = 0.40). Interestingly, it appears that in the English test the Th-Rec order (i.e., the to-dative construction) was preferred: 14 (61%) sentences were preferably used with this order. In comparison, in the Russian test, the Th-Rec order was only preferred in 9 (39%) sentences.

6.   Discussion

Although the direction of the correlation pointed in the direction of transfer between Russian and English, no statistical evidence was found for this cross-linguistic effect. This finding deviates from our main hypothesis that Russian learners of English will transfer their linguistic organization to the English dative alternation. As such, our results differ from those of Daller et al. (2011), who found that Turkish-German bilinguals transfer the linearization pattern of their dominant language. As a consequence, our study does not provide evidence for Jarvis's (2007) Conceptualization Transfer.

The lack of a transfer effect in our study should be seen in the light of the methodology (*written* judgment test by *beginning* learners of English). First, the results may perhaps be attributed to the beginners level of the participants. The dative alternation is known to be acquired rather late in L2 acquisition. With more proficient learners the transfer of preferences might become more visible. Secondly, this study used written test with both constructions already given. Results might be very different when actual, oral usage of the English dative constructions by Russian students is investigated.

As discussed, there was a considerably large variance in the sentence ratings of both the English and Russian tests (Figure 1). The large variability in the Russian test results may be related to the lack of context for the Russian test. Due to this lack of context it might have been problematic for the students to rate the sentences given that discourse status plays a great role in determining Russian word order. Adding more context could improve the research design of our study in that we expect that it would lower the dispersion of the ratings, which would in turn lend more power to find a stronger correlation.

Nevertheless, the lack of a transfer effect can perhaps also be explained by the fact that the possible transfer of preferences is overruled by a general preference for the to-dative construction, even when the Russian participants preferred an Rec_{dat}-Th_{acc} order in the parallel Russian sentences (see Table 3) (for example sentences 1, 3, 4, 10, 22). The general preference for the to-dative fits with the language acquisition process as proposed by Processability Theory (PT) (Pienemann, 1998) and its associated transfer hypothesis (Håkansson et al., 2002; Pienemann & Håkansson, 2007). According to this theory, learners do not readily transfer pragmatic-discourse motivations, but instead fall back on easily processable direct canonical mappings between thematic roles, grammatical functions and constituents (Bever, 1970; Pinker, 1984; Slobin, 1985), as illustrated below.

give <x, y, z>
argument structure   agent   theme   recipient
functional structure   SUBJ   OBJ OBJ_{RECIP}
constituent structure NP_{SUBJ} NP_{OBJ} $PP_{OBJ\ RECIP}$
*Romeo*   *a rose*   *to Juliet*

This mapping is regular and transparent to both the first and second language learner and is a driving force in syntactic development according to PT (Pienemann et al., 2005).

Indeed, previous studies on L1 and L2 acquisition have consistently found a positive bias toward the prepositional construction. Research in L1 acquisition, for example, shows that children prefer the to-dative even in recipient-given contexts (Gropen et al., 1989; Conwell & Demuth, 2007; Anderssen et al., in press). Mykhaylyk et al. (2013) mention processing difficulties, complexity of the syntactic structure or pronominality effect as possible explanations for the dispreference for the DOC in L1 English. In a

recent study on Norwegian, Anderssen et al. (in press) also suggest that young children might prefer the prepositional variant as the basic word order in various discourse contexts. The same might apply to beginning learners (as is the case in the present study), and sometimes even to more advanced learners. Jäschke and Plag (subm.), for example, found a slight preference for the prepositional construction in German-English interlanguage. Similarly, Baten and De Cuypere (in press) observed that advanced Dutch-speaking learners of German transfer their use of the prepositional construction from their L1 Dutch to their L2 German, even though German does not usually allow for prepositional constructions in these contexts.

The study by Jäschke and Plag (subm.) is particularly interesting to the present study, as it examined whether the different factors influencing the English dative alternation also determine the use of either one of the constructions in German-English interlanguage. As said, compared with the L1 English native speakers, the L2 English learners in their study showed an increased tendency towards the to-dative. The tendency was, however, only minimal. This finding was interpreted in such a way that advanced learners of L2 English can overcome the processing effect (i.e., to-datives are easier to process) and are thus capable of following the influence of the different factors that determine the choice for either one of the two constructions. In this regard, the study showed that German learners of English are influenced by factors, such as animacy of recipient, pronominality of theme and definiteness of recipient – the same factors by which the L1 speakers in the study are influenced (although, it should be noted that the L1 speakers are also influenced by other factors). It was a limitation of our study, that we were not able to measure the exact influence of the different factors, as our design did not control for an equal distribution of the different factors over the test sentences. This question should be tackled in future studies.

Our study, however, was designed to examine the possible transfer of Russian linearization patterns (in terms of Jarvis' Conceptualization Transfer). With regard to German (a case-language, like Russian), Jäschke and Plag (subm.) state that German also allows different constituent ordering. As outlined in the present article as well as in their article, the different object orders in Russian and German are not arbitrary, but reflect principles, such as short-before-long, pronoun-before-noun etc., which are similar to the ones in English. Jäschke and Plag (subm.) question whether these principles are transferred or rather acquired. Putting the findings of the
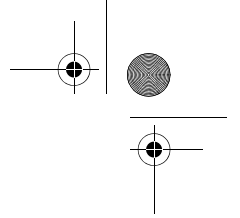
two studies together, the results seem to indicate that the principles are acquired, rather than transferred. The beginning Russian learners of our study do not follow the ordering of their L1 and show a preference for the easily processable to-dative; the advanced German learners show only a slightly increased preference for the to-dative, and at the same time follow a number of factors, which also the native speakers follow. Although it is in many respects difficult to compare the different learner groups of these studies, the apparent development from non-advanced to advanced learners seems to suggest a decreasing influence of the easily processable structure and an increasing influence of the different factors. Of course, more research is needed to investigate this tentative and speculative result; for example, as Jäschke and Plag (subm.) indicate themselves, future studies should include learners of languages that do not have flexible word order.

7. Conclusion

The present study was guided by two research questions: First, we examined whether the preferences for either one of the structures in L2 English correlated with the preference for the corresponding structures in L1 Russian; Second, we investigated whether Russian learners of L2 English generally prefer either the use of the prepositional construction or the use of the double object construction. No evidence was found that L2 English preferences are transferred from L1 Russian preferences. However, we did observe a preference for the to-dative construction, a finding which is in line with the results of similar studies on L2 acquisition. Finally, we made the case that our results fit well with the language acquisition process proposed by PT, which maintains that the prepositional variant is structurally more opaque and thus more easily acquired by the language learner. Further research should examine whether the general preference for the to-dative decreases as language proficiency increases, as well as whether the correlation between the L1 and L2 preferences increases as language proficiency increases.

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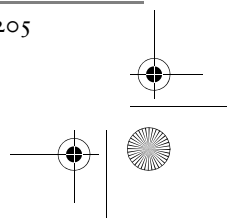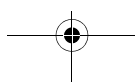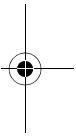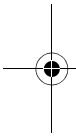
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