Second Language Acquisition of Demonstratives

A cross-linguistic, multi-directional study of L1 English, L1 German and L1 Japanese learners of L2 German, L2 English and L2 Japanese

verfasst

von

Simone Lechner

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Hauptgutachter: Prof. Dr. Thomas Berg

Zweitgutachter: Prof. Dr. Günter Radden

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Contents

List of Tables

17

List of Images

List of Graphs

GLOSSARY[1]

1	first person
2	second person
3	third person
ACC	accusative
ADJ	adjective
ADV	adverb(ial)
AGR	agreement
ART	article
AUX	auxiliary
COND	conditional
COP	copula
DAT	dative
DECL	declarative
DEF	definite
DEM	demonstrative
DET	determiner
dist.	distal
F	feminine
FOC	focus
FUT	future
GEN	genitive
IMP	imperative
INDF	indefinite
INF	infinitive
INTR	intransitive
IPFV	imperfective

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[1] Based on Max Planck Institute of Evolutionary Anthropology: Department of Linguistics.

IRR	irrealis
LOC	locative
M	masculine
N	neuter
NEG	negation, negative
NOM	nominative
NTL	non-target-like
OBJ	object
PRT	particle
PASS	passive
PFV	perfective
PL	Plural
PN	Pronoun
POSS	possessive
PRED	predicative
PRF	perfect
PRS	present
PROG	progressive
PROH	prohibitive
prox.	proximal/proximate
PST	past
PTCP	participle
Q	question particle/marker
QUOT	quotative
rem.	remote
REFL	reflexive
REL	relative
SBJ	subject
SBJV	subjunctive
SG	singular

TOP	topic
TR	transitive

1 Introduction

1.1 Interest and Goals

One of the primary research interests in the field of second and foreign language research is what types of difficulties may arise in the language learning process and, subsequently, what factors these potential difficulties are based on. Aside from language-external factors such as (but not limited to) socioeconomic status, age of onset, individual language learning aptitude, learners' attitudes, and the quality of language teaching (Gass and Mackey 2014), language-specific factors have been shown to influence proficiency outcomes among learners. The linguistically relevant question, however, is how language-specific factors contribute to differences in learner outcomes – that is, how linguistic transfer from the L1 (first language) to the L2 (second language) influences L2 output. Language-specific factors can conceivably be based on the differences between the L1 and the target language based on differences in the language typologies. They can also be based on differences in (structural) complexity. But how do these two aspects – that is, distance and structural complexity – affect learner outcomes?

This dissertation aims to provide answers to this question by investigating transfer effects in L2 learners' spoken output of spatial demonstratives.[2] More precisely, it investigates the extent to which distance contrasts and the form of spatial demonstratives are transferred from L1 German and L1 Japanese to English as an L2, from L1 Japanese and L1 English to German as an L2, and from L1 German and L1 English

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[2] Spatial demonstratives are demonstratives that refer to the space in which interlocutors are located, see section 2.2 for further discussion.

to L2 Japanese. These languages were chosen because of their different realisations of spatial demonstratives, particularly demonstrative pronouns, in spoken language.

I selected spatial demonstratives as the subsystem of language I investigate in this dissertation because they are among the most frequently used words (Diessel 1999; Diessel 2005; Diessel 2014) and are expressions that are therefore likely to be known and used by L2 learners. Although they constitute a small group of referential expressions, spatial demonstratives occur in all known languages and, unlike other such ubiquitous expressions, they are not derived from content words. Like spatial prepositions (Bowerman 1996), they are furthermore among the first expressions acquired in the L1 acquisition process (Tomasello 2003: 201). It stands to reason that as a linguistic class, they developed early and individually (Gudde 2017: 33–34).

Spatial demonstrative pronouns in spoken language are considered distance-neutral in German (*diese-/r/-s*) (see Ahrenholz 38–40 for discussion), bilateral in English (*this* vs. *that*) (Huddleston and Pullum 2002) and tripartite in Japanese [3] (*kono/kore* vs. *sono/sore* vs. *ano/are*) (Diessel 1999: 39). Moreover, in terms of form, German demonstrative pronouns have gender, number, and case marking, English demonstrative pronouns display number marking, and Japanese demonstrative pronouns are unmarked for gender, number, and case. All three languages have locative adverbs that allow for differentiation between three

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[3] The existence of a medial position in languages traditionally classified as having three-way distinctions – that is, distal from the speaker and proximal to the hearer – has been called into question (Levinson 2018: 24): "there are grounds to be suspicious of reports of "medial" terms – that is to say, systems with a three-way distance contrast. Instead, it seems likely many of these are actually two terms with clear codings for proximal and distal, and then a third term that is unmarked, or relatively unmarked."

distance positions: proximal (Japanese: *koko*; German: *hier*; English: *here*), distal (Japanese: *soko*; German: *da/dort*; English *there*), and a third category, which I refer to as remote (Japanese: *asoko*; German: *da/dort drüben*; English: *over there*).[4]

The overarching goal of this study is to investigate whether typological proximity or structural complexity plays the more dominant role in observable transfer effects in learners' use of spatial demonstratives, particularly spatial demonstrative pronouns, in spoken language, and how the transfer effects predicted on the basis of these two theories interact. Moreover, the dissertation critically examines the current classification of demonstratives and investigates the existence of a mid-way or medial distance in Japanese, which is traditionally classified as a tripartite system.

In order to achieve these goals, I compare the predicted outcomes for learners based on typological proximity to the predicted outcomes for learners based on structural complexity and measure these results against actual outcomes. In order to do so, I first critically re-examine claims made in Lado's (1957) Contrastive Analysis Hypothesis (CAH), which suggests that elements in the L2 that are different from the L1 will be more difficult to acquire, while elements that are similar to the L1 will be easier to acquire. Although Lado's hypothesis has been criticised extensively, more recent studies have identified typological proximity as an important predictor of potential language transfer (Jarvis and Pavlenko 2010, Ringbom 2007) and have dealt with the learnability of

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[4] The argument can be made that there are in fact additional distance distinctions that can be achieved by means of additional lexical morphemes, such as 'way back there'. The decision to divide distances into these three categories is the result of lengthy discussions with Günter Radden.

features in L2 based on language distance or typological proximity, essentially following Lado's argument[5] that L2 learnability decreases as distance between L1 and L2 increases, but using empirically based models to measure distance (Schepens et al. 2013; Van der Slik 2010). In second language research, typological proximity refers to the structural and lexical similarity of languages, or the level of congruence between the source language and the target language (Ringbom 2007). It must be noted that the term *typological proximity* is vague (see Putnam et al. 2018 for discussion). However, this is the term that is most commonly used, and other terms such as *language distance* are similarly vague[6] or ambiguous (e.g., structural distance), whereas terms such as *structural difference* or *structural similarity* are too limiting in scope because they can refer to either differences or similarities but not to both at the same time. Therefore, I have opted to use typological proximity as a generic term while being fully aware of its limitations.

In order to investigate the effect of typological proximity, I re-evaluate the claims made in the initial version of the Contrastive Analysis Hypothesis, which are at least partially supported by more recent studies (Schepens et al. 2013; Van der Slik 2010). I contrast these claims with hypotheses for learner outcomes that can be derived from

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[5] It must be noted that Schepens et al. (2013: 205) have maintained that Contrastive Analysis was "not developed to determine and calculate language distances." While it is possible to calculate the distance between languages with sample sizes that are large enough, this is not possible with the limited dataset available in this study. However, for the study at hand, the important measure is that the distance between A and B is larger than the distance between B and C: that is, Japanese is more distant from both English and German than English and German are from one another (i.e., quantifiable distance is not relevant). This idea is expanded on in greater detail in Chapter 3.1.

[6] Language distance refers to the overall distance between languages, or the overall typological proximity.

the structural complexity of the subsystem in question. In doing so, I investigate whether or not structural complexity more accurately accounts for observable transfer effects than typological proximity: for example, whether a more complex demonstrative system with more spatial dimensions in the speaker's L1 makes it easier to learn a less complex system with less spatial dimensions in the L2. [7] Although typological proximity and structural complexity often overlap (Schepens et al. 2016), they are not necessarily the same. For example, two languages can have lexically similar features that, however, differ in terms of structural complexity. For example, both German and English have definite and indefinite articles with the same lexical roots. German articles, however, are inflected for three different genders as well as number and grammatical case, whereas English articles are not. In a sense, the German article system is more complex compared to English than it is, for example, to French (which only inflects for number and two genders but not for case), while remaining more lexically similar to English than French.

Consequently, differences in complexity do not only apply to linguistic systems as a whole but can apply to subcategories within a language. Moreover, there is an implied hierarchy of complexity (i.e., a Greenbergian implicational hierarchy (Miestamo 2009: 79–80, based on Greenberg 1966)).

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[7] Making matters more challenging is the fact that what is considered complex in learners' minds is often linked to how similar they perceive their target language to be to their native tongue. Previous studies have suggested that even elements that are comparatively more complex in L2 are sometimes viewed as easy to learn as a result of what is commonly referred to as psychotypology or subjective similarity (Ringbom 2007: 7–8; Jarvis and Pavlenko 2010: 178). As an example, L1 German learners of English with no linguistic background may view English as a language that is comparatively easy to learn based on psychotypology.

This study's proposed bilateral approach to transfer effects – that is, investigating transfer effects in both directions for the same language combinations – is especially promising when attempting to disambiguate genuine transfer effects from other factors (such as, for example, attitude and aptitude) and subsequently contrast the effect of typological proximity/language distance with the effect of structural complexity. A further goal of this project is to establish a hierarchy of transfer by examining and making predictions regarding hypothetical transfer of demonstratives as deictics in second language acquisition across these language combinations based on typological proximity on the one hand and structural complexity on the other hand.

While a cross-linguistic, typological classification of demonstratives has been the subject of past research (Diessel 1999; Diessel 2013a; Diessel 2013b; Levinson et al. 2018)[8] and there are empirical studies that deal with L2 acquisition of demonstratives in specific language combinations (e.g., Ahrenholz 2007), there are to my knowledge no studies that have examined the acquisition of (spatial) demonstratives from a cross-linguistic, multilateral perspective (i.e., across multiple target languages of the same language combinations), and furthermore, no studies have dealt with differences in facilitation and interference effects from a cross-linguistic, multilateral perspective.[9]

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[8] However, monographs concerned with the cross-linguistic study of demonstratives are still surprisingly scarce (Levinson 2018: 1).

[9] Ahrenholz's (2007) study, which was the first empirical study based on experimental data to investigate the acquisition of spatial as well as anaphoric demonstratives by L2 learners, focuses on learners' individual use of demonstratives rather than transfer effects from L1 onto L2. His sample is based on findings from speakers of multiple L1s learning German, with none of the groups large enough to discern between L1-specific effects. A contrastive analysis for Japanese and English demonstrative pronouns in second language acquisition was conducted by Niimura

There are, however, experimental studies that deal with language-specific factors that influence spatial demonstrative (pronoun) choice. Most notably, Coventry, Griffiths, and Hamilton (2014) have examined spatial demonstratives and conceptual space. The same research laboratory at Norwich University is currently investigating demonstrative choice, particularly demonstrative pronoun use, in Japanese and has published its first results (Gudde 2017). However, these studies are limited to the use of demonstratives in the L1.

Furthermore, there are recent studies that have to a certain extent investigated the interplay of typological proximity and structural complexity as it affects transfer onto L2/L3, albeit not for demonstratives. Most notably, in a large-scale research project Schepens et al. (2016) have investigated L1 and L2 distance effects in the acquisition of an additional language and have concluded that the learnability of an additional language is dependent on the distance of the L3 to the L1 and the L2 in particular, and that transfer effects or the absence thereof in specific domains do not provide evidence against global L1 and L2 distance effects (Schepens et al. 2016). It is of particular note that this study takes into account not only measures of morphological distance but also increasing morphological complexity, arguing that these measures can jointly account for variation across L1 learners of Dutch (Schepens et al. 2016: 239). However, Schepens et al. (2016) have not studied the effect of structural complexity as a measure separate from language distance and the individual effects of either measure. They have also not examined the interplay between hierarchies of complexity as

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and Hayashi (1994) but results here are based on Cloze tests (i.e., spatial demonstratives were not investigated), and focused on problems learners might face in the acquisition of demonstratives.

opposed to language distance/typological proximity, which is one of the primary goals of this study.

In my research project, I use the advantages of a multilateral approach to transfer studies to investigate differences between potential and actual transfer for different L1 speakers for the domain of spatial demonstratives in spoken language. In doing so, I offer new insights into the roles structural complexity and typological proximity/distance play in L2 acquisition and thereby provide stimuli for further research into the effects of structural complexity and/or typological proximity/language distance in L2 acquisition. As such, this study functions as a pilot project for further research. Moreover, I critically re-examine the common classification of demonstrative distance relations proposed by Diessel (1999, 2013a), particularly the distinction between person-oriented and distance-oriented systems based on an egocentric, body-centred perspective on space, which has been criticised in the past (Enfield 2003; Levinson 2003; Coventry et al. 2014; Peeters et al. 2014; Enfield 2018),[10] based on the observable transfer effects in my body of data.[11]

Since this study is concerned with spatial demonstratives, it is not possible to derive usable data from existing corpora, because the positions for referents for situations in which spatial demonstratives are used are not discernible from one another in corpus data. Therefore, demonstrative systems can only be investigated based on experimental

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[10] The more general criticism of the egocentric conceptualisation of space has been rejected by Diessel (2014:116), who has maintained that "demonstratives constitute a universal class of spatial terms that invoke an egocentric, body-anchored frame of reference grounded in basic principles of spatial and social cognition."

[11] The data indicates that emotional deixis is likely to play a privileged role in the use of demonstratives across the three languages investigated here.

data. This thesis is based on a corpus of two psycholinguistic experiments testing the use of demonstratives in spoken Japanese, English, and German. Data was collected from a total of n = 140 speakers distributed equally between L1 Japanese L2 English speakers, L1 Japanese L2 German speakers, L1 English L2 Japanese speakers, L1 English L2 German speakers, L1 German L2 English speakers, L1 English L2 Japanese speakers, and an English L1 control group. All participants were tested in their L1 and their L2, respectively, in order to compare their use of spatial demonstratives in L2 to their use of spatial demonstratives in L1.

This dissertation is divided into six sections. Section 1, the current section, has provided an introduction to research aims and research questions. In the second part of section 1, the CAH and structural complexity are explored in order to establish predictions for L2 learner outcomes based on these concepts. Section 2 is concerned with the typological features of demonstratives in English, German, and Japanese and make hypotheses concerning transfer based on the typologies of the languages investigated on the basis of distance/typological proximity and structural complexity. The third section of this thesis introduces the empirical data upon which this dissertation is based and discusses the design of the experiments used to elicit said data. In total, three experiments were designed with the purpose of eliciting demonstratives in their deictic function, resulting in semi-structured speech, which is the foundation of the corpus created. Moreover, Section 3 introduces the documentation methods used and the evaluation categories established for the analysis of the collected datasets. Results from the empirical study and a quantitative statistical analysis thereof are presented in Section 4. Section 5 consists of a discussion of the results presented in Section 4.

Finally, Section 6 offers a conclusion as well as possible points of departure for further research.

1.2 Predictions for L2 Learning Outcomes Based on Typological Proximity and Structural Complexity

1.2.1 Transfer

This thesis investigates transfer effects in second language acquisition (SLA) or, more precisely, second language learning. Generally speaking, we can distinguish between three main areas that are emphasised differently in SLA models, namely a) the role of L1 (typology), b) the quantity and quality of second language input, and c) idiosyncratic, learner-specific variables such as motivation and aptitude. This dissertation focuses on transfer, which means that out of the three areas SLA theories focus on, only the first – the role of L1 in L2 acquisition – is crucial to the research questions at hand. More specifically, this study compares potential learner difficulties that arise based on structural similarity to difficulties that arise for learners based on the linguistic complexity of specific features. Before discussing these theories of learning difficulties, it is important to define the term *transfer*.

Although the term *language acquisition* is now often used interchangeably with the term *language learning* (cf. Ellis 1995), it bears mentioning that there is evidence for differences between subconscious and conscious acquisition processes, which is why the distinction between the two terms as proposed by Krashen (1976, 1977) is sometimes still maintained. Since language learning is nowadays often no longer restricted to the classroom (students come into contact with the target language outside of the classroom regularly by means of media

consumption, particularly for English) and learning foreign languages takes place in informal settings alongside formal settings (e.g., in exchange programs), as well as for reasons of practicability, it is common practice to use (second) language acquisition to refer to both learning and acquisition processes in contemporary research. Based on the distinction between acquisition and learning, however, this dissertation investigates language learning rather than language acquisition, even though for the most part the participants interviewed have *acquired* as well as *learned* their L2/L3, because a significant number of them have spent at least three months abroad in an L2/L3-speaking country. I therefore frame the results as results of second language learning while still using the more common umbrella term *second language acquisitio*n.

Though widely discussed in SLA research, fundamental problems in the study of transfer continue to this day, ranging from problems in the definition of transfer to problems of comparison across source languages and within target languages, problems of prediction, and problems of generalisation (Odlin 1989: 25–47). On its most basic level, transfer describes the influence of a speaker's L1 on his/her L2. Transfer is often associated with errors made in language production. This concept of *interference* was one of the first observations made in bilingual language acquisition research (cf. Weinreich 1953). The term is derived from behaviourist psychology and has been argued to be "clearly negative in both sense and connotation" (Aronin and Singleton 2012: 22). It is the idea of one language in the bilingual's language repertoire interfering with the other language, thus resulting in non-target-like deviations. [12] Originally, transfer was thought to be unilateral, meaning that the source

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[12] Note that the term 'bilingual' does not only refer to individuals who grow up with two languages, but two all individuals who (regularly) speak two languages.

language was believed to have an influence on the target language and not vice versa. Other, newer terms emphasise the fact that transfer is, in fact, a bilateral and multilateral process (e.g., cross-linguistic influence (Sharwood Smith and Kellerman 1986) and cross-linguistic operation (cf. Singleton 1996)). This means that transfer occurs in both directions: from L1 to L2 and from L2 to L1. If there is more than one second or foreign language in the language learner's repertoire (e.g., L3, Ln), there are arguably also more potential directions of transfer.

The term *transfer* distinguishes between negative transfer (interference) and positive transfer (facilitation). These terms have acquired different meanings than at the time of their original coinage (Aronin and Singleton 2012: 22; Odlin 1989), and transfer is now used interchangeably with the term *cross-linguistic influence*, although the former often refers to the observable effects in language production outcomes rather than the cognitive process itself. The term *cross-linguistic influence* is helpful in reminding us of the bilateral nature of transfer effects, especially when investigating complex multilingual situations, but for the purposes of this thesis, I use the term *transfer*. The reasoning behind this is twofold: first, I will be focusing on observable effects such as the outcome of cross-linguistic influence rather than on, for example, cognitive processes. Second, the proposed terminology allows for a further division into *potential transfer* and *actual transfer*, meaning outcomes that are possible and can be divided into different likelihoods based on, for example, the features of L1 and the target language, and outcomes that are observable. Such a differentiation has the benefit of leading to informed, testable hypotheses. It is important to distinguish *potential transfer* from the term *transferability*. At first glance, it may seem intuitive to use the terms *transferability* and

potential transfer interchangeably, because the manner in which the term has been used in recent literature – as a departure from focusing on *transfer* towards a focus on what is likely to be transferred (Jarvis and Pavlenko 2010: 174) – suggests overlap. However, the differentiation is useful to separate the documentation of transfer from the likelihood of transfer. The term *transferability* is limited to the likelihood of transfer of meaning and form to occur based on the structural properties of the languages involved as well as to learner-specific variables such as psychotypology (see Kellerman 1979), whereas *potential transfer* refers to all potential outcomes.

Transfer is not limited to the mapping of structural phenomena from the L1 to the L2. Rather, influence from L1 to L2 has been observed in most linguistic domains, including pragmatics, discourse, processing strategies, and co-speech gesture patterns (Brown and Gullberg 2008: 226).

Based on the expectations for transfer from L1 to L2 for the two concepts I am focusing on, namely typological proximity as proposed in the contrastive hypothesis and structural complexity, I hypothesise which features or aspects of features are more likely to be transferred than others, as well as their *potential transfer*, and compare these hypotheses to *actual transfer*. It is important to note that actual transfer can only be identified when interference effects occur. The absence of interference in language production – that is, the target-like production of features – does not allow for the assertion that facilitation effects are present.

What can be measured is the ratio of non-target-like to target-like occurrences for L1 speakers of a given language. This *de facto* error ratio can be comparatively higher or lower in the production of the target

language. The non-target-like occurrences can be compared to the structures of the source language. If the observable effects are similar to the structures of the source language, then interference effects are likely. To determine whether these interference effects are true interference effects (i.e., the result of L1 structural properties superimposing themselves onto the production of L2, or simply an acquisition stage independent of L1), there is an indisputable merit in comparing different speakers of L1 acquiring the same language. Furthermore, testing different L2s for learners of the same L1 strengthens the argument in favour of or against potential interference effects (i.e., comparing different L2s for learners with the same L1 makes it easier to disambiguate between target language-specific and L1-specific deviations in learner output).

In this thesis, I aim to investigate the nature of transfer effects in spoken L2. Since facilitation effects cannot be adequately measured with my test design, I focus on interference effects. Interference can be viewed as a measure of learning difficulty, which in turn can be based on typological proximity/language distance and/or linguistic complexity from a linguistic standpoint. If interference effects are absent and languages are structurally similar or have the same level of complexity, then this is likely the result of facilitation effects.

1.2.2 Contrastive Analysis Hypothesis and Typological Proximity

The concept of transfer is closely related to the effect of the language distance of the L1 on the L2. One of the earliest theories about the impact of typological proximity on learner output is Lado's Contrastive Analysis Hypothesis (1957). The contrastive analysis hypothesis is rooted in behaviourist theories and structuralist linguistics and is part of a didactic

handbook intended to provide solutions to problems foreign language learners may encounter. In his book, Lado (1957: vii) claims that "we can predict and describe the patterns that will cause difficulty in learning, and those that will not cause difficulty." According to Lado, these differences in difficulty are rooted in the (finite) structures of the source and the target languages. Lado goes on to propose that

> [t]hose elements that are similar to [the students'] native language will be simple for him, and those elements that are different will be difficult. The teacher who has made a comparison of a foreign language with the native language of the student will know better what the real learning problems are and can better provide for teaching them. (Lado 1957: 2)

During the 1950s and 1960s, the Contrastive Analysis Hypothesis (CAH) was widely accepted as an explanation for non-target-like occurrences in language learners' production of language. Lado's original version of the CAH was criticised by Wardhaugh in 1970, largely on the basis of its *a priori* predictions. In total, Lado's strong version of the CAH makes four claims:

1. Interference from the learner's L1 is the strongest factor in SLA.

2. The higher the typological difference between two languages, the higher the difficulty for foreign language learners.

3. It is possible to predict difficulties in SLA on the basis of systematically contrasting similarities and differences in the source and the target language.

4. Based on these predictions, it is possible to create more effective language learning materials.

Wardaugh's main point of criticism is based on the fact that Lado's predictions do not take into account inter-language errors, meaning that the predictions of Lado's CAH are removed from the stage of SLA and are focussed on explaining internal processes of SLA rather than on output. Instead, the emphasis should be on observable errors rather than the predictive power of relative difficulty, or *parole* rather than *langue*. If the knowledge of certain structures is not present in the learner, non-target-like output is based on a lack of knowledge of L2 rather than interference from L1. This is the crucial point and the essential premise of the weak version of the CAH. Wardaugh and others such as Newmark (1966) believe that using structures from the L1 in L2 is not interference if the knowledge of that feature has not yet been acquired in L2 and is instead a coping mechanism for learners (i.e., in Newmark's words, 'padding' from the native language).

In addition to the weak and strong versions of the CAH there is a moderate version based on the specialisation of the principle of generalisation, which essentially suggests that elements that are minimally different in L1 and L2 will be the most difficult to acquire in L2, meaning that "the learning of sounds, sequences and meanings will be the most difficult where the most subtle distinctions are required either between the target and native language, or within the target language" (Oller and Ziahosseiny 1970: 186).

Eckman (1977) has raised an interesting point regarding the CAH by arguing that it should be revised to include the degree of difficulty by integrating typological markedness into the model by using markedness as an additional measure to language distance/typological proximity. Eckman's essay illustrates the overlap of distance/typological proximity and markedness, which is an idea that he later revisits (Eckman 2014:

94). The markedness of a feature is related to the difficulty it presents in the learning process:

> The idea behind markedness is that binary oppositions between certain linguistic representations (e.g., voiced and voiceless obstruents, or open and closed syllables) are not simply polar opposites, but that one member of the opposition is assumed to be privileged in that it has wider distribution, both across languages and within a language. (Eckman 2014: 93–94)

The idea of markedness as a factor that influences transfer is mirrored in the idea that the frequency of a feature in the L1 and the L2 has an influence on L2 learner outcomes for said feature (cf. Ellis 2014). When considering the effect of typological proximity on transfer outcomes, it is therefore important to choose a feature that is frequently used in both the L1 and the L2, such as demonstratives for German, English, and Japanese. This thesis is interested in the predictive power of typological proximity. To investigate the influence of typological proximity, I investigate test claims made in the strong version of the CAH. The criticisms offered in the weak version of the CAH do not seem to be falsifiable because it seems to be based on hypotheses regarding cognitive processing, which cannot be adequately measured. The moderate version suggested by Oller and Ziahosseiny (1970), however, is interesting insofar as it predicts reverse effects the more similar a certain feature is to the L1 and that essentially minimal difference leads to more interference effects than more pronounced differences. However, this begs the question of what can be considered 'minimally different'. Aside from the fact that the strong version of the CAH provides testable hypotheses, another reason for revisiting Lado's claims is that recent studies in SLA have

come to the conclusion that the distance between typologies leads to the effects Lado originally described. For example, according to Schepens et al.,

> [t]he larger the linguistic distance between a first language (L1) and a second language (L2), the lower the L2 learnability (Schepens, Van der Slik and Van Hout, 2013a, 2013b; Van der Slik, 2010). We define L2 learnability as the degree to which the L1 facilitates or impedes the learning of a L2, such that L2 learnability characterizes learning difficulties that depend on the L1. (2016: 225)

In general, typological proximity has been identified as a strong factor in observable transfer effects in more recent works (Jarvis and Pavlenko 2010, Ringbom 2007).[13] In this study, I test the same feature for learners of different L2s with the same L1 and for learners of the same L2 with different L1s. All of the learners tested have acquired the feature in question – i.e. spatial demonstratives – in their respective L2s and, as noted before, the feature is frequent in all of the speakers' L1s and L2s.

If there is a significant difference between the types of observable non-target-like effects in different L2s for learners of the same L1, then the existence of interference effects can be called into question. If, however, the types of interference effects remain the same across different L2s, the existence of interference effects based on the L1 is more likely. Conversely, if the types of observable interference effects in the L2 are the same regardless of the L1, then interference is less likely.

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[13] Note that there is a difference between how the term *typological proximity* is used in a diachronic sense and how it is used synchronically, where it is a measure of difference/similarity in structure between L1 and L2/L3/Ln. These differing conceptualisations make defining and measuring typological proximity in second language and bilingualism research challenging (see Putnam et al. 2018).

If we compare the more typologically similar realisation of demonstratives in German and English to the realisation of demonstratives in Japanese, then, according to the strong version of the CAH, we might expect more negative transfer for Japanese L1 speakers acquiring English and, accordingly, more instances of non-target-like occurrences for Japanese L1 speakers' production of demonstratives compared to German L1 speakers learning English. In other words, there should be higher levels of interference for Japanese learners of English than for German learners of English in their language output.

1.2.3 (Structural) Complexity

From the 1950s up to the beginning of the 21st century, the scientific consensus in the linguistic community was that there was no difference in the structural complexity of languages (i.e., there was a "conventional wisdom according to which all languages are equally complex" (Miestamo 2009: 80)). With the publication of McWorther's 2001 essay 'The world's simplest grammars are creole grammars', that consensus shifted to an acceptance of differences of linguistic complexity across languages while simultaneously noting their equality in possibilities of expression.

In the years following McWhorter's publication, typologists have come to differentiate between absolute complexity and agent-based or relative complexity (Dahl 2009; Miestamo 2009). Absolute complexity is based on the properties of the language itself, whereas agent-based or relative complexity is based on its complexity in relation to how it is used. In SLA, complexity is always agent-based to a certain extent (what is complex to the hearer may not be complex to the speaker and vice versa (Kusters 2003)), but since the definition of relative complexity is variable based on the focus of the study, I follow Miestamo's (2009: 82)

suggestion for cross-linguistic studies of grammatical complexity to adopt an absolute definition of complexity and focus on absolute complexity.[14]

Miestamo (2009) has examined the usability of Greenbergian implicational hierarchies from a cross-linguistic perspective on language complexity (based on Greenberg (1966) and first applied to the idea of cross-linguistic complexity by McWhorter (2001)). An implicational hierarchy is a chain of implicational universals. If four properties (A, B, C, and D) exist, an implicational hierarchy might look like this:

(1)   A < B < C < D

According to this implicational hierarchy, a language that has property D will also invariably have properties A, B, and C; a language with property C will also have properties A and B; and so on. For example, a Greenbergian implicational hierarchy for grammatical number would be as follows:

(2)   (SINGULAR) < PLURAL < DUAL < TRIAL

According to McWhorter (2001: 160), complexity differences can be translated into implicational hierarchies. Based on the example above, this means that a language that has a plural but not a dual is less complex than a language that has a dual, at least in terms of grammatical number. For many observable features, we can attest to an overlap between structural distance/difference and complexity. Before I move on to discuss how this applies to the demonstrative systems of the languages

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[14] It should be noted that Miestamo has suggested avoiding the term *complexity* altogether in second language research (Miestamo 2008), noting that the terms *cost* and *difficulty* should be used instead when discussing these concepts. However, Miestamo has gone on to state that "[w]hether complexity defined in absolute terms correlates with cost/difficulty, is an important follow-up question" (Miestamo 2009:82), which is the goal of this thesis (i.e., to investigate the extent to which absolute complexity has an effect on second language output).

I investigate in this dissertation, I would first like to consider an example of another feature that I will not be investigating in this thesis. Nonetheless, I believe it is important to examine this example because it behaves similarly but exhibits a crucial difference that the demonstrative systems in the languages I investigate do not have. It is important to be aware of this distinction of how structural complexity and typological proximity behave in other contexts in order to better grasp the scope of what is investigated in the present study.

Therefore, let us first look at how structural complexity and typological proximity behave in the article systems of English, German, and Russian. Russian has no article system; it has neither definite nor indefinite articles. Accordingly, an observable interference effect in the language production of L1 Russian learners of English as an L2 is the omission of articles in initial stages of language acquisition. English has two types of articles: the indefinite article *a/n* and the definite article *the*. German also has definite and indefinite articles and furthermore inflects articles for gender, case, and number. Based on the amount information encoded in this particular feature in Russian, German, and English, a comparative hierarchy of complexity for the domain of articles is as follows:

(3) Russian (no articles) < English (definite and indefinite articles) < German (definite and indefinite articles inflected for number, case, and gender)

Furthermore, German and English are more similar in their article systems and are in general more typologically similar to one another than to Russian. If we examine Russian L1 and English L1 speakers acquiring German as an L2, and we hypothesise that learning more complex features or features that are non-existent in the L1 is more difficult than

the reverse, then English L1 speakers should be able to achieve a more target-like production of German articles than Russian L1 speakers, meaning that English L1 speakers are likely to produce definite and indefinite articles in German, whereas Russian L1 speakers are likely to omit articles altogether, especially when first acquiring the language. Personal experience and previous research regarding transfer patterns of articles to L2 attest that this is in fact the case, and both language distance and structural complexity predict this outcome.

The more interesting question, however, is what outcome we can expect when the expectations we have concerning language distance do not overlap with expectations on the basis of differences in complexity. For example, when re-examining the example above and focussing on target-like inflections for gender and case in German, there are different possible outcomes based on how nouns are inflected in the three languages. The comparative hierarchy of complexity in this instance would be as shown in example 4.

(4)   English (nouns inflected for singular/plural) < German (nouns inflected for singular/plural, gender (m/f/n), and four different cases) < Russian (nouns inflected for singular/plural, gender (m/f/n), and six different cases)

Again, German and English are more similar as far as their article systems are concerned, but as far as the inflection of articles is concerned, we may expect more occurrences of inflections of articles for Russian L1 speakers if and when they are produced based on the fact that Russian nouns are inflected for gender and even more cases than in German, and articles often co-occur with nouns. This is not to say that the inflections of articles will necessarily be more target-like, because Russian nouns can differ from corresponding German nouns in terms of gender. However,

44

based on structural complexity, the predicted outcome is a greater variety of inflection for L1 Russian learners of German than for L1 English learners of German. Based on these considerations, L1 English learners are more likely to produce a default article in German (i.e., the uninflected neuter and/or masculine articles *das* and *der*).

If language distance has a greater effect than structural complexity, there should be no significant differences between the types of target-like and non-target-like inflections of articles produced by L1 Russian and L1 English learners in L2 German.

While the example above is representative of the core questions I pursue in this thesis, it deals with different levels of complexity in the same area of production. In other words, a Russian L1 speaker learning German has to overcome the potential obstacle of omission before differences between complexity and language distance can be investigated at all (i.e., if articles are omitted in the L2, it is impossible to establish whether this is the result of transfer from L1 or not). This is not the case for demonstrative systems in the languages I investigate, because demonstratives exist in all three languages. For distance relations in demonstratives, the general hierarchy of complexity can be described as follows:

(5) Distance-neutral < two-way distinction (proximal vs. distal to deictic centre) < three-way distinction (proximal to hearer, distal to hearer vs. distal to speaker, and proximal to hearer vs. at distance to both speaker to and hearer) < four-way distinction

For the languages investigated in this study, namely German, English, and Japanese, we can establish the following hierarchy for

distance relations in demonstrative pronouns in spoken language (Diessel 1999):[15]

(6) German (proximal) < English (proximal vs. distal to deictic centre) < Japanese (proximal to hearer, distal to hearer vs. distal to speaker, and proximal to hearer vs. at distance to both speaker to and hearer)

If we assume that it is easier to deduce less complex systems from more complex systems then, based on the complexity of the feature in question, we would expect more target-like responses from Japanese speakers learning English than from German speakers learning English.

Interestingly, if we look at the inflection of demonstrative pronouns, the hierarchy is reversed:

(7) Japanese (no inflection) < English (inflected for singular/plural) < German (inflected for singular/plural, gender (m/f/n), and four different cases)

At first glance, this may seem similar to the article systems previously discussed. However, unlike for Russian learners of German, Japanese L1 speakers do not have to overcome the obstacle of omission before target-like/non-target-like number, gender, and case marking can be observed in English and German, because we can assume that the system itself will be present in the L2 based on the properties of the L1. Therefore, in terms of the inflection of demonstrative pronouns, the expectation for linguistic complexity is more target-like outcomes for German learners of English (= facilitation) compared to Japanese learners of English (= interference).

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[15] As is discussed in later chapters, these distinctions may not be as clear-cut as it may seem at first glance.

Investigating demonstrative systems in these three languages therefore allows for two levels or separate areas of comparison of language distance/typological proximity and structural complexity. Consequently, a study of demonstrative systems allows for the comparison of typological proximity and structural complexity on different levels.

These differences can be viewed as differences in *local* complexity. At the same time, they may represent a difference in *global* complexity, but this does not necessarily have to be the case. *Global* complexity refers to the overall complexity of a language in comparison to other languages, and *local* complexity refers to differences and similarities of complexity in a specific domain (Miestamo 2009: 82). If some languages are globally more complex than others but locally less complex, the question of whether one level of complexity overrides the other arises. In terms of transfer, languages that are particularly similar to one another have been shown to have more overt transfer effects, which may be a direct result of global complexity overriding local complexity.

Problems in distinguishing between more and less complex features arise fairly quickly. In fact, Miestamo (2006, 2009) has identified two general problems: the *Problem of Representivity* and the *Problem of Comparability.* The former refers to the problem of establishing a truly representative measure of global complexity, while the latter

> refers to the fact that the different criteria used to measure
> the complexity of a grammar are incommensurable. It is not
> possible to quantify the complexity of, for example, syntax
> and morphology so that numbers would be comparable in any
> useful sense. (Miestamo 2009: 83)

However, Miestamo (2006, 2008, 2009) has argued that functional domains provide a useful tool for the comparison of the complexity of

specific areas of grammar. Distance contrasts in demonstrative pronouns are one such functional domain.

Within SLA, *Complexity Theory* exists as a concept (Larsen-Freeman 2014). However, this theory is concerned with the interaction of dynamic, adaptive systems of language learning based on the individual interlanguage(s) of learners and developmental – i.e., mostly longitudinal – performance data (Larsen-Freeman 2014: 72–78). This is not the concept of complexity I am concerned with in this study. To emphasise the difference between complexity in a purely linguistic or structural sense and complexity theory as it refers to SLA, I use the term *structural complexity*. I focus on a cross-linguistic comparison of the absolute complexities of the specific features I investigate in this thesis.

As shown in examples (6) and (7), the complexity of specific features can differ cross-linguistically (e.g., functionally) even if they are structurally similar. The question then becomes whether this local complexity is more likely to lead to interference/facilitation effects than the typological proximity of features.

1.2.4 Interplay of Predictions of Typological Proximity and Linguistic Complexity in Learner Outcomes

In general, potential difficulties (negative transfer/interference) based on typological proximity and linguistic complexity are both always present in learner outcomes. They may jointly apply, thus compounding learning difficulties and negative transfer effects, thereby leading to a higher error ratio in language production. It is also possible that neither apply, thus compounding facilitation effects, resulting in more target-like L2 output. Finally, predictions on the basis of typological proximity and structural complexity may be in conflict: for example, the L2 may be structurally different from the L1, thus resulting in potential difficulty, but may be

less complex than the L1, thus resulting in potential facilitation. Conversely, the L2 can be more complex – leading to potentially higher rates of negative transfer – but structurally similar, leading to potential facilitation effects. Table 1 provides an overview of potential outcomes:

Predicted Interplay	
Structural complexity +, Typological proximity +	Interference
Structural complexity −, Typological proximity −	Facilitation
Structural complexity +, Typological proximity −	Either interference or facilitation
Structural complexity −, Typological proximity +	Either interference or facilitation
Structural complexity =, Typological proximity =	Neither interference nor facilitation

Table 1: Predicted Interplay of Structural Complexity and Typological Proximity

If the predictions for transfer are in conflict, it becomes possible to ascertain whether typological proximity/distance or structural complexity has a greater effect on learner outcomes. Therefore, it is necessary to create an experiment that tests learner outcomes for the same condition in order to test whether typological proximity or structural complexity plays the more significant role in learner outcomes. It must be noted that it is also possible that predicted negative effects are absent regardless of typological proximity and structural complexity, or that there is no difference between different L1 learner groups in situations with typological proximity and a higher structural complexity in the L2 and situations with low typological proximity and low structural complexity. This would then result in no differences in learner

outcomes regardless of typological proximity and structural complexity (i.e., null results).

1.2.5 General Hypotheses

Based on what has been discussed so far, we arrive at the following two general hypotheses:

1. Japanese demonstrative pronouns are more complex than German and English demonstrative pronouns in terms of distance-marking, whereas English and German have more typologically similar demonstrative systems than Japanese. Therefore, if structural complexity applies and typological proximity does not apply in transfer outcomes, L1 Japanese learners of both English and German will produce more target-like L2 language output than either L1 English learners of L2 German or L1 German learners of L2 English.

2. German and English demonstrative systems, including demonstrative pronouns, are more typologically similar than either German and Japanese demonstrative systems or English and Japanese demonstrative systems. Therefore, if CAH/typological proximity applies and structural complexity does not apply, then L1 German learners of L2 English will have more target-like L2 English output than L1 Japanese learners of L2 English, and L1 English learners of German will produce more target-like output than the L1 Japanese L2 German cohort.

Detailed hypotheses are presented in section 2.11 based on an in-depth account of demonstrative pronoun systems in Japanese, German and English discussed in Chapter 2.

2 Spatial Demonstratives: Literature Review and Hypotheses based on CAH/Typological Proximity and Structural Complexity

2.1 Introduction to Demonstratives

In his seminal monograph on the typological properties of demonstratives, Diessel (1999: 2) identifies three main criteria for demonstratives, namely that they are a) deictic expressions with specific syntactic functions, b) expressions with pragmatic functions, and c) features that have specific semantic functions (i.e., all languages have at least two demonstratives that can be deictically contrasted). As far as the semantic features of demonstratives are concerned, most researchers agree that demonstratives have a spatial deictic component (Himmelmann 1997; Diessel 1999), although there is some debate as to whether demonstratives are always marked for distance (Himmelmann 1997: 53–62, Diessel 1999: 38). Diessel (1999: 34–49) has divided the semantic features of demonstratives into two categories, namely deictic and qualitative features. Deictic features are defined as those that indicate location of the referent in relation to the deictic centre, and qualitative features refer to the qualities of the referent in question (e.g., animateness). In his analysis of these two categories across 85 languages, Diessel (1999: 50) arrives at the following six results:

1. There are at least two deictically contrasted demonstratives for all languages: one proximal (near the deictic centre/speaker) and one distal (at some distance from the deictic centre/speaker).

2. Adverbial demonstratives are always deictically contrastive, but pronominal, adnominal, and/or identificational demonstratives have distance-neutral properties in some languages.

3. Deictic systems with more than two terms can be either distance-oriented or person-oriented.

4. Distance-oriented systems have a maximum of three deictic terms, while person-oriented systems can have up to four deictic terms.

5. In addition to distance, demonstratives can encode for deictic features such as visible versus out of sight, vertical and horizontal elevation, and/or movement towards/away from the deictic centre.

6. Demonstratives usually provide qualitative information about the referent in addition to deictic information.

Aside from formal features, the data presented here is primarily concerned with the deictic, spatial feature of demonstratives – particularly demonstrative pronouns – in spoken language. Languages around the world express spatial distance relations differently via demonstrative pronouns. According to common classification, most languages have a bilateral system with a proximal and a distal mode (e.g., *this* vs. *that* in English). A significant number of languages, particularly those with person-oriented demonstrative systems, have a tripartite system, which distinguishes between close to the speaker, close to the hearer, and far away from both speaker and hearer. I refer to these distance categories as proximal, distal, and remote. A small number of languages are considered to have distance-neutral demonstrative systems (this, however, applies almost exclusively to demonstrative pronouns).

2 **Spatial** Demonstratives: Literature Review and Hypotheses based on CAH/Typological Proximity and Structural Complexity

There are languages that have four-way systems, and a few that have demonstrative systems with more than four distance dimensions.

In the *World Atlas of Language Structures* (henceforth WALS), which is based on research by Diessel (2005), the distribution is as follows:

Distance Contrasts in Demonstratives (n=234 languages)	
Value	**Representation**
No distance contrast (distance-neutral)	7
Two-way contrast	127
Three-way contrast	88
Four-way contrast	8
Five (or more)-way contrast	4

Table 2: Distance Contrasts in Demonstratives

Based on these findings, the two-way contrast seems to be the most common across languages and has led Diessel to suggest that this proximal/distal contrast is the underlying distinction for systems across languages (Diessel 2005, 2006). Crucially, however, these typologies are not based on experimental data, meaning that this conclusion is not based on data-based studies on language use or demonstrative use, but on intuition (see Enfield 2003). Nonetheless, I chose to use the most common descriptions of demonstratives available as the starting point for this study. Based on these descriptions, I chose to examine L2 German, L2 English, and L2 Japanese. The rationale behind this is the typologically uncommon distance-neutral property of German demonstrative pronouns in spoken language, which differs from the way the literature suggests demonstrative pronouns are used in spoken Japanese (tripartite system) and spoken English (bilateral system). As

noted before, spatial demonstratives such as *this* and *that* in English are among the most frequently used lexical items across languages (cf. Gudde 2017: 2), which ensures a higher level of comparability, because learners are likely to have learned them at an early stage in their language acquisition process and are moreover likely to use them more regularly than other terms.

In addition to investigating the realisation of distance contrasts in demonstratives across these languages, I am also interested in how form is transferred, because German demonstrative pronouns have gender-, case- and number marking, English demonstrative pronouns are marked only for number, and Japanese demonstrative pronouns are unmarked for gender, number, and case.

2.2 Spatial Deixis and Spatial Demonstratives

Deictic terms are words and phrases that cannot be completely understood in the absence of additional information (i.e., outside of context). That is to say that words are considered deictic if their semantic meaning is invariable, but their denotational meaning varies according to time or place (see Fillmore 1997: 61). Deictic expressions are important tools for avoiding what Fillmore has referred to as "unanchored occasion-sentences" (Fillmore 1997: 60).

We know from child language acquisition research that children tend to disambiguate between proximal and distal spatial (and temporal) categories late (Tomassello 2003: 201) as a result of the egocentric speech of children under the age of seven (Piaget 1990).[16]

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[16] Most of the research conducted in this area refers to English speaking children.

Consequently, unanchored occasion sentences are common among
young children and gradually become less frequent over time. Fillmore
(1997:60) distinguishes between five deictic categories:

1. *Person deixis*, i.e. deictic terms referring to the identity of
   interlocutors;

2. *Time deixis*, i.e. the time at which the communication act takes
   place. This includes *encoding time* (the time at which a message
   is sent) and *decoding time* (the time at which a message is
   received);

3. *Discourse deixis*, which refers to the matrix linguistic material in
   which the uttered term is significant (i.e., the preceding as well as
   the following parts of discourse);

4. *Social deixis*, which pertains to the social relationship between
   speakers in conversation and can include the choice of honorific,
   polite, intimate, or insulting levels of speech; and

5. *Place deixis*, which refers to the place or places where the
   interlocutors are located.

Place deixis and space deixis can be viewed as interchangeable terms,
although space deixis sometimes includes place as well as time deixis.
Spatial deixis, or space deixis, has to do with "the linguistic expression
of the speaker's perception in three-dimensional space" (Fillmore 1997:
28), meaning that it can express relative proximity to the speaker as well
as, for example, downwardness or upwardness, the positioning of the
object itself (i.e., whether it is perceived as, e.g., vertically or horizontally
positioned), as well as the positioning of the deictic centre relative to
what is considered to be a 'neutral' position, which would be the case if,

for example, the speaker were standing on top of a downward slope and the object referred to was positioned further down on said slope.

In English, there are four place-deictic terms, namely *this* and *that* and *here* and *there* (Fillmore 1997: 62). Collectively, these can be referred to as spatial demonstratives (see Diessel 1999: 36). It is theoretically possible to consider *now* and *then* as space-deictic expressions, because they refer to the position of the interlocutor in time. Like the other four examples, they are also bilateral, with a proximal (*now*) and a distal (*then*) position. However, these terms are strictly co-referential and cannot be referred to in a gesturised manner.

The choice of spatial demonstratives in spoken speech is based on the positioning of the interlocutors as well as the positioning of the animate or inanimate object that is being referred to, i.e. the referent. Spatial demonstratives are used in an exophoric manner as opposed to in an endophoric manner, which includes anaphoric, discourse, and temporal demonstrative use (Diessel 1999; Halliday and Hassan 1976). Exophoric demonstrative use is considered basic, whereas anaphoric, discourse, and temporal use are derived from spatial usage (Diessel 1999: 6). In exophoric use, a demonstrative is utilised to specify the object that is being referred to within a spatial context (see Enfield 2003). The following figure shows an overview of demonstrative use (according to Levinson 2003, taken from Levinson 2018:10):

2 **Spatial** Demonstratives: Literature Review and Hypotheses based on CAH/Typological Proximity and Structural Complexity
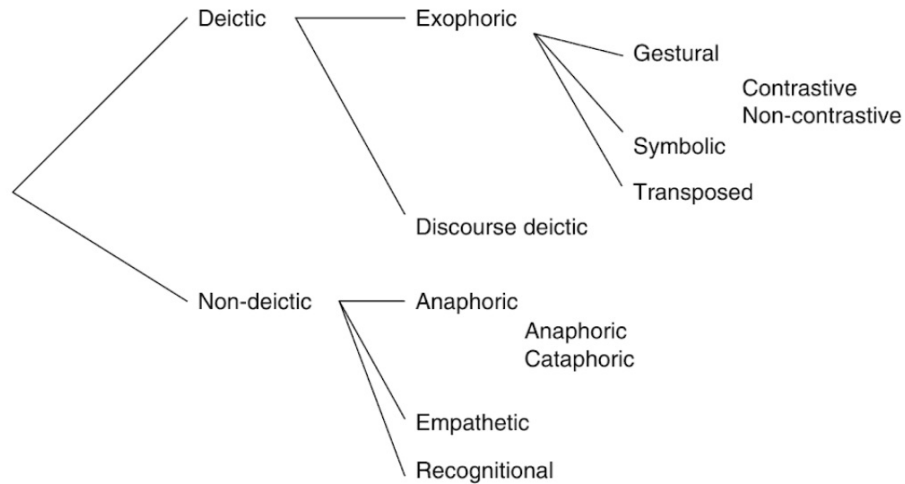
Image 1: Overview of demonstrative use

There is an on-going debate in the linguistic and psycholinguistic community regarding the function of demonstratives. A large body of research assumes a differentiation between near and far, or proximal and distal (e.g., Bowden 2014, Clark and Sengul 1978, Diessel 2006). There is, however, no consensus concerning how the deictic contrast between near (peri-personal) and far (perceptual), assuming an egocentric deictic centre, is used (Peeters et al. 2014). [17] However, this egocentric positioning has been called into question (Peeters et al. 2014, Peeters and Özyürek 2016), and it has been argued that more parameters are important in demonstrative use (Coventry et al. 2014). For the purposes of this study, I work under the assumption that the target for L2 learners is the distinctions that are commonly assumed, namely the distance contrasts introduced in the preceding chapter.

When discussing spatial deixis, it is important to mention the role of gestures. Deictic distal terms often co-occur with gestures (normally

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[17] This research refers to L1 use.

pointing gestures). Cooperrider (2016) has argued that these pointing gestures are co-organised with demonstratives in speakers' minds. Moreover, past research suggests that L1 gesturing influences L2 gesturing and vice versa (see Brown and Gullberg 2008). However, although participants' gestures were recorded and transcribed, gestures were not analysed in greater detail in this study. That being said, the data presented here seems to offer support in favour of Cooperrider's hypothesis but needs to be examined in more detail for more conclusive results.

2.3   Space-Language Mapping and SLA of Spatial Demonstratives

As argued in the preceding chapter, although spatial demonstratives are used in most known languages, the way languages conceptualise and divide space and what characteristics of objects are referred to (e.g., the vertical and horizontal position of the object in question) has been argued to differ across languages (Levinson 2003, Evans and Levinson 2009). If this is the case, differences in conceptualisation can conceivably lead to differences in the use of demonstratives in learners' second languages irrespective of structural properties, which would translate directly into a difference of *actual transfer* vis-à-vis *potential transfer*.

Although this study is concerned with investigating potential differences in learner output rather than differences in conceptualisation, it is of interest to note these possible differences in conceptualisation as a restraint on the predictive power of typological proximity/distance and structural complexity – that is to say, perceived space – may play a non-negligible role in learning outcomes. After examining spatial demonstratives and conceptual space, Coventry, Griffiths, and Hamilton

(2014: 67) have concluded that there is a strong link between spatial demonstratives and perceptual space, and that "spatial demonstrative choice in English is much more similar to demonstrative contrasts in other languages than a simple binary proximal distal contrast in English would suggest."

While not the focal point of this study, these results play a key role in the interpretation of how native speakers' use of demonstrative contrasts may in fact differ from what can be concluded based on previous categorisations of deictic and qualitative features alone.

However, although there is a broad consensus regarding how to establish whether an individual's L1 has had an effect on his/her L2, scholars are still debating how to measure cognitive representations in terms of whether semantic representations (such as space-language mapping), structural representations, or conceptual representations in the source language play the most pronounced role in crosslinguistic influence or CLI (Jarvis 2015: 609). Therefore, although space-language mapping may play a role in learner outcomes, pinpointing its exact effect is not possible within the limitations of the test design presented here. Nevertheless, as I demonstrate later in this dissertation, the concept proves useful in the interpretation of L1 speakers' demonstrative choices, which, as reported by previous studies, the data presented here shows to be based on factors other than distance to the deictic centre.

2.4   Overview of spatial Demonstratives in German, Japanese and English

2.4.1 Spatial Demonstratives in Spoken German

German demonstrative pronouns are marked for both gender and number and inflected according to grammatical case. They are traditionally categorised as bilateral and distance-oriented (Hentschel and Wendt 2003) but are considered distance-neutral in spoken language (Diessel 1999: 38; Himmelmann 1997). For adverbial demonstratives, the distinction between proximal (closer to the speaker and further away from the hearer) and distal (closer to the hearer and further away from the speaker) can be established easily for both spoken and written language (*hier* vs. *dort/da*). The use of the additional adverbial *drüben* enables speakers to contrast *hier* and *da/dort* with a third distance-related category: *da/dort drüben. Da/dort drüben* is a second distal category, meaning that it is further away from the deictic centre than *da/dort.* It is formed by adding a second, directional adverb (*drüben*) to the distal locative adverb (*da/dort*). I refer to this category as *remote.*

The proximal demonstrative pronoun *dies-er/e/es* is often contrasted with distal *jen-er/e/es* in grammar books. However, outside of anaphoric contexts in written language, *jen-er/e/es* is no longer in use (Ahrenholz 2007: 38). In spoken language, German (adnominal) demonstratives can therefore be considered distance-neutral (Himmelmann 1997, Diessel 1999: 2), meaning that *diese/-r/-s* and its surrogate stressed article *der/die/das* can be used to refer to both distal and proximal situations. According to the literature, distance-neutral demonstrative contrasts in spoken language are rare (cf. Diessel 1999). The WALS identifies German and French as two of seven out of 234 languages that have distance-

neutral (adnominal)[18] demonstratives compared to 127 languages with two-way contrasts and 88 with three-way contrasts (Diessel 2013a). However, in these cases adverbial demonstratives with distance-marking properties are used in addition to demonstrative pronouns or determiners to avoid ambiguity, as demonstrated in Examples (8) and (9). The following table provides an overview of demonstratives in German:

Demonstratives in German	
Word Class	**Demonstrative**
Demonstrative Pronoun	*dies-er/-e/-s (proximal), jen-er/-e/-s (distal, obsolete in spoken language)*
Pronominal Determiner (Stressed Definite Article)	*der/die/das (proximal)*
Locative Adverb	*hier (proximal), da/dort (distal), da/dort drüben (remote)*

Table 3: Demonstratives in German

Ahrenholz (2007: 39) has called the proposed distance-neutrality of German demonstratives into question, arguing that there is a clear distinction between adnominal and pronominal use and that *diese/-r/-s* rarely occurs in conjunction with locative adverbs because it is mainly used pronominally and as a means of specification. While I agree that pronominal use is preferred in the case of *diese/-r/-s*, adnominal use as

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[18] Diessel (2013a) has restricted the WALS map to adnominal demonstratives because there are languages that display distance contrasts in adnominal and pronominal positions. Though this is not the case for Japanese, German, or English, Japanese demonstratives do have different forms based on the same lexical stems that, however, apart from their differences in inflection express the same distance contrasts.

a means of specification is not uncommon, as shown in Example 8 and 11.

(8) Hol mir mal *diese* Flasche *da drüben.*

   Get.IMP 1SING.DAT DEM:PN.-prox. bottle.F.ACC ADV.LOC-rem.

   Fetch me that *bottle* over there.

(9) *Die* ist *hier* bei mir.

   DEF.ART-F.NOM PREP 1SING.DAT

   It (This) *is* here *with me.*

Note that in its adnominal position, *diese/-r/-s* arguably functions as a stressed determiner rather than a demonstrative pronoun. In general, the conceptual boundary between definite articles and demonstrative pronouns is fuzzy in German, as illustrated by Examples (10) through (12).

(10) Wem gehört *die?*

   Who.DAT belong.3SING DEF.ART-F.NOM
   Whose is this?

(11) Wem gehört *diese* Flasche?

   Who.DAT belong.3SING DEM.PN.-F.NOM-prox.

   Whose bottle is this?

(12) Reich mir mal *die* Flasche, bitte.

   Give.IMP 1SING.DAT ADV. DEF.ART.F. bottle.F.ACC please

   Give me that *bottle, please.*

2 **Spatial** Demonstratives: Literature Review and Hypotheses based on CAH/Typological Proximity and Structural Complexity

For the purposes of this study, I focus on the use of demonstrative pronouns in spoken language in their deictic function, meaning that I am concerned with how and whether demonstrative pronouns and stressed articles that function as demonstratives are used by learners of German: that is, whether they are used with or without locative adverbs or whether they are left out altogether in situations where native German speakers would use them. Moreover, I am interested in what form they exhibit when spoken by learners of German as an L2.

2.4.2 Spatial Demonstratives in spoken Japanese

Since Japanese is an agglutinating language, Japanese demonstratives, which are marked neither for number nor for gender, are formed differently than they are in German and English. According to Diessel (1999; 2013a), Japanese demonstratives are person-oriented, which means that the distance of an object in relation to the speaker is defined by its relationship to both the addresser and the addressee. Furthermore, Japanese demonstratives are divided into three categories that are formed on the basis of the same three morphemes denoting the semantic category of the lexeme in question: *ko-* (close to the speaker and distant to the hearer), *so-* (distant to the speaker and close to the hearer), and *a-* (distant to both the speaker and the hearer) (Ebi 2004: 5). A second morpheme denotes the grammatical category of the demonstrative in question: *-no* (adnominal demonstrative pronoun/determiner), *-re* (demonstrative pronoun (abstract and inanimate objects)), *-ko* (demonstrative pronoun (place)), *-itsu* (demonstrative pronoun (person)), *-chira* (demonstrative pronoun (direction)), *-nna* (demonstrative adjective), and *-u/-a* (adverbial demonstrative) (Ebi 2004: 5). I refer to the *a-* category as *remote* because it is furthest away

from the deictic centre (i.e., the speaker). However, it bears mentioning
that due to their person-oriented nature, Japanese demonstratives can
only be categorised in relation to both the speaker and the hearer. Table
4 provides an overview of Japanese demonstratives.

Demonstratives in Japanese	
Word Class	**Demonstrative**
Adnominal demonstrative pronoun	*kono (proximal), sono (distal), ano (remote)*
Pronominal demonstrative pronoun (abstract/inanimate objects)	*kore (proximal), sore (distal), are (remote)*
Locative adverb (demonstrative pronoun (place))	*koko (proximal), soko (distal), asoko (remote)*; colloquial: *kochi (proximal), sochi (distal), achi (remote)*
Pronominal demonstrative Pronoun (person)	*koitsu (proximal), soitsu (distal), aitsu (remote)*
Demonstrative pronoun (direction)	*kochira (proximal), sochira (distal), achira (remote)*
Demonstrative adjective	*konna (proximal), sonna (distal), anna (remote)*
Adverbial demonstrative	*kou, sou, aa*

Table 4: Demonstratives in Japanese

According to the WALS, pronominal and adnominal demonstratives
can be separated into three categories: languages that have the same
forms for demonstratives in adnominal and pronominal positions (143),
languages that have different stems (37), and languages that have

different inflectional features (21) (Diessel 2013b). Out of the languages investigated in the WALS, languages with differences in inflection between adnominal and pronominal demonstratives are rare compared to those with the same forms in both positions. Although classified as a language with different inflectional features for demonstratives in the WALS, it is important to distinguish Japanese demonstratives from, for example, Turkish demonstratives, which also have a three-way distance distinction and a person-oriented system. If we use Diessel's distinction of deictic versus qualitative features, then in Japanese the stem encodes a demonstrative's deictic feature, while the inflection encodes its qualitative feature. Unlike in Turkish, for example, inflections in Japanese demonstratives do not encode grammatical information like number or case, but rather word category (Diessel 1999: 59).

While *koko/soko/asoko* are technically demonstrative pronouns of place, they are translated into adverbial demonstratives in German and in English and can also be categorised as adverbial demonstratives (Ebi 2004: 5; Nakamura 2012)[19]. *Koko/soko/asoko* can stand on their own as a response to the question *doko* as shown in Example (13), but they often co-occur with the genitive particle *no* and, in most cases, in conjunction with a noun, as shown in Example (14).

(13) *Doko* desu ka. *Asoko* (desu).

> Where COP.-Q. LOC.PLACE-rem.
> *Where* is it? It's *over there.*

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[19] Nakamura provides a detailed account of the function of the suffix *-ko.*

(14) *Koko* no pen wo tsukatte wa ii desu ka.

LOC.PLACE-prox. GEN.PRT. pen OBJ.PRT. use. PROG. COP.-Q.

Is it okay to use the pen *situated here*?

Furthermore, the differences between the different categories of demonstrative pronouns are linked to an additional semantic dimension denoting persons, directions, places, and so forth. It is possible to view only *kono/sono/ano* and *kore/sore/are* as demonstrative pronouns on the basis of word class.

Unlike German and English, spatial distance to the deictic centre is unambiguously assessable in written Japanese, though the location of the deictic centre itself may be subject to interpretation, because there are multiple models of how Japanese maps demonstratives onto the world (Gudde 2017: 72), some of which view demonstratives as a means of encoding *distance*, while others view demonstratives as a means of encoding the *territory* in which an object is located (i.e., in proximity to the speaker, in proximity to the hearer, or far away from both). There are four models that have been suggested for Japanese demonstratives – particularly for the demonstrative pronouns *kono*, *sono*, and *ano* – that can be summarised as follows (paraphrased according to Gudde (2017: 72–73) with additions):

1. Distance model (e.g. Coventry et al. 2008): The determining factor for demonstrative choice is the referent's distance from the deictic centre, or the speaker. In this model, *ko-* is closest to the speaker, *so-* is further away from the speaker, and *a-* is furthest away from the speaker.

2. Territory model (e.g. Niimura and Hayashi 1994): Here, the determining factor for encoding distance is based on interlocutors' territory (Note SL: this is the model that Diessel favours (Diessel 1999, 2013a, 2013b) and where the idea that the Japanese demonstrative system is person-oriented originates). According to this model, *ko-* is close to the speaker but removed from the hearer's territory, *so-* is close to the hearer but removed from the speaker's territory, and *a-* is outside of both the speaker's and the hearer's territory.

3. Dual system (distance plus territory; e.g. Kamio 1994): This model assumes that both distance and territory play a role in demonstrative (pronoun) use; the choice of distance versus territory as the determining factor is based on the positioning of interlocutors. When interlocutors are opposite each other, the territory model applies. However, if interlocutors share territory, then the distance model applies (Note SL: in essence, this shared territory is similar to Lakoff's solidarity subcategory for emotional deixis, since the psychological proximity between speaker and hearer determines which model is preferred). An adapted version of this model distinguishes between space that surrounds the speaker directly (personal space) and the space around interlocutors (interactional space), and *so-* is used when the referent is in interactional space (and is not dependent on proximity to the hearer).

4. Double binary system (e.g. Hasegawa 2012): According to this model, the three different demonstratives contrast different parameters. In this model, there are two distance contrasts,

ko- and *so-*, when the speaker and the hearer occupy different spaces, as well as *ko-*, when the speaker and hearer occupy joint territory, contrasted with *a-*, which is removed from the speaker and hearer. Note that in this model, the contrasts *ko-* and *so-* and *ko-* and *a-* never co-occur.

As we will see later, these models of L1 space mapping are valuable in the interpretation of how Japanese demonstratives are used in speakers' L1.

Because Japanese has no article system, adnominal pronouns can function like (stressed) determiners. For Korean, which, like Japanese, is an agglutinating language with no articles but a tripartite demonstrative pronoun system, Ionin et al. (2012) have demonstrated that learners of English equate definites with demonstratives (demonstrative pronouns), particularly in the initial learning stages. If L1 Japanese learners also do not distinguish between demonstratives and definites, it is possible that they will be more likely to use demonstrative pronouns in L2 German and L2 English than L1 German learners of English as an L2 and L1 English learners of German as an L2. By the same logic, L1 speakers of Japanese would also be more likely to use demonstratives in L2 English and L2 German than L1 speakers of English and German.

2.4.3 Spatial Demonstratives in spoken English

Spatial demonstratives in English are classified as bilateral, and the demonstrative system is typically classified as distance-oriented (Diessel 2013a). As mentioned before, this binary classification is the most common across languages (Diessel 2005; Diessel 2013a). English demonstrative pronouns are marked for number (*this/that* vs. *these/those*) but not for gender. As is the case for German, English

locative adverbs are categorised as bilateral (*here* vs. *there*). However, like German, English has the ability to express a third distance category that is further away from the deictic centre than either *here* or *there*, namely *over there.* This second distal category, which I refer to as *remote*, is a combination of a locative preposition (*over*) and the distal locative adverb *there.* The following table shows an overview of demonstratives in English:

Demonstratives in English	
Word Class	**Demonstrative**
Demonstrative pronoun	*this/these (proximal), that/those (distal)*
Locative adverb	*here (proximal), there, (distal), over there (remote)*

Table 5: Demonstratives in English

Distance marking for spatial demonstrative pronouns in spoken language is considered bilateral (Diessel 2013a), with proximal demonstratives denoting proximity to the deictic centre (speaker) and distal demonstratives denoting distance to the deictic centre. In Example (15), the book in question is closer to the speaker, while in Example (16) the book is closer to the hearer (or at a distance from both the speaker and the hearer).

(15) I'm working with *this* book at the moment.

(16) Can you get me *that* book?

However, as discussed above, the choice of the demonstrative used may be based on additional factors, and the preference for either

proximal or distal demonstratives may vary depending on context. For example, if we imagine the referent placed at equal distance from the speaker as in Example (16) and change the context of speech, speakers may choose to use a different demonstrative regardless of distance to the deictic centre:

(17) Which one is it? *This* one.

In this case, other factors such as unambiguousness in relation to other objects in the area or interpreted (future) possession of the object in question may play a more pronounced role than relative distance.

Interestingly, there seem to be limitations to the pronominal use of *this*, as illustrated in Examples (18) and (19).

(18) Give *that* to me!/Give me *that*!/Give me *that* bottle!

(19) *Give *this* to me!/Give me *this*!/Give me *this* bottle!

In Example (19), the proximal demonstrative pronoun suggests that the object in question is already close to the deictic centre (i.e., the speaker), rendering the request mute because *give* then suggests a directionality that is unnecessary. Therefore, the use of *this* is questionable in this context if the object that is being referred to is not abstract. A more natural sounding sentence would be *Give* it *to me!* or, to specify the referent, *Give me* the bottle*!* The same phenomenon can be observed in German. Examples (18) and (19) again demonstrate different levels of space-language mapping in that concrete objects are referred to differently than abstract concepts are in spatial deixis.

Interestingly, in the case of English, while *that* is the demonstrative pronoun and therefore denotes a greater spatial distance than *this*, *that* also seems to be the preferred pronoun for emotional closeness. In

Examples (18) and (19), emotional deixis may play a role, and *that* in
Example (18) may establish an emotional closeness with the hearer, thus
directly addressing the hearer to hand over the item in question. Lakoff
has called this use of *that* the solidarity type of emotional deixis, claiming
that "[t]hese are perhaps the most curious semantically, since the
distance marker *that* seems to establish closeness between the speaker
and the addressee" (Lakoff 1974: XVII–7).[20]

With this in mind, let us now turn to potential transfer effects based
on typological proximity and structural complexity, respectively.

2.5   Potential Transfer Effects Based on Typological Proximity

Typological proximity can potentially influence learner output. One of
the oldest theories dealing with typological proximity as it may impact
language learning is Lado's CAH. As previously discussed, the strong
version of the CAH states that interference from the L1 is the strongest
predictor for transfer patterns in L2, and that the level of difficulty when
acquiring linguistic features is based on typological distance. German and
English are more closely related than either German and Japanese or
English and Japanese. The lexical roots for both demonstrative pronouns
and locative adverbs are the same for English and German. According to
the strong version of the CAH, distance relations in German

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[20] It must be noted that *this* also occurs an emotional or affective sense (see also Potts
and Schwarz 2009), as in, for example, 'There's *this* place I've been meaning to take
you'. However, if we look at enophoric spatial deixis, which we can describe as
establishing closeness via a referent, then the demonstrative pronoun denoting
solidarity shifts from *this* to *that*, as for example in '*That*'s a really cool car' or '*That*
left front tire is pretty worn'.

demonstrative systems should be easier to acquire for native speakers of English than Japanese demonstrative systems, resulting in less target-like output in Japanese than German. Likewise, distance relations in English demonstrative pronouns should be easier to acquire for native speakers of German than distance relations in Japanese demonstrative systems, which again should lead to more non-target-like output in Japanese than in English.

According to the CAH, Japanese learners of English and German are predicted to have less target-like output when compared to English and German speakers learning German and English as an L2. This should be the case not only for distance relations but also for number marking in both English and German (and gender marking/case inflection in German). Since German demonstrative pronouns by themselves do not disambiguate between proximal and distal distance relations, disambiguation requires the use of an additional locative adverb. Therefore, L1 speakers of German learning L2 English are likely to employ locative adverbs more frequently than L1 Japanese speakers learning L2 English.

An interesting question arises with regard to the predicted learner output of demonstrative pronouns for German learners of English as an L2. Since this feature is minimally different from English, the moderate version of the CAH suggests that demonstrative pronouns will, in fact, be more difficult to acquire for German learners of L2 English than for Japanese learners of L2 English, which would result in the same prediction for transfer as the one made on the basis of linguistic complexity. Studies on transfer, which suggest that subjective similarity between languages leads to more overt transfer patterns than subjective differences, support this phenomenon (Jarvis and Pavlenko 2010: 176-182). However, the

difference referred to in these instances seems to be difference in linguistic complexity rather than the genealogical difference referred to here when discussing typological proximity. Therefore, I am interested in evaluating Lado's original, strong version of the CAH against predictions made on the basis of linguistic complexity. The decision to do so is based primarily on the fact that there are clear predictions for potential transfer made in the strong version of the CAH that can be tested and contrasted with transfer effects predicted by the local complexity of the feature in question, thus providing insights into the transferability of features. These predictions are made on the basis on typological similarity and difference on a genealogical level. Therefore, I do not investigate the moderate or weak versions of the CAH, although considerations based on these modified versions of Lado's theory are further expanded upon in the discussion section of this thesis.

2.6 Potential Transfer Effects Based on Structural Complexity

Based on what has been discussed so far concerning about structural complexity, the more categories can be attributed to a specific linguistic feature, the more complex that feature can be considered to be. In terms of spatial distance relations, this translates to German, Japanese, and English as follows: German, with its distance-neutral properties of demonstrative pronouns used as deictics, has a less complex system in its application of such demonstrative pronouns than English with its two-way distinction between proximal and distal, which in turn has a less complex system than Japanese, which distinguishes between proximal and distal and adds a third dimension (distal to both the speaker and the hearer). In terms of encoded grammatical dimensions, German marks

demonstrative pronouns for number as well as gender and is therefore the most complex in this regard, whereas English only marks for number and Japanese is marked for neither gender nor number. In terms of number marking, German is therefore the most complex system (because of the additional encoding of gender), and Japanese is the least complex system.

The aim of this thesis is to investigate whether the complexity of a specific feature allows us to make predictions for the learner's language output of specific features. If more complex features lead to more non-target-like output regardless of typological proximity, this indicates that linguistic complexity is a stronger predictor for learning specific features than is typological proximity. The methods employed here are not suited to measuring agent-based complexity, which, though favoured by some in SLA contexts (Kusters 2003), is not easily measurable with any singular instrument and would require a complex battery of additional tests and background questionnaires to pinpoint learners' exact perceived differences in difficulty.

Whereas typological proximity and the CAH predict that Japanese learners of English will have more non-target-like output in both English and German in terms of distance marking than English learners of L2 German and German learners of L2 English, the linguistic complexity of the feature in question predicts a different outcome if we assume that tripartite systems of demonstratives are more linguistically complex than bilateral systems of demonstratives because they allow for an additional spatial dimension, and that bilateral systems are in turn more complex than distance-neutral demonstrative systems.

If linguistic complexity is a stronger predictor for potential transfer effects than typological proximity, there should be more target-like output of distance relations in both L2 German and L2 English for L1 Japanese speakers than for L1 German and L1 English learners of L2 Japanese. In addition, structural complexity predicts more non-target-like instances of transfer for Japanese speakers in terms of number marking in L2 English and L2 German than for German and English learners of L2 Japanese and L2 German. Since gender marking and case inflection (with the exception of the possessive/genitive marker in English) are not present in either Japanese or English, there are no predicted differences in learner outcomes on the grounds of linguistic complexity for these features. However, a desire to disambiguate relative distance may lead to L1 speakers of German using demonstrative locatives either by themselves or in addition to demonstrative pronouns when prompted to use demonstrative pronouns in L2 English.

2.7 Summary of Predictions Based on Typological Proximity and Structural Complexity

In the preceding chapter, I outlined predictions based on structural complexity and those based on typological proximity. The following table provides a summary of the interplay of predictions for the use of demonstrative pronouns in L2 English, German, and Japanese based on typological proximity on the one hand and structural complexity on the other.

2 **Spatial** Demonstratives: Literature Review and Hypotheses based on CAH/Typological Proximity and Structural Complexity

Predictions of Deictic Contrast Relations I			
L1/L2	**Functional Domain**	**Typological Proximity**	**Structural Complexity**
L1 Japanese, L2 English	Demonstrative pronouns (distance relations)	+ (interference)	– (facilitation)
L1 German, L2 English	Demonstrative pronouns (distance relations)	– (facilitation)	+ (interference)
L1 Japanese, L2 German	Demonstrative pronouns (distance relations)	+ (interference)	– (facilitation)
L1 English, L2 German	Demonstrative pronouns (distance relations)	– (facilitation)	– (facilitation)
L1 English, L2 Japanese	Demonstrative pronouns (distance relations)	+ (interference)	+ (interference)
L1 German, L2 Japanese	Demonstrative pronouns (distance relations)	+ (interference)	+ (interference)

Table 6: Predictions of Deictic Contrast Relations I

While Table 6 provides an overview of the interplay of predictions based on typological proximity as opposed to structural complexity, it does not take into account the different hierarchical levels of complexity. In terms of structural complexity, German is arguably further removed from Japanese than English is (distance-neutral < bilateral < tripartite). On a concrete level, this means that while higher rates of non-target-like

responses (or errors) are predicted for both English L1 and German L1 speakers in their L2 Japanese output, we expect higher levels of non-target-like occurrences for German L1 speakers compared to English L1 speakers. Conversely, while based on structural complexity we can expect both Japanese and English L1 speakers to profit from facilitation in their production of demonstrative pronouns in L2 German, the error ratio is predicted to be lower for L1 Japanese speakers. Taking the hierarchy of structural complexity into account, we can update the table as shown below.

2 **Spatial** Demonstratives: Literature Review and Hypotheses based on CAH/Typological Proximity and Structural Complexity

Predictions Deictic Contrast Relations II			
L1/L2	**Functional Domain**	**Typological Proximity**	**Structural Complexity**
L1 Japanese, L2 English	Demonstrative pronouns (distance relations)	+ (interference)	– (facilitation)
L1 German, L2 English	Demonstrative pronouns (distance relations)	– (facilitation)	+ (interference)
L1 Japanese, L2 German	Demonstrative pronouns (distance relations)	+ (interference)	– – (facilitation)
L1 English, L2 German	Demonstrative pronouns (distance relations)	– (facilitation)	– (facilitation)
L1 English, L2 Japanese	Demonstrative pronouns (distance relations)	+ (interference)	+ (interference)
L1 German, L2 Japanese	Demonstrative pronouns (distance relations)	+ (interference)	++ (interference)

Table 7: Predictions Deictic of Contrast Relations II

Tables 6 and 7 illustrate the predicted interplay of predicted outcomes for distance relations in demonstrative pronouns. How, however, do these expectations change when considering locative adverbs? Although Japanese has a person-oriented demonstrative system, German, English, and Japanese all have three options for expressing distance via locative adverbs. Therefore, the degree of

structural complexity is predicted to be equivalent across languages, whereas there are differences in terms of typological proximity.

Predictions of Deictic Contrast Relations III			
L1/L2	**Functional Domain**	**Distance**	**Structural Complexity**
L1 Japanese, L2 English	Locative adverbs (distance relations)	+ (interference)	=
L1 German, L2 English	Locative adverbs (distance relations)	− (facilitation)	=
L1 Japanese, L2 German	Locative adverbs (distance relations)	+ (interference)	=
L1 English, L2 German	Locative adverbs (distance relations)	− (facilitation)	=
L1 English, L2 Japanese	Locative adverbs (distance relations)	+ (interference)	=
L1 German, L2 Japanese	Locative adverbs (distance relations)	+ (interference)	=

Table 8: Predictions of Deictic Contrast Relations III

Since in German and English distance marking is divided into different lexemes for the remote position, which is not the case in Japanese, there is a chance that the remote position for locative adverbs in their demonstrative function is, in fact, more challenging for Japanese learners of German or English than for English or German learners of German or English. However, this distinction must be tested further in a different test environment.

Finally, in terms of number, gender, and case marking, the interplay
of predicted outcomes is as follows for demonstrative pronouns:[21]

Predictions Concerning Gender-, Case-, and Number- Marking			
L1/L2	**Functional Domain**	**Distance**	**Structural Complexity**
L1 Japanese, L2 English	Demonstrative pronouns (distance relations)	+ (interference)	++ (interference)
L1 German, L2 English	Demonstrative pronouns (distance relations)	− (facilitation)	+ (interference)
L1 Japanese, L2 German	Demonstrative pronouns (distance relations)	+ (interference)	++ (interference)
L1 English, L2 German	Demonstrative pronouns (distance relations)	− (facilitation)	+ (interference)
L1 English, L2 Japanese	Demonstrative pronouns (distance relations)	+ (interference)	− (facilitation)
L1 German, L2 Japanese	Demonstrative pronouns (distance relations)	+ (interference)	− − (facilitation)

Table 9: Predictions Concerning Gender-, Case-, and Number-Marking

[21] Locative Adverbs are unmarked for gender, case and number in all three
investigated languages.

The interplay of expectations in terms of structural complexity for number-, case-, and gender-marking is based on the hierarchy established for these features in Section 1.2.3. To reiterate, the expectations for structural complexity for number-, gender-, and case-marking are the exact opposite of those made on the basis of deictic distance contrasts.

2.8   Summary of Hypotheses

Based on the predictions made on the basis of typological proximity on the one hand and structural complexity on the other hand, I investigate the following six core hypotheses in this thesis:

(H1) *L2 English Distance Marking*: According to typological proximity, German learners of English should acquire distance marking in English demonstrative pronouns more easily than Japanese learners of English because of the higher typological proximity of German and English (i.e., there should be less instances of negative transfer). According to structural complexity, L1 Japanese learners of English, whose demonstrative pronoun system is more complex, should have less trouble applying the English demonstrative pronoun system than German learners of English, whose L1 demonstrative system is the least complex out of the three systems. Therefore, complexity theory predicts fewer instances of negative transfer for L1 Japanese learners of English than for L1 German learners of English.

(H2) *L2 German Distance Marking*: Similarly, according to typological proximity, there should be less negative transfer for English learners of German than for Japanese learners of German in terms of distance marking in demonstratives. The German system for demonstrative

pronouns is less complex than it is in English, and the English demonstrative pronoun system is in turn less complex than the Japanese system. In terms of the structural complexity of the feature in question, both English and Japanese learners of German are predicted to profit from facilitation effects. These facilitation effects are predicted to be more pronounced for L1 Japanese learners of German.

(H3) *L2 Japanese Distance Marking*: Following this line of argument, the Japanese demonstrative pronoun system is more linguistically similar to a system with two spatial categories than to a system with only one such category. Therefore, based both on the predictions made in the contrastive hypothesis and the complexity of the phenomenon in question, there should be less instances of negative transfer for L1 English learners of L2 Japanese than for L1 German learners of L2 Japanese.

(H4) *Number Marking*: As far as number marking is concerned, Japanese L1 learners of L2 English and L2 German should be at a disadvantage when compared to L1 German learners of L2 English and L2 Japanese (i.e., there should be more instances of negative transfer based on both the CAH and the complexity of the phenomenon in question for number marking).

(H5) *Gender- and Case-Marking*: There are no predicted discernible differences between L1 Japanese and L1 English learners of L2 German in terms of gender marking or case marking (i.e., there should be no significant difference in non-target-like output).

(H6) *Locative Adverbs*: For locative adverbs, both in terms of the complexity of the phenomenon in question and the Contrastive Hypothesis, the only observable instances of negative transfer should occur for L1 English and L1 German learners of L2 Japanese, because the tripartite system for locative adverbs in Japanese is more complex than the bilateral systems present in both German and English.

Furthermore, this thesis investigates the current classification of demonstratives in English, German and Japanese (with an emphasis on the question of whether a mid-way or medial distance exists in Japanese).

3 Methods

Spatial demonstrative choice is based on the position of interlocutors relative to signified objects or persons. While data from existing corpora can provide insights into the frequency of use of proximal and distal demonstratives, experimental data is needed to test for participants' choice of proximal versus distal demonstratives relative to distance in situations that require spatial demonstratives.

3.1 Measuring Distance and Complexity for Demonstratives

Before discussing the test and evaluation design in greater detail, it is necessary to define how typological proximity/distance and structural complexity can be defined and measured. As previously mentioned, complexity and typological proximity often overlap. When there is a difference between complexity and distance, they are often separated according to linguistic levels (e.g., a feature in Language B is more complex on a morphological level than in Language A, but simultaneously less distant on a lexical level). If we are to compare distance/typological proximity to linguistic complexity, the former is a measure of genealogy and genealogical similarity, and the latter is a measure of the amount of information that can be expressed. Accordingly, differences and similarities based on typological proximity are most easily measured on the lexical level – that is, in differences in lexical roots and different types of word formation – which can be compared by looking at the etymologies of the words of the domain in question. Conversely, complexity is based on encoded semantic information and the range of possibilities of expression within a given domain. When both Language A and Language B encode the same

85

information and are genealogically similar, then there is an overlap of (typological) distance and complexity that in the realm of language acquisition, can increase the likelihood of positive or negative learning outcomes. Schepens et al. (2016) have argued that local complexity can be used in conjunction with local typological proximity[22] as a distance measure, which in turn leads to different outcomes for L3 learners:

> [I]ncreasing morphological complexity can be used as a distance measure jointly with L1 lexical distance and [...] they complement each other in explaining variation across L1s in multilinguals. The more morphologically complex and the more lexically distant Dutch is, compared to the L1 of the learner, the lower the L3 proficiency. (Schepens et al. 2016: 239)

In this case, morphological complexity and lexical distance were used as a joint measure of typological distance. The point of interest for this study is whether, if (morphological) complexity and (lexical) distance are investigated as separate measures, one predicts transfer outcomes more accurately than the other. I previously mentioned the difficulty in defining distance, often referred to as typological distance/typological proximity in SLA contexts. Schepens et al. (2016: 227) have noted that qualitative ideas of linguistic distance are useful when a small number of languages are concerned. These qualitative notions are based on language family relations (Lewis, Simons, and Fennig 2013):

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[22] To reiterate, typological proximity is used to refer to distance/structural difference in SLA literature, particularly on a local basis, because distance is sometimes used in a different capacity (i.e., to refer to measures of complexity and difference/similarity based on cross-linguistic differences), as is the case here.

For example, a study of the influence of Basque (as L1 or L2) versus Spanish (as L1 or L2) on English as L3 shows that a Basque background has a less positive effect on learning English than Spanish, irrespective of its status as L1 or L2 (Cenoz, 2001).

The exact quantitative linguistic distance between Basque and English is not straightforward to measure, but it seems obvious that Basque, an isolate language, is more distant from English than Spanish, as English and Spanish are Indo-European languages. (Schepens et al. 2016: 227)

Similarly, it is reasonable to assume that Japanese is more distant from English and German than English and German are from one another, even if this distance cannot be quantified. Although the difference between distance and structural complexity for the domain of demonstratives applies to different linguistic levels, the direction of lexical difference and morphological complexity do not complement each other in all of the investigated language combinations. In these cases, the learner outcomes are of particular interest.

To summarise, structural complexity/typological proximity and linguistic complexity and measures thereof can be defined as follows:

1. Typological proximity is a measure of genealogical similarity and/or distance. It is most easily measured on the lexical level. For small sample sizes, it makes more sense to establish a measure of distance on a qualitative rather than quantitative basis.

2. Structural complexity is a measure of encoded (semantic and grammatical) information within a specific linguistic domain. It is most easily measured on the morphological and syntactic

87

level. Furthermore, it is quantifiable based on the amount of encoded information in that linguistic domain.

3. When two languages encode the same amount of information for a specific linguistic domain and are genealogically similar, then there is an overlap of the effect of distance and structural complexity. This is sometimes referred to as *overall distance.* When there is an overlap, the effect of (typological) distance and the effect of structural complexity can complement each other, which can lead to cumulative effects on language acquisition.

For the purposes of this study, typological proximity/distance and structural complexity were treated as separate measures. The methods used were both qualitative and quantitative in nature.

3.2   Participants

Data was collected from a total of n = 140 participants consisting of six cohorts of learners and one English control group, with n = 20 for each of the six groups. The respective learner groups were categorised as follows: L1 Japanese learners of English as an L2 (n = 20), L1 Japanese learners of German as an L2 (n = 20), L1 English learners of German as an L2 (n = 20), L1 English learners of Japanese as an L2 (n = 20), L1 German learners of English as an L2 (n = 20), and L1 German learners of Japanese as an L2 (n = 20). For L1 Japanese learners of L2 German and L1 German learners of L2 Japanese, German and Japanese can technically be considered the learners' L3, because English is the first second language acquired in both German and Japanese school contexts and was therefore acquired before German and Japanese, respectively, in

all cases.[23] This bears mentioning due to the fact that the idea of third language acquisition (TLA) as a separate phenomenon from SLA has gained traction in language acquisition (and multilingualism) research over the last two decades (see De Angelis 2007: 5 for discussion). This notion is based on the idea that in the case of TLA, more than one language in the learner's repertoire has an influence on the target language (i.e., the L3) and vice versa and that, more crucially, the fact that learners have already undergone the process of learning/acquiring a second language impacts their acquisition of further languages. Even if this is the case, however, it is still plausible to compare the L1 German L2 Japanese cohort to the L1 Japanese L2 German cohort in this instance, because differences based on language interference from English are equally likely in both groups.

Furthermore, data was collected from a control group of n = 20 English L1 speakers who at the time of testing had not learned any other languages and considered themselves to be monolingual.[24] Data was collected in the form of interviews, which consisted of a short background questionnaire, two linguistic tasks, and a short grammatical judgement test. Interviews were conducted in Hamburg, Germany; Tokyo and Kyoto, Japan; and London, Manchester, and Sheffield, England. Pilot

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[23] Informants were interviewed for their L1 and their L2 as well as their L3. For example, L1 German learners were tested for both L2s (or their L2 and their L3), meaning English and Japanese. For some of these cases, which are marked accordingly, participants appear once as L1 German L2 English informants and once as L1 German L2 Japanese informants. This has the added benefit of enabling a comparison between how L1 German and L1 English speakers use demonstratives in both foreign languages.

[24] Collecting data from Japanese and German control groups was not possible because German and Japanese L1 speakers tend to learn at least one foreign language (usually English) from an early age and tend to use that language regularly in their study and work environments.

interviews were conducted in May and June of 2016 in Tokyo, Japan. With the exception of the interrogative pronoun used in the Japanese language questions for Task B, the tasks were adapted without change for this study. The psycholinguistic interviews were recorded and filmed. Two interviewers were present for each of the interviews (henceforth referred to as Interviewers A and B). The majority of the participants were between the ages of 20 and 29, and the average age at the time of testing was 26.02. All of the participants had studied their L2 in university settings and used their L2 outside of formal learning environments, meaning that they had been subjected to language *learning* as well as language *acquisition.*

3.3   Bilateral Interview Design

The data collected for the purposes of this study is bilateral and bidirectional. This means that transfer was investigated for every possible combination for the three languages in question, meaning for L1 Japanese and L1 German learners of L2 English, for L1 English and L1 Japanese learners of L2 German, and for L1 German and L1 English learners of L2 Japanese. Although not the focal point of this study, the data collected here allows for the analysis of influence from L1 onto L2 as well as L2 onto L1, because all of the participants were tested in their L1 and L2 (and L3). There is ample evidence to suggest that influence from the L2 affects L1 (Pavlenko 2000).

Usually, studies on transfer and CLI deal with the effects of L1 on L2 for specific language combinations and do not look at the reverse situation for the same language combination. Exceptions to this can be found in TLA research, at least for the order of L1 and L2 (Llama et al. 2009). One of the major advantages of a bilateral design with multiple

languages is that it prevents the interpretation of language-specific results as transfer effects. For example, if number marking in demonstrative pronouns does not occur in English for L1 Japanese speakers, it is reasonable to assume that this is based on transfer from L1 because there is no number marking in Japanese demonstratives. If, however, number marking occurs in German but does not occur in English, this conclusion is no longer valid.[25]

3.4 Pilot Study

Thirty pilot interviews with five participants for each of the investigated L2 learner groups were conducted in May and June of 2016. Based on the pilot study's outcomes, it was possible to adapt the background interview and two psycholinguistic experiments without any changes. As a result, part of the data collected as part of the pilot study was integrated into the main study.

A third psycholinguistic experiment was part of the initial interview design but led to responses that could not be rated as demonstratives. Therefore, the third task was excluded from further testing. Pilot interviews also included a grammatical judgement test with test items in both English and German that was kept in the interview as a redundancy test and a measure of comprehension. The individual items tested for demonstratives in their anaphoric rather than spatial use but provided useful information in the interpretation of data from Experiments 1 and 2. Based on the use of demonstrative pronouns/demonstratives alone, it is not possible to produce non-target-like sentences for Japanese, because

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[25] This is particularly true if the same L1 participant is tested for separate L2s, as was the case for L1 German and L1 Japanese participants in this sample, who normally had two L2s (or one L2 and one L3). Data was gathered for L2 and L3 in these cases, but only the investigated language was evaluated if there was no participant overlap.

Japanese demonstratives always encode for distance in relation to the deictic centre in their lexical stems. Unlike for German or English, adding an additional adverb denoting a spatial dimension is grammatically unacceptable to a degree that the resulting answers would be unanimous in nature.

Initially, interviews were planned to be conducted with participants of a limited age range (i.e., 20–25) who regularly used their L2 in university settings. However, the pilot interviews demonstrated that it was more important to keep the level of proficiency (or language attainment) as consistent as possible for all of the participants. L1 Japanese participants without previous exposure to L2 speaking environments outside of formal language education had far lower self-reported levels of English proficiency, and the level of English language abilities displayed in the tasks themselves would have resulted in a limited level of comparability with L1 German and L1 English participants. Therefore, the interview design was adjusted to allow for a larger age range of participants and instead focused on the participants' language proficiency in their L2 and the length of language acquisition as the main variables for comparability.

3.5 Interviews

3.5.1 Interview Procedure

Interviews consisted of four parts: Experiment 1, Experiment 2, a background questionnaire, and a grammatical judgment task. Two interviewers were present for all of the interviews. To avoid gender-specific effects, a male and a female interviewer were always present, allowing participants to address interviewers according to personal preference. After a brief round of introductions and a warm-up

conversation in the L1, Experiment 1 was conducted in the L1 followed by a short break during which the participants briefly had a superficial conversation in the L2. After the interviewee had adjusted to the L2, Experiment 1 was repeated for the L2. If there was an L3, as was the case for most of the L1 Japanese and L1 German participants, this procedure was then repeated for the L3.[26] After Experiment 1 was completed there was a short break, after which Experiment 2 was conducted first in the L1, then in the L2, and finally in the L3. As with Experiment 1, there were intermissions between each of the languages that were being tested for. Finally, the interviewees were asked to complete the background questionnaire and the grammatical judgment task in English and/or German. All of the interviews were audio-recorded. A number of participants did not want to be video-recorded. For these cases, a minute protocol was developed that included a description of gestures for each of the three positions.

3.5.2 Background Variables and Language Level Assessment

The background questionnaire gathered sociolinguistic background information such as participants' age at testing and their age of acquisition of their L2, as well as the duration of time spent in an L2-speaking country. Moreover, participants were asked to rate their language proficiency on a Common European Framework of Reference (CEFR) scale (i.e., from A1 to C2) (Council of Europe 2001; Council of Europe 2011). Background questionnaires were conducted as interviews.

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[26] However, there was not always an overlap in participants. There are four participants who appear in both the L2 German and the L2 English cohort in the two L1 Japanese groups, two L1 English participants who appear in both the L2 German and the L2 Japanese cohort, and 8 L1 German participants who are listed twice (once for L2 Japanese and once for L2 English, respectively).

To accurately account for participants' language skills, participants were asked whether they were familiar with the CEFR or the Japanese Language Proficiency Test (JLPT) scoring system, and answers were then transferred to a six-level scale ranging from one (beginner (= A1)) to six (very good (= C2)) (see Appendix 9.2). As previously mentioned, it was important for participants to have comparable levels of language proficiency in their L2, because even though demonstrative systems are frequent across languages and embedded in language use, learners' proficiency levels affect their language production.

Self-reported language proficiency can be exaggerated to either overrepresent or underrepresent learners' language abilities, and while indicative of learners' language skills, it is not an exact measure of language proficiency (MacIntyre et al. 1997). It is common practice to use an additional test – usually a written or comprehension test like a C-Test – to measure overall language proficiency. Therefore, the possibility of an additional test of language proficiency (e.g., a cloze test), was considered prior to testing in order to test for learners' L2 proficiency levels and cross-linguistically compare the overall proficiency levels of different L2 learner groups. However, a C-Test was ultimately rejected based on the considerations explored below.

First, Japanese is an agglutinating language, whereas German and English are moderately and weakly inflecting languages, respectively. This means that the comparability of difficulty levels in a more standardised test such as a C-Test and other gap exercises would be difficult to achieve across languages (i.e., when comparing proficiency levels in German to proficiency levels in English), because redacting words in Japanese would allow for a multitude of viable options, whereas there would be fewer viable options for German and English.

Furthermore, the difficulty level in Japanese would have been higher for each redacted word based on the additional information encoded in every morpheme. Evaluating general language proficiency on the basis of picture sequences would be an alternative but would have led to varying answers, which, again, would have resulted in a questionable level of comparability.

At first glance, rather than creating a proficiency test for different languages to compare learners' attainment levels cross-linguistically, a solution to this problem could be to simply compare different L1 learners' abilities in the same L2 (e.g., L1 Japanese and L1 German learners' L2 English proficiency) and to leave out cross-linguistic L2 proficiency levels altogether. However, there are additional challenges to consider when measuring the attainment level in an L2 for different L1 speakers, because the mode of testing might be more familiar on the basis of educational background, for example, and language teaching in Japan is markedly different from language teaching in Germany. Moreover, items in an L2 can be more or less difficult based on speakers' L1s, leading to different outcomes in standardised proficiency tests, which is precisely the question I am interested in discussing in this study, which means that the C-Test would have run the risk of priming participants for different aspects of language production prior to testing. Furthermore, the focus of this study is on spoken rather than written language. A written proficiency test or a proficiency test based on reading and recognition abilities would only implicate learners' written and comprehension skills in L2, which can be very different from their oral language skills. Oral proficiency tests are difficult to construct because they are influenced by a range of variables that are difficult to control for (Shohamy 1983), and existing tests that measure oral language

proficiency would have been too long to integrate into the current test design, because participants' motivation would have been likely to drop and influence language outcomes in the experiments had the test battery been expanded. Finally, a lot of additional time would have gone into the construction and evaluation of these additional proficiency tests with the outcomes ultimately at a similar level of reliability to self-reported language proficiency levels on the basis of CEFR criteria.

Nonetheless, a second measure of language proficiency was established based on aspects of fluency, comprehensibility, and accuracy of spoken language in the tasks themselves and the level of proficiency evident in other available language data (e.g., oral background information provided in between tasks). For this measure of proficiency, two separate interviewers were asked to rate participants' language skills based on CEFR criteria (Can-Do-Statements; Little 2006).

In SLA, background variables can have a significant impact on the results of experiments. Differences such as intrinsic and extrinsic motivation, surroundings during the interview, cultural context, duration of language acquisition, and teaching environment all play significant roles in learner output (Gass and Mackey 2014) and can therefore impact language test validity (Fulcher and Davidson 2013). These variables are difficult to control for. One possibility would be to interview the same participants again at a later stage to ensure the robustness of answers, but this would only be possible in a large-scale, longitudinal panel study. The more ubiquitous and frequent a linguistic feature in the target language is, however, the more embedded it becomes in the learner's repertoire and the less likely it is to be immediately impacted by language-external variables. Since demonstratives are among the most

frequently used words across languages, they are likely to be known and used regularly both in the L1 and the L2.

3.5.3 Experiment 1: Hand Me the Pen

Experiment 1, which is the main focus for the analysis of data, was conducted as a production-oriented psycholinguistic experiment. The setup for Experiment 1 was as follows: participants were asked to sit down next to Interviewer A. A pen was placed next to them (in a proximal position to both the participant and Interviewer A), and they were handed a notepad. An additional pen of the same design was placed next to Interviewer B (in a distal position to the participant, and a proximal position to Interviewer B). Finally, a pen was placed further away from both the interviewers and the participant (in a distal position to both the participant and the interviewers, i.e. into a remote position). These three positions in relation to speaker and addressee will henceforth be referred to as situation 1 (proximal), situation 2 (distal) and situation 3 (remote).

An overview of the three interview situations from the point of view of the participant is illustrated in Image 2:
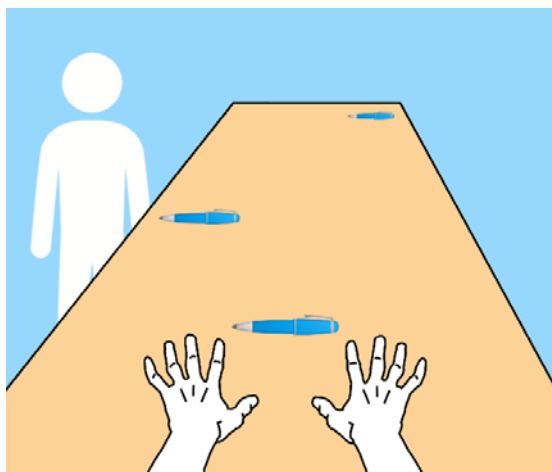
Image 2: Experiment 1

Once the pens and recording devices were in place, Interviewer A explained the task to the participant. Participants were required to draw a simple house consisting of three parts: a roof, a window, and the house's body, the purpose of which was to focus participants' attention on completing the task of drawing the house rather than focusing on their use of language. The participants were told that they had to use all three pens in the vicinity to draw the house. However, they were not allowed to retrieve the pens themselves, but had to ask one of the interviewers to get them. In addition to this, participants were told that they could not use prepositions or numerals of any kind. They were also told that the pens were identical in design to avoid any references to perceived differences between the pens that did not relate to distance. The interview design therefore resulted in semi-structured speech patterns. In order to avoid a complete artificiality of the speech situation, gestures were allowed. The exact wording of the task was as follows:

> The first task is to draw one house for each language that you speak, consisting of three different parts, a roof, the body of the house and a window (*the interviewer at this stage draws an example of the house*). As you can see, there are three pens distributed throughout the room. You will need to use all of the pens to draw one house, and you can only use one pen per part of the house you are drawing. There are a couple of rules in place: You cannot pick up the pens yourself, so you have to ask me or the second interviewer to get them for you. Please ask for them in the simplest way possible. You cannot refer to the pens colour or any of its physical features – it's the exact same pen anyway, so that doesn't make a difference. You are not allowed to use numerals such as the first, the second, the third pen. And finally, you aren't

allowed to use prepositions of any kind. Prepositions are words like 'on', 'to', and 'by', and expressions like 'on top of', 'next to', 'in relation to', 'underneath', 'by the window', 'by the door'. We will do the task once for your native language, and then again for your second (and third) language.

If, after multiple attempts, the participant did not fully understand what was predicted, the interviewer was allowed to add the following cue:

If I were to start drawing the house, I'd start with the roof.
So, I'd ask [interviewer 2], 'could you please hand me –'.

To avoid priming effects, the interviewer was only supposed to use the sentence fragment specified above (i.e., 'could you please hand me') instead of completing the sentence. In between tasks, participants were given 10-minute breaks and asked a series of superficially related questions in their second language (e.g., when they started learning their second language and whether they regularly use that language) to minimise priming effects from their native language. The predicted outcomes for the respective languages were as follows:

Situation 1 (proximal to speaker, proximal to hearer)	
Japanese	*kore/kono, koko + no*
English	*this*
German	*dies -e/-r/-s (+ loc. adv.) (der/die/das + loc. adv.)*

Table 10: Predicted Outcomes for Situation 1 (Japanese, English, German)

Situation 2 (distal to speaker, proximal to hearer)	
Japanese	*sore/sono, soko + no*
English	*that*
German	*dies -e/-r/-s (+ loc. adv.); der/die/das (+ loc. adv.)*

Table 11: Predicted Outcomes for Situation 2 (Japanese, English, German)

Situation 3 (distal to speaker, distal to hearer)	
Japanese	*are/ano, asoko + no*
English	*that*
German	*dies -e/-r/-s (+ loc. adv.); der/die/das (+ loc. adv.)*

Table 12: Predicted Outcomes for Situation 3 (Japanese, English, German)

The locative adverbs *koko/soko/asoko* in conjunction with the particle *no* were added to predicted outcomes but were counted as instances of locative adverbs. All participants were tested in both their native language and their second language. Task A aimed to elicit at least three demonstratives in L1 and three demonstratives in L2. Given the nature of the task and based on Diessel's classification of demonstratives outlined in Section 2.2, participants were predicted to employ locative adverbs much more frequently in German than in English for the purpose of clarifying distance relations.

3.5.4 Experiment 2: Which One is it?

In Experiment 2, three post-it notes with different symbols (a heart, a circle, and a star symbol) were distributed at the same three distance points where the pens had previously been. Participants were then asked questions in Japanese, English, and German, respectively, aimed at

eliciting demonstrative pronouns (or, in the case of Japanese, the locative adverb *koko/soko/asoko*). To this end, questions were used to focus participants' attention on the different post-it notes, employing the interrogative pronouns *which* for English, *welch -e/-r/-s* for German, and *doko* for Japanese. Originally, the interrogative pronoun used was *donna* (meaning *which*), but Japanese native speakers uniformly responded with locative adverbs, and *dare* was rejected and judged as grammatically unacceptable in the pilot interviews. Due to the facts that the focus of this investigation is on distance marking and that distance marking is realised in the same way for Japanese locative adverbs and Japanese demonstratives, the eliciting question was changed to *doko* (= *where*). Participants were again asked to refrain from using prepositions or numerals.

Although both Experiment 1 and Experiment 2 are elicitation tasks, Experiment 2 was based on comprehension because participants were required to respond directly to the interviewer's questions. The exact wording for the task was as follows:

> We will now move on to the second task. As you can see, there are three post-it notes distributed throughout the room where the pens previously were. One of them has a heart on it, one of them as a circle on it, and one of them has a star on it. I will now be asking a series of questions first in (L1), then in (L2) (and then in (L3)). The same rules as before still apply, so no numerals and no prepositions are allowed.

> Japanese: Haato no kami wa doko desu ka? (Participant answers.) Hoshi no kami wa doko desu ka? (Participant

answers.) Maru no kami wa doko desu ka? (Participant answers.)

German: Welches ist das Papier mit dem Herzen (darauf)? (Participant answers.) Welches ist das Papier mit dem Stern (darauf)? (Participant answers.) Welches ist das Papier mit dem Kreis (darauf)? (Participant answers.)

English: Which post-it note has a heart on it? (Participant answers.) Which post-it note has a star on it? (Participant answers.) Which post-it note has a circle on it? (Participant answers.)

The following image illustrates the interview situation for Experiment 2 from the participant's point of view:
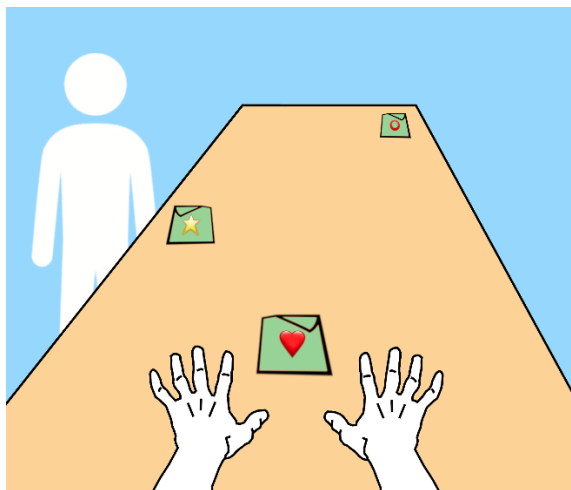
Image 3: Experiment 2

For Experiment 2, the predicted outcomes for the respective languages were as follows:

Situation 1 (proximal to speaker, proximal to hearer)	
Japanese	*koko*
English	*here; this*
German	*Hier; dies -e/-r/-s (+ loc. adv.); (der/die/das + loc. adv.)*

Table 13: Predicted Outcomes for Situation 1

Situation 2 (distal to speaker, proximal to hearer)	
Japanese	*soko*
English	*There; that*
German	*dort; da; dies -e/-r/-s (+ loc. adv.); (der/die/das + loc. adv.)*

Table 14: Predicted Outcomes for Situation 2

Situation 3 (distal to speaker, distal to hearer)	
Japanese	*asoko*
English	*Over there; that*
German	*dort drüben; dies -e/-r/-s (+ loc. adv.)(der/die/das + loc. adv.)*

Table 15: Predicted Outcomes for Situation 3

All participants completed the task in their native language as well as their second language. Experiment 2 aimed to elicit at least one demonstrative for each of the three distance relations, amounting to three demonstratives for L1 and three demonstratives for L2.

3.5.5 Grammatical Judgment Task

In addition to Experiments 1 and 2, participants were asked to complete a grammatical judgment task. The sentences in the grammatical judgment task were only presented in English and German due to fact that the demonstrative informs the context of the sentence in Japanese rather than the context of the sentence informing which demonstrative to use in terms of deixis. Furthermore, sentences such as **Kono asoko*

no pen (*This over there pen) are deemed so unacceptable for both native speakers of Japanese and learners of the language that outcomes would be largely unanimous, but this is not the case for German and English. The grammatical judgment task was kept primarily as a redundancy task because the elements tested for in sentences are not limited to spatial deixis and the outcomes are therefore not comparable to results from Experiments 1 and 2. However, the additional information gained proved valuable in terms of interpreting participants' concepts of deictic distance contrasts in English and German.

Grammatical Judgement Task	
English	German
(1) These dolphins over there are pretty. [inacceptable]	(1) Diese Meerschweinchen dort drüben hüpfen wie verrückt herum. [acceptable]
(2) Those strange times we are living in. [inacceptable]	(2) Person A: Welche Flasche meinst du denn genau? Person B: Jene dort. [inacceptable]
(3) Stranger things have happened to me than this. [acceptable]	(3) Diese Ring funkelt. [inacceptable]
(4) Stranger things have happened to me than that. [acceptable]	(4) Diese Wohnung ist schön. [acceptable]
(5) Person A: Which bottle do you mean? Person B: That one. [acceptable]	(5) Seltsamere Dinge sind geschehen als diese. [acceptable]
(6) These necklace is pretty. [inacceptable]	(6) Mächtigere Zaubersprüche gibt es als diese hier. [acceptable]
(7) I like this car. [acceptable]	(7) Jene seltsamen Zeiten in denen wir leben. [inacceptable]

Table 16: Grammatical Judgment Task

3.6   Evaluation Categories

3.6.1   Evaluation Categories for Experiments 1 and 2

The following section details the evaluation categories used for the purposes of this study. For each of the situations for every speaker's L1 and L2 there was a predicted outcome for Experiment 1 and Experiment 2, which have already been detailed in the preceding chapters (Section

2.7). Table 17 provides a summary of all the predicted outcomes for each of the test situations in Experiments 1 and 2, respectively.

	Japanese	**German**	**English**
Experiment 1: Situation 1	PROX DEM PN	PROX DEM PN/stressed DEF ART (+PROX LOC ADV)	PROX DEM PN
Experiment 1: Situation 2	DIST DEM PN	PROX DEM PN/stressed DEF ART (+ DIST LOC ADV)	DIST DEM PN (or/ + DIST LOC ADV)
Experiment 1: Situation 3	REM DEM PN	PROX DEM PN/ stressed DEF ART (+REM LOC ADV)	DIST DEM PN (or/+ REM LOC ADV)
Experiment 2: Situation 1	PROX LOC ADV (or PROX DEM)	PROX DEM. PN/stressed DEF ART (+ DIST LOC ADV)	PROX DEM PN (or/ +PROX LOC ADV)
Experiment 2: Situation 2	DIST LOC ADV	PROX DEM PN/stressed DEF ART (+DIST LOC ADV)	DIST DEM PN (or/+DIST LOC ADV)
Experiment 2: Situation 3	REM LOC ADV	PROX DEM PN/stressed DEF ART(+ REM LOC ADV)	DIST DEM PN (or/ +REM LOC ADV)

Table 17: Summary of Predicted Outcomes (English, German, Japanese)

In total, there were 840 instances of possible demonstrative use in the two experiments: six for each participant in both their native and their second language, with each of the positions (i.e., proximal, distal, and remote) accounted for twice. For each of the situations (i.e., Situation 1, Situation 2, and Situation 3), the recorded outcomes were measured against predicted outcomes for the baselines of the languages in question first (i.e., for L1 English, L1 German, and L1 Japanese). Subsequently, recorded outcomes were measured against a) the predicted outcomes based on the literature and b) the predicted outcomes based on the respective L1 baselines. Predicted and unpredicted or divergent outcomes were added up and the types of outcomes were further categorised. In addition to the primary evaluation categories, English data was assigned the additional evaluation categories 'Non-target-like number marking', 'Other', and 'Choice Adjustment'. In total, there were 12 evaluation categories, as listed in Table 18).

English Evaluation Categories	
Category	**Example**
Proximal	*Could I please have that pen?*
Distal	*Could I please have that pen?*
Locative proximal	*Here it is!*
Locative distal	*The one there.*
Locative remote	*Could you go over there please?*
Determiner	*Could I please have the pen?*
Additional locative proximal	*Could I please have the pen here?*
Additional locative distal	*Could you please get me that pen there?*
Additional locative remote	*The one over there.*
Other	*At 20 degrees to your right.*
Choice adjustment proximal to distal	*It's this ... that one.*
Choice adjustment distal to proximal	*Could you get me that ... this one.*
NTL number marking	*Could I have these pen?*

Table 18: English Evaluation Categories

The following evaluation categories were established for German:

German Evaluation Categories	
Category	**Example**
Proximal	*Kann ich bitte diesen Stift haben?*
Distal	*Kann ich bitte jenen Stift haben?*
Locative proximal	*Kannst du es mir hierher bringen?*
Locative distal	*Welches ist das Papier mit dem Herzen? - Dort.*

Determiner/definite article	*Kann ich bitte den Stift haben?*
Additional locative proximal	*Kann ich bitte diesen/den Stift hier haben?*
Additional locative distal	*Kann ich bitte diesen/jenen Stift dort/da haben?*
Additional locative remote	*Es ist der Zettel dort drüben.*
Other	*Am Tisch.*
Choice adjustment proximal to distal	*Kann ich diesen … den da haben?*
Choice adjustment proximal	*Kann ich den dort … den hier haben?*
NTL number marking	*Kann ich diese Stift haben?*
NTL gender marking	*Kann ich dieses Stift haben?*
NTL case marking	*Kann ich diesem Stift bekommen?*

Table 19: German Evaluation Categories

In addition to the primary categories, L2 German data was assigned the additional evaluation categories 'non-target-like number marking', 'non-target-like gender marking', 'non-target-like case marking', and 'other'. Although the distal demonstrative pronoun *jene/-r/-s* is technically grammatically correct, its occurrence was counted as an unpredicted outcome vis-à-vis the predicted outcomes outlined in the preceding section, because *jene/-r/-s* is no longer taught in German foreign language classrooms.

Table 20 lists the evaluation categories used for Japanese.

Japanese Evaluation Categories	
Category	**Example**
Proximal	*Kore desu./Kono pen desu.*
Distal	*Sore desu./Sono kami desu.*
Remote	*Are desu./Ano pen wo kudasai.*

Additional particle	*Koko no pen wo tsukatte ii desu ka?/Soko ni arimasu.*
Proximal locative	*Koko desu.*
Distal locative	*Soko ni arimasu.*
Remote locative	*Asoko ni aru no pen wo tsukatte ii desu ka?*
Other	*Pen wo kudasai.*
NTL particle use	*Koko ni pen wo tsukatte ii desu ka?*

Table 20: Japanese Evaluation Categories

In addition to these categories, L2 Japanese data was assigned the additional evaluation categories 'non-target-like particle use' and 'Other'. Note that colloquial locative adverbials *kochi*, *sochi* and *achi* were evaluated as *koko*, *soko* and *asoko*, respectively.[27]

3.6.2 Grammatical Judgment Task Evaluation Categories

There were four evaluation categories for the grammatical judgment task, which are summarised in Table 21:

Grammatical Judgment Task Evaluation Categories	
1	Rated as acceptable, categorised as acceptable
2	Rated as inacceptable, categorised as acceptable
3	Rated as inacceptable, categorised as inacceptable
4	Rated as acceptable, categorised as inacceptable

Table 21: Grammatical Judgment Task Evaluation Categories

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[27] In the data, a small number of few informants opted to use *kochira*, *sochira* and *achira*. Although these demonstratives are marked for directionality, they were evaluated as *koko*, *soko* and *asoko*.

3.6.3 Documentation of Gestures

Previous research has demonstrated that gestures play an important role in speech production (Gullberg 2008; Cooperrider 2016), particularly for features like demonstratives that encode directionality or space/spatial deixis. In the experiments presented here, participants were permitted to use gestures. Exact descriptions of the gestures used were recorded in the data transcripts. However, gestures were not evaluated as part of this study due to time constraints, although they likely played at least a superficial role in participants' demonstrative choices. All participants interviewed for this study used gestures in addition to demonstratives.

3.7   Transcripts and Documentation

In order to guarantee anonymity, all participants were assigned an ID. The following table provides an overview of the IDs assigned to each of the learner groups and the L1 English control group:

Data IDs	
Language Group	**ID**
L1 Japanese L2 English	A001-A020
L1 Japanese L2 German	A021-A040
L1 English L2 German	B001-B020
L1 English L2 Japanese	B021-B040
L1 English Control Group	B101-B120
L1 German L2 English	C001-C020
L1 German L2 Japanese	C021-C040

Table 22: Data IDs

Once the ID was assigned, both experiments were transcribed.[28] The transcripts for all of the interviews are attached to this dissertation (Appendix 9.7) and include a description of the gestures participants used while completing the tasks. These transcripts make up the basic corpus of this study. After the data had been transcribed, background information from the interviews and results were transferred into an SPSS (Version 25.0) file. Each of the evaluation categories was set up as a separate variable in SPSS, with the possible outcomes encoded as possible answers.

A table with an overview of variable values used in SPSS can be found in the appendix (9.6) of this thesis.

3.8   Statistical Methods for Data Analysis

The aim of this study is to analyse the collected data with the purpose of evaluating the hypotheses based on the predicted interplay of structural complexity and typological proximity/distance established in Sections 1.2.4 and 2.7. Speakers were analysed in groups according to their L1 and their L2, meaning that the independent variables were the seven speaker groups (L1 Japanese L2 English, L1 Japanese L2 German, L1 English L2 German, L1 English L2 Japanese, L1 German L2 English, L1 German L2 Japanese, and L1 English control group). The best statistical analysis available to measure the significance of observable differences would be a variant of multiple t-tests, such as a chi-square test or Fisher's exact test. However, although p-values are commonly used as a measure of statistical significance in linguistics, measuring statistical significance via t-tests and variants thereof, especially when relying on significance based on 0.05 and 0.01 threshold p-values, has

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[28] Japanese interviews were transcribed in *Romaji* (i.e., using Latin script).

faced substantial criticism in recent years in the natural and social sciences since published findings are continuously failing to replicate (McShane et al. 2018; Benjamin et al. 2018). The margin of error is high, and p-values are often unreliable. While Benjamin et al. (2018) have suggested changing the default p-value threshold to 0.005, McShane et al. (2018) have proposed abandoning the threshold altogether and reporting the p-value as one of many results of statistical analysis. If there is too little data available for a linear regression model or a multilinear model, it is arguably best practice to report all results and observable differences, not just the ones that are assigned an arbitrary statistical significance (furthermore, the uncertainty of estimates needs to be taken into account).

Based on the results and employing Benjamin's (2018) suggested method of a higher p-value threshold, a Bayesian analysis could potentially lead to other categories (i.e., clusters) that have a more significant impact on outcomes than speakers' L1s, such as duration of language acquisition, age, or gender. Unfortunately, the sample sizes in this study are too small to employ the Bayesian method and Benjamin's p-value threshold. Therefore, I opted to use the Fisher's exact test while being fully aware of the p-value's limitations and reported all additional findings of statistical testing (i.e., standard deviation and non-significant differences).

3.9   Limitations of the Interview Design

One of the most crucial limitations of the interview design is its susceptibility to subtle change based on the respective interview environment. Interviews took place in different places, and the layout of space therefore differed. Objects were placed at equal distances from the

participant, but the space itself varied in terms of other objects that were present aside from the focal objects as well as the height (or vertical position) at which objects were placed (i.e., on tables, chairs, etc.). This impacted the robustness and reliability of results. Ideally, interviews would have taken place in the same space with controllable variables, but this was not possible for a variety of different reasons including the fact that for English L1 speakers without further knowledge of a second language, most of the interviews had to take place in an English-speaking country. In the case of Japanese, aspects of politeness play a role when considering which demonstrative is best used in a given situation.[29] Although participants were by and large in a similar age range, the social hierarchy between interviewers and participants was judged differently depending on the interview situation, which in turn had a potential effect on which demonstratives speakers chose to employ.

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[29] Results indicate that learners of Japanese almost always employ the three-way distinction, whereas native speakers of Japanese take considerations of politeness and relationship to the hearer into account, particularly when asking for the pen in Situation 2.

4   Results

4.1   L1 Results

The results presented in the following section include all L1 results, meaning the results from the L1 English control group and the L1 data from all six learner groups (seven groups in total).

4.1.1   L1 English Control Group

As noted, secondary education in Japan and Germany includes learning one or more foreign languages. The first language that is acquired in school is usually English. Therefore, it was not possible to collect data from L1 Japanese or L1 German speakers without any knowledge of English. It was, however, possible to collect data from an L1 English control group. Results for the L1 English control group are summarised in the following subsections.

4.1.1.1   Background Information

The English control group in this sample consisted of 15 male and 5 female speakers. Since there was an imbalance between male and female speakers, it is possible that the data will display a gender-based bias, although a chi-square test yielded no statistically significant difference between this group and groups that were completely balanced in terms of gender. The average age of participants at the time of testing was 26.45.

All the speakers in this group were native speakers of English (i.e., C2 level speakers according to the CEFR). Samples were collected in Manchester and London and include Northern British English and South London varieties, as well as two speakers of South African English. All

116

of the participants were either students at a university or had completed higher education.

4.1.1.2 Experiment 1

The following table shows the distribution of responses for the L1 English control group:

English Control Group	Proximal PN ('this')	Distal PN ('that')	Definite Article ('the')	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')	Other
Experiment 1: Situation 1	7	11	1	0	0	0	1
Experiment 1: Situation 2	3	13	2	0	0	0	2
Experiment 1: Situation 3	4	14	1	0	0	0	0

Table 23: English Control Group Experiment 1

None of the participants in the L1 English control group responded with locative adverbs in Situation 1. The results indicate a preference for the distal demonstrative pronoun 'that' in all three situations in Experiment 1 for the English control group. A comparison of the proximal PN and distal PN responses (without the categories 'definite article' and 'other') using the Fisher-Yates[30] test illustrates that there are no significant differences at either the 0.01 or the 0.05 level between any of the situations (Situation 1 vs. Situation 2: p = 0.2701; Situation 1 vs. Situation 3: p = 0.4705; Situation 2 vs. Situation 3: p = 1). In other

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[30] It is not possible to use the chi-square test in this case because the expected value of the number of sample observations in each level of the variable is < 5.

words, there are no observable differences in response type depending on relative distance.

The following table shows the use of additional distance markers in the form of locative adverbs for the L1 English control group:

English Control Group	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')
Experiment 1: Situation 1	0	0	0
Experiment 1: Situation 2	0	1	0
Experiment 1: Situation 3	0	0	3

Table 24: English Control Group Experiment 1, 'Additional'

Table 24 shows that in general, additional distance markers were not used for any of the situations in the L1 English control group. A Fisher-Yates test comparing results across situations reveals that there are no significant differences between any of the situations (i.e., p = 1 in all cases).

4.1.1.3 Experiment 2

The L1 English control group responses for Experiment 2 are summarised in the following table:

English Control Group	Proximal PN ('this')	Distal PN ('that')	Definite Article ('the')	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')	Other
Experiment 2: Situation 1	12	6	0	0	0	0	2
Experiment 2: Situation 2	1	16	1	0	0	0	2
Experiment 2: Situation 3	5	11	2	0	0	0	2

Table 25: English Control Group Experiment 2

Like in Experiment 1, none of the participants in the L1 English control group responded with locative adverbs for any of the three situations in Experiment 2. As before, a Fisher-Yates test was conducted to compare proximal PN responses to distal PN responses in all three situations. The results indicate that there is a significant difference between responses in Situation 1 and Situation 2 at the 0.01 level ($p = 0.0003$, $p < 0.01$), but no significant difference between either Situation 2 and Situation 3 or Situation 1 and Situation 3 at either the 0.05 or 0.01 level ($p = 0.0854$ for Situation 2 vs. Situation 3; $p = 0.0844$ for Situation 1 vs. Situation 3).

Let us now turn to the use of additional distance markers.

English Control Group	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')
Experiment 2: Situation 1	1	0	0
Experiment 2: Situation 2	0	0	2
Experiment 2: Situation 3	0	0	4

Table 26: English Control Group Experiment 2 (Additional)

As before for Situation 1, there are no significant differences between the three situations for the use of additional locative adverbs within the L1 English control group.

4.1.1.4 Grammatical Judgment Task

Results of the grammatical judgment task matched the classification for all items. There was one outlier for Item 2 ('Those strange times we are living in'), which one of the participants marked as acceptable.

4.1.2 L1 English

4.1.2.1 Background Information

There were 40 L1 English participants in the analysed data who were classified as learners of second languages (i.e., n = 20 L1 English L2 Japanese learners and n = 20 L1 English L2 German learners). The L1 English L1 German group consisted of 10 female and 10 male learners, and the L1 English L2 Japanese group consisted of 7 female and 13 male learners. All of the participants were either university students at the time of testing or had attended university in the past. Most participants had spent long periods of time abroad in either Germany or Japan and

had attended university there as well as in their country of origin. The average age of participants in the L1 English L2 Japanese group at the time of testing was 26.80, and the average age of participants in the L1 English L2 German group at the time of testing was 29.75.

4.1.2.2 Experiment 1

The following table summarises the results of the L1 English L2 German group for Experiment 1:

L1 English L2 German: English Data	Proximal PN ('this')	Distal PN ('that')	Definite Article ('the')	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')	Other
Experiment 1: Situation 1	8	8	4	0	0	0	0
Experiment 1: Situation 2	2	14	2	0	0	0	2
Experiment 1: Situation 3	1	9	8	0	0	2	0

Table 27: L1 English L2 German: English Data, Experiment 1

A comparison of 'Proximal PN' and 'Distal PN' results across all three situations yielded non-significant results (Fisher-Yates test).[31]

For the L1 English L2 Japanese group, the results for English language data are represented in the following table:

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[31] The difference between Situation 1 and Situation 2, however, is close to being significant at the 0.05 level (p = 0.0538).

L1 English L2 Japanese: English Data	Proximal PN ('this')	Distal PN ('that')	Definite Article ('the')	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')	Other
Experiment 1: Situation 1	8	8	0	0	0	0	4
Experiment 1: Situation 2	0	15	2	0	0	0	3
Experiment 1: Situation 3	0	15	2	0	0	0	3

Table 28: L1 English L2 Japanese: English Data, Experiment 1

According to a comparison of 'Proximal PN' and 'Distal PN' using a Fisher-Yates test, there are significant differences at the 0.05 level between Situations 1 and 2 and Situations 1 and 3 (p = 0.0024 in both cases).

The results for English language data reveal no significant differences between the English L1 Japanese L2 and English L1 German L2 group for Experiment 1. However, it is worth noting that for Situation 3, L1 English learners of German use definite articles more frequently than L1 English learners of Japanese.

Tables 29 and 30 reflect the use of additional locative adverbs in Experiment 1 for English language data for both the L1 English L2 German and L1 English L2 Japanese groups.

L1 English L2 German: English Language Data	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')
Experiment 1: Situation 1	2	0	0
Experiment 1: Situation 2	0	0	2
Experiment 1: Situation 3	0	3	2

Table 29: L1 English L2 German: English Data, Experiment 1 (Additional)

L1 English L2 Japanese: English Language Data	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')
Experiment 1: Situation 1	1	0	0
Experiment 1: Situation 2	1	1	0
Experiment 1: Situation 3	0	0	5

Table 30: L1 English L2 Japanese: English Data, Experiment 1 (Additional)

The Freeman-Halton extension for the Fisher's exact test allows for an evaluation of a three-row by three-column contingency table (for a

detailed explanation see Ghent 1972) and was therefore conducted. Results indicate that there is a significant difference between all three situations for each possible value (p = 0.017) on the 0.05 level within the L1 English L2 Japanese group. The same test yielded two separate significant p-values within the L1 English L2 German group (p_a = 0.047 and p_b = 0.023) on the 0.05 level.[32]

4.1.2.3 Experiment 2

The following two tables summarise results of English language data for experiment 2 in the L1 English L2 German and the L1 English L2 Japanese cohort, respectively:

L1 English L2 German: English Data	Proximal PN ('this')	Distal PN ('that')	Definite Article ('the')	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')	Other
Experiment 2: Situation 1	15	1	0	3	0	0	1
Experiment 2: Situation 2	0	12	3	0	0	3	2
Experiment 2: Situation 3	0	11	3	0	0	5	1

Table 31: L1 English L2 German: English Data, Experiment 2

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[32] P_a = the probability of cell-frequency arrays that is observed in addition to the sum of the probabilities of all other cell-frequency combinations (consistent with the observed marginal totals) that are *equal to* or *smaller than* the probability of the observed array.

P_b = the probability of cell-frequency arrays in addition to the sum of the probabilities of all other arrays of cell frequencies (consistent with the observed marginal totals) that are *smaller* than the probability of the observed array.

L1 English L2 Japanese: English Data	Proximal PN ('this')	Distal PN ('that')	Definite Article ('the')	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')	Other
Experiment 2: Situation 1	12	4	0	2	0	0	2
Experiment 2: Situation 2	1	15	2	0	0	2	2
Experiment 2: Situation 3	0	12	4	0	0	3	1

Table 32: L1 English L2 Japanese: English Data, Experiment 2

A Fisher-Yates test was conducted for both groups' English language data results to compare the occurrence of the proximal and distal demonstrative pronouns 'this' and 'that'. The results reveal a significant difference at the 0.01 level for Situation 1 versus Situation 2 and Situation 1 versus Situation 3 in the L1 English L2 German group (p = 0.00001 in both cases). There were no significant differences between Situations 2 and 3. In the L1 English L2 Japanese group, the test yielded the same results, namely significant differences at the 0.01 level for Situation 1 versus Situation 2 and Situation 1 versus Situation 3, with p = 0.0002 for a comparison of Situations 1 and 2 and p = 0.0001 for a comparison of Situations 1 and 3.

The use of additional distance markers in the form of locative adverbs for the two L1 English learner groups occurred as follows:

L1 English L2 German: English Language Data	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')
Experiment 2: Situation 1	0	0	0
Experiment 2: Situation 2	0	1	1
Experiment 2: Situation 3	0	1	3

Table 33: L1 English L2 German: English Data, Experiment 2 (Additional)

L1 English L2 Japanese: English Language Data	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')
Experiment 2: Situation 1	0	0	0
Experiment 2: Situation 2	0	0	1
Experiment 2: Situation 3	0	0	11

Table 34: L1 English L2 Japanese: English Data, Experiment 2 (Additional)

There are no statistically significant differences measurable between any of the English language data responses for additional distance marking across all three situations for both L1 English learner groups.

4.1.2.4 Grammatical Judgment Task

In the grammatical judgment task, both L1 English learner groups generated similar responses to the L1 English control groups (i.e., their responses aligned with the expected results).

4.1.3 L1 German

4.1.3.1 Background Information

The German L1 data consists of data from the two L1 German groups (i.e., L1 German L2 English and L1 German L2 Japanese participants). In both groups, participants identifying as female were overrepresented compared to participants identifying as male (there were 5 males and 15 females in the L1 German L2 English group and 6 males and 14 females in the L1 German L2 Japanese group).[33] The average age in the L1 German L2 Japanese group at the time of testing was 25.25, and that of the L1 German L2 English group was 25.45.

4.1.3.2 Experiment 1

The results for L1 German data in Experiment 1 are summarised in Tables 35 and 36.

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[33] As previously stated in the results section for the L1 English control group, there is no statistically significant difference between a 5:15 gender distribution and a 10:10 gender distribution ($\chi^2 = 2.6667$, p =0.10247 ($\chi^2 = 1.7067$ and p = 0.191418 with Yates correction)).

L1 German L2 English: German Data	Proximal PN ('diese/-r/-s')	Distal PN ('jene/-r/-s')	Definite Article ('der/die/das')	Proximal Loc. Adv. ('hier')	Distal Loc. Adv. ('dort/da')	Remote Loc. Adv. ('da/dort drüben')	Other
Experiment 1: Situation 1	6	0	12	0	0	0	2
Experiment 1: Situation 2	8	0	11	0	0	0	1
Experiment 1: Situation 3	4	0	13	0	0	0	3

Table 35: L1 German L2 English: German Data, Experiment 1

L1 German L2 English: German Data	Proximal PN ('diese/-r/-s')	Distal PN ('jene/-r/-s')	Definite Article ('der/die/das')	Proximal Loc. Adv. ('hier')	Distal Loc. Adv. ('dort/da')	Remote Loc. Adv. ('da/dort drüben')	Other
Experiment 1: Situation 1	7	0	11	0	0	0	2
Experiment 1: Situation 2	9	0	10	0	0	0	1
Experiment 1: Situation 3	4	1	14	0	0	0	1

Table 36: L1 German L2 Japanese: German Data, Experiment 1

Both L1 German groups behaved similarly in each of the three distance situations in Experiment 1. There were no significant differences between responses for any of the situations in either the L1 German L2 English group or the L1 German L2 Japanese group. The results indicate a preference for the definite article over the demonstrative pronoun in all situations and furthermore demonstrate that for this spoken sample of L1 German, speakers, with one exception in Situation 3, do not use the distal demonstrative pronoun.

Let us now turn to the use of additional distance markers, which is summarised in Tables 37 and 38:

L1 German L2 English: German Language Data	Proximal Loc. Adv. ('hier')	Distal Loc. Adv. ('da/dort')	Remote Loc. Adv. ('da/dort drüben/hinten')
Experiment 1: Situation 1	2	2	0
Experiment 1: Situation 2	0	3	1
Experiment 1: Situation 3	0	5	4

Table 37: L1 German L2 English: German Data, Experiment 1 (Additional)

L1 German L2 Japanese: English Language Data	Proximal Loc. Adv. ('hier')	Distal Loc. Adv. ('da/dort')	Remote Loc. Adv. ('da/dort drüben/hinten')
Experiment 1: Situation 1	3	2	0
Experiment 1: Situation 2	0	3	2
Experiment 1: Situation 3	0	4	6

Table 38: L1 German L2 Japanese: German Data, Experiment 1 (Additional)

Both groups demonstrated similar responses, and in both groups, there was a difference in how participants responded according to each distance situation. However, the Freeman-Halton extension for the Fisher-Yates test reveals that this difference is only statistically significant for the L1 German L2 Japanese group at the 0.05 level ($p_a = 0.02620$, $p_b = 0.02469$).

4.1.3.3 Experiment 2

Tables 39 and 40 list the results for Experiment 2 (L1 German data).

L1 German L2 English: German Data	Proximal PN ('diese/-r/-s')	Distal PN ('jene/-r/-s')	Definite Article ('der/die /das')	Proximal Loc. Adv. ('hier')	Distal Loc. Adv. ('dort/da')	Remote Loc. Adv. ('da/dort drüben')	Other
Experiment 2: Situation 1	9	0	8	0	0	0	3
Experiment 2: Situation 2	4	1	13	0	0	0	2
Experiment 2: Situation 3	1	0	15	0	0	2	2

Table 39: L1 German L2 English: German Data, Experiment 2

L1 German L2 English: German Data	Proximal PN ('diese/-r/-s')	Distal PN ('jene/-r/-s')	Definite Article ('der/die /das')	Proximal Loc. Adv. ('hier')	Distal Loc. Adv. ('dort/da')	Remote Loc. Adv. ('da/dort drüben')	Other
Experiment 2: Situation 1	9	0	10	0	0	0	1
Experiment 2: Situation 2	4	1	13	0	1	0	1
Experiment 2: Situation 3	0	1	17	0	0	1	1

Table 40: L1 German L2 Japanese: German Data, Experiment 1

Again, the L1 German L2 English and L1 German L2 Japanese groups behaved similarly. A Fisher-Yates test was conducted to compare differences in responses across situations for the categories 'Proximal PN' and 'Definite Articles'.[34] The results indicate a significant difference between Situations 1 and 3 at the 0.01 level for the L1 German L2 English group (p = 0.0066) and the L1 Japanese L2 German group (p = 0.0012).

Additional distance markers in the form of locative adverbs were distributed as follows:

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[34] Since the distal demonstrative pronoun was only used by two informants (one L1 German L2 English learner who is simultaneously an L1 German L2 Japanese learner and one L1 German L2 Japanese learner), it was deemed negligible for any cross-comparison. It is possible that definite articles in German, when contrasted with proximal demonstrative pronouns, carry a distance connotation (Ahrenholz 2007). Although this thesis assumes that definite articles in their demonstrative function are distance-neutral, the use of proximal demonstrative pronouns and definite articles is compared here based on the fact that there may be a distance-based reason for differentiation in German.

L1 German L2 English: German Language Data	Proximal Loc. Adv. ('hier')	Distal Loc. Adv. ('da/dort')	Remote Loc. Adv. ('da/dort drüben/hinten')
Experiment 1: Situation 1	6	1	0
Experiment 1: Situation 2	2	7	0
Experiment 1: Situation 3	0	7	4

Table 41: L1 German L2 English: German Data, Experiment 1 (Additional)

L1 German L2 Japanese: English Language Data	Proximal Loc. Adv. ('hier')	Distal Loc. Adv. ('da/dort')	Remote Loc. Adv. ('da/dort drüben/hinten')
Experiment 1: Situation 1	9	2	0
Experiment 1: Situation 2	1	7	0
Experiment 1: Situation 3	0	4	8

Table 42: L1 German L2 Japanese: German Data, Experiment 1 (Additional)

Experiment 2 yielded more additional distance markers than Experiment 1 for German, with about half of the participants in each group opting

to use additional markers. Both L1 German groups displayed similar results and behaved differently in each of the three situations. However, the L1 German L2 English group did not differentiate between Situations 2 and 3 as clearly as the L1 German L2 Japanese group. According to the Freeman-Halton extension of the Fisher-Yates test, this difference is significant at the 0.01 level for both groups.

4.1.3.4 Grammatical Judgment Task

Overall, both German L1 groups responded as expected in the grammatical judgment task, meaning that items marked as correct were categorised as correct and items marked as incorrect were categorised as incorrect on the evaluation sheet. Items that had *jene/-r/-s* in them were accepted and rejected at equal rates.[35]

4.1.4 L1 Japanese

4.1.4.1 Background Information

As was the case with all the participants in the investigated sample, the Japanese L1 speakers were university educated (either still students at university or having a completed university degree at the time of testing). Participants were equally distributed for gender (10 females and 10 males in the Japanese L1 English L2 group, and 9 females and 11 males in the Japanese L1 German L2 group). The average age of participants at the time of testing was 24.65 for the L1 Japanese L2 English group and 23.80 for the L1 Japanese L2 German group.

4.1.4.2 Experiment 1

Tables 43 and 44 provide summaries of the Japanese L1 language data results of Experiment 1 for the Japanese L1 English L2 and Japanese L1 German L2 groups. Note that in these tables, adnominal and pronominal

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[35] *Jene/-r/-s* was categorised as unacceptable on the evaluation sheet.

pronoun use is combined into one category for the purpose of visualisation even though separate data is available and will be used in later comparisons. The vast majority of Japanese L1 speakers (more than 85%) used the adnominal demonstrative pronoun with a noun instead of the pronominal demonstrative pronoun (e.g., *kono pen* instead of *kore*).

L1 Japanese L2 English: Japanese Data	Proximal PN ('kono' (ad.)/ 'kore' (pron.))	Distal PN ('sono' (ad.)/ 'sore' (pron.))	Remote PN ('ano' (ad.)/'are' (pron.))	Proximal Loc. Adv. ('koko')	Distal Loc. Adv. ('soko')	Remote Loc. Adv. ('asoko')	Other
Experiment 1: Situation 1	12	1	0	2	0	0	5
Experiment 1: Situation 2	0	9	2	1	7	0	1
Experiment 1: Situation 3	1	0	8	0	3	7	1

Table 43: L1 Japanese L2 English: Japanese Data, Experiment 1

L1 Japanese L2 German: Japanese Data	Proximal PN ('kono' (ad.)/ 'kore' (pron.))	Distal PN ('sono' (ad.)/ 'sore' (pron.))	Remote PN ('ano' (ad.)/'are' (pron.))	Proximal Loc. Adv. ('koko')	Distal Loc. Adv. ('soko')	Remote Loc. Adv. ('asoko')	Other
Experiment 1: Situation 1	15	0	0	1	0	0	4
Experiment 1: Situation 2	4	8	1	0	6	0	1
Experiment 1: Situation 3	0	1	12	0	2	3	2

Table 44: L1 Japanese L2 German: Japanese Data, Experiment 1

For the analysis, all responses were combined into three overall categories, namely *ko-* (proximal), *so-* (distal), and *a-* (remote)[36], and compared to one another. Responses were combined since in Japanese, distance marking relies exclusively on these three distance-marking morphemes. The Freeman-Halton extension of the Fisher-Yates test yielded significant differences at the 0.01 level (p = 0.0) between responses in the L1 Japanese L2 English group and in the L1 Japanese L2 English group.

In Japanese, the occurrence of additional distance markers is not possible. Instead, the use of the genitive particle *no* and the locative particle *ni* in conjunction with demonstratives was counted. These results are taken into account when considering non-target-like particle use in the L2 Japanese learner sections but are not discussed in detail here. In general, however, particles were used by about a third of Japanese participants and were used more often in Situations 2 and 3 than in Situation 1.

4.1.4.3 Experiment 2

The following two tables summarise the Japanese language data results for the L1 Japanese L2 English group and the L1 Japanese L2 German group:

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[36] Responses categorised as 'other' were excluded from analysis.

L1 Japanese L2 English: Japanese Data	Proximal PN ('kono' (ad.)/ 'kore' (pron.))	Distal PN ('sono' (ad.)/ 'sore' (pron.))	Remote PN ('ano' (ad.)/'are' (pron.))	Proximal Loc. Adv. ('koko')	Distal Loc. Adv. ('soko')	Remote Loc. Adv. ('asoko')	Other
Experiment 2: Situation 1	1	0	0	13	2	0	4
Experiment 2: Situation 2	0	0	0	0	9	6	5
Experiment 2: Situation 3	0	0	0	2	0	13	5

Table 45: L1 Japanese L2 English: Japanese Data, Experiment 2

L1 Japanese L2 German: Japanese Data	Proximal PN ('kono' (ad.)/ 'kore' (pron.))	Distal PN ('sono' (ad.)/ 'sore' (pron.))	Remote PN ('ano' (ad.)/'are' (pron.))	Proximal Loc. Adv. ('koko')	Distal Loc. Adv. ('soko')	Remote Loc. Adv. ('asoko')	Other
Experiment 2: Situation 1	1	0	0	16	2	0	1
Experiment 2: Situation 2	0	0	0	2	13	2	3
Experiment 2: Situation 3	1	0	2	0	1	14	2

Table 46: L1 Japanese L2 German: Japanese Data, Experiment 2

As before, results were redistributed into three categories: proximal (*ko-*), distal (*so-*), and remote (*a-*). Again, the results were significant at the 0.01 level for both groups according to the Freeman-Halton extension of the Fisher-Yates test.

4.2 Summary of L1 Results

4.2.1 Summary of Results for L1 English

In the L1 English control group, there were no differences in responses between any of the three distance situations in Experiment 1. Participants used both *this* and *that* in all three situations. However, the use of *that* occurred significantly more frequently than that of *this*, and *this* was rarely used in Situation 3. In Experiment 2, there were significant differences between responses in Situations 1 and 2 and Situations 1 and 3. The use of *this* was more frequent for Position 1 in Experiment 2. The results were the same for L1 English responses in the L1 English L2 German group for both Experiments 1 and 2. In the L1 English L2 Japanese group, however, Experiment 1 yielded different results for English, because there are significant differences between the use of *this* and *that* in Situation 1 and 2 and Situations 1 and 3 in Experiment 1. In the L1 English L2 German group, we can moreover observe an increased use of definite articles in Situation 3, particularly in Experiment 1. Overall, participants with English as their L1 chose to employ additional locative adverbs in both experiments. Additional locative adverbs were used more frequent in Experiment 2 than in Experiment 1. There were no differences in occurrence for any of the three situations in either Experiment 1 or 2 for the L1 English control group, and differences were only significant in Experiment 1 for the L1 English L2 Japanese and L1 English L2 German cohort. Differences in all groups were compared with a Fisher-Yates test or the Freeman-Halton extension thereof in the case of three-by-three contingency tables.

Participants responded as expected – that is, according to the previously established categories – in the grammatical judgment task.

4.2.2   Summary of Results for L1 German

In the L1 German group, with one exception, the distal demonstrative pronoun was not used. There were no significant differences between the use of proximal demonstrative pronouns and definite articles in Experiment 1 for either the L1 German L2 English or the L1 German L2 Japanese cohort. There were, however, significant differences between the use of proximal demonstrative pronouns and definite articles between Situation 1 and Situation 3 in Experiment 2 for both groups.

Additional locative adverbs in Situation 1 revealed significant differences in responses for the L1 German L2 Japanese cohort, but not for the L1 German L2 English cohort. Additional locative adverbs were used more frequently in Experiment 2 and differed significantly between situations for both groups according to the Halton-Freeman extension of the Fisher-Yates test.

Again, participants responded as expected (i.e., according to the previously established categories) in the grammatical judgment task.

4.2.3   Summary of Results for L1 Japanese

L1 Japanese participants preferred (adnominal) demonstrative pronouns in Experiment 1 and locative adverbs in Experiment 2. The results were split into proximal, distal, and remote and compared with the Halton-Freeman extension of the Fisher-Yates test. For both the L1 Japanese L2 German group and the L1 Japanese L2 English group, the results differed significantly across situations, with participants responding as predicted (i.e., proximal in Situation 1, distal in Situation 2, and remote in Situation 3).

4.3   L1 Japanese L2 English Results

4.3.1   Background Information

As discussed in Section 4.1.4, the L1 Japanese learners of L2 English were all university educated and distributed equally for gender (10 female and 10 male participants). On average, participants' language proficiency in English, both self-reported and scored, was marginally above B1 (mean = 3.30 (self-rated), mean = 3.10 (output-based)).[37] This is lower than the recorded English language proficiency for L1 German learners of English, which is at a C1 level.[38] Seven participants had spent significant amounts of time abroad (15.57 months on average). Four participants were listed twice, once in this cohort and once in the L1 Japanese L2 English cohort.

4.3.2   Experiment 1

The following table showcases the results for English language data in the L1 Japanese L2 English learner group:

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[37] 1 = A1, 2 = A2, 3 = B1, 4 = B2, 5 = C1, 6 = C2 (according to the CEFR).

[38] However, there was a higher variance in the L1 German L2 English group than in the L1 Japanese L2 English group.

L1 Japanese L2 English: English Data	Proximal PN ('this')	Distal PN ('that')	Definite Article ('the')	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')	Other
Experiment 1: Situation 1	15	2	1	0	0	0	2
Experiment 1: Situation 2	3	14	2	0	0	0	1
Experiment 1: Situation 3	1	14	4	0	0	1	0

Table 47: L1 Japanese L2 English: English Language Data, Experiment 1

A Fisher-Yates test was performed for a comparison of the occurrence of proximal demonstrative pronouns and distal demonstrative pronouns. There were significant differences between the distribution of occurrence of Situations 1 and 2 ($p = 0.0001$) and Situations 1 and 3 ($p = 0.00001$) at the 0.01 level. However, there was no significant difference in occurrence between Situations 2 and 3.

For additional locative adverb use, we arrived at the following results:

L1 Japanese L2 English: English Language Data	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')
Experiment 1: Situation 1	0	0	0
Experiment 1: Situation 2	0	0	1
Experiment 1: Situation 3	0	0	7

Table 48: L1 Japanese L2 English: English Data, Experiment 1 (Additional)

There are no significant differences between responses for any of the situations. Seven participants used an additional remote locative adverb for Situation 3.

4.3.3 Experiment 2

The English language data results for Experiment 2 in the L1 Japanese L2 English group are summarised in the following table:

L1 Japanese L2 English: English Data	Proximal PN ('this')	Distal PN ('that')	Definite Article ('the')	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')	Other
Experiment 2: Situation 1	5	0	0	11	1	0	3
Experiment 2: Situation 2	0	6	0	1	8	1	4
Experiment 2: Situation 3	0	1	2	0	2	9	6

Table 49: L1 Japanese L2 English: English Language Data, Experiment 2

It is immediately apparent that there was a clear preference for locative adverbs over demonstrative pronouns in Experiment 2. Possible reasons for this are discussed in greater detail in the discussion section. For the purposes of this initial analysis, the occurrence of proximal demonstrative pronouns and distal demonstrative pronouns was compared by means of a Fisher-Yates test. Subsequently, proximal, distal, and remote responses were added up and compared using the Freeman-Halton extension for three-by-three contingency tables. The results of the first comparison reveal significant differences at the 0.01 level between Situations 1 and 2 (p = 0.0022) and no differences between either Situations 1 and 3 or Situations 2 and 3. The Freeman-Halton extension calculated a p-value of 0.0 (i.e., $p < .01$). In other words, according to this test, there were significant differences in the occurrence of proximal, distal, and remote responses for each of the three situations.

Table 50 lists additional locative adverbs used in each of the three situations in Experiment 2 for English language data in the L1 Japanese L2 English group.

L1 Japanese L2 English: English Language Data	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')
Experiment 2: Situation 1	1	0	0
Experiment 2: Situation 2	0	1	0
Experiment 2: Situation 3	0	0	2

Table 50: L1 Japanese L2 English: English Data, Experiment 2 (Additional)

There are only four responses overall in this table, suggesting that additional locative adverbs are seldom used. Furthermore, there were no statistically relevant differences between responses for each of the three situations.

4.3.4 Grammatical Judgment Task

L1 Japanese learners of English responded differently than L1 English groups in the grammatical judgment task for three items: S1 ('These dolphins over there are pretty'), S2 ('Those strange times we are living in') and S6 ('These necklace is pretty').

Grammatical Judgment Task English S1 * Learner Group Crosstabulation

Count

		Jap L1-Eng L2	Eng L1-Ger L2	Eng L1-Jap L2	Eng L1-control	Ger L1-Eng L2	Ger L1-Jap L2	Total
Grammatical Judgment Task English S1	Judged Inacceptable, Inacceptable	11	20	20	20	6	4	81
	Judged acceptable, inacceptable	9	0	0	0	14	15	38
Total		20	20	20	20	20	19	119

Table 51: Grammatical Judgment Task English Sentence 1

Grammatical Judgment Task English S2 * Learner Group Crosstabulation

Count

		Jap L1-Eng L2	Eng L1-Ger L2	Eng L1-Jap L2	Eng L1-control	Ger L1-Eng L2	Ger L1-Jap L2	Total
Grammatical Judgment Task English S2	Judged Inacceptable, Inacceptable	11	17	17	17	13	16	91
	Judged acceptable, inacceptable	9	3	3	3	7	3	28
Total		20	20	20	20	20	19	119

Table 52:Grammatical Judgment Task Sentence 2

Grammatical Judgment Task English S6 * Learner Group Crosstabulation

Count

		Jap L1-Eng L2	Eng L1-Ger L2	Eng L1-Jap L2	Eng L1-control	Ger L1-Eng L2	Ger L1-Jap L2	Total
				Learner Group				
Grammatical Judgment Task English S6	Judged Inacceptable, Inacceptable	10	20	20	20	19	17	106
	Judged acceptable, inacceptable	10	0	0	0	1	2	13
Total		20	20	20	20	20	19	119

Table 53: Grammatical Judgment Task Sentence 6

4.3.5 Non-Target-Like Number Marking

There were no instances of non-target-like number marking in the L1 Japanese L2 English cohort.

4.4   L1 German L2 English Results

4.4.1 Background Information

As established in the results section for the L1 German data, the L1 German L2 English group consisted of 5 male and 15 female participants. The mean value for self-reported English language proficiency was 5.35 and 5.20 for proficiency based on language production as rated by the interviewers, which places English language proficiency at above C1 on average. Seven participants had spent significant time in an English-speaking country (9.29 months on average). 8 informants in this group were listed twice, once in the L1 German L2 English and once in the L1 German L2 Japanese cohort.

4.4.2 Experiment 1

Table 54 provides an overview of the results for English language data in the L1 German L2 English learner group:

L1 German L2 English: English Data	Proximal PN ('this')	Distal PN ('that')	Definite Article ('the')	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')	Other
Experiment 1: Situation 1	11	4	3	0	0	0	2
Experiment 1: Situation 2	3	8	5	0	0	0	4
Experiment 1: Situation 3	3	8	5	0	0	1	4

Table 54: L1 German L2 English: English Language Data, Experiment 1

The Fisher-Yates test revealed that the difference in occurrence of 'this' (proximal PN) and 'that' (distal PN) was statistically significant at the 0.05 level ($p = 0.0447$) for Situations 1 and 2 and Situations 1 and 3. There was no difference between Situations 2 and 3.

The following table summarises the use of additional locative adverbs:

L1 German L2 English: English Language Data	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')
Experiment 2: Situation 1	2	0	0
Experiment 2: Situation 2	0	1	0
Experiment 2: Situation 3	1	0	7

Table 55: L1 German L2 English: English Data, Experiment 1 (Additional)

Locative adverbs were most often used in addition to demonstratives in Situation 3.

4.4.3 Experiment 2

The following table reveals the distribution of results for L2 English language data for Experiment 2:

L1 German L2 English: English Data	Proximal PN ('this')	Distal PN ('that')	Definite Article ('the')	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')	Other
Experiment 2: Situation 1	17	1	0	1	0	0	1
Experiment 2: Situation 2	6	10	1	0	0	1	2
Experiment 2: Situation 3	3	10	6	0	0	1	0

Table 56: L1 German L2 English: English Language Data, Experiment 2

A Fisher-Yates test comparing the occurrence of 'Proximal PN' to that of 'Distal PN' calculated significant differences (p < 0.01) between Situations 1 and 2 (p = 0.0006) and between Situations 1 and 3 (p = 0.0001). There was no difference between Situations 2 and 3.

An overview of additional locative adverbs yielded the following results:

L1 German L2 English: English Language Data	Proximal Loc. Adv. ('here')	Distal Loc. Adv. ('there')	Remote Loc. Adv. ('over there')
Experiment 2: Situation 1	3	0	0
Experiment 2: Situation 2	0	1	2
Experiment 2: Situation 3	0	0	10

Table 57: L1 German L2 English: English Data, Experiment 2 (Additional)

There was a significant difference in responses for Situation 3. Half of all the L1 German learners of English opted to use the additional remote locative adverb in this situation.

4.4.4 Grammatical Judgment Task Results

The most divergent results for the L1 German L2 English group in comparison to both predicted outcomes and responses from the L1 English groups were for Sentences 1 and 2: 'These dolphins over there

are pretty' and 'Those strange times we are living in' (see Tables 55 and 56).

4.4.5 Non-Target-Like Number Marking

There were no instances of non-target-like number marking in the L1 German L2 English cohort.

4.5 L1 English L2 German Results

4.5.1 Background Information

As previously discussed, the L1 English L2 German cohort consisted of 10 female and 10 male participants, all of whom are university educated and most of whom have spent substantial time in Germany. The average self-rated language proficiency was 4.05 and the proficiency level recorded based on output was 4.21, which means that proficiency was over B2 in both cases. Fifteen participants had spent a significant amount of time in a German-speaking country (31.33 months on average). Two participants in this cohort were listed twice, once in the L1 English L2 German and once in the L1 English L2 Japanese cohort.

4.5.2 Experiment 1

The following table summarises the results for Experiments 1 of L2 German language data in the L1 English L2 German group:

L1 English L2 German: German Data	Proximal PN ('diese/-r/-s')	Distal PN ('jene/-r/-s')	Definite Article ('der/die /das')	Proximal Loc. Adv. ('hier')	Distal Loc. Adv. ('dort/da')	Remote Loc. Adv. ('da/dort drüben')	Other
Experiment 1: Situation 1	8	0	11	0	0	0	1
Experiment 1: Situation 2	5	0	14	0	0	0	1
Experiment 1: Situation 3	5	0	14	0	1	0	0

Table 58: L1 English L2 German: German Data, Experiment 1

The Freeman-Yates test was again used to compare the use of proximal demonstrative pronouns to the use of definite articles. No statistically significant differences were recorded.

Table 59 records the use of additional locative adverbs in L2 German in the L1 English L2 German cohort:

L1 English L2 German: German Language Data	Proximal Loc. Adv. ('hier')	Distal Loc. Adv. ('da/dort')	Remote Loc. Adv. ('da/dort drüben/hinten')
Experiment 1: Situation 1	1	1	0
Experiment 1: Situation 2	0	1	0
Experiment 1: Situation 3	0	0	2

Table 59: L1 English L2 German: German Data, Experiment 1 (Additional)

Additional locative adverbs were rarely used in any of the three situations, and the frequency of occurrence did not differ significantly.

4.5.3 Experiment 2

The following table lists the distribution of results for L2 German language data for Experiment 2:

L1 English L2 German: German Data	Proximal PN ('diese/-r/-s')	Distal PN ('jene/-r/-s')	Definite Article ('der/die /das')	Proximal Loc. Adv. ('hier')	Distal Loc. Adv. ('dort/da')	Remote Loc. Adv. ('da/dort drüben')	Other
Experiment 2: Situation 1	7	0	4	6	1	0	2
Experiment 2: Situation 2	4	0	8	0	6	1	1
Experiment 2: Situation 3	4	0	8	0	5	2	1

Table 60: L1 English L2 German: German Data, Experiment 2

A Fisher-Yates test comparing the use of proximal demonstrative pronouns to the use of the definite article yielded no significant differences. In the L1 English L2 German group, participants responded with locatives instead of demonstrative pronouns comparatively often. Therefore, a second Fisher-Yates test was conducted to compare the number of occurrences of proximal locative adverbs to that of distal locative adverbs. The recorded difference was significant at the 0.01 level ($p = 0.0047$). Moreover, there was a significant difference between the use of locative and distal locative adverbs in Situations 1 and 3 ($p = 0.0152$, p-value < 0.05).

Table 61 illustrates additional locative adverb usage:

L1 English L2 German: German Language Data	Proximal Loc. Adv. ('hier')	Distal Loc. Adv. ('da/dort')	Remote Loc. Adv. ('da/dort drüben/hinten')
Experiment 2: Situation 1	3	0	0
Experiment 2: Situation 2	1	4	1
Experiment 2: Situation 3	0	2	3

Table 61: L1 English L2 German: German Data, Experiment 2 (Additional)

Overall, only a few participants responded using additional locative adverbs. The Freeman-Halton extension of the Fisher-Yates test yielded significant differences between all three situations (p_a = 0.02326, p_b = 0.01898; p-value < 0.05).

4.5.4 Grammatical Judgment Task

L1 English learners of German were overall more accepting of sentences with *jene/-r/-s* than L1 German speakers and were less likely to accept the grammatically complex Sentence 6. The most significant differences were observed in S2, S4, and S5 of the grammatical judgment task.

4.5.5 Non-Target-Like Gender, Case, and Number Marking

Although the majority of participants marked gender, case and number correctly, non-target-like gender and case marking could be observed across experiments (see appendix 9.5).

4.6   L1 Japanese L2 German Results

4.6.1 Background Information

The L1 Japanese L2 German cohort, which consisted of 9 females and 11 males, had an average self-reported proficiency level of 4.25 at the time of testing and an average output-based proficiency level of 4.35, meaning that, on average, participants had a proficiency level that was higher than B1. 8 participants had spent a significant amount of time in a German-speaking country (31.33 months on average).

4.6.2 Experiment 1

The following table provides an overview of responses for demonstratives in German language data in the L1 Japanese L2 German cohort:

L1 Japanese L2 German: German Data	Proximal PN ('diese/-r/-s')	Distal PN ('jene/-r/-s')	Definite Article ('der/die /das')	Proximal Loc. Adv. ('hier')	Distal Loc. Adv. ('dort/da')	Remote Loc. Adv. ('da/dort drüben')	Other
Experiment 1: Situation 1	6	0	14	0	0	0	0
Experiment 1: Situation 2	4	1	15	0	0	0	0
Experiment 1: Situation 3	3	3	14	0	0	0	0

Table 62: L1 Japanese L2 German: German Data, Experiment 1

There were no significant differences between the responses in the 'Proximal PN' and the 'Definite Article' in any of the three situations according to a simple Fisher-Yates test.

L1 Japanese L2 German: German Language Data	Proximal Loc. Adv. ('hier')	Distal Loc. Adv. ('da/dort')	Remote Loc. Adv. ('da/dort drüben/hinten')
Experiment 1: Situation 1	1	0	0
Experiment 1: Situation 2	0	1	1
Experiment 1: Situation 3	0	4	1

Table 63: L1 Japanese L2 German: German Data, Experiment 1 (Additional)

The Freeman-Halton extension of the Fisher-Yates test yielded no significant differences between any of the responses.

4.6.3 Experiment 2

Table 64 summarises the German results for the L1 Japanese L2 German cohort for Experiment 2:

L1 Japanese L2 German: German Data	Proximal PN ('diese/-r/-s')	Distal PN ('jene/-r/-s')	Definite Article ('der/die/das')	Proximal Loc. Adv. ('hier')	Distal Loc. Adv. ('dort/da')	Remote Loc. Adv. ('da/dort drüben')	Other
Experiment 2: Situation 1	2	1	2	14	0	1	0
Experiment 2: Situation 2	0	1	3	4	11	1	0
Experiment 2: Situation 3	0	2	6	1	9	2	0

Table 64: L1 Japanese L2 German: German Data, Experiment 2

Since there were very few responses in the proximal demonstrative pronoun and definite article categories, a Freeman-Halton extension of the Fisher's exact was conducted for the proximal locative adverb, distal locative adverb, and remote locative adverb categories in Situations 1, 2, and 3. The results were significant at the 0.01 level (p = 0.000001).

Table 65 lists the uses of additional locative adverbs for German in each of the three distance situations in the L1 Japanese L2 German group:

L1 Japanese L2 German: German Language Data	Proximal Loc. Adv. ('hier')	Distal Loc. Adv. ('da/dort')	Remote Loc. Adv. ('da/dort drüben/hinten')
Experiment 1: Situation 1	2	0	0
Experiment 1: Situation 2	0	2	0
Experiment 1: Situation 3	0	1	3

Table 65: L1 Japanese L2 German: German Data, Experiment 2 (Additional)

There were few additional locative adverb responses in the L1 Japanese L2 German group. According to the Freeman-Halton extension of the Fisher-Yates test, the observable differences were significant (p = 0.02857 (p-value < 0.05), p = 0.00714 (p-value < 0.01)).

4.6.4 Grammatical Judgment Task

Japanese Overall, there were no differences in terms of the acceptance rates of incorrect gender or case marking between the L1 English L2 German group and the L1 Japanese L2 German group in the German grammatical judgment task. Participants learning German were most likely to accept items with jene/-r/-s as correct if they were aware of the word and its grammatical usage.

4.6.5 Non-Target-Like Gender, Case, and Number Marking

Just like in the L1 English L2 German group, the majority of participants marked gender, case and number correctly. However, non-target-like

gender and case marking could be observed across experiments (see appendix Section 9.5).

4.7   L1 English L2 Japanese Results

4.7.1   Background Information

The L1 English L2 Japanese cohort, which consisted of 7 female and 13 male learners, had a mean self-rated proficiency score of 3.50 and a mean output-based proficiency score of 3.35 for Japanese at the time of testing, meaning that the participants rated their output closer to B2 on average, but the spoken samples available indicate a proficiency level that is closer to B1 on average. All of the participants in this cohort had spent significant time in Japan (10.75 months on average).

4.7.2   Experiment 1

The results for experiment 1 for L2 Japanese are as follows for the L1 English L2 Japanese group:

L1 English L2 Japanese: Japanese Data	Proximal PN ('kono' (ad.)/'kore' (pron.))	Distal PN ('sono' (ad.)/'sore' (pron.))	Remote PN ('ano' (ad.)/'are' (pron.))	Proximal Loc. Adv. ('koko')	Distal Loc. Adv. ('soko')	Remote Loc. Adv. ('asoko')	Other
Experiment 1: Situation 1	13	2	0	1	0	0	4
Experiment 1: Situation 2	2	10	4	1	1	0	2
Experiment 1: Situation 3	1	2	11	0	1	3	2

Table 66: L1 English L2 Japanese: Japanese Data, Experiment 1

As before for L1 Japanese data, all responses were combined into three overall categories: *ko-* (proximal), *so-* (distal), and *a-* (remote), excluding responses marked as 'other'. The Freeman-Halton extension of the Fisher-Yates test was then conducted to compare the respective situations to one another and yielded significant results at the 0.01 level ($p = 0.0000$).

4.7.3 Experiment 2

The following table lists the results for Japanese language data in Experiment 2 in the L1 English L2 Japanese group:

L1 English L2 Japanese: Japanese Data	Proximal PN ('kono' (ad.)/'kore' (pron.))	Distal PN ('sono' (ad.)/'sore' (pron.))	Remote PN ('ano' (ad.)/'are' (pron.))	Proximal Loc. Adv. ('koko')	Distal Loc. Adv. ('soko')	Remote Loc. Adv. ('asoko')	Other
Experiment 2: Situation 1	7	0	0	10	0	0	3
Experiment 2: Situation 2	3	6	0	1	5	3	2
Experiment 2: Situation 3	1	0	5	0	0	12	2

Table 67: L1 English L2 Japanese: Japanese Data, Experiment 2

The Freeman-Halton extension of the Fisher-Yates test revealed significant results at the 0.01 level ($p = 0.0000$).

4.7.4 Non-Target-Like Particle Use

Particles were used in a non-target-like manner across experiments, although the majority of participants used particles correctly. An overview of non-target-like particle use can be found in the appendix (Section 9.5).

4.8   L1 German L2 Japanese Results

4.8.1   Background Information

In the L1 German L2 Japanese sample, which consisted of 6 female and 14 male participants, the average self-rated and output-based levels of proficiency in Japanese were 3.35 (i.e., above B1). 11 Participants had spent an average of 9.18 months in Japan at the time of testing.

4.8.2   Experiment 1

Table 68 summarises the results of the L2 Japanese data for experiment 1 for the L1 German L2 Japanese cohort:

L1 German L2 Japanese: Japanese Data	Proximal PN ('kono' (ad.)/'kore' (pron.))	Distal PN ('sono' (ad.)/'sore' (pron.))	Remote PN ('ano' (ad.)/'are' (pron.))	Proximal Loc. Adv. ('koko')	Distal Loc. Adv. ('soko')	Remote Loc. Adv. ('asoko')	Other
Experiment 1: Situation 1	15	0	0	1	0	0	4
Experiment 1: Situation 2	3	11	1	0	1	0	4
Experiment 1: Situation 3	0	3	11	0	0	1	5

Table 68: L1 German L2 Japanese: Japanese Data, Experiment 1

The Freeman-Halton extension of the Fisher-Yates test revealed significant results at the 0.01 level.

4.8.3   Experiment 2

The following table summarises Japanese language data results for Experiment 2 in the L1 German L2 Japanese sample:

L1 German L2 Japanese: Japanese Data	Proximal PN ('kono' (ad.)/'kore' (pron.))	Distal PN ('sono' (ad.)/'sore' (pron.))	Remote PN ('ano' (ad.)/'are' (pron.))	Proximal Loc. Adv. ('koko')	Distal Loc. Adv. ('soko')	Remote Loc. Adv. ('asoko')	Other
Experiment 2: Situation 1	8	0	0	10	1	0	1
Experiment 2: Situation 2	4	2	0	0	13	0	1
Experiment 2: Situation 3	2	3	2	0	0	12	1

Table 69: L1 German L2 Japanese: Japanese Data, Experiment 1

According to the Halton-Freeman extension of the Fisher-Yates test, the results differ significantly across Situations 1, 2, and 3 at the 0.01 level.

4.8.4 Non-target-like Particle Use

The majority of participants in the L1 German L2 Japanese group used particles correctly. However, non-target-like particle use could be observed across experiments. An overview of non-target-like particle use can be found in the appendix (Section 9.5). Furthermore, two participants used pronominal demonstratives where adnominal demonstratives would be appropriate.

4.9   Summary of L2 Results

4.9.1 L2 English

There are significant differences between the use of *this* and *that* in Situations 1 and 2 and Situations 1 and 3 in Experiment 1 in the L1 Japanese L2 English cohort. In Experiment 2, L1 Japanese learners of English preferred using locative adverbs instead of demonstratives to an

extent that led to inconclusive results for a comparison of the use of *this* and *that.* Therefore, proximal, distal, and remote responses were accumulated and compared after an initial Fisher-Yates test to compare the occurrence of *this* and *that*, which yielded significant differences between Situation 1 and Situation 2. According to the Freeman-Halton extension that was then used to compare the accumulated responses, there were significant differences across all situations for the L1 Japanese L2 English group.

The use of additional locative adverbs in Experiment 1 and Experiment 2 did not differ in occurrence between any of the three situations in the L1 Japanese L2 English cohort. There was no incorrect number marking in the L2 English output of the L1 Japanese L2 English group. However, the grammatical judgment task revealed differences compared to all three L1 English cohorts for Item 1 and Item 6.[39]

In the L1 German L2 English cohort, there were significant differences between the occurrence of *this* and *that* in Situation 1 and Situation 2, as well as in Situation 1 and Situation 3, for both experiments. Additional locative adverb use revealed a significant difference in the occurrence of remote locative adverbs in comparison to the other two distance positions.

There was no incorrect number marking in the L1 German L2 English cohort's English language output. The results from the grammatical judgment task indicate a majority acceptance of non-target-like Items 1 and 2, which marks a clear difference in comparison to all L1 English groups. By and large, participants did not correct their choice of demonstratives, i.e., instances of choice adjustment were rare.

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[39] Item 6 includes incorrect demonstrative pronoun plural marking ('*These* necklace is pretty').

4.9.2   L2 German

In the L1 English L2 German group, there were no significant differences between any of the three situations in Experiment 1. In Experiment 2, the results of a second Fisher-Yates test comparing locative adverbs revealed significant differences between Situations 1 and 3 and Situations 1 and 2.

The differences between the use of additional locative adverbs in L2 German were not significant for Experiment 1 in the L1 English L2 German cohort. There were, however, significant differences in the use of additional locative adverbs in Experiment 2.

In the L1 Japanese L2 German cohort, there were no significant differences between any of the three situations in Experiment 1. As was the case for the L1 English L2 German group, results of a second Fisher-Yates test comparing locative adverbs revealed significant differences between Situations 1 and 3 and Situations 1 and 2 for Experiment 2. There were no differences between the use of additional locative adverbs in Experiment 1 and significant differences in the use of additional locative adverbs in Experiment 2.

In terms of non-target-like inflectional marking, non-target-like number marking did not occur in either group, whereas non-target-like gender and case marking occurred in both groups. Again, the majority of participants did not correct their choice of demonstratives.

4.9.3   L2 Japanese

In both the L1 German L2 Japanese group and the L1 English L2 Japanese group, there were significant differences between situations in the use of proximal, distal, and remote demonstratives according to the Freeman-Halton extension of the Fisher exact in both experiments.

Non-target-like use of particles was rare in both groups. It was equally rare that pronominal demonstrative pronouns were used incorrectly instead of adnominal pronouns. Instances of choice adjustment did occur, but they too were rare.

4.10 Comparison of Results across Language Groups

4.10.1 Comparison of Responses

4.10.1.1 English

Tables 70 through 72 lists the accumulated responses for Situations 1 through 3 in Experiment 1 for all language groups:

English Experiment 1 Situation 1 * Learner Group Crosstabulation

Count

		Learner Group					
		Jap L1-Eng L2	Eng L1-Ger L2	Eng L1-Jap L2	Eng L1-control	Ger L1-Eng L2	Total
English Experiment 1 Situation 1	Proximal Dem.PN (This)	15	8	8	7	11	49
	Distal Dem.PN (That)	2	8	8	11	4	33
	Determiner (The)	1	4	0	1	3	9
	Other	2	0	4	1	2	9
Total		20	20	20	20	20	100

Table 70: English Experiment 1 Situation 1, Comparison across Language Groups

English Experiment 1 Situation 2 * Learner Group Crosstabulation

Count

		Learner Group					
		Jap L1-Eng L2	Eng L1-Ger L2	Eng L1-Jap L2	Eng L1-control	Ger L1-Eng L2	Total
English Experiment 1 Situation 2	Proximal Dem.PN (This)	3	2	0	3	3	11
	Distal Dem.PN (That)	14	14	15	13	8	64
	Determiner (The)	2	4	2	2	5	15
	Other	1	0	3	2	4	10
Total		20	20	20	20	20	100

Table 71: English Experiment 1 Situation 2: Comparison across Language Groups

English Experiment 1 Situation 3 * Learner Group Crosstabulation

Count

		Learner Group					
		Jap L1-Eng L2	Eng L1-Ger L2	Eng L1-Jap L2	Eng L1-control	Ger L1-Eng L2	Total
English Experiment 1 Situation 3	Proximal Dem.PN (This)	1	1	0	4	3	9
	Distal Dem.PN (That)	14	9	15	14	8	60
	Determiner (The)	4	8	2	1	5	20
	Remote Locative Adverb (Over There)	1	2	0	0	0	3
	Other	0	0	3	1	4	8
Total		20	20	20	20	20	100

Table 72: English Experiment 1 Situation 3: Comparison across Language Groups

Tables 73 through 75 provide an overview of additional locative adverbs for Experiment 1 across language groups:

English Experiment 1 Situation 1: Additional Response * Learner Group Crosstabulation

Count

	Learner Group			
	Eng L1-Ger L2	Eng L1-Jap L2	Ger L1-Eng L2	Total
English Experiment 1 Situation 1: Additional Response add. here	2	1	2	5
Total	2	1	2	5

Table 73: English Experiment 1 Situation 1 (Additional Locative Adverbs): Comparison across Language Groups

English Experiment 1 Situation 2: Additional Response * Learner Group Crosstabulation

Count

		Learner Group					
		Jap L1-Eng L2	Eng L1-Ger L2	Eng L1-Jap L2	Eng L1-control	Ger L1-Eng L2	Total
English Experiment 1 Situation 2: Additional Response	add. here	0	0	1	0	0	1
	add. there	0	0	1	1	1	3
	add. over there	1	2	0	0	0	3
Total		1	2	2	1	1	7

Table 74: English Experiment 1 Situation 2 (Additional Locative Adverbs): Comparison across Language Groups

English Experiment 1 Situation 3: Additional Reponse * Learner Group Crosstabulation

Count

		Learner Group					
		Jap L1-Eng L2	Eng L1-Ger L2	Eng L1-Jap L2	Eng L1-control	Ger L1-Eng L2	Total
English Experiment 1 Situation 3: Additional Response	add. here	0	0	0	0	1	1
	add. there	0	3	0	0	0	3
	add. over there	7	2	5	3	7	24
Total		7	5	5	3	8	28

Table 75: English Experiment 1 Situation 3 (Additional Locative Adverbs): Comparison across Language Groups

Tables 76 through 78 provide a comparison of results across languages for Experiment 2 (English language data):

English Experiment 2 Situation 1 * Learner Group Crosstabulation

Count

		Learner Group					
		Jap L1-Eng L2	Eng L1-Ger L2	Eng L1-Jap L2	Eng L1-control	Ger L1-Eng L2	Total
English Experiment 2 Situation 1	Proximal Dem.PN (This)	5	15	12	12	17	61
	Distal Dem.PN (That)	0	1	4	6	1	12
	Proximal Locative Adverb (Here)	11	3	2	0	1	17
	Distal Locative Adverb (There)	1	0	0	0	0	1
	Other	3	1	2	2	1	9
Total		20	20	20	20	20	100

Table 76: English Experiment 2 Situation 1: Comparison across Language Groups

English Experiment 2 Situation 2 * Learner Group Crosstabulation

Count

		Jap L1-Eng L2	Eng L1-Ger L2	Eng L1-Jap L2	Eng L1-control	Ger L1-Eng L2	Total
				Learner Group			
English Experiment 2 Situation 2	Proximal Dem.PN (This)	0	0	1	1	6	8
	Distal Dem.PN (That)	6	12	15	16	10	59
	Determiner (The)	0	3	0	1	1	5
	Proximal Locative Adverb (Here)	1	0	0	0	0	1
	Distal Locative Adverb (There)	8	0	0	0	0	8
	Remote Locative Adverb (Over There)	1	3	2	0	1	7
	Other	4	2	2	2	2	12
Total		20	20	20	20	20	100

Table 77: English Experiment 2 Situation 2: Comparison across Language Groups

English Experiment 2 Situation 3 * Learner Group Crosstabulation

Count

		Jap L1-Eng L2	Eng L1-Ger L2	Eng L1-Jap L2	Eng L1-control	Ger L1-Eng L2	Total
				Learner Group			
English Experiment 2 Situation 3	Proximal Dem.PN (This)	0	0	0	5	3	8
	Distal Dem.PN (That)	1	11	12	11	10	45
	Determiner (The)	2	3	4	2	6	17
	Distal Locative Adverb (There)	2	0	0	0	0	2
	Remote Locative Adverb (Over There)	9	5	3	0	1	18
	Other	6	1	1	2	0	10
Total		20	20	20	20	20	100

Table 78: English Experiment 2 Situation 3: Comparison across Language Groups

Tables 79 through 81 provide a crosslinguistic comparison of occurrences of additional locative adverbs in Experiment 2:

English Experiment 2 Situation 1: Additional Response * Learner Group Crosstabulation

Count

		Learner Group					
		Jap L1-Eng L2	Eng L1-Ger L2	Eng L1-Jap L2	Eng L1-control	Ger L1-Eng L2	Total
English Experiment 2 Situation 1: Additional Response	add. here	1	3	1	1	3	9
Total		1	3	1	1	3	9

Table 79: English Experiment 2 Situation 1, Additional Locative Adverbs, Comparison across Language Groups

English Experiment 2 Situation 2: Additional Response * Learner Group Crosstabulation

Count

		Learner Group					
		Jap L1-Eng L2	Eng L1-Ger L2	Eng L1-Jap L2	Eng L1-control	Ger L1-Eng L2	Total
English Experiment 2 Situation 2: Additional Response	add. there	0	1	0	0	1	2
	add. over there	1	1	1	2	2	7
Total		1	2	1	2	3	9

Table 80: English Experiment 2 Situation 2, Additional Locative Adverbs, Comparison across Language Groups

English Experiment 2 Situation 3: Additional Response * Learner Group Crosstabulation

Count

		Learner Group					
		Jap L1-Eng L2	Eng L1-Ger L2	Eng L1-Jap L2	Eng L1-control	Ger L1-Eng L2	Total
English Experiment 2 Situation 3: Additional Response	add. there	0	1	0	0	0	1
	add. over there	2	3	11	4	10	30
Total		2	4	11	4	10	31

Table 81: English Experiment 2 Situation 3, Additional Locative Adverbs, Comparison across Language Groups

A comparison of results shows that that the difference between the use of *this* and *that* is significant between the L1 Japanese L2 English group and all other groups for Experiment 1 Situation 1. Moreover, when taking locative adverb responses into account, the Fisher-Yates test yielded significant differences between the proximal and the distal/remote position[40] at the 0.05 level for Situation 2 of Experiment 2 (p= 0.0192).

4.10.1.2 German

Tables 82 through 84 lists the accumulated responses for Situations 1 through 3 in Experiment 1 for German for all language groups:

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[40] To this end, the responses of 'PN proximal' and 'proximal locative adverb' were compared with the combined responses for 'PN distal', 'distal locative adverb' and 'remote locative adverb'.

German Experiment 1 Situation 1 * Learner Group Crosstabulation

Count

		Learner Group				
		Jap L1-Ger L2	Eng L1-Ger L2	Ger L1-Eng L2	Ger L1-Jap L2	Total
German Experiment 1 Situation 1	Proximal Pronominal Dem.PN (Diese-r-s)	6	8	6	7	27
	Definite Article (Der/Die/Das)	14	11	12	11	48
	Other	0	1	2	2	5
Total		20	20	20	20	80

Table 82: German Experiment 1 Situation 1, Comparison across Language Groups

German Experiment 1 Situation 2 * Learner Group Crosstabulation

Count

		Learner Group				
		Jap L1-Ger L2	Eng L1-Ger L2	Ger L1-Eng L2	Ger L1-Jap L2	Total
German Experiment 1 Situation 2	Proximal Pronominal Dem.PN (Diese-r-s)	4	5	8	9	26
	Distal Pronominal Dem.PN (Jene-r-s)	1	0	0	0	1
	Definite Article (Der/Die/Das)	15	14	11	10	50
	Other	0	1	1	1	3
Total		20	20	20	20	80

Table 83: German Experiment 1 Situation 2, Comparison across Language Groups

4 Results

**German Experiment 1 Situation 3 * Learner Group
Crosstabulation**

Count

| | | Learner Group | | | | |
		Jap L1-Ger L2	Eng L1-Ger L2	Ger L1-Eng L2	Ger L1-Jap L2	Total
German Experiment 1 Situation 3	Proximal Pronominal Dem.PN (Diese-r-s)	3	5	4	4	16
	Distal Pronominal Dem.PN (Jene-r-s)	3	0	0	1	4
	Definite Article (Der/Die/Das)	14	14	13	14	55
	Distal Locative Adverb (Da/Dort)	0	1	0	0	1
	Other	0	0	3	1	4
Total		20	20	20	20	80

Table 84: German Experiment 1 Situation 3, Comparison across Language Groups

Tables 85 through 87 provide an overview for Situations 1 through 3 for the use of additional locative adverbs in Experiment 1:

German Experiment 1 Situation 1: Additional Response * Learner Group Crosstabulation

Count

		Learner Group				
		Jap L1-Ger L2	Eng L1-Ger L2	Ger L1-Eng L2	Ger L1-Jap L2	Total
German Experiment 1 Situation 1: Additional Response	add. proximal locative adverb "hier"	2	1	2	3	8
	add. distal locative adverb "da/dort"	0	1	2	2	5
Total		2	2	4	5	13

Table 85: German Experiment 1 Situation 1, Additional Locative Adverbs, Comparison across Language Groups

German Experiment 1 Situation 2: Additional Response * Learner Group Crosstabulation

Count

		Learner Group				
		Jap L1-Ger L2	Eng L1-Ger L2	Ger L1-Eng L2	Ger L1-Jap L2	Total
German Experiment 1 Situation 2: Additional Response	add. distal locative adverb "da/dort"	1	1	3	3	8
	add. remote locative adverb "da/dort drüben"	1	0	1	2	4
Total		2	1	4	5	12

Table 86: German Experiment 1 Situation 2, Additional Locative Adverbs, Comparison across Language Groups

German Experiment 1 Situation 3: Additional Response * Learner Group Crosstabulation

Count

		Learner Group				
		Jap L1-Ger L2	Eng L1-Ger L2	Ger L1-Eng L2	Ger L1-Jap L2	Total
German Experiment 1 Situation 3: Additional Response	add. distal locative adverb "da/dort"	4	0	5	4	13
	add. remote locative adverb "da/dort drüben"	1	2	4	6	13
Total		5	2	9	10	26

Table 87: German Experiment 1 Situation 3, Additional Locative Adverbs, Comparison across Language Groups

Tables 88 through 90 lists the accumulated responses for Situations 1 through 3 in Experiment 2 for German for all language groups:

German Experiment 2 Situation 1 * Learner Group Crosstabulation

Count

| | | Learner Group | | | | |
		Jap L1-Ger L2	Eng L1-Ger L2	Ger L1-Eng L2	Ger L1-Jap L2	Total
German Experiment 2 Situation 1	Proximal Pronominal Dem.PN (Diese-r-s)	2	7	9	9	27
	Distal Pronominal Dem.PN (Jene-r-s)	1	0	0	0	1
	Definite Article (Der/Die/Das)	2	4	8	10	24
	Proximal Locative Adverb (Hier)	14	6	0	0	20
	Distal Locative Adverb (Da/Dort)	0	1	0	0	1
	Remote Locative Adverb (Da/Dort Drüben)	1	0	0	0	1
	Other	0	2	3	1	6
Total		20	20	20	20	80

Table 88: German Experiment 2 Situation 1, Comparison across Language Groups

175

German Experiment 2 Situation 2 * Learner Group Crosstabulation

Count

		Learner Group				
		Jap L1-Ger L2	Eng L1-Ger L2	Ger L1-Eng L2	Ger L1-Jap L2	Total
German Experiment 2 Situation 2	Proximal Pronominal Dem.PN (Diese-r-s)	0	4	4	4	12
	Distal Pronominal Dem.PN (Jene-r-s)	1	0	1	1	3
	Definite Article (Der/Die/Das)	3	8	13	13	37
	Proximal Locative Adverb (Hier)	4	0	0	0	4
	Distal Locative Adverb (Da/Dort)	11	6	0	1	18
	Remote Locative Adverb (Da/Dort Drüben)	1	1	0	0	2
	Other	0	1	2	1	4
Total		20	20	20	20	80

Table 89: German Experiment 2 Situation 2, Comparison across Language Groups

German Experiment 2 Situation 3 * Learner Group Crosstabulation

Count

		Learner Group				
		Jap L1-Ger L2	Eng L1-Ger L2	Ger L1-Eng L2	Ger L1-Jap L2	Total
German Experiment 2 Situation 3	Proximal Pronominal Dem.PN (Diese-r-s)	0	4	1	0	5
	Distal Pronominal Dem.PN (Jene-r-s)	2	0	0	1	3
	Definite Article (Der/Die/Das)	6	8	15	17	46
	Proximal Locative Adverb (Hier)	1	0	0	0	1
	Distal Locative Adverb (Da/Dort)	9	5	0	0	14
	Remote Locative Adverb (Da/Dort Drüben)	2	2	2	1	7
	Other	0	1	2	1	4
Total		20	20	20	20	80

Table 90: German Experiment 2 Situation 3, Comparison across Language Groups

Tables 91 through 93 lists the accumulated responses for additional locative adverbs for Situations 1 through 3 in Experiment 2 for German for all language groups:

German Experiment 2 Situation 1: Additional Response * Learner Group Crosstabulation

Count

		Learner Group				
		Jap L1-Ger L2	Eng L1-Ger L2	Ger L1-Eng L2	Ger L1-Jap L2	Total
German Experiment 2 Situation 1: Additional Response	add. proximal locative adverb "hier"	2	3	6	9	20
	add. distal locative adverb "da/dort"	0	0	1	2	3
Total		2	3	7	11	23

Table 91: German Experiment 2 Situation 1, Additional Locative Adverbs, Comparison across Language Groups

German Experiment 2 Situation 2: Additional Response * Learner Group Crosstabulation

Count

		Learner Group				
		Jap L1-Ger L2	Eng L1-Ger L2	Ger L1-Eng L2	Ger L1-Jap L2	Total
German Experiment 2 Situation 2: Additional Response	add. proximal locative adverb "hier"	0	1	2	1	4
	add. distal locative adverb "da/dort"	2	4	7	7	20
	add. remote locative adverb "da/dort drüben"	0	1	0	0	1
Total		2	6	9	8	25

Table 92: German Experiment 2 Situation 2, Additional Locative Adverbs, Comparison across Language Groups

German Experiment 2 Situation 3: Additional Response * Learner Group Crosstabulation

Count

		Learner Group				
		Jap L1-Ger L2	Eng L1-Ger L2	Ger L1-Eng L2	Ger L1-Jap L2	Total
German Experiment 2 Situation 3: Additional Response	add. distal locative adverb "da/dort"	1	2	7	4	14
	add. remote locative adverb "da/dort drüben"	3	3	4	8	18
Total		4	5	11	12	32

Table 93: German Experiment 2 Situation 3, Additional Locative Adverbs, Comparison across Language Groups

In general, Japanese participants preferred the use of locative adverbs over demonstrative pronouns. L1 German participants were most likely to use additional locative adverbs.

4.10.1.3 Japanese

Tables 94 through 96 summarise the responses for Japanese language data in Experiment 1:

**Japanese Experiment 1 Situation 1 * Learner Group
Crosstabulation**

Count

		Learner Group				
		Jap L1- Eng L2	Jap L1- Ger L2	Eng L1- Jap L2	Ger L1- Jap L2	Total
Japanese Experiment 1 Situation 1	Proximal Pronominal Dem.PN (Kore)	0	1	3	1	5
	Proximal Adnominal Dem.PN (Kono)	12	14	10	14	50
	Distal Adnominal Dem.PN (Sono)	1	0	2	0	3
	Proximal Locative Adverb (Koko)	2	1	1	1	5
	Other	5	4	4	4	17
Total		20	20	20	20	80

Table 94: Japanese Experiment 1 Situation 1, Additional Locative Adverbs, Comparison across Language Groups

Japanese Experiment 1 Situation 2 * Learner Group Crosstabulation

Count

		Learner Group				
		Jap L1-Eng L2	Jap L1-Ger L2	Eng L1-Jap L2	Ger L1-Jap L2	Total
Japanese Experiment 1 Situation 2	Proximal Pronominal Dem.PN (Kore)	0	0	0	1	1
	Distal Pronominal Dem.PN (Sore)	0	0	2	1	3
	Remote Pronominal Dem.PN (Are)	1	1	0	1	3
	Proximal Adnominal Dem.PN (Kono)	0	4	2	2	8
	Distal Adnominal Dem.PN (Sono)	9	8	8	10	35
	Remote Adnominal Dem.PN (Ano)	1	0	4	0	5
	Proximal Locative Adverb (Koko)	1	0	1	0	2
	Distal Locative Adverb (Soko)	7	6	1	1	15
	Other	1	1	2	4	8
Total		20	20	20	20	80

Table 95: Japanese Experiment 1 Situation 2, Additional Locative Adverbs, Comparison across Language Groups

Japanese Experiment 1 Situation 3 * Learner Group
Crosstabulation

Count

		Learner Group				
		Jap L1- Eng L2	Jap L1- Ger L2	Eng L1- Jap L2	Ger L1- Jap L2	Total
Japanese Experiment 1 Situation 3	Proximal Pronominal Dem.PN (Kore)	0	0	1	0	1
	Distal Pronominal Dem.PN (Sore)	0	0	1	1	2
	Remote Pronominal Dem.PN (Are)	1	1	2	2	6
	Proximal Adnominal Dem.PN (Kono)	1	0	0	0	1
	Distal Adnominal Dem.PN (Sono)	0	1	1	2	4
	Remote Adnominal Dem.PN (Ano)	7	11	9	9	36
	Distal Locative Adverb (Soko)	3	2	1	0	6
	Remote Locative Adverb (Asoko)	7	3	3	1	14
	Other	1	2	2	5	10
Total		20	20	20	20	80

Table 96: Japanese Experiment 1 Situation 3, Additional Locative Adverbs, Comparison across Language Groups

Tables 97 through 99 summarise the responses for Japanese language data in Experiment 2:

Japanese Experiment 2 Situation 1 * Learner Group Crosstabulation

Count

		Learner Group				
		Jap L1-Eng L2	Jap L1-Ger L2	Eng L1-Jap L2	Ger L1-Jap L2	Total
Japanese Experiment 2 Situation 1	Proximal Pronominal Dem.PN (Kore)	1	0	4	7	12
	Proximal Adnominal Dem.PN (Kono)	0	1	3	1	5
	Distal Adnominal Dem.PN (Sono)	1	0	0	0	1
	Proximal Locative Adverb (Koko)	12	16	10	10	48
	Distal Locative Adverb (Soko)	2	2	0	1	5
	Other	4	1	3	1	9
Total		20	20	20	20	80

Table 97: Japanese Experiment 2 Situation 1, Additional Locative Adverbs, Comparison across Language Groups

Japanese Experiment 2 Situation 2 * Learner Group Crosstabulation

Count

| | | Learner Group | | | | |
		Jap L1-Eng L2	Jap L1-Ger L2	Eng L1-Jap L2	Ger L1-Jap L2	Total
Japanese Experiment 2 Situation 2	Proximal Pronominal Dem.PN (Kore)	0	0	2	3	5
	Distal Pronominal Dem.PN (Sore)	0	0	3	1	4
	Proximal Adnominal Dem.PN (Kono)	0	0	1	1	2
	Distal Adnominal Dem.PN (Sono)	0	0	3	1	4
	Remote Adnominal Dem.PN (Ano)	1	0	0	0	1
	Proximal Locative Adverb (Koko)	0	2	1	0	3
	Distal Locative Adverb (Soko)	8	13	5	13	39
	Remote Locative Adverb (Asoko)	6	2	3	0	11
	Other	5	3	2	1	11
Total		20	20	20	20	80

Table 98: Japanese Experiment 2 Situation 2, Additional Locative Adverbs, Comparison across Language Groups

Japanese Experiment 2 Situation 3 * Learner Group Crosstabulation

Count

		Learner Group				
		Jap L1-Eng L2	Jap L1-Ger L2	Eng L1-Jap L2	Ger L1-Jap L2	Total
Japanese Experiment 2 Situation 3	Proximal Pronominal Dem.PN (Kore)	0	0	0	1	1
	Distal Pronominal Dem.PN (Sore)	0	0	0	3	3
	Remote Pronominal Dem.PN (Are)	0	0	3	0	3
	Proximal Adnominal Dem.PN (Kono)	1	1	1	1	4
	Remote Adnominal Dem.PN (Ano)	0	2	2	2	6
	Proximal Locative Adverb (Koko)	2	0	0	0	2
	Distal Locative Adverb (Soko)	0	1	0	0	1
	Remote Locative Adverb (Asoko)	12	14	12	12	50
	Other	5	2	2	1	10
Total		20	20	20	20	80

Table 99: Japanese Experiment 2 Situation 2, Additional Locative Adverbs, Comparison across Language Groups

Clear distinctions are made between proximal, distal and remote for demonstrative pronouns as well as locative adverbs in Japanese across language groups, including the Japanese L1 groups.

4.10.2 Predicted Versus Unpredicted Results

For each of the situations in both Experiment 1 and Experiment 2, the results were classified as predicted or unpredicted based on the evaluation categories established in Section 3.6. To this end, a yes-no dichotomy (1 = yes, 0 = no) was created for each situation in each experiment: for example, EngExp1Sit1_Predicted (predicted outcomes) and EngExp1Sit1_Other (divergent outcomes) for English Experiment 1 Situation 1. For each participant, the result was then either predicted = 1 and unpredicted = 0 or predicted = 0 and unpredicted = 1 for each situation within each experiment. For example, if the response for English Experiment 1 Situation 1 was predicted, EngExp1Sit1_Predicted = 1 and EngExp1Sit1_Other = 0. The results were then added up for each group, allowing for a comparison of means across language groups. The closer the mean value in any given group for the variable 'predicted outcomes' is to one, the more closely it aligns with the predicted outcome. Vice versa, the closer the mean value for any given group is to zero, the further away it is from the predicted outcome for each situation within each experiment. Accordingly, the closer the mean value in any given group for the variable 'divergent outcomes' is to one, the more closely it aligns with the divergent outcome. The further away it is from 1, the closer it aligns with predicted outcomes. The following tables provide a comparison of predicted and unpredicted results across learner groups. The first table is a summary of Experiment 1 for English:

Report

Learner Group		English Exp. 1 Sit. 1: Predicted Outcomes	English Exp. 1 Sit. 1: Divergent Outcomes	English Exp. 1 Sit. 2: Predicted Outcomes	English Exp. 1 Sit. 2: Divergent Outcomes	English Exp. 1 Sit. 3: Predicted Outcomes	English Exp. 1 Sit. 3: Divergent Outcomes
Jap L1-Eng L2	Mean	.75	.25	.70	.30	.95	.05
	Std. Dev.	.444	.444	.470	.470	.224	.224
	Std. Error of Mean	.099	.099	.105	.105	.050	.050
Eng L1-Ger L2	Mean	.40	.60	.70	.30	.60	.40
	Std. Dev.	.503	.503	.470	.470	.503	.503
	Std. Error of Mean	.112	.112	.105	.105	.112	.112
Eng L1-Jap L2	Mean	.40	.60	.80	.20	.80	.20
	Std. Dev.	.503	.503	.410	.410	.410	.410
	Std. Error of Mean	.112	.112	.092	.092	.092	.092
Eng L1-control	Mean	.35	.65	.65	.35	.75	.25
	Std. Deviation	.489	.489	.489	.489	.444	.444
	Std. Error of Mean	.109	.109	.109	.109	.099	.099
Ger L1-Eng L2	Mean	.50	.50	.45	.55	.45	.55
	Std. Dev.	.513	.513	.510	.510	.510	.510
	Std. Error of Mean	.115	.115	.114	.114	.114	.114
Total	Mean	.48	.52	.66	.34	.71	.29
	Std. Dev.	.502	.502	.476	.476	.456	.456
	Std. Error of Mean	.050	.050	.048	.048	.046	.046

Table 100: Comparison Means English Experiment 1 with Standard Deviation/Standard Error of Mean

Table 100 illustrates that Japanese learners of English responded as predicted across all three situations. This is a marked difference from all other groups, particularly all three L1 English groups (English L1 German L2, English L1 Japanese L2, and the English L1 control group), but also from the L1 German L2 English group. A one-way ANOVA illustrates that this difference was only statistically significant for Situation 3 (p = 0.05) for predicted and divergent outcomes:

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
English Experiment 1 Situation 1: Predicted Outcomes	Between Groups	2.060	4	.515	2.136	.082
	Within Groups	22.900	95	.241		
	Total	24.960	99			
English Experiment 1 Situation 1: Divergent Outcomes	Between Groups	2.060	4	.515	2.136	.082
	Within Groups	22.900	95	.241		
	Total	24.960	99			
English Experiment 1 Situation 2: Predicted Outcomes	Between Groups	1.340	4	.335	1.508	.206
	Within Groups	21.100	95	.222		
	Total	22.440	99			
English Experiment 1 Situation 2: Divergent Outcomes	Between Groups	1.340	4	.335	1.508	.206
	Within Groups	21.100	95	.222		
	Total	22.440	99			
English Experiment 1 Situation 3: Predicted Outcomes	Between Groups	2.940	4	.735	3.956	.005
	Within Groups	17.650	95	.186		
	Total	20.590	99			
English Experiment 1 Situation 3: Divergent Outcomes	Between Groups	2.940	4	.735	3.956	.005
	Within Groups	17.650	95	.186		
	Total	20.590	99			

Table 101: One-way ANOVA Experiment 1: English Language Data

Table 102 provides a comparison of predicted and divergent outcomes for Experiment 2:

Report

Learner Group		English Exp. 2 Sit. 1: Predicted Outcomes	English Exp. 2 Sit. 1: Divergent Outcomes	English Exp. 2 Sit. 2: Predicted Outcomes	English Exp. 2 Sit. 2: Divergent Outcomes	English Exp. 2 Sit. 3: Predicted Outcomes	English Exp. 2 Sit. 3: Divergent Outcomes
Jap L1-Eng L2	Mean	.80	.20	.70	.30	.65	.35
	Std. Dev.	.410	.410	.470	.470	.489	.489
	Std. Error of Mean	.092	.092	.105	.105	.109	.109
Eng L1-Ger L2	Mean	.90	.10	.60	.40	.85	.15
	Std. Dev.	.308	.308	.503	.503	.366	.366
	Std. Error of Mean	.069	.069	.112	.112	.082	.082
Eng L1-Jap L2	Mean	.70	.30	.70	.30	.95	.05
	Std. Dev.	.470	.470	.470	.470	.224	.224
	Std. Error of Mean	.105	.105	.105	.105	.050	.050
Eng L1-control	Mean	.60	.40	.80	.20	.70	.30
	Std. Dev.	.503	.503	.410	.410	.470	.470
	Std. Error of Mean	.112	.112	.092	.092	.105	.105
Ger L1-Eng L2	Mean	.90	.10	.50	.50	.85	.15
	Std. Dev.	.308	.308	.513	.513	.366	.366
	Std. Error of Mean	.069	.069	.115	.115	.082	.082
Total	Mean	.78	.22	.66	.34	.80	.20
	Std. Dev.	.416	.416	.476	.476	.402	.402
	Std. Error of Mean	.042	.042	.048	.048	.040	.040

Table 102: Comparison Means English Experiment 2 with Standard Deviation/Standard Error of Mean

A one-way ANOVA was conducted for the responses in Experiment 1. The results indicate that none of the observed differences are statistically significant.

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
English Experiment 2 Situation 1: Predicted Outcomes	Between Groups	1.360	4	.340	2.044	.094
	Within Groups	15.800	95	.166		
	Total	17.160	99			
English Experiment 2 Situation 1: Divergent Outcomes	Between Groups	1.360	4	.340	2.044	.094
	Within Groups	15.800	95	.166		
	Total	17.160	99			
English Experiment 2 Situation 2: Predicted Outcomes	Between Groups	1.040	4	.260	1.154	.336
	Within Groups	21.400	95	.225		
	Total	22.440	99			
English Experiment 2 Situation 2: Divergent Outcomes	Between Groups	1.040	4	.260	1.154	.336
	Within Groups	21.400	95	.225		
	Total	22.440	99			
English Experiment 2 Situation 3: Predicted Outcomes	Between Groups	1.200	4	.300	1.926	.112
	Within Groups	14.800	95	.156		
	Total	16.000	99			
English Experiment 2 Situation 3: Divergent Outcomes	Between Groups	1.200	4	.300	1.926	.112
	Within Groups	14.800	95	.156		
	Total	16.000	99			

Table 103: One-way ANOVA Experiment 2, English Language Data

Table 104 provides a comparison of means for predicted and divergent responses for German for Experiment 1:

Report

Learner Group		German Exp. 1 Sit. 1: Predicted Outcomes	German Exp. 1 Sit. 1: Divergent Outcomes	German Exp. 1 Sit. 2: Predicted Outcomes	German Exp. 1 Sit. 2: Divergent Outcomes	German Exp. 1 Sit. 3: Predicted Outcomes	German Exp. 1 Sit. 3: Divergent Outcomes
Jap L1-Ger L2	Mean	1.00	.00	.90	.10	.80	.20
	Std. Dev.	.000	.000	.308	.308	.410	.410
	Std. Error of Mean	.000	.000	.069	.069	.092	.092
Eng L1-Ger L2	Mean	.90	.10	.95	.05	1.00	.00
	Std. Dev.	.308	.308	.224	.224	.000	.000
	Std. Error of Mean	.069	.069	.050	.050	.000	.000
Ger L1-Eng L2	Mean	.90	.10	.90	.10	.85	.15
	Std. Dev.	.308	.308	.308	.308	.366	.366
	Std. Error of Mean	.069	.069	.069	.069	.082	.082
Ger L1-Jap L2	Mean	.90	.10	.85	.15	.95	.05
	Std. Dev.	.308	.308	.366	.366	.224	.224
	Std. Error of Mean	.069	.069	.082	.082	.050	.050
Total	Mean	.92	.08	.90	.10	.90	.10
	Std. Dev.	.265	.265	.302	.302	.302	.302
	Std. Error of Mean	.030	.030	.034	.034	.034	.034

Table 104: Comparison Means German Experiment 1 with Standard Deviation/Standard Error of Mean

A one-way ANOVA was conducted to compare results and indicates that the differences between the responses are non-significant across groups.

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
German Experiment 1 Sitation 1: Predicted Outcomes	Between Groups	.150	3	.050	.704	.553
	Within Groups	5.400	76	.071		
	Total	5.550	79			
German Experiment 1 Situation 1: Divergent Outcomes	Between Groups	.150	3	.050	.704	.553
	Within Groups	5.400	76	.071		
	Total	5.550	79			
German Experiment 1 Siuation 2: Predicted Outcomes	Between Groups	.100	3	.033	.357	.784
	Within Groups	7.100	76	.093		
	Total	7.200	79			
German Experiment 1 Situation 2: Divergent Outcomes	Between Groups	.100	3	.033	.357	.784
	Within Groups	7.100	76	.093		
	Total	7.200	79			
German Experiment 1 Situation 3: Predicted Outcomes	Between Groups	.500	3	.167	1.891	.138
	Within Groups	6.700	76	.088		
	Total	7.200	79			
German Experiment 1 Situation 3: Divergent Outcomes	Between Groups	.500	3	.167	1.891	.138
	Within Groups	6.700	76	.088		
	Total	7.200	79			

Table 105: One-way ANOVA Experiment 1: German Language Data

Table 106 shows a comparison of outcomes for Experiment 2 for German language data:

Report

Learner Group		German Exp. 2 Sit. 1: Predicted Outcomes	German Exp. 2 Sit. 1: Divergent Outcomes	German Exp. 2 Sit. 2: Divergent Outcomes	German Exp. 2 Sit. 2: Predicted Outcomes	German Exp. 2 Sit. 3: Predicted Outcomes	German Exp. 2 Sit. 3: Divergent Outcomes
Jap L1-Ger L2	Mean	.90	.10	.25	.75	.95	.05
	Std. Dev.	.308	.308	.444	.444	.224	.224
	Std. Error of Mean	.069	.069	.099	.099	.050	.050
Eng L1-Ger L2	Mean	.85	.15	.20	.80	.95	.05
	Std. Dev.	.366	.366	.410	.410	.224	.224
	Std. Error of Mean	.082	.082	.092	.092	.050	.050
Ger L1-Eng L2	Mean	.85	.15	.15	.85	.90	.10
	Std. Dev.	.366	.366	.366	.366	.308	.308
	Std. Error of Mean	.082	.082	.082	.082	.069	.069
Ger L1-Jap L2	Mean	.85	.15	.10	.90	.90	.10
	Std. Dev.	.366	.366	.308	.308	.308	.308
	Std. Error of Mean	.082	.082	.069	.069	.069	.069
Total	Mean	.86	.14	.18	.83	.92	.07
	Std. Dev.	.347	.347	.382	.382	.265	.265
	Std. Error of Mean	.039	.039	.043	.043	.030	.030

Table 106: Comparison Means German Experiment 2 with Standard Deviation/Standard Error of Mean

A one-way ANOVA indicates that differences between groups are non-significant:

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
German Experiment 2 Situation 1: Predicted Outcomes	Between Groups	.038	3	.013	.101	.959
	Within Groups	9.450	76	.124		
	Total	9.487	79			
German Experiment 2 Situation 1: Divergent Outcomes	Between Groups	.037	3	.012	.101	.959
	Within Groups	9.450	76	.124		
	Total	9.487	79			
German Experiment 2 Situation 2: Predicted Outcomes	Between Groups	.250	3	.083	.560	.643
	Within Groups	11.300	76	.149		
	Total	11.550	79			
German Experiment 2 Situation 2: Divergent Outcomes	Between Groups	.250	3	.083	.560	.643
	Within Groups	11.300	76	.149		
	Total	11.550	79			
German Experiment 2 Situation 3: Predicted Outcomes	Between Groups	.050	3	.017	.230	.875
	Within Groups	5.500	76	.072		
	Total	5.550	79			
German Experiment 2 Situation 3: Divergent Outcomes	Between Groups	.050	3	.017	.230	.875
	Within Groups	5.500	76	.072		
	Total	5.550	79			

Table 107: One-way ANOVA Experiment 2: German Language Data

Table 108 provides and overview of predicted and divergent outcomes for Japanese language data in experiment 1 across language groups:

Report

Learner Group		Japanese Exp. 1 Sit. 1: Predicted Outcomes	Japanese Exp. 1 Sit. 1: Divergent Outcomes	Japanese Exp. 1 Sit. 2: Predicted Outcomes	Japanese Exp. 1 Sit. 2: Divergent Outcomes	Japanese Exp. 1 Sit. 3: Predicted Outcomes	Japanese Exp. 1 Sit. 3: Divergent Outcomes
Jap L1-Eng L2	Mean	.70	.30	.80	.20	.75	.25
	Std. Dev.	.470	.470	.410	.410	.444	.444
	Std. Error of Mean	.105	.105	.092	.092	.099	.099
Jap L1-Ger L2	Mean	.80	.20	.70	.30	.75	.25
	Std. Dev.	.410	.410	.470	.470	.444	.444
	Std. Error of Mean	.092	.092	.105	.105	.099	.099
Eng L1-Jap L2	Mean	.70	.30	.55	.45	.70	.30
	Std. Dev.	.470	.470	.510	.510	.470	.470
	Std. Error of Mean	.105	.105	.114	.114	.105	.105
Ger L1-Jap L2	Mean	.80	.20	.60	.40	.60	.40
	Std. Dev.	.410	.410	.503	.503	.503	.503
	Std. Error of Mean	.092	.092	.112	.112	.112	.112
Total	Mean	.75	.25	.66	.34	.70	.30
	Std. Dev.	.436	.436	.476	.476	.461	.461
	Std. Error of Mean	.049	.049	.053	.053	.052	.052

Table 108: Comparison Means Japanese Experiment 1 with Standard Deviation/Standard Error of Mean

A one-way ANOVA was conducted and indicates that differences are not of statistical significance:

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Japanese Experiment 1 Situation1: Predicted Outcomes	Between Groups	.200	3	.067	.342	.795
	Within Groups	14.800	76	.195		
	Total	15.000	79			
Japanese Experiment 1 Situation 1: Divergent Outcomes	Between Groups	.200	3	.067	.342	.795
	Within Groups	14.800	76	.195		
	Total	15.000	79			
Japanese Experiment 1 Situation 2: Predicted Outcomes	Between Groups	.738	3	.246	1.089	.359
	Within Groups	17.150	76	.226		
	Total	17.888	79			
Japanese Experiment 1 Situation 2: Divergent Outcomes	Between Groups	.738	3	.246	1.089	.359
	Within Groups	17.150	76	.226		
	Total	17.888	79			
Japanese Experiment 1 Situation 3: Predicted Outcomes	Between Groups	.300	3	.100	.461	.711
	Within Groups	16.500	76	.217		
	Total	16.800	79			
Japanese Experiment 1 Situation 3: Divergent Outcomes	Between Groups	.300	3	.100	.461	.711
	Within Groups	16.500	76	.217		
	Total	16.800	79			

Table 109: One-way ANOVA Experiment 1: Japanese Language Data

Table 110 provides a comparison of Japanese language data for results of Experiment 2:

Report

Learner Group		Japanese Exp. 2 Sit. 1: Predicted Outcomes	Japanese Exp. 2 Sit. 1: Divergent Outcomes	Japanese Exp. 2 Sit. 2: Predicted Outcomes	Japanese Exp. 2 Sit. 2: Divergent Outcomes	Japanese Exp. 2 Sit. 3: Predicted Outcomes	Japanese Exp. 2 Sit. 3: Divergent Outcomes
Jap L1-Eng L2	Mean	.70	.30	.45	.55	.65	.40
	N	20	20	20	20	20	20
	Std. Deviation	.470	.470	.510	.510	.489	.503
	Std. Error of Mean	.105	.105	.114	.114	.109	.112
Jap L1-Ger L2	Mean	.85	.15	.65	.35	.80	.20
	N	20	20	20	20	20	20
	Std. Deviation	.366	.366	.489	.489	.410	.410
	Std. Error of Mean	.082	.082	.109	.109	.092	.092
Eng L1-Jap L2	Mean	.85	.15	.55	.45	.85	.15
	N	20	20	20	20	20	20
	Std. Deviation	.366	.366	.510	.510	.366	.366
	Std. Error of Mean	.082	.082	.114	.114	.082	.082
Ger L1-Jap L2	Mean	.90	.10	.75	.25	.70	.30
	N	20	20	20	20	20	20
	Std. Deviation	.308	.308	.444	.444	.470	.470
	Std. Error of Mean	.069	.069	.099	.099	.105	.105
Total	Mean	.82	.18	.60	.40	.75	.26
	N	80	80	80	80	80	80
	Std. Deviation	.382	.382	.493	.493	.436	.443
	Std. Error of Mean	.043	.043	.055	.055	.049	.050

Table 110: Comparison Means Japanese Experiment 2 with Standard Deviation/Standard Error of Mean

Although results show a slightly higher occurrence of divergent than predicted responses for the L1 Japanese L2 English group in situation 2, and equal rates of predicted and divergent responses for situation 2 in the L1 English L2 Japanese group, a one-way ANOVA reveals that these differences are not significant:

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Japanese Experiment 2 Situation 1: Predicted Outcomes	Between Groups	.450	3	.150	1.027	.386
	Within Groups	11.100	76	.146		
	Total	11.550	79			
Japanese Experiment 2 Situation 1: Divergent Outcomes	Between Groups	.450	3	.150	1.027	.386
	Within Groups	11.100	76	.146		
	Total	11.550	79			
Japanese Experiment 2 Situation 2: Predicted Outcomes	Between Groups	1.000	3	.333	1.392	.252
	Within Groups	18.200	76	.239		
	Total	19.200	79			
Japanese Experiment 2 Situation 2: Divergent Outcomes	Between Groups	1.000	3	.333	1.392	.252
	Within Groups	18.200	76	.239		
	Total	19.200	79			
Japanese Experiment 2 Situation 3: Predicted Outcomes	Between Groups	.500	3	.167	.874	.459
	Within Groups	14.500	76	.191		
	Total	15.000	79			
Japanese Experiment 2 Situation 3: Divergent Outcomes	Between Groups	.738	3	.246	1.267	.292
	Within Groups	14.750	76	.194		
	Total	15.488	79			

Table 111: One-way ANOVA Experiment 2: Japanese Language Data

4.11 Summary of Comparison of Results Across Languages

The comparison of individual responses across language groups led to the following conclusions:

1. There were significant differences ($p < 0.05$) in proximal and distal demonstrative responses between the L1 German L2 English and the L1 Japanese L2 English data.

2. There were observable but insignificant differences between responses in the L2 German and L2 Japanese groups.

3. L1 Japanese speakers preferred locative adverbs over demonstrative pronouns in their L2 German and L2 English output for Experiment 2. L1 German speakers used additional German locative adverbs more often than the other two groups.

This comparison of predicted and divergent results across languages led to few statistically significant results according to one-way ANOVAs. L1 Japanese learners of English showed significantly higher levels of predicted results in English than both the L1 German L2 English group and the L1 English groups, and the English L1 control group had a significantly higher rate of divergent output. There are differences that are observable, which are, however, not statistically significant.

5 Discussion of Results

In the following section, I discuss the results presented in the preceding chapters. As explained in Section 4.11, I discuss statistically significant results alongside statistically non-significant differences between learner groups.

5.1 Discussion of Baseline (L1) Results

5.1.1 L1 English

In Experiment 1, participants often did not distinguish between their use of proximal and distal demonstrative pronouns regardless of the relative distance of the referent. Instead, at least for the L1 English learner groups, locative adverbs sometimes seemed to take on the role of disambiguating distance. This means that participants behaved differently than the literature suggests. However, these findings are in line with the preference for emotive use we might expect from native speakers of any given language (Pavlenko 2012).

There was a preference for the use of *that* over *this* in all three situations. When asked why participants used *that* instead of *this* in Situation 1, the most frequent response given was that *this* would only have been admissible had the pen been in their hand or had the pen been previously known to them (i.e., had they been the *owners* of the pen). Another response given was that the pen was viewed as part of the test design and was therefore in the possession of the interviewers. It stands to reason that the use of *this* when referring to objects is not based exclusively – or, in fact, primarily – on distance, but on other factors such as specification and relation to the addressee (i.e., possession and

social hierarchy), as well as solidarity with the addressee (emotional deixis).

Less than a quarter of the L1 English participants learning an additional language used additional locative adverbs. There were no significant differences between the use of additional locative adverbs between groups, although remote locative adverbs use could be observed most often in the L1 English L2 Japanese group (5 occurrences). Participants distinguished between proximal, distal, and remote positions when they used additional locative adverbs. The L1 English L2 Japanese group behaved differently from the other L1 English groups in Experiment 1, in that there was a clear distinction between the use of *this* for Situation 1 and *that* for Situations 2 and 3. This is possibly a reverse transfer effect from Japanese onto English.

In Experiment 2, distance seemed to be a more crucial factor in determining the L1 English learners' use of demonstrative pronouns, and there were significant differences between all three groups between Situation 1 and Situation 2 and Situation 1 and Situation 3. In Situation 1, there was a clear preference for *this* across groups, whereas there was a preference for *that* in Situations 2 and 3. As was the case for Experiment 1, a small number of participants used additional locative adverbs to distinguish between positions. The frequent use of additional remote locative adverb combination *over there* for Situation 3 in the L1 English L2 Japanese group for 11 of the 20 participants is especially striking. Arguably, this is a reverse transfer effect from Japanese onto English.

In the grammatical judgment task, L1 English participants behaved almost exclusively as predicted, meaning that sentences that were categorised as grammatically incorrect according to the literature were marked as grammatically incorrect, and sentences that were categorized

201

as grammatically correct according to the literature were marked as grammatically correct. The only exceptions to this were the sentences *Stranger things have happened to me than this* vs. *Stranger things have happened to me than that.* Both are grammatically correct, but when presented with both sentences, L1 English participants often preferred one to the other. It is possible that this either correlates with speakers' variety of English or is a reverse transfer effect from their L2. However, more data is required to form any further conclusions.

All of the participants used gestures to disambiguate between the three positions. The most common gesture for the L1 English control group was direct index finger pointing, with participants' arms somewhat extended from their bodies. Since gestures are not the focal point of this analysis, I will not go into any further detail, but I will note that the use of gestures did not seem to have an effect on whether the same demonstrative pronoun was used for all three positions or not because all of the participants used gestures regardless of demonstrative pronoun choice. However, an avenue of research that investigates the use of demonstrative pronouns in combination with gestures might be able to provide further insights into demonstrative pronoun choice.

5.1.2 L1 German

As predicted based on previous research, L1 German speakers did not use the distal demonstrative pronoun *jene/-r/-s* at all in spoken language. [41] Moreover, the definite article *der/die/das* was used

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[41] There were two exceptions to this in the data (based on responses from two informants, one L1 German L2 English and one L1 German L2 English/L3 Japanese). However, the participants in question were students of German literature and linguistics. It can therefore be argued that they demonstrated higher levels of metalinguistic awareness.

interchangeably with the demonstrative pronoun, was more frequently used than *diese/-r/-s* in this dataset, and was phonetically stressed when used in its demonstrative function. This is in line with previous research on the use of demonstrative pronouns in spoken language (Ahrenholz 2007), because in the majority of instances, demonstratives were used adnominally rather than pronominally, which often prompted the use of *diese/-r/-s*. Differences in relative distance were marked by means of locative adverbs in a quarter of cases. There was a definite preference for the proximal locative adverb *hier* in Situation 1, the distal locative adverb *da/dort* in Situation 2, and the remote locative adverb *da/dort drüben* in Situation 3.

In Experiment 2, participants again used the distance-neutral *diese/-r/-s* or the stressed article *der/die/das* for all three situations. Additional locative adverbs were used more frequently in Experiment 2 than in Experiment 1. Again, the proximal locative adverb was employed in Situation 1, the distal locative adverb was used in Situation 2, and the remote locative adverb was used in Situation 3. When used in conjunction with stressed definite articles, there seemed to be a difference between the use of the distal locative adverb *dort* and the distal locative adverb *da*, with *da* used to refer to the distal position (e.g., *Den Stift da*) and *dort* used to refer to the remote position (e.g., *Den Stift dort drüben*). Since this may be a result of differences in variety, any interpretation of these findings is tentative at best. One definite finding, however, is that in both Situation 1 and Situation 2, *diese/-r/-s* did not occur in conjunction with either the distal (*da/dort*) or remote (*da/dort drüben*) locative adverb, which supports Ahrenholz' (2007) findings that *diese/-r/-s* is not entirely distance-neutral.

203

In the grammatical judgment task, L1 German speakers behaved as predicted, meaning that sentences that were predicted to be rated as correct were rated as such, and sentences that were predicted to be rated as incorrect were also rated as such. Interestingly, German L1 speakers rated sentences using the distal demonstrative pronoun *jene/-r/-s* as inacceptable in most cases[42] even though only one of the two control sentences is in dialogue form. This speaks to the hypothesis that *jene/-r/-s* is becoming more and more obsolete, even in written contexts.[43] It is found in fixed contrastive collocations in academic written language (e.g., *Die Tierwelt jener Zeit*) or in poetic contexts.

Gestures were common for all of the German participants. As in the L1 English group, participants tended to point directly and extend their arms from their bodies. Unlike the L1 English group, participants frequently moved their hands from side to side as interviewers moved to retrieve the pen, seeming to indicate or mimic the movement of the interviewer in question. Again, it would be interesting to further investigate these results in conjunction with participants' use of demonstratives in further research.

5.1.3 L1 Japanese

In Experiment 1, L1 Japanese speakers preferred to use adnominal pronouns in conjunction with the noun 'pen'. As predicted, no additional markers were used to express distance. However, particles were used to express the relationship to the referent more clearly. Furthermore, particles were used in conjunction with the adverbial locatives

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[42] Note that the unacceptable rating in the grammatical judgment task was classified as the correct rating based on the literature.

[43] Nowadays, its primary use is arguably anaphoric.

koko/soko/asoko when they occurred instead of demonstrative pronouns, which was the case for a number of participants (e.g., *Asoko ni atte no pen wo.../Koko ni arimasu*). As for the distance positions, L1 Japanese speakers most frequently used the proximal distance marker *ko-* in Situation 1 (although the distal distance marker *so-* was used in a number of cases, as well) and also behaved largely as predicted in the other two situations (i.e., *so-* was used almost exclusively in Situation 2 and *a-* was used most frequently in Situation 3, although sometimes substituted with *so-*).

When asked about their response, participants who used distal demonstratives (*sono/sore*) for the first position referred to issues of social distance/politeness, which in this case played a more important role than spatial distance for the participants in question. In other words, even though the pen was situated closer to the interviewer than to the participant, it was considered impolite (too informal) to use the morpheme *ko-*, which in my opinion can be interpreted as a gesture of solidarity and therefore a form of emotional deixis. Furthermore, similar to the English L1 group, aspects of perceived ownership played a role and overlapped with aspects of politeness. If the pen was regarded as belonging to the interviewer, then *so-* was more likely to be used to signal the referent's relationship to the addressee. Consequently, aspects other than relative points of distance to the speaker and hearer in any given situation also seemed to play a role in Japanese. Overall, with regard to demonstrative pronoun choice, Japanese L1 speakers behaved similarly in Japanese as English L1 speakers did in English, which is in line with recent findings by Gudde (2017).

In Experiment 2, participants responded with locative adverbs rather than pronouns, which was a result of the impulse questions that all used

the interrogative pronoun *doko*. During pretesting, the interrogative pronoun *donna* was rejected by participants, and was later replaced with *doko*.

Considering that the morpheme denoting the word class *-ko* specifically denotes place, whereas the morpheme that is considered to be the pronominal pronoun marker, *-re*, marks objects but is also frequently used for abstract concepts, this is perhaps not surprising. Even during pretesting, while still using the interrogative pronoun *donna*, participants responded with locative adverbs instead of demonstrative pronouns. The distinctions between the three situations was clearer in Experiment 2 than in Experiment 1, meaning that perceived social distance and politeness seem to have played a less prominent role in Experiment 2. The majority of participants responded with *koko* for Situation 1, *soko* for Situation 2, and *asoko* for Situation 3. At times, the directional pronoun *kochira/sochira/achira* was used.

As previously explained, there were no Japanese sentences in the grammatical judgment tasks due to the structure of Japanese. Therefore, the data gained from the experiments cannot be compared to any other task in this case.

In general, L1 Japanese boundaries between the use of the three demonstrative markers *ko-*, *so-*, and *a-* were clearer than the boundaries between proximal and distal demonstratives, particularly demonstrative pronouns, in either English or German. With regard to the models of demonstrative (pronoun) use discussed for Japanese in Section 2, the data presented here points towards the *Dual System Model*, where demonstrative choice is based on distance when the speaker and hearer share territory and on the referent in relation to the hearer and the speaker if they do not. However, distance seemed to play the more

206

pronounced role overall. Again, most of the participants used gestures to point towards the referred to object, often pointing at the object in question directly. Open-handed gestures, with participants' arms fairly close to their body, seemed to be more frequent than in the other two native speaker groups. As in the case of the L1 English and the L1 German groups, gestures did not seem to impact the choice of demonstratives but might offer additional insights into cognitive processes in further research.

5.1.4 General discussion of Baseline (L1) Results

Although there are differences in the way spatial demonstratives were used in the three L1 groups, all three groups demonstrated that aspects other than distance play a role in demonstrative choice when speakers align themselves with the addressee. This can be viewed as an overlap in territory, as Gudde (2017: 35) would suggest, or as a form of emotional deixis (i.e., the subcategory of speakers demonstrating *solidarity* with the addressee). The data presented here calls into question the distinction between distance-oriented and person-oriented demonstrative systems in different languages, which is a criticism mirrored in recent studies (Enfield 2003, Levinson et al. 2018). It is worth noting, however, that the data presented here also contradicts initial findings for English based on the demonstrative questionnaire for *this* and *that* in comparative perspective (Wilkins 1999; Wilkins 2018), upon which Levinson et al. (2018) based their recent cross-linguistic comparison of demonstratives. More specifically, Scene 2 in the questionnaire, which is equivalent to Situation 1 in this study, does not always elicit the proximal demonstrative pronoun (i.e., *this*) in L1 English speakers in the data examined here (a significant number of speakers instead chose *that* for the first position, especially in Experiment 1). Rather, at least for

207

German, Japanese, and English, language appears to have a shifting deictic centre depending on contextual cues, at least as far as demonstrative pronouns are concerned.

Distance seems to be expressed more frequently by means of (additional) locative adverbs for which the data presented here provides evidence in favour of an egocentric deictic centre. This is likely to contribute to the finding that the different distance contrasts that have been attested for German, English, and Japanese demonstrative pronouns seem to play a negligible role once locative adverbs are considered, because locative adverbs are able to express the three distance positions – proximal, distal, and remote – in all three languages. Crucially, there is substantial evidence for the existence of a midway distance, which has been called into question by, for example, Levinson et al. (2018).

In general, L1 Japanese speakers used distance contrasts for demonstrative pronouns more consistently than either the L1 German group or the L1 English group, which is likely the result of having more than two distance contrasts.

5.2 Discussion of L2 Results

5.2.1 L2 English

In Experiment 1, L1 Japanese speakers with English as an L2 distinguished clearly between Situations 1 and 3 and had a clear preference for *that* over *this* in Situation 2. Conversely, L1 German learners of L2 English did not distinguish between the three situations as clearly and often used either *this* or *that* for all three distance positions. A number of Japanese L1 speakers used the remote locative adverb *over there* in addition to the distal demonstrative pronoun *that* for the third

category. However, additional locative adverb use was overall less frequent for L1 Japanese learners of English than for L1 German learners of English. Although L1 speakers of German tended to use locative adverbs – especially distal locative adverbs in the distal and remote positions – more frequently, the data derived from Experiment 1 reveals no significant differences in the frequency of use of locative adverb use between L1 German and L1 Japanese speakers. The observable, statistically non-significant difference may be linked to the fact that Japanese L1 speakers encode distance marking in the English demonstrative pronoun itself, while German L1 speakers do not.

Based on the English L1 data, at first glance it seems that German speakers behaved similarly to L1 English speakers, meaning that L1 German speakers modelled their choice of L2 English demonstrative pronouns on native speaker language use rather than formal language descriptions on the basis of, for example, grammar books. However, further exploration of the data illustrates that this is not the case for two reasons: first, while there was a clear preference for *that* over *this* in the L1 English speakers, there was no such preference in L2 English in the German native speaker group. Second, data gained from the grammatical judgement task indicates that L1 German learners of L2 English were more closely aligned with L1 Japanese learners of L2 English, meaning that they did not disambiguate between different distance relations, particularly for Sentences 1 and 2 of the English versions of the grammatical judgment task. Based on this additional data, it is evident that L1 German learners of L2 English who used the same demonstrative pronoun for all three distance positions were not aware of the distance distinctions between these three positions, whereas English L1 speakers were (i.e., they accurately judged the sentences in question as incorrect).

Unpredicted demonstrative pronoun choice for L2 English learners with German as an L1 is therefore a non-target-like occurrence, whereas it is a matter of a difference in emphasis for L1 English speakers.

In some instances, participants used the definite article instead of demonstratives to refer to the position of the pen. This mostly tended to be the case for the first position. There were no differences between Japanese L1 and German L1 speakers in this regard, although, based on L1 German speakers' responses in German and the literature, it would be reasonable to assume that this group would demonstrate a stronger preference for article substitution.

In Experiment 2, German L1 speakers distinguished more clearly between the three positions than in Experiment 1. In the majority of cases, German L1 speakers used demonstrative pronouns to refer to the three post-it notes. However, a significant number of participants opted to use the locative adverbs *here*, *there*, and *over there*, especially for Situation 3. Although prompted with the interrogative pronoun *which*, Japanese L1 speakers opted to use locative pronouns rather than demonstrative pronouns for Experiment 2, which is probably a result of priming from L1 Japanese.[44] Based purely on distance relations, however, Japanese L2 speakers used three separate difference relations for the three positions, namely *here*, *there*, and *over there*. Moreover, L1 Japanese learners of English opted to use other locative constructions more often than any of the other language groups.

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[44] That is to say, since L1 Japanese informants rejected *donna* and preferred *doko*, their responses in Japanese were *koko*, *soko*, and *asoko* rather than *kono/kore*, *sono/sore*, and *ano/are*. Therefore, when asked to complete the task in English, their responses in Japanese were likely to have had an influence on their responses in English.

There were no cases of incorrect number marking for demonstrative pronouns in Experiments 1 and 2 for any of the participants from either group. However, in the grammatical judgment task, there was a significant number of Japanese native speakers that rated the sentence *These necklace is pretty* as correct, whereas none of the German participants rated this item as grammatically acceptable. Therefore, number marking may still pose a problem for L1 speakers of Japanese, even though data from the experiments does not indicate this. Further research is required to establish whether written language output leads to more instances of non-target-like number marking than spoken language output, as well as whether items that are non-target-like are deemed acceptable for L1 Japanese learners of English.

In terms of distance marking, results from Experiments 1 and 2[45] support Hypothesis 1, which proposed that structural complexity plays a more pronounced role in learner output than does typological proximity. In terms of number marking, no clear conclusions can be drawn based on the sample at hand. Since number marking affects not only demonstratives but also nouns, pronouns, and adjective and verb agreement that expresses count distinction, it is reasonable to hypothesise that this feature is realised on a different cognitive level than spatial distance marking in demonstratives, which is limited to demonstratives and certain locative adverbial constructions.

An additional note must be made with regard to differences in overall language proficiency: although an effort was made to interview L2 speakers at similar proficiency levels, the differences in the way English is taught in the German and the English school system has an influence

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[45] It must be stated, however, that only the outcomes for Situation 2 were significant for Experiment 2.

on the confidence with which learners are able to actively use and practice their language skills, particularly with regard to spoken language. To this day, EFL classrooms in German schools and universities remain more communication-driven than in Japan, where the focus is still on conveying theoretically correct language use (Fennelly 2016). This remains the case in spite of the Japanese government's efforts to improve English language proficiency levels, which in Japan remain comparatively low, particularly outside of the Kanto and Chubu regions (English Proficiency Index Japan 2019). Reasons cited for this comparatively low level of English proficiency often include students' attitudes towards the English language (Reesor 2003). In terms of the experiments conducted for this study, this means that even L1 Japanese speakers who have spent a significant amount of time abroad may focus on producing grammatically correct language rather than on communicating freely, especially in what they deem to be test situations. Although the test design was aimed at minimising these effects by placing participants' focus on an additional task (i.e., drawing a house), the results of this study must be tested further, preferably in longitudinal studies and with further language combinations.

5.2.2 L2 German

In Experiment 1, L1 English and L1 Japanese speakers behaved similarly, with both groups using either the demonstrative pronoun *diese/-r/-s* to refer to all three positions or substituting the demonstrative pronoun with the definite article *der/die/das*. There was a high observable rate of locative adverbs being used in addition to either the proximal demonstrative pronoun or the definite article. Most of the participants did not use the distal demonstrative pronoun *jene/-r/-s* to refer to any of the three positions in Experiment 1 (with the exception of three

Japanese L1 speakers). In terms of number, gender, and case marking, there were approximately equal rates of non-target-like occurrences for both L1 English and L1 Japanese learners of German. The most frequent errors occurred based on incorrect gender and case marking for both groups, which, as a feature, is not present in either Japanese or English and therefore does not allow for any further conclusions. However, the absence of these features seems to impact learner outcomes more than number marking, although this may be based on the fact that there is interplay between number, gender, and case marking in German.

In Experiment 2, L1 Japanese participants used either locative adverbs or the proximal demonstrative pronoun *diese/-r/-s* and the stressed definite article *der/die/das* to refer to the three positions, as did L1 English participants. However, L1 English participants used stressed definite articles more often than L1 Japanese speakers, albeit not significantly so.

With three exceptions in the L1 Japanese group, none of the participants that were interviewed from either L1 group used the distal pronoun *jene/-r/-s.* When confronted with the distal demonstrative pronoun *jene/-r/-s* in the grammatical judgment task, the vast majority of participants were not familiar with the word. Participants who were familiar with the word rated the sentences that used *jene/-r/-s* as grammatically correct. The majority of participants familiar with *jene/-r/-s* were from the L1 Japanese group, which emphasises the differences in formal education at school and university between the L1 English group and the L1 Japanese group. Overall, *jene/-r/-s* has become obsolete and seems to have been removed from EFL teaching materials completely. Participants' questions regarding the items in the grammatical judgment task, particularly for Sentence 6, *Diese Ring*

funkelt, seem to indicate that the main hurdle for learners of German in terms of grammatical form is gender rather than number or case.

Overall, there is no evidence to suggest that L1 English or L1 Japanese learners behave differently in terms of either distance marking or inflectional marking (number, gender, and case marking). To reiterate, both groups were predicted to show facilitation effects from L1 based on structural complexity for distance marking and interference effects from L1 for inflectional marking. However, we expected L1 Japanese learners to display fewer instances of non-target-like occurrences in L2 German than L1 English learners of German based on the hierarchy of complexity for distance marking, as well as more instances of inflectional marking than L1 English learners. Moreover, based on the interplay of expectations previously established, if typological proximity plays a more significant role than structural complexity, there should be higher rates of interference for L1 Japanese learners of L2 German than for L1 English learners of L2 German. Since, in terms of deictic contrasts, there were no significant differences between the two learner groups, this supports the hypothesis that typological proximity does not play a role in learner output for this specific feature, if at all. There are facilitation effects at play that may or may not be based on the structural complexity of the phenomenon in question.

If we contrast the results of the L1 Japanese learner group for English to those for German,[46] we find that Japanese L1 speakers used spatial demonstrative pronouns differently in German than in English. This provides further evidence in favour of structural complexity as a deciding factor in demonstrative pronoun choice, because we can hypothesise,

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[46] Remember that the Japanese L1 speakers learning German were tested twice in 8 cases: once for L2 English and once for L2 (technically L3) German.

based on these results, that the results in English are not purely coincidental. If this were not the case, we might expect L1 Japanese learners of English and German to use one model (e.g., a bilateral model) for both languages, such as clearly favouring locative adverbs in addition to demonstrative pronouns in German. However, the fact that German is technically an L3 for most of the speakers may have led to cumulative facilitation effects from L1 and L2 onto L3 (which, in turn, may still be based on structural complexity).

5.2.3 L2 Japanese

In Experiment 1, both L1 German and L1 English learners of L2 Japanese clearly distinguished between the three positions, preferring the proximal marker *ko-* for the first position, the distal marker *so-* for the second position, and the remote marker *a-* for the third position. This distinction seems to be clearer than for the L1 Japanese group, which is possibly an effect of formal language education. A small number of L1 German participants used *ko-* for all three situations, which possibly indicates interference from L1 German. The most frequently used demonstrative for both the German and English L1 groups in Experiment 1 was the adnominal demonstrative in conjunction with *pen*. In general, these participants behaved similarly to the L1 Japanese group, but with stricter distinctions between the three positions.

In Experiment 2, the L1 German and L1 English learner groups again behaved similarly to the L1 Japanese group, using the locative adverbs (i.e., *koko* for the first position, *soko* for the second position, and *asoko* for the third position). However, there were more instances of demonstrative pronouns that were used, particularly for the L1 German group. In these cases, German L1 speakers often used one distance marker (e.g., *ko-*) for all three positions. However, this constituted only

very few cases. In general, learners latch onto the clear boundaries between the three positions and distinguish clearly between the three distance positions. Although there are no significant differences between the L1 German group and the L1 English group in terms of the use of demonstratives in L2 Japanese, the boundaries seem to be even clearer for L1 English speakers than for L1 German speakers. These results can be interpreted as a transfer effect from German and indicate interference on the basis of lower structural complexity for deictic distance contrasts in German demonstratives.

5.2.4 General Discussion of L2 Results

Emotional deixis is a more important factor for L1 speakers than for learners of the language (Pavlenko 2012; Lakoff 1974) and thus may play a smaller role in demonstrative choice for L2 speakers than for L1 speakers. Therefore, it is unsurprising that the solidarity subtype of emotional deixis observable for each of the three L1 speaker groups was less pronounced for the L2 speaker groups.

Interestingly, what is transferred onto L2 seems to be based on the traditional categorisation of demonstratives in L1. This seems to suggest that even when distance differentiations are not used in L1, they are known to the speaker, and this knowledge is then formalised in the L2.

5.3   Structural Complexity versus Typological Proximity

Based on the outcomes predicted in Section 2.11, we arrive at the following results for distance relations:

(H1) *L2 English Distance Marking*: The data analysed provides evidence to suggest that L1 Japanese learners of L2 English produce more target-

like output than L1 German learners of L2 English, suggesting that structural complexity plays the more important role for L2 output in English than typological proximity for these L1 groups.

(H2) *L2 German Distance Marking*: The data provides no evidence in favour of more target-like output for either Japanese or English learners of L2 German. Therefore, we find no evidence in favour of either typological proximity or structural complexity as the deciding factor for transfer.

(H3) *L2 Japanese Distance Marking*: We find no significant differences between the L1 German L2 Japanese and the L1 English L2 Japanese group in terms of distance marking in Japanese. However, a small number of L1 German participants used *ko-* for all three distance situations. These instances are too few to make any conclusive statements, but on a larger scale, they would provide evidence in favour of structural complexity over predictions made by the CAH/typological proximity.

(H6) *Locative Adverbs*: We find no differences in the production of distance marking in locative pronouns between any of the groups.

Results are summarised in the following table:

Results Deictic Contrast relations		
L1/L2: Functional Domain	**Results**	
L1 Japanese, L2 English: Demonstrative Pronouns (Distance Relations)	Facilitation	**Evidence in favour of Structural Complexity**
L1 German, L2 English: Demonstrative Pronouns (Distance Relations)	Interference	**Evidence in favour of Structural Complexity**
L1 Japanese, L2 German: Demonstrative Pronouns (Distance Relations)	Facilitation	**Evidence in favour of Structural Complexity**
L1 English, L2 German: Demonstrative Pronouns (Distance Relations)	Facilitation	**Evidence in favour of Structural Complexity**
L1 English, L2 Japanese: Demonstrative Pronouns (Distance Relations)	Neither Interference nor Facilitation	**Null Results**
L1 German, L2 Japanese: Demonstrative Pronouns (Distance Relations)	Neither Interference nor Facilitation	**Null Results**

Table 112: Results Deictic Contrast Relations

Based on these results, I argue that the data analysed in this study provides evidence that structural complexity plays a greater role in the

observable transfer effects from L1 to L2 than does typological proximity for the domain of distance contrasts in spatial demonstratives.

L1 Japanese learners of L2 English, whose demonstrative system for deictic distance contrasts is more complex than the English demonstrative system, used distance contrasts in demonstrative pronouns in a more target-like manner than L1 German learners of L2 English. For L2 German, Japanese L1 learners with both English and German in their foreign language repertoire applied a different model of demonstrative pronoun use for English than for German. Finally, for L2 Japanese, although differences between the L1 English and the L1 German group are not significant, there were participants in the L1 German group who used one demonstrative pronoun for all three positions.

For inflections (number, gender, and case), the results based on the hypotheses in Section 2.11 are as follows:

(H4) *Number Marking*: There are no instances of incorrect number marking in the production of demonstrative pronouns for either the L1 English or the L1 Japanese group in L2 German. There are moreover no instances of incorrect number marking in L2 English for either the L1 German or the L1 Japanese group. However, in the grammatical judgment task, L1 Japanese speakers incorrectly mark item 6 (*These necklace is pretty*) as correct. There are not enough items deviating from target-like number marking in English in the grammatical judgment task to draw any conclusive results. However, if these results were to be reproduced on a larger scale, they would provide evidence in favour of

structural complexity rather than typological proximity playing the more important role in L2 language production for these L1 groups.

(H5) *Gender- and Case-Marking*: There are no discernible differences between L1 Japanese and L1 English learners of L2 German in terms of gender marking or case marking. Non-target-like occurrences can be observed for both groups.

Results are summarised in the following table:

Results Inflectional marking		
L1/L2: Functional Domain	**Results**	
L1 Japanese, L2 English: Demonstrative Pronouns (inflectional marking)	Neither Interference nor Facilitation	**Null Results**
L1 German, L2 English: Demonstrative Pronouns (inflectional marking)	Neither Interference nor Facilitation	**Null Results**
L1 Japanese, L2 German: Demonstrative Pronouns (grammatical marking)	Interference	**Evidence in favour of Structural Complexity and/or Typological Proximity**
L1 English, L2 German: Demonstrative Pronouns (grammatical marking)	Interference	**Evidence in favour of Structural Complexity and/or Typological Proximity**
L1 English, L2 Japanese: Demonstrative Pronouns (grammatical marking)	Neither Interference nor Facilitation	**Null Results**
L1 German, L2 Japanese: Demonstrative Pronouns (grammatical marking)	Neither Interference nor Facilitation	**Null Results**

Table 113: Results Inflectional Marking

221

The results for inflectional marking were inconclusive. There were interference effects for both the L1 Japanese group and the L1 German group for inflectional marking, indicating that gender and case marking, or gender and case marking in conjunction with number marking, pose the greatest difficulties for learners. These interference effects could conceivably be based on structural complexity as well as typological proximity. However, it possible that structural complexity plays the more important role for learner outcomes, because, as mentioned above, the grammatical judgment task indicates that Japanese learners of English have a significantly higher tendency to mark Sentence 6, *These necklace is pretty*, as grammatically acceptable than do German learners of English, who always marked Sentence 6 as grammatically unacceptable. This seems to suggest that Japanese learners have difficulties with number marking, whereas German learners do not. However, further research is required to form any further conclusions.

To summarise, the results provide evidence in support of structural complexity as the more important factor in transfer effects for spatial demonstratives in spoken language, whereas effects based on typological proximity and the strong predictions made in Lado's Contrastive Analysis Hypothesis, are possible but cannot be conclusively demonstrated based on the data available. It bears repeating, however, that it is likely that structural complexity always acts in conjunction with typological proximity (as described by Schepens et al. 2016), meaning that both structural complexity and typological proximity always play a potential role in learner outcomes.

5.4 Classification of Demonstratives and the Existence of a Medial Distance

There is evidence in the data to suggest that the English demonstrative pronoun system is moving towards a distance-neutral system similar to German. L1 English speakers in this study use *this* and *that* interchangeably especially in Experiment 1, i.e., in productive speech. However, distinctions between proximal and distal demonstratives are still known, even if they are not necessarily used. This is evident from the results for reactive speech we observe in Experiment 2. Furthermore, there is clear evidence in favour of the existence of a medial or mid-way distance in Japanese. L1 Japanese speakers clearly differentiate between three distinct distance positions when asked to contrast three objects at different distances. This is especially true when participants use demonstratives denoting place (*-ko*), but also applies to adnominal and pronominal demonstrative pronoun use. Although other factors, such as the speech situation, seem to inform participants' use of demonstratives to a certain extent, distance is still the most deciding factor.

5.5 Considerations and Limitations

A major caveat to consider regarding the results presented here is that the target system speakers model their behaviour on is not clear, meaning that it is unclear whether learners aim for the model presented in formal education contexts or a native speaker model. Even if we assume a native speaker model, however, it is evident from the data presented here that native speakers of English attribute distance to demonstrative pronouns differently than German or Japanese learners of English do, because they are aware of the inherent difference in spatial distance between *this/these* and *that/those*, even if other parameters, such as emotional deixis, may

play a role in which demonstratives (i.e., demonstrative pronouns) are used. This became especially evident in the second task, where English native speakers clearly differentiated between the three positions, whereas German learners of L2 English behaved similarly to how they did in Experiment 1. Since English and German demonstratives have such similar surface structures, it must be noted that this high level of similarity may in fact lead to more instances of transfer from L1 to L2 based on language contrast because the difference is minimal, as discussed in Section 2 of this thesis. This thesis has not investigated the role of stressed articles in their use as demonstratives in detail. Rather, for the purposes of evaluation, I categorised stressed articles and demonstrative pronouns as having the same distance-neutral properties in spoken German. While I believe this to be accurate, it stands to reason that, in fact, demonstrative pronouns in spoken German function differently and display a higher level of specification than stressed definite articles (cf. Ahrenholz 2007). It is definitely the case that L1 speakers and L2 learners alike prefer definite articles in adnominal position and the demonstrative pronoun *diese/-r/-s* in pronominal position.

224

6   Conclusion

The analysis of experimental data presented in the preceding chapters was concerned with the acquisition of spatial demonstratives from a cross-linguistic, multilateral perspective across multiple directions of the same language combinations. This novel approach to the study of transfer was used to investigate the interplay of typological proximity and structural complexity in L2 language production outcomes of the phenomenon of demonstratives in spoken language, focusing on exophoric demonstrative use (i.e., spatial deixis). The data analysis presented here indicates that it is structural complexity rather than typological proximity that plays the more important role in learner outcomes.

Assuming for the moment – although the data presented here to some extent provides evidence to the contrary – that the target model for distance relations in English demonstratives behaves as the literature suggests (i.e., as a distance-based model with a clear binary distinction between peri-personal and perceptual with no limitations), Japanese L1 learners of L2 English produced more target-like instances of distance contrasts in demonstrative pronouns in spoken language across all three situations Experiment 1 and in one situation in Experiment 2 than did German L1 learners of L2 English. Moreover, there were no differences between Japanese L1 learners of L2 German and English L1 learners of L2 German, and no differences between German L1 learners of Japanese and English L1 learners of Japanese[47] in terms of deictic distance contrasts in demonstrative use in spoken language.

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[47] Although a small number of L1 German participants used *ko-* for all three distance situations. This presents an interesting avenue for further research since, if reproduced on a larger scale, this would provide additional evidence of the role of hierarchies of structural complexity.

Based on these results, structural complexity plays a more prominent role in language learner output than does typological proximity in terms of the use of demonstrative pronouns. More precisely, if the demonstrative system is more complex in speakers' L1, less complex demonstrative systems are easier to acquire, whereas typological proximity and similarities play a less pronounced role, at least according to the data presented here. Conversely, the results presented here do not offer conclusive support for typological proximity as the determining factor for transfer outcomes and no evidence in favour of the claims made in the strong version of the Contrastive Analysis Hypothesis could be found. On the basis of these results, the impact of absolute complexity on learner outcomes must be explored further in SLA research.

As for number, case, and gender marking, there were no conclusive results for any of the learner groups. While interference effects are observable for L1 English and L1 Japanese learners of L2 German, it is unclear whether these effects are based on typological proximity, absolute structural complexity, or other effects. For example, the observable interference effects could be the result of inter-language rather than intra-language errors, because case and gender marking do not exist in either Japanese or English. Moreover, Miestamo's (2006, 2008, 2009) *Problem of Comparability* must be taken into account when comparing the results of deictic distance contrasts to those of inflectional use in an L2, meaning that quantifying distance contrasts on the one hand and inflectional form on the other hand to make the two measures comparable is not possible.

The results presented in this study, particularly the data gathered from Experiment 1, indicate that the binary model of distance contrasts for English spatial demonstratives is too limiting in its scope, especially regarding the use of demonstrative pronouns in English. Therefore, the

current typological classification of demonstratives must be reconsidered. This is in line with previous work (Coventry et. al 2014) and is further proof of the validity of more recent criticism (Enfield 2003; Levinson 2018) of the classification of spatial distance contrasts. In this study, I have also argued that the term *bilateral* does not adequately cover the modes of distance for spatial locative adverbs in spoken English and German. While it is true that there is a primary distinction between *here* (proximal) and *there* (distal) in English and *hier* (proximal) and *da/dort* (distal) in German, there is a third distance category, marked by the use of a second morpheme (*over there* in English and *da/dort drüben* in German), that is more remote from the deictic centre and can therefore be categorised as the second distal position (distal to both the speaker and the hearer). I labelled this category *remote* for the purposes of this study. Consequently, English, German, and Japanese have the ability to express all three modes of distance (i.e. proximal, distal, and remote), albeit not using demonstrative pronouns alone. This provides further evidence that the classification of distance contrasts in demonstratives must be reconsidered.

Based on the findings presented here, it stands to reason that distance in relation to the deictic centre is not the sole determining factor for the choice of distal versus proximal demonstrative pronouns. Rather, specification and relation to the addressee (ownership, social hierarchy, and solidarity) play more pronounced roles than do relative distance in certain situations. While this has been pointed out in the past for situations in which relative distance is not contrasted (Lakoff 1974; Fillmore 1997), this seems to be the case even when the speech situations encourage using contrasting demonstrative pronouns, as in the experiments presented here.

At first glance, this seems to limit the initial conclusion that structural complexity plays the more pronounced role in learners' use of spatial demonstratives, because German learners might simply be modelling their use of demonstrative pronouns in L2 English on L1 English use. However, although this study and previous research point towards few differences in the use of demonstratives between languages that have been classified as having different demonstrative systems in L1, notably English and Japanese (Gudde 2017), what is transferred from the L1 to the L2 (in conjunction with the grammatical judgment task) seems to indicate that learners transfer an abstract concept of distance contrasts from L1 onto L2, and that this abstract concept is more strongly linked to structural complexity than to typological proximity. In other words, even though the binary model of distance contrasts is not always used in situations in which the literature suggests it will be, the abstract concept of proximal versus distal for *this* and *that* is still available to L1 English speakers, while it is not available to German learners of L2 English. Further evidence in favour of this conclusion is the fact that L1 Japanese speakers prefer the use of demonstrative pronouns without additional distance markers in the form of locative adverbs in L2 English and L2 German in Experiment 1. This presents a difference – albeit a small one – to how L1 English and L1 German speakers as well as L1 German and English learners of L2 English and German behave. This suggests that Japanese speakers encode the different levels of distance onto the L2 demonstrative pronouns themselves, even though in their use of Japanese, these distance contrasts are dependent on context.

The traditional distance-based distinctions in the literature are therefore known to native speakers and can consequently potentially play

a role in the transferability of distance contrasts in demonstratives. Further evidence of this can be observed in Experiment 2. Experiment 2 indicates that in situations that are based on response, L1 English speakers apply the distance-oriented binary model more frequently, and Japanese L1 speakers use the three separate distance positions almost exclusively as predicted (i.e., in a person-oriented manner or a system with a mid-way distance).[48]

Taken together, these findings provide evidence that it is not L1 language use that determines what is transferred to L2, but rather L1 language *knowledge*, which is then transferred directly onto L2 use regardless of context. Again, structural complexity is linked to this knowledge, which we might also call cognitive representation, and therefore plays a more pronounced role in learner outcomes than typological proximity does. Since this study presents results from a cross-linguistic, multilateral perspective, it is unlikely that this result is coincidental or language-specific. This demonstrates that it is not adequate to investigate language use and knowledge in learners' L2, as is still common practice in SLA research (Gass and Mackey 2014), and that it is just as important to investigate learners' use and especially their (abstract) knowledge of specific subsystems in L1.

The reasons for this activation of abstract L1 knowledge in L2 use is likely linked to modes and methods of foreign language instruction that encourage the use of abstract L1 knowledge. However, past research has

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[48] Even though Coventry et al. (2014) have provided evidence in support of factors other than spatial distance playing a role in demonstrative pronoun choice, spatial distance is still established as the most important factor for demonstrative pronoun use in their expectation model, and has also been established by Gudde (2017)). However, Coventry et al. (2014) and Levinson (2018) have outright rejected the distinction between distance-oriented and person-oriented systems of demonstratives on the basis of an egocentric deictic centre, which Diessel (1999; 2014) has maintained.

demonstrated that language learners generally privilege structured meaning over surface frequency (Culbertson and Adgar 2014) or surface-level similarity. Here I argue that structured meaning is based on structural complexity, and that hierarchies of absolute complexity are useful frameworks for determining the transferability of features from L1 onto L2. Further research is required to investigate the ultimate scope of these results.

Furthermore, although the typological classification of demonstratives in L1 is influenced by factors other than distance, and the egocentricity of the deictic centre can be called into question based on these as well as other results for demonstratives and demonstrative pronouns, particularly in L1 use, the results presented here indicate that the typological classification of demonstrative pronouns for the languages investigated does exist for speakers and plays a significant role in their L2 language use. These results need to be taken into account in further cross-linguistic typological research on demonstrative (pronoun) use in L1s.

There are significant limitations to consider with regard to the results presented here. First, it must be acknowledged that the sample size, which had to be restricted due to time and budget constraints, consisted of only n = 20 participants per group. Second, the fact that it was not possible to acquire data from German and Japanese L1 speakers without prior foreign language knowledge must be taken into account, and therefore, for a significant number of participants interviewed, German and Japanese, respectively, were technically their L3. Furthermore, more domains and language combinations need to be investigated to draw further conclusions regarding the impact of typological proximity vis-à-vis structural complexity. For further research, I therefore propose a

longitudinal study using a similar test design that could be modelled in a three-dimensional environment online to test larger sample sizes repeatedly over the span of at least one year. Moreover, the use of demonstratives in children and adolescents and the development of distance contrasts, for example, should be measured longitudinally to establish differences between the interlanguage of child and adult learners.

Nonetheless, the results generated in this dissertation project provide vital clues into how demonstrative systems function across languages, both in L1 as well as in L2. They furthermore provide valuable insights into the role of both typological proximity and structural complexity in transfer onto L2, demonstrating for the first time that the hierarchy of complexity observed for languages around the world can potentially be used as a measure separate from typological proximity or language distance to predict transfer onto L2 in adult second language acquisition. Therefore, this project provides an important contribution to the field of second language research.

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8   Summaries

8.1   Deutsche Zusammenfassung

Die vorliegende Dissertation untersucht den Einfluss sprachlicher Distanz und struktureller Komplexität auf den Erwerb von räumlichen Demonstrativa (d.h. von lokalen Adverbien und Demonstrativpronomina) in gesprochener Sprache im Zweitspracherwerb. Ziel dieser Studie war es zu untersuchen, ob für das untersuchte sprachliche Phänomen in dem L2-Output der Lernenden sprachliche Distanz bzw. Nähe (*typological proximity*) auf den Grundlagen der Vorhersagen in der Kontrastivhypothese (Lado 1957) oder strukturelle Komplexität (Miestamo 2009) den größeren Einfluss auf Transfer von der Erstsprache (L1) auf die Produktion dieser Elemente in der Zweitsprache (L2) hat.

Da das Subsystem der Demonstrativa im Englischen, Deutschen und Japanischen (zumindest laut traditioneller Klassifikation (vgl. Diessel 1999)) in gesprochener Sprache unterschiedlich realisiert wird, wurden diese drei Sprachen für die vorliegende Untersuchung ausgewählt.

Es gibt nach wie vor wenige typologische Studien im Bereich der Demonstrativa (Levinson 2018:1; Diessel 1999), und kaum Studien, die sich mit der Realisierung von Demonstrativa in L2-Kontexten, insbesondere in Bezug auf gesprochene Sprachen, beziehen. Des Weiteren wurde bislang der Einfluss struktureller Komplexität auf den Zweitspracherwerb nicht untersucht, insbesondere nicht als von sprachlicher Distanz unabhängiger Komponente. Durch die Untersuchung der Effekte absoluter Komplexität in der L1-Repräsentation auf den Zweitspracherwerb leistet die vorliegende Dissertation einen neuen Forschungsbeitrag. Zusätzlich wird in der

vorliegenden Studie eine multilaterale Perspektive eingenommen, indem nicht lediglich eine Zweitsprache, wie beispielsweise Englisch, untersucht wird, sondern verschiedene Zielsprachen gleicher Sprachkombinationen, das heißt also L1 Englisch L2 Deutsch Lernende, L1 Deutsch L2 Englisch Lernende, L1 Deutsch L2 Japanisch Lernende, L1 Englisch L2 Japanisch Lernende, L1 Japanisch L2 Deutsch Lernende und L1 Japanisch L2 Englisch Lernende Probanden, miteinander verglichen werden.

Diese Herangehensweise erlaubt es, Transfereffekte, die lediglich auf Zufalls- oder zielsprachspezifischen Mechanismen basieren, größtenteils auszuschließen.

Räumliche Demonstrativa können nur auf der Grundlage experimenteller Daten untersucht werden, weil die Entfernung der Referenten zum sprachlichen Mittelpunkt (*origo*) überprüfbar bleiben muss. Deswegen wurde für dieses Projekt ein experimentelles Interviewdesign gewählt. Im Rahmen der Interviews wurden Probanden zum einen dazu aufgefordert, nach drei Stiften in unterschiedlichen Entfernungsabständen (proximal, distal und entfernt (*remote*)) zu fragen. Zum anderen wurden sie danach gefragt, wo sich in denselben Abständen drei Gegenstände befanden. Die Ergebnisse wurden statistisch ausgewertet.

Die vorliegende Dissertation ist in sechs Kapitel unterteilt. Das erste, einleitende Kapitel bettet die Forschungsfragen, die in der Folge untersucht werden, in einen Gesamtkontext ein. Kontrastivhypothese / typologische Nähe und strukturelle Komplexität werden als Konzepte vorgestellt. Außerdem wird der Term *Transfer* kritisch diskutiert. Am Ende des Kapitels werden allgemeine Hypothesen eingeführt, die am Ende des zweiten Kapitels, nach einem Überblick über den Stand der Forschung und der Einführung der momentan gängigen typologischen

Klassifikation räumlicher Demonstrativa im Deutschen, Japanischen und Englischen, im Detail gelistet sind. Das dritte Kapitel führt die verwendeten Methoden ein: Es werden Interviewdesign, Dokumentationspraxis und Evaluationskategorien eingeführt, und die Grundsätze der angewandten Statistik diskutiert. Im vierten Kapitel werden die Ergebnisse vorgestellt, die im anschließenden fünften Kapitel diskutiert werden. Kapitel sechs fasst diese Ergebnisse schlussendlich zusammen und bietet eine Einbettung der Ergebnisse sowie einen Ausblick für künftige Forschung.

Im Rahmen der vorliegenden Dissertation wurden zwei Experimente durchgeführt, bei denen die Verwendung von Demonstrativa für unterschiedliche Distanzpositionen getestet wurde. Experiment 1 sollte halbstrukturierte, spontane Sprachproduktion, Experiment 2 hingegen Antworten auf gestellte Fragen überprüfen. Die so ermittelten Daten wurden statistisch nach Gebrauch von Flexions- und Distanzmarkern evaluiert. Die Ergebnisse zeigten, dass strukturelle Komplexität vor typologischer Nähe den Gebrauch von Englisch als L2 in Experiment 1 beeinflusst. Weiterhin handelten Japanisch-L1-Sprecher*innen im Englischen im Gegensatz zu Deutsch-L1-Sprecher*innen in Experiment 2 nach einem vorhersagbareren Schema. Die Ergebnisse zeigten keine statistisch signifikanten Unterschiede zwischen den anderen Testgruppen, d.h. keinen Beweis für oder gegen CAH oder strukturelle Komplexität im Sprachtransfer. Jedoch zeigen die Ergebnisse der Japanisch-L2-Sprecher*innen, dass Deutsch-L1-Sprecher*innen in Experiment 1 unvorhersagbarer als Englisch-L1-Sprecher*innen agieren, indem sie Lokativkonstruktionen oder nichtzielsprachliche Distanzmarker verwenden, was eher auf strukturelle Komplexität als entscheidenden Faktor im Zweitspracherwerb hindeutet. Dies

unterstützen auch die Daten des zusätzlich durchgeführten grammatischen Urteilstests. Erstmalig wurde der Gebrauch von Demonstrativa in L1, L2 und in einigen Fällen L3 getestet. Dementsprechend geben die Ergebnisse nicht nur Einsicht in den Gebrauch von Demonstrativa in der L2, sondern auch der L1. Aus den Ergebnissen dieser Studie folgt im Gegensatz zu vorheriger Forschung, dass eine mittlere Distanzklasse für Demonstrativa des Japanischen existiert. Weiterhin scheint die Unterscheidung zwischen distalen und proximalen Demonstrativa des Englischen nicht so klar zu sein, wie es die Literatur behauptet (wenngleich die Egozentriertheit des Demonstrativsystems bereits in vorangehender Forschung hinterfragt wurde (Enfield 2003; Levinson 2018)). Vielmehr werden Demonstrativa im Englischen austauschbar verwendet. Das proximale Demonstrativpronomen *this* ist hierbei vor allem ein besitzanzeigender Marker bzw. ein Marker, der der Spezifikation und Eingrenzung dient. Die aus dieser Dissertation gewonnenen Ergebnisse liefern wertvolle Erkenntnisse darüber, wie Demonstrativsysteme sprachübergreifend funktionieren und welche Rolle sowohl typologische Nähe als auch strukturelle Komplexität beim Zweitspracherwerb spielen. Das Ergebnis, dass strukturelle Komplexität eine größere Rolle als typologische Nähe für den Transfer von Demonstrativa in den untersuchten Sprachen spielt, liefert einen wichtigen Beitrag zur Zweitspracherwerbsforschung insgesamt.

8.2   Short Summary (English)

The goal of this dissertation was to investigate whether typological proximity (framed in the context of Lado's (1957) Contrastive Analysis Hypothesis) or structural complexity more accurately predict transfer

outcomes in the production of L2 spatial demonstratives in spoken language. A secondary goal was to investigate the existence of a mid-way or medial distance in Japanese, which has been called into question in recent research (Levinson et al. 2018), and to re-evaluate the current classification of demonstratives in English. To this end, the use of demonstrative pronouns and locative adverbs of n = 120 L1 German, Japanese and English speakers learning L2 Japanese, English and German as well as an English control group (n = 20) was examined. The innovative bilateral and bidirectional interview design allowed for more robust results. Two experiments were conducted to test participants' use of demonstrative pronouns for different distance positions. Experiment 1 tested semi-structured, spontaneous language production, whereas Experiment 2 tested responses based on prompting questions. The elicited data was statistically evaluated for the use of distance-marking and inflectional marking. Results indicate that it is structural complexity rather than typological proximity that influences L2 spoken language production in Experiment 1 in L2 English. Furthermore, results from Experiment 2 indicate that L1 Japanese learners of English behave in a more predicted manner than L1 German learners of English do. Results further show no statistically significant observable differences between any of the other groups, i.e., no evidence in favour or against either CAH or structural complexity as more indicative of transfer effects in L2 language output. However, L2 Japanese results indicate that L1 German learners of L2 Japanese are more likely to behave in a more unpredicted manner in Experiment 1 than L1 English learners of L2 Japanese, opting to use locative constructions or using non-target-like distance marking, thus providing further evidence in favour of structural complexity as the deciding factor for transfer onto L2. Furthermore, results from an

247

additional grammatical judgment task support structural complexity as the more deciding factor for language transfer. For the first time, the use of demonstratives was tested in both L1 and L2, and, in some cases, L3. Accordingly, results provide insights not only into the use of demonstratives in L2, but also into their use in L1. This study concludes that, contrary to recent research (Enfield 2003; Levinson 2018), a midway or medial distance exists for demonstratives in Japanese. It also demonstrates that the distinction between proximal and distal in English is not as clear-cut as suggested in the literature. Rather, English demonstrative pronouns are used interchangeably, and *this* is used primarily as a marker of possession or specification. The results generated in this dissertation project provide vital clues into how demonstrative systems function across languages, and valuable insights into the role of structural complexity in transfer effects, thus contributing to the field of second language research as a whole.

8.3   Short Summary (German)

Hauptziel dieser Dissertation war es, herauszufinden, ob typologische Nähe oder strukturelle Komplexität ausschlaggebender für den Transfer räumlicher Demonstrativa im Zweitspracherwerb in gesprochener Sprache sind. Weitere Ziele waren die Existenz einer mittleren Distanzklasse im Japanischen zu überprüfen, die in aktuellen Studien (Levinson et al. 2018) in Frage gestellt wird und zudem die gängige Klassifizierung der Demonstrativa des Englischen zu überprüfen. Zu diesem Zweck wurde der Gebrauch von Demonstrativa und Lokativadverbien in einer Gruppe von n = 120 L1-Sprecher*innen des Deutschen, Englischen und Japanischen, die jeweils als L2 Deutsch, Englisch und Japanisch lernen, sowie in einer Kontrollgruppe von n =

20 Englisch-L1-Sprecher*innen untersucht. Das innovative bilaterale und bidirektionale Interviewdesign führte zu robusten Ergebnissen. Es wurden zwei Experimente durchgeführt, bei denen die Verwendung von Demonstrativa für unterschiedliche Distanzpositionen getestet wurde. Experiment 1 sollte halbstrukturierte, spontane Sprachproduktion, Experiment 2 hingegen Antworten auf gestellte Fragen überprüfen. Die so ermittelten Daten wurden statistisch nach Gebrauch von Flexions- und Distanzmarkern evaluiert. Die Ergebnisse zeigen, dass strukturelle Komplexität mehr als typologische Nähe den Gebrauch von Englisch als L2 in Experiment 1 beeinflusst. Weiterhin handelten Japanisch-L1-Sprecher*innen im Englischen gegenüber Deutsch-L1-Sprecher*innen in Experiment 2 nach einem vorhersagbareren Schema. Die Ergebnisse zeigten keine statistisch signifikanten Unterschiede zwischen den anderen Testgruppen, d.h. keinen Beweis für oder gegen CAH oder strukturelle Komplexität im Sprachtransfer. Jedoch zeigen die Ergebnisse der Japanisch-L2-Sprecher*innen, dass Deutsch-L1-Sprecher*innen in Experiment 1 unvorhersagbarer als Englisch-L1-Sprecher*innen agieren, indem sie Lokativkonstruktionen oder nichtzielsprachliche Distanzmarker verwenden, was eher auf strukturelle Komplexität als entscheidenden Faktor im Zweitspracherwerb hindeutet. Dies unterstützen auch die Daten des zusätzlich durchgeführten grammatischen Urteilstests. Erstmalig wurde der Gebrauch von Demonstrativa in sowohl L1 als auch L2 und in einigen Fällen L3 getestet. Dementsprechend geben die Ergebnisse nicht nur Einsicht in den Gebrauch von Demonstrativa in der L2, sondern auch der L1. Außerdem werden Demonstrativa im Englischen austauschbar verwendet. Das proximale Demonstrativpronomen *this* ist hierbei vor allem ein besitzanzeigender Marker bzw. ein Marker, der der

Spezifikation und Eingrenzung dient. Die aus dieser Dissertation gewonnenen Ergebnisse liefern wertvolle Erkenntnisse darüber, wie Demonstrativsysteme sprachübergreifend funktionieren und welche Rolle sowohl typologische Nähe als auch strukturelle Komplexität beim Zweitspracherwerb spielen. Das Ergebnis, dass strukturelle Komplexität eine größere Rolle als typologische Nähe für den Transfer von Demonstrativa in den untersuchten Sprachen spielt, liefert einen wichtigen Beitrag zur Zweitspracherwerbsforschung insgesamt.

9   Appendix

9.1   Visualization of Means for Predicted Outcomes

The following graphs show plotted means across language groups according to language and are a by-product of the one-way ANOVAs that were conducted (4.10.2). It is important to note that the range on the y-axis differs slightly from graph to graph. This needs to be taken into account in the interpretation of results. For example, there is a larger variation between means in English Experiment 1 Situation 1 than in German Experiment 1 Situation 1.

9.1.1   English: Experiment 1
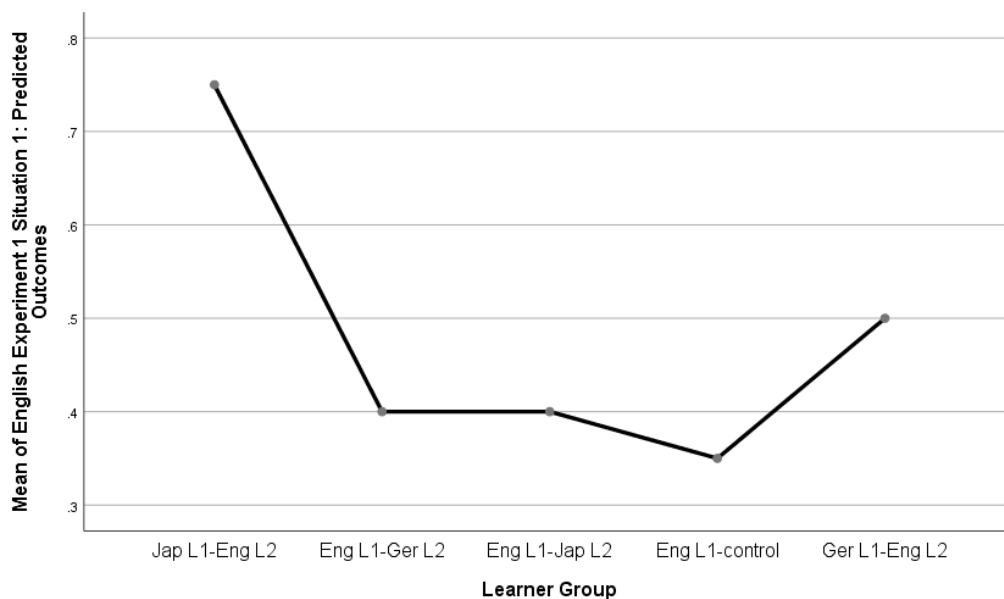
Graph 1: Plotted Means Across Groups: English Experiment 1 Sit 1
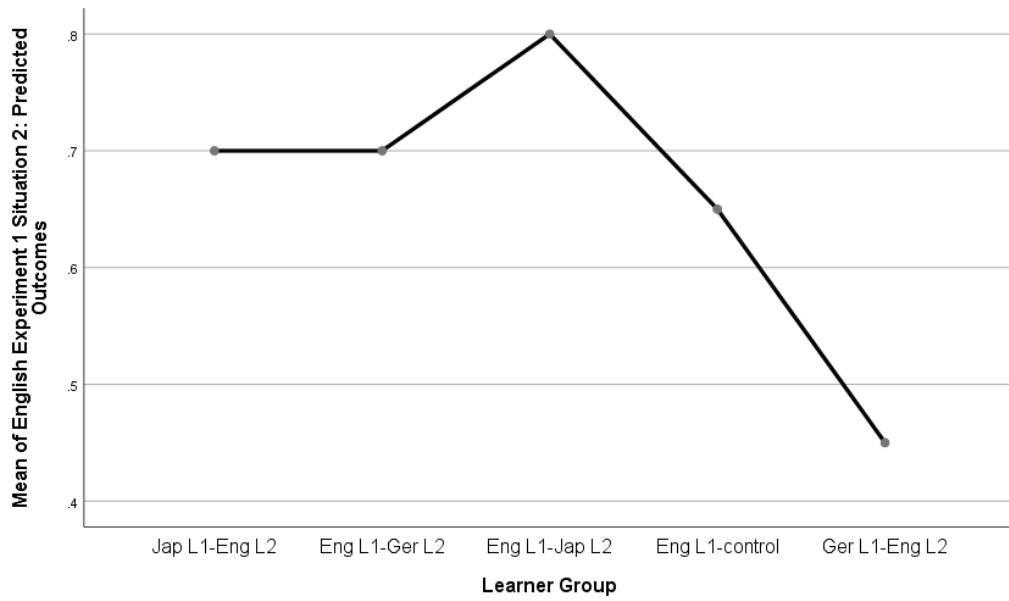
Graph 2: Plotted Means Across Groups, English Experiment 1: Sit 2
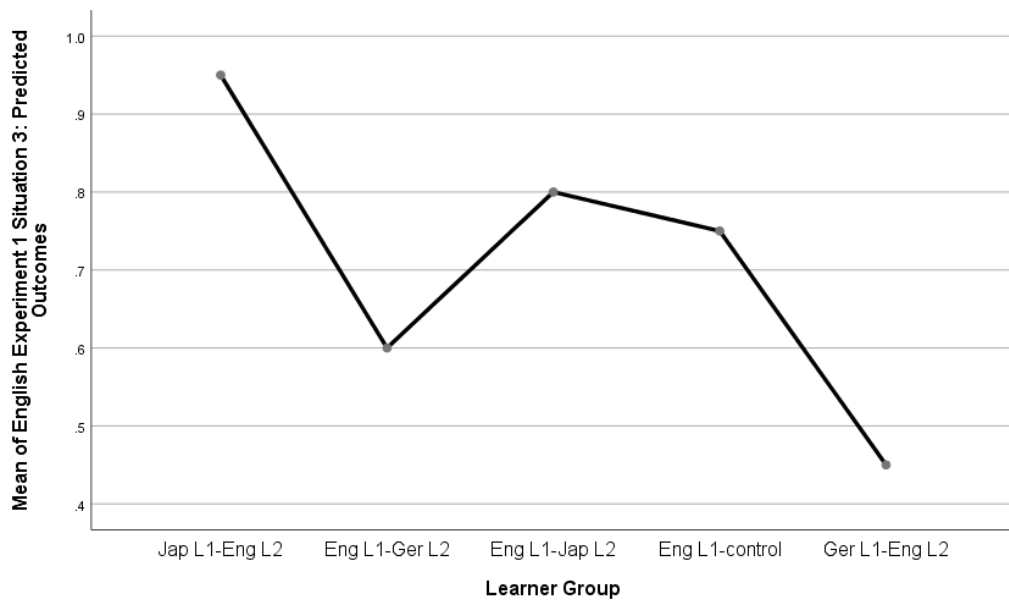
Graph 3: Plotted Means Across Groups: English Experiment 1 Sit 3

9.1.2 English: Experiment 2
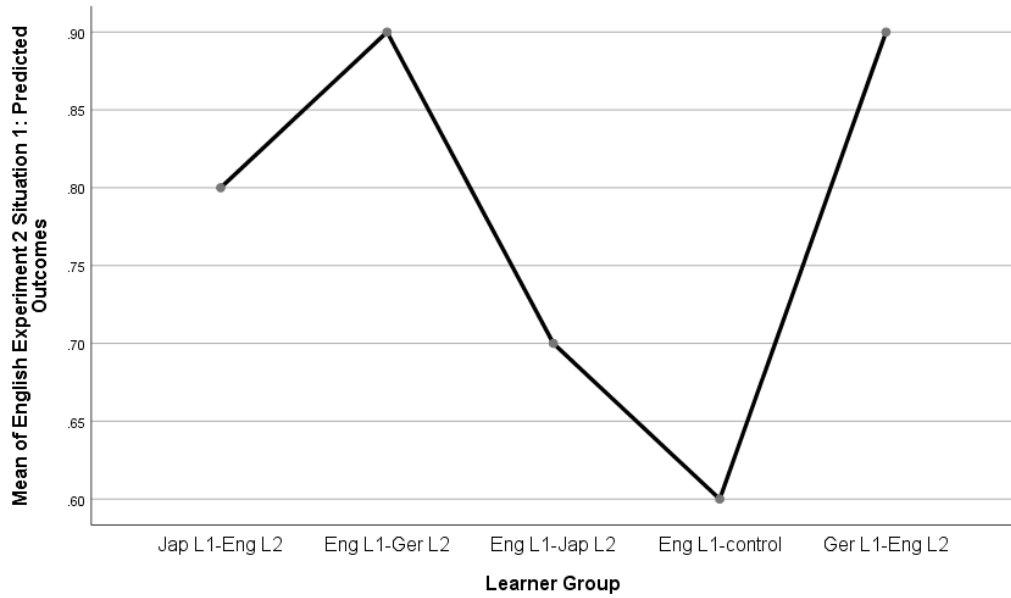
Graph 4: Plotted Means Across Groups: English Experiment 2 Sit 1
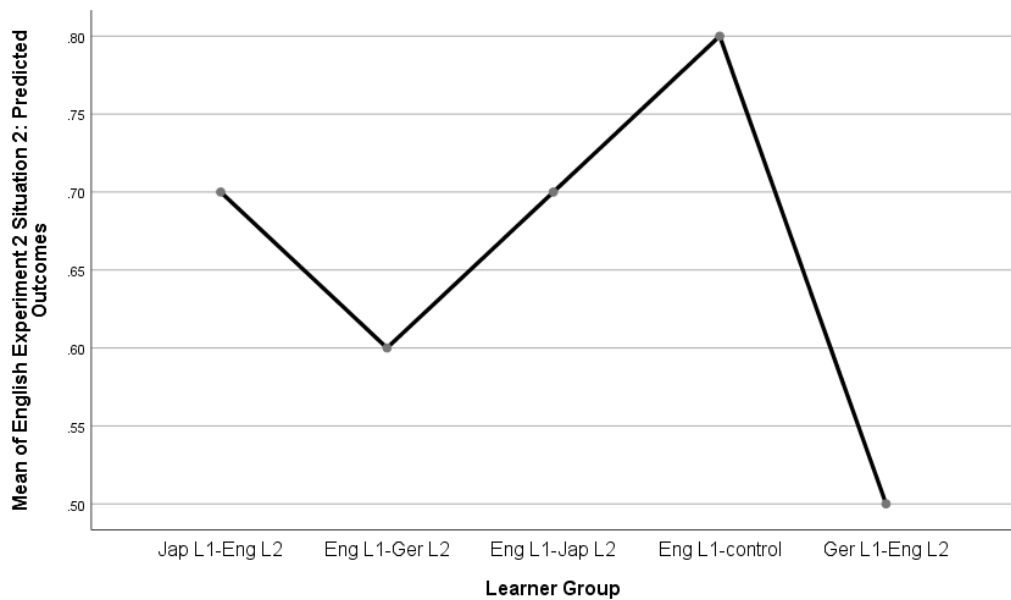
Graph 5: Plotted Means Across Groups: English Experiment 2 Sit 2
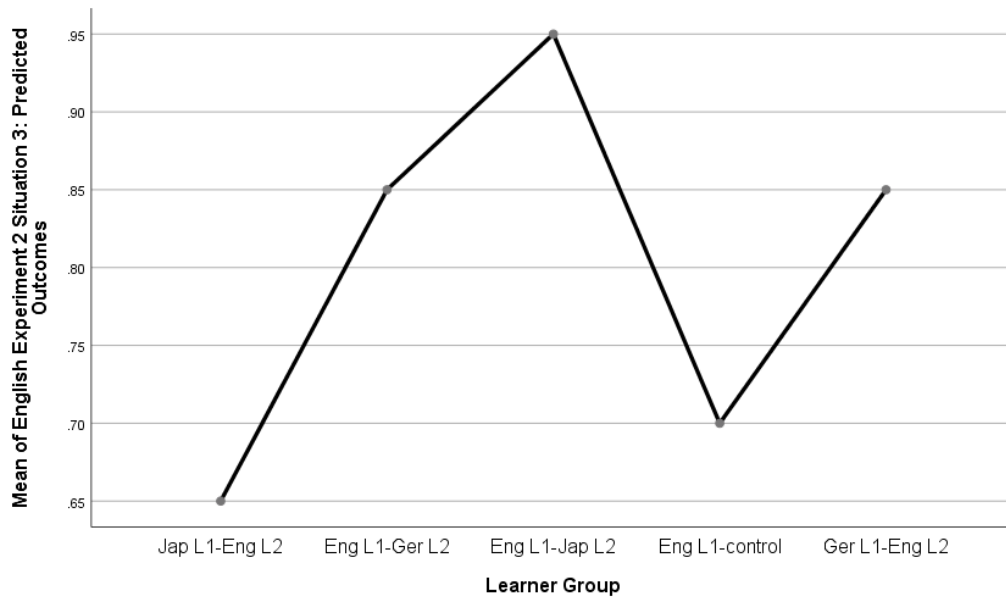
Graph 6: Plotted Means Across Groups: English Experiment 2 Sit 3

9.1.3 German: Experiment 1
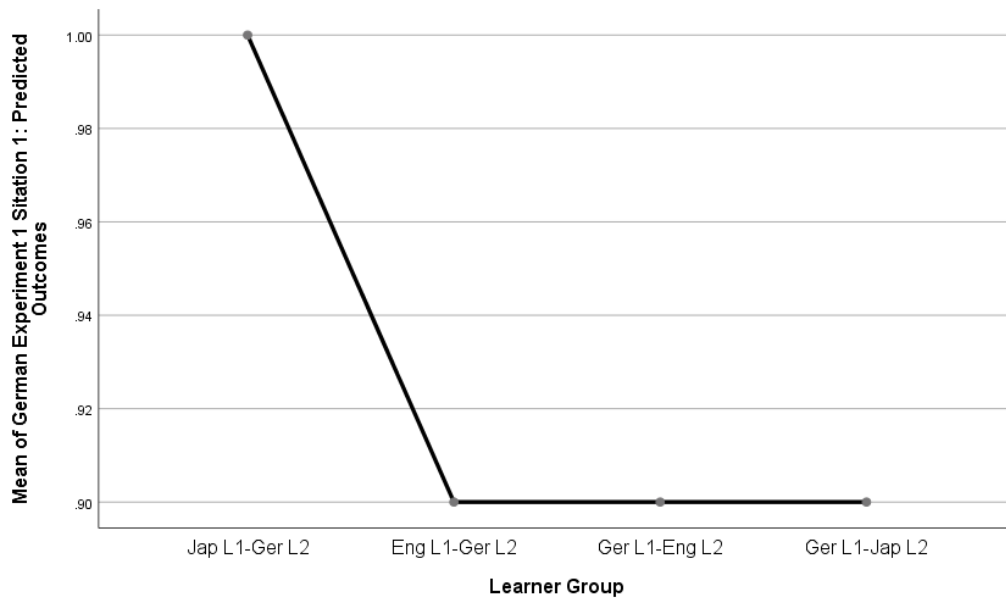
Graph 7: Plotted Means Across Groups: German Experiment 1 Sit 1
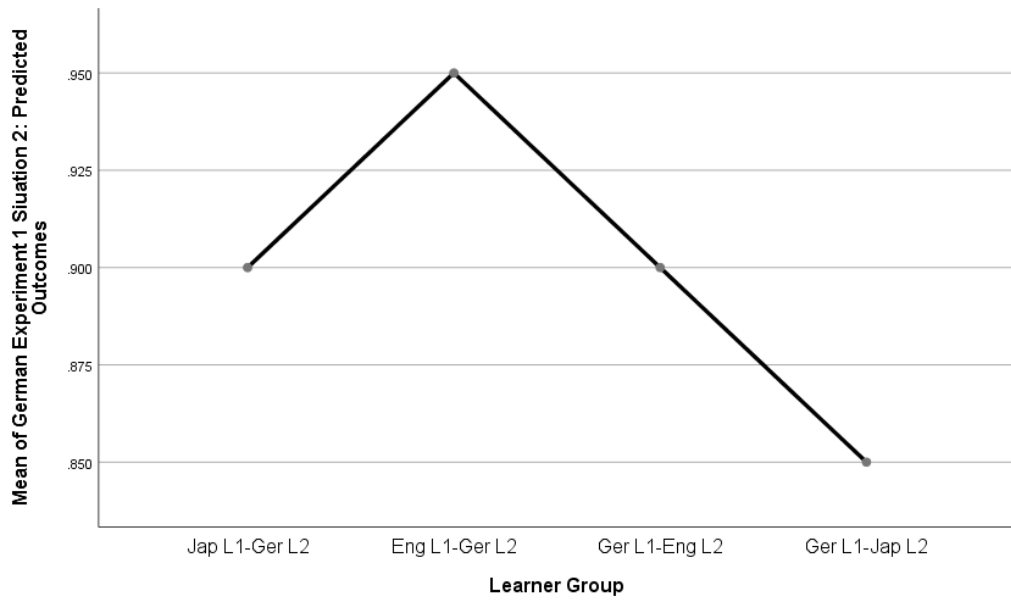
Graph 8: Plotted Means Across Groups: German Experiment 1 Sit 2
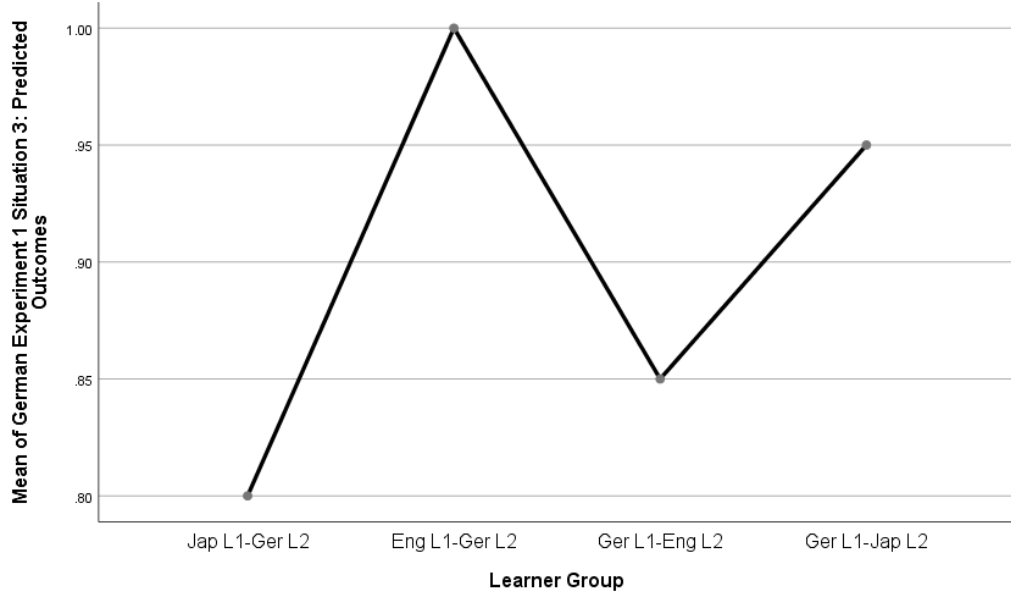
Graph 9: Plotted Means Across Groups: German Experiment 1 Sit 3

9.1.4 German: Experiment 2
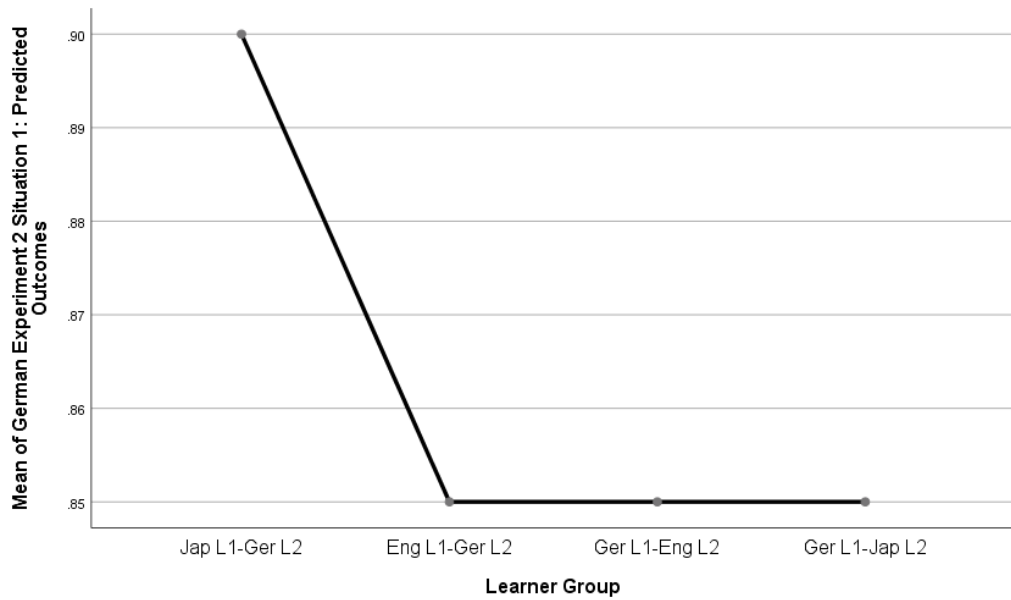
Graph 10: Plotted Means Across Groups, German Experiment 2 Sit 1
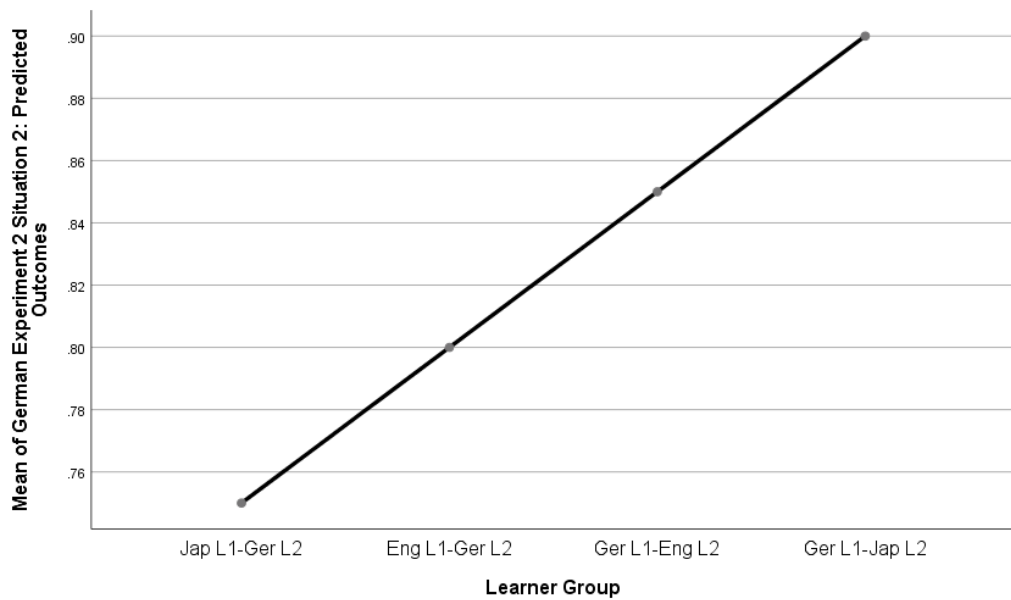
Graph 11: Plotted Means Across Groups: German Experiment 2 Sit 2
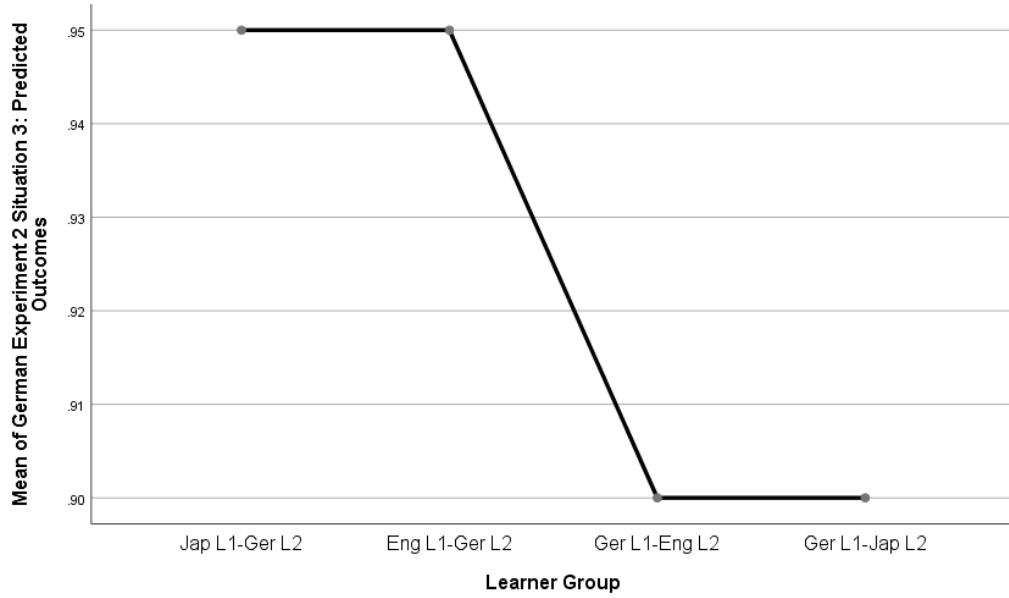
Graph 12: Plotted Means Across Groups, German Experiment 2 Sit 3

9.1.5 Japanese: Experiment 1
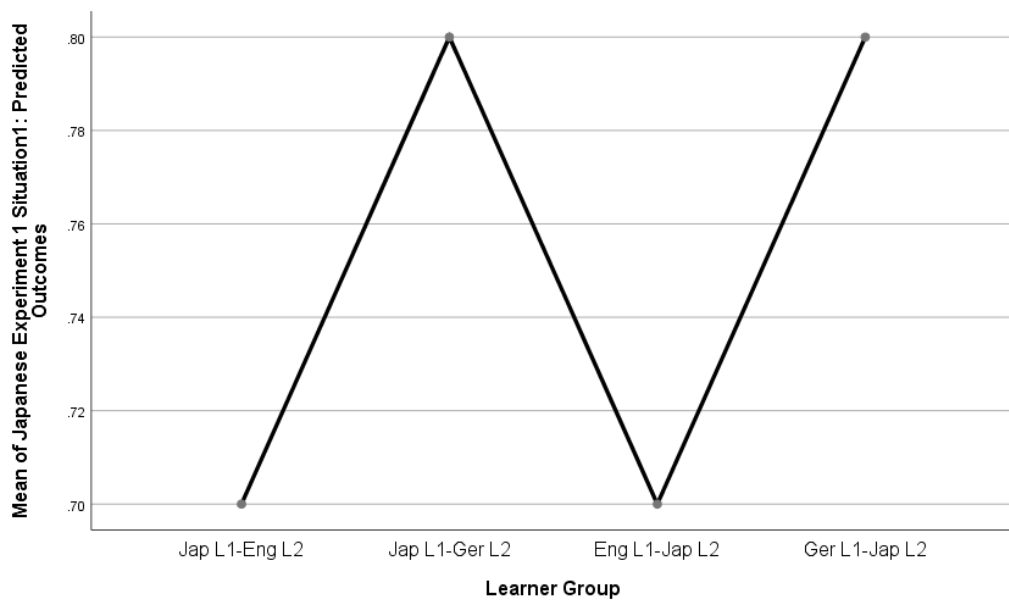
Graph 13: Plotted Means Across Groups: Japanese Experiment 1 Sit 1
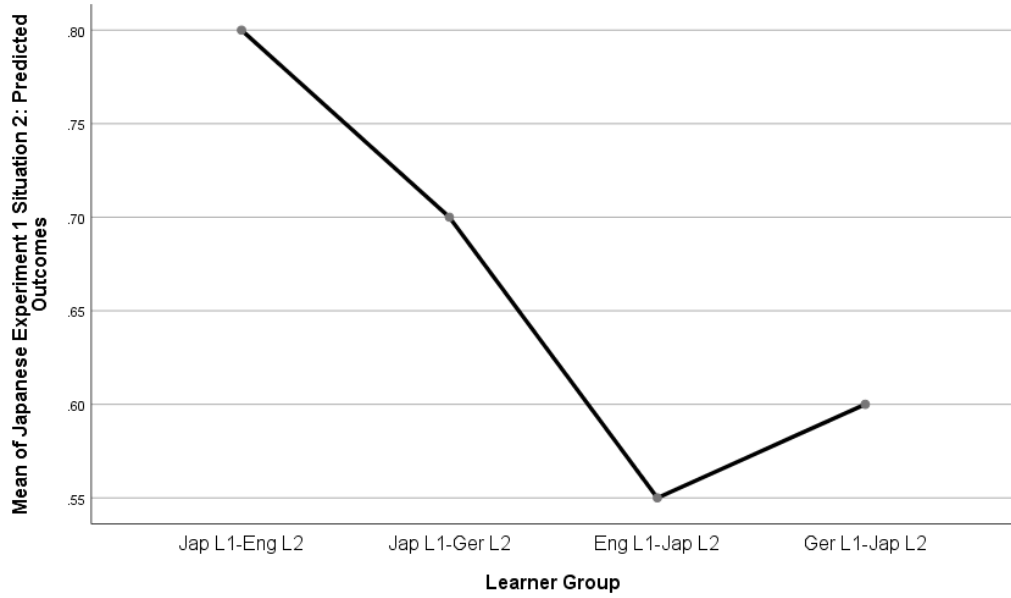
Graph 14: Plotted Means Across Groups: Japanese Experiment 1 Sit 2
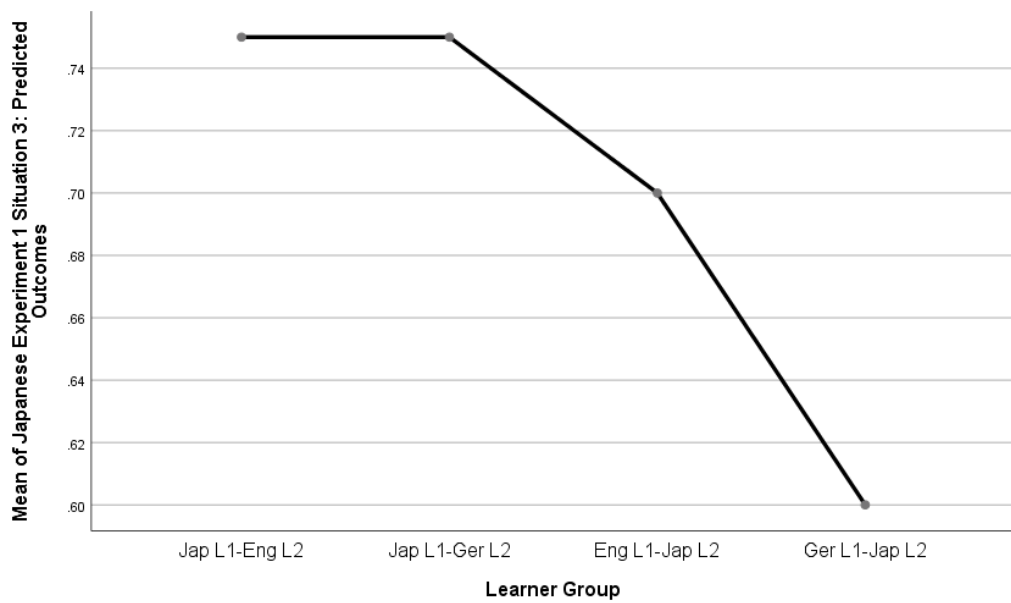
Graph 15: Plotted Means Across Groups: Japanese Experiment 1 Sit 3

9.1.6 Japanese: Experiment 2
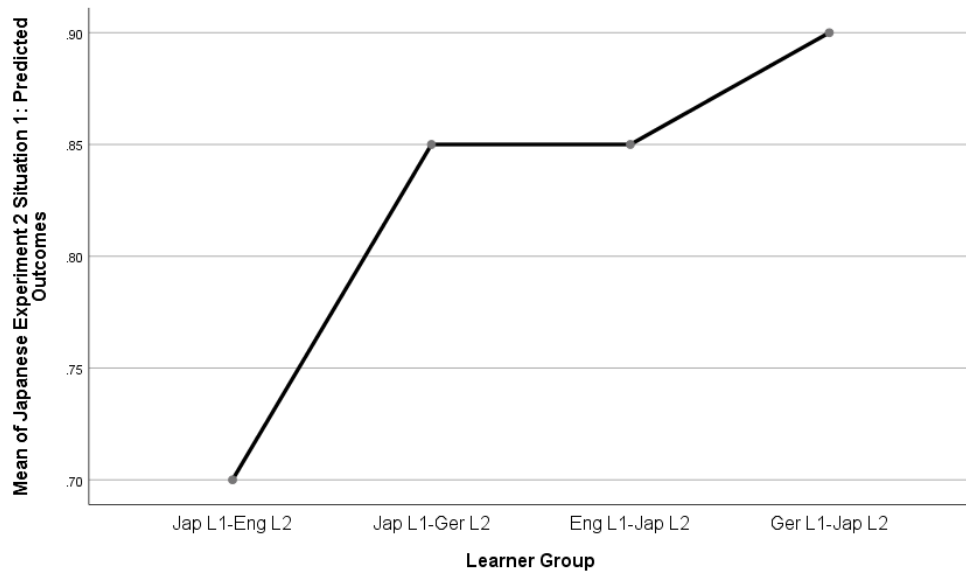
Graph 16: Plotted Means Across Groups: Japanese Experiment 2 Sit 1
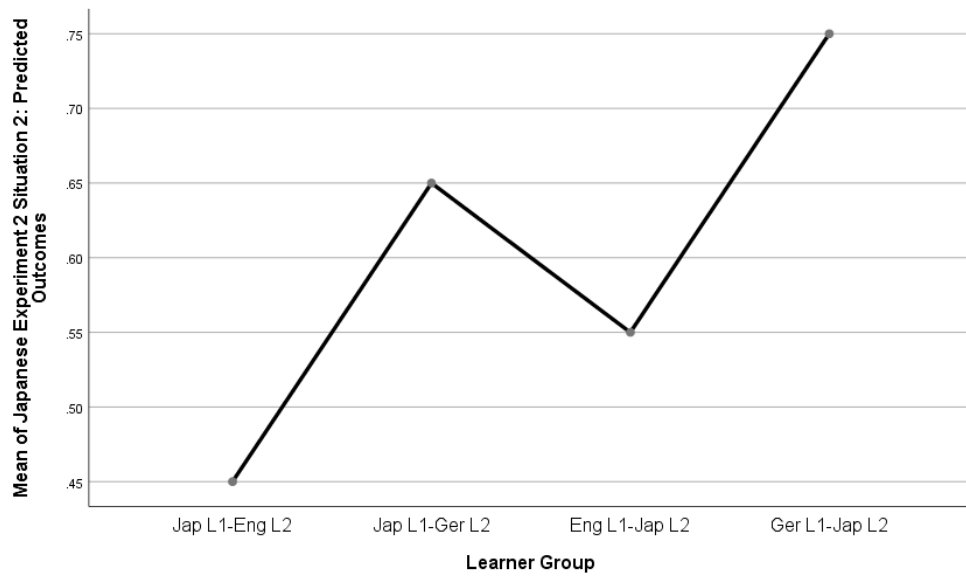
Graph 17: Plotted Means Across Groups: Japanese Experiment 2 Sit 2
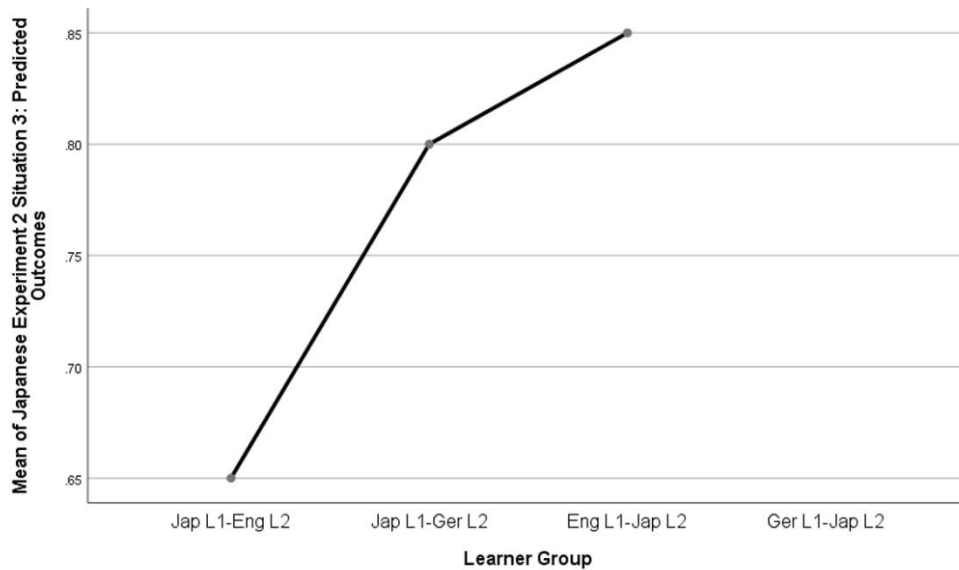
Graph 18: Plotted Means Across Groups: Japanese Experiment 2 Sit 3

9.2   Background Questionnaire (English Version)[49]

1. Year of Birth/Age:

2. Gender:

3. L1 (first language acquired at home (there can be multiple L1s)):

4. L2 (first language acquired/learned outside of home):

4.1 When did you start learning your L2 (age)?

4.2 Where did you learn your L2?

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[49] Can-Do Statements taken directly from CEFR Guidelines (Council of Europe 2001; Council of Europe 2018).

4.3 Did you ever spend time abroad in an L2-speaking country? If so, where and how long?

4.4 How would you rate your reading and comprehension skills? Please indicate a number on the scale below by circling/underlining it:

1 = I can recognise familiar words and very basic phrases concerning myself, my family and immediate concrete surroundings when people speak slowly and clearly. I can understand familiar names, words and very simple sentences, for example on notices and posters or in catalogues.

2 = I can understand phrases and the highest frequency vocabulary related to areas of most immediate personal relevance (e.g. very basic personal and family information, shopping, local area, employment). I can catch the main point in short, clear, simple messages and announcements.

3 = I can understand the main points of clear standard speech on familiar matters regularly encountered in work, school, leisure, etc. I can understand the main point of many radio or TV programmes on current affairs or topics of personal or professional interest when the delivery is relatively slow and clear. I can understand texts that consist mainly of high frequency everyday or job-related language. I can understand the description of events, feelings and wishes in personal letters.

4 = I can understand extended speech and lectures and follow even complex lines of argument provided the topic is reasonably familiar. I can understand most TV news and current affairs programmes. I can understand the majority of films in standard dialect. can read articles and reports concerned with contemporary problems in which the writers adopt particular attitudes or viewpoints. I can understand contemporary literary prose.

5 = I can understand extended speech even when it is not clearly structured and when relationships are only implied and not signalled explicitly. I can understand television programmes and films without too much effort. I can understand extended speech even when it is not clearly structured and when relationships are only implied and not signalled explicitly. I can understand television programmes and films without too much effort.

6 = I have no difficulty in understanding any kind of spoken language, whether live or broadcast, even when delivered at fast native speed, provided I have some time to get familiar with the accent. I can read with ease virtually all forms of the written language, including abstract, structurally or linguistically complex texts such as manuals, specialised articles and literary works.

4.5 How would you rate your ability to write and speak in your L2? Please indicate a number on the scale below. If there is a difference between your writing and speaking skills, please indicate so by drawing an X next to the number that best describes your writing skills and circling/underlining the number that best describes your speaking skills:

1 = I can interact in a simple way provided the other person is prepared to repeat or rephrase things at a slower rate of speech and help me formulate what I'm trying to say. I can ask and answer simple questions in areas of immediate need or on very familiar topics. I can use simple phrases and sentences to describe where I live and people I know. I can write a short, simple postcard, for example sending holiday greetings. I can fill in forms with personal details, for example entering my name, nationality and address on a hotel registration form.

2 = I can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar topics and activities. I can handle very short social exchanges, even though I can't usually understand enough to keep the conversation going myself. can use a series of phrases and sentences to describe in simple terms my family and other people, living conditions, my educational background and my present or most recent job. I can write short, simple notes and messages relating to matters in areas of immediate needs. I can write a very simple personal letter, for example thanking someone for something.

3 = I can deal with most situations likely to arise whilst travelling in an area where the language is spoken. I can enter unprepared into conversation on topics that are familiar, of personal interest or pertinent to everyday life (e.g. family, hobbies, work, travel and current events). I can connect phrases in a simple way in order to describe experiences and events, my dreams, hopes and ambitions. I can briefly give reasons and explanations for opinions and plans. I can narrate a story or relate the plot of a book

262

or film and describe my reactions. I can write simple connected text on topics which are familiar or of personal interest. I can write personal letters describing experiences and impressions.

4 = I can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible. I can take an active part in discussion in familiar contexts, accounting for and sustaining my views. I can present clear, detailed descriptions on a wide range of subjects related to my field of interest. I can explain a viewpoint on a topical issue giving the advantages and disadvantages of various options. I can write clear, detailed text on a wide range of subjects related to my interests. I can write an essay or report, passing on information or giving reasons in support of or against a particular point of view. I can write letters highlighting the personal significance of events and experiences.

5 = I can express myself fluently and spontaneously without much obvious searching for expressions. I can use language flexibly and effectively for social and professional purposes. I can formulate ideas and opinions with precision and relate my contribution skilfully to those of other speakers. I can present clear, detailed descriptions of complex subjects integrating sub-themes, developing particular points and rounding off with an appropriate conclusion. I can express myself in clear, well-structured text, expressing points of view at some length. I can write about complex subjects in a letter, an essay or a report, underlining what I consider to be the salient issues. I can select style appropriate to the reader in mind.

6 = I can take part effortlessly in any conversation or discussion and have a good familiarity with idiomatic expressions and colloquialisms. I can express myself fluently and convey finer shades of meaning precisely. If I do have a problem I can backtrack and restructure around the difficulty so smoothly that other people are hardly aware of it. I can present a clear, smoothly-flowing description or argument in a style appropriate to the context and with an effective logical structure which helps the recipient to notice and remember significant points. I can write clear, smoothly-flowing text in an appropriate style. I can write complex letters, reports or articles which present a case with an effective logical structure which helps the recipient to notice and remember significant points. I can write summaries and reviews of professional or literary works.

5. L3 (second language acquired/learned outside of home):

5.1 When did you start learning your L3 (age)?

5.2 Where did you learn your L3?

5.3 Did you ever spend time abroad in an L3-speaking country? If so, where and how long?

5.4 How would you rate your reading and comprehension skills? Please indicate a number on the scale below by circling/underlining it:

1 = I can recognise familiar words and very basic phrases concerning myself, my family and immediate concrete surroundings when people speak slowly and clearly. I can understand familiar names, words and very simple sentences, for example on notices and posters or in catalogues.

2 = I can understand phrases and the highest frequency vocabulary related to areas of most immediate personal relevance (e.g. very basic personal and family information, shopping, local area, employment). I can catch the main point in short, clear, simple messages and announcements.

3 = I can understand the main points of clear standard speech on familiar matters regularly encountered in work, school, leisure, etc. I can understand the main point of many radio or TV programmes on current affairs or topics of personal or professional interest when the delivery is relatively slow and clear. I can understand texts that consist mainly of high frequency everyday or job-related language. I can understand the description of events, feelings and wishes in personal letters.

4 = I can understand extended speech and lectures and follow even complex lines of argument provided the topic is reasonably familiar. I can understand most TV news and current affairs programmes. I can understand the majority of films in standard dialect. can read articles and reports concerned with contemporary problems in which the writers adopt particular attitudes or viewpoints. I can understand contemporary literary prose.

5 = I can understand extended speech even when it is not clearly structured and when relationships are only implied and not signalled explicitly. I can understand television programmes and films without too much effort. I can understand extended speech even when it is not clearly structured and when relationships are only implied and not signalled explicitly. I can understand television programmes and films without too much effort.

6 = I have no difficulty in understanding any kind of spoken language, whether live or broadcast, even when delivered at fast native speed, provided I have some time to get familiar with the accent. I can read with ease virtually all forms of the written language, including abstract, structurally or linguistically complex texts such as manuals, specialised articles and literary works.

5.5 How would you rate your ability to write and speak in your L3? Please indicate a number on the scale below. If there is a difference between your writing and speaking skills, please indicate so by drawing an X next to the number that best describes your writing skills and circling/underlining the number that best describes your speaking skills:

1 = I can interact in a simple way provided the other person is prepared to repeat or rephrase things at a slower rate of speech and help me formulate what I'm trying to say. I can ask and answer simple questions in areas of immediate need or on very familiar topics. I can use simple phrases and sentences to describe where I live and people I know. I can write a short, simple postcard, for example sending holiday greetings. I can fill in forms with personal details, for example entering my name, nationality and address on a hotel registration form.

2 = I can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar topics and activities. I can handle very short social

exchanges, even though I can't usually understand enough to keep the conversation going myself. can use a series of phrases and sentences to describe in simple terms my family and other people, living conditions, my educational background and my present or most recent job. I can write short, simple notes and messages relating to matters in areas of immediate needs. I can write a very simple personal letter, for example thanking someone for something.

3 = I can deal with most situations likely to arise whilst travelling in an area where the language is spoken. I can enter unprepared into conversation on topics that are familiar, of personal interest or pertinent to everyday life (e.g. family, hobbies, work, travel and current events). I can connect phrases in a simple way in order to describe experiences and events, my dreams, hopes and ambitions. I can briefly give reasons and explanations for opinions and plans. I can narrate a story or relate the plot of a book or film and describe my reactions. I can write simple connected text on topics which are familiar or of personal interest. I can write personal letters describing experiences and impressions.

4 = I can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible. I can take an active part in discussion in familiar contexts, accounting for and sustaining my views. I can present clear, detailed descriptions on a wide range of subjects related to my field of interest. I can explain a viewpoint on a topical issue giving the advantages and disadvantages of various options. I can write clear, detailed text on a wide range of subjects related to my interests. I can write an essay or report, passing on information or giving reasons in support of or against a particular point of view. I can write letters highlighting the personal significance of events and experiences.

5 = I can express myself fluently and spontaneously without much obvious searching for expressions. I can use language flexibly and effectively for social and professional purposes. I can formulate ideas and opinions with precision and relate my contribution skilfully to those of other speakers. I can present clear, detailed descriptions of complex subjects integrating sub-themes, developing particular points and rounding off with an appropriate conclusion. I can express myself in clear, well-structured text, expressing points of view at some length. I can write about complex subjects in a letter, an essay or a report, underlining what I consider to be the salient issues. I can select style appropriate to the reader in mind.

6 = I can take part effortlessly in any conversation or discussion and have a good familiarity with idiomatic expressions and colloquialisms. I can express myself fluently and convey finer shades of meaning precisely. If I do have a problem I can backtrack and restructure around the difficulty so smoothly that other people are hardly aware of it. I can present a clear, smoothly-flowing description or argument in a style appropriate to the context and with an effective logical structure which helps the recipient to notice and remember significant points. I can write clear, smoothly-flowing text in an appropriate style. I can write complex letters, reports or articles which present a case with an effective logical structure which helps the recipient to notice and remember significant points. I can write summaries and reviews of professional or literary works.

9.3   Grammatical Judgment Task

Please indicate sentences you find grammatically acceptable with a circle (o) and sentences you find grammatically inacceptable with an x (x), e.g.

I have been living in Germany for 5 years (o).

English

(1)   These dolphins over there are pretty.

(2)   Those strange times we are living in.

(3)   Stranger things have happened to me than this.

(4)   Stranger things have happened to me than that.

(5)   Person A: Which bottle do you mean? Person B: That one.

(6)   These necklace is pretty.

(7)   I like this car.

German

(1)   Diese Meerschweinchen dort drüben hüpfen wie verrückt herum.

(2)   Person A: Welche Flasche meinst du denn genau? Person B: Jene dort.

(3)   Diese Ring funkelt.

(4)   Diese Wohnung ist schön.

(5)   Seltsamere Dinge sind geschehen als diese.

(6)   Mächtigere Zaubersprüche gibt es als diese hier.

(7)   Jene seltsamen Zeiten in denen wir leben.

9.4   Results Grammatical Judgment Task

The following table lists divergent responses in the grammatical judgment tasks, i.e., tasks that were either classified as correct but marked as unacceptable, or tasks that were classified as unacceptable but marked as acceptable, across language groups:

	Eng L1 control	Eng L1 – Ger L2	Eng L1 – Jap L2	Jap L1 – Eng L2	Jap L1 – Ger L2	Ger L1 – Eng L2	Ger L1 – Jap L2
S1 Eng	0	0	0	7	-	14	-
S2 Eng	3	3	3	8	-	13	-
S3 Eng	0	4	4	10	-	2	-
S4 Eng	0	0	1	0	-	0	-
S5 Eng	0	0	1	0	-	0	-
S6 Eng	0	0	0	10	-	0	-
S7 Eng	0	0	0	0	-	0	-
S1 Ger	-	5	-	-	8	2	3
S2 Ger	-	9	-	-	10	7	5
S3 Ger	-	6	-	-	11	0	0
S4 Ger	-	2	-	-	0	0	0
S5 Ger	-	5	-	-	7	5	0
S6 Ger	-	3	-	-	7	0	0
S7 Ger	-	4	-	-	11	0	0

Table 114: Divergent Responses Grammatical Judgment Task

9.5   Non-Target-Like Number, Gender and Case Marking and Non-Target-Like Particle Marking

There were no instances of non-target-like number marking for English in any of the investigated cohorts. The following table represents instances of non-target-like gender (and case) marking in L2 German experiments:

	Eng L1 – Ger L2	Jap L1 – Ger L2
Ger Exp 1 Sit 1	1	2
Ger Exp 1 Sit 2	3	4
Ger Exp 1 Sit 3	4	5
Ger Exp 2 Sit 1	0	0
Ger Exp 2 Sit 2	2	1
Ger Exp 2 Sit 3	0	0

Table 115: Non-target like Gender Marking

It was not possible to adequately disambiguate non-target-like gender from non-target-like case marking, although there is at least one instance in the English L1 German L2 cohort that suggests the underlying issue is rooted in problems with case rather than gender marking. The following shows instances of non-target-like particle use in L2 Japanese

	Eng L1 – Jap L2	Ger L1 – Jap L2
Jap Exp 1 Sit 1	2	2
Jap Exp 1 Sit 2	1	3
Jap Exp 1 Sit 3	4	2
Jap Exp 2 Sit 1	2	1
Jap Exp 2 Sit 2	2	3
Jap Exp 2 Sit 3	2	2

Table 116: Non-target-like particle use

9.6 Variable Values

Variable Values

Value		Label
GROUP	1	Jap L1-Eng L2
	2	Jap L1-Ger L2
	3	Eng L1-Ger L2
	4	Eng L1-Jap L2
	5	Eng L1-control
	6	Ger L1-Eng L2
	7	Ger L1-Jap L2
BQ02	1	A1
	2	A2
	3	B1
	4	B2
	5	C1
	6	C2
BQ03	1	A1
	2	A2
	3	B1
	4	B2
	5	C1
	6	C2
BQ06	1	Male
	2	Female
	3	Other
GJE01	1	Judged Acceptable, Acceptable
	2	Judged Unacceptable, Inacceptable
	3	Judged Unacceptable, acceptable
	4	Judged Acceptable, Unacceptable
GJE02	1	Judged Acceptable, Acceptable

		2	Judged Unacceptable, Unacceptable
		3	Judged Unacceptable, Acceptable
		4	Judged acceptable, Unacceptable
GJE03		1	Judged Acceptable, Acceptable
		2	Judged Unacceptable, Unacceptable
		3	Judged Unacceptable, Acceptable
		4	Judged Acceptable, Unacceptable
GJE04		1	Judged Acceptable, Acceptable
		2	Judged Unacceptable, Unacceptable
		3	Judged Unacceptable, Acceptable
		4	Judged Acceptable, Unacceptable
GJE05		1	Judged Acceptable, Acceptable
		2	Judged Unacceptable, Unacceptable
		3	Judged Unacceptable, Acceptable
		4	Judged Acceptable, Unacceptable
GJE06		1	Judged Acceptable, Acceptable
		2	Judged Unacceptable, Unacceptable
		3	Judged Unacceptable, Acceptable

	4	Judged Acceptable, Unacceptable
GJE07	1	Judged Acceptable, Acceptable
	2	Judged Unacceptable, Unacceptable
	3	Judged Unacceptable, Acceptable
	4	Judged Acceptable, Unacceptable
GJG01	1	Judged Acceptable, Acceptable
	2	Judged Unacceptable, Unacceptable
	3	Judged Unacceptable, Acceptable
	4	Judged Acceptable, Unacceptable
GJG02	1	Judged Acceptable, Acceptable
	2	Judged Unacceptable, Unacceptable
	3	Judged Unacceptable, Acceptable
	4	Judged Acceptable, Unacceptable
GJG03	1	Judged Acceptable, Acceptable
	2	Judged Unacceptable, Unacceptable
	3	Judged Unacceptable, Acceptable
	4	Judged Acceptable, Unacceptable
GJG04	1	Judged Acceptable, Acceptable

	2	Judged Unacceptable, Unacceptable
	3	Judged Unacceptable, Acceptable
	4	Judged Acceptable, Unacceptable
GJG05	1	Judged Acceptable, Acceptable
	2	Judged Unacceptable, Unacceptable
	3	Judged Unacceptable, Acceptable
	4	Judged Acceptable, Unacceptable
GJG06	1	Judged Acceptable, Acceptable
	2	Judged Unacceptable, Unacceptable
	3	Judged Unacceptable, Acceptable
	4	Judged Acceptable, Unacceptable
GJG07	1	Judged Acceptable, Acceptable
	2	Judged Unacceptable, Unacceptable
	3	Judged Unacceptable, Acceptable
	4	Judged Acceptable, Unacceptable
EngExp1Sit1	1	Proximal Dem.PN (This)
	2	Distal Dem.PN (That)
	3	Determiner (The)
	4	Proximal Locative Adverb (Here)
	5	Distal Locative Adverb (There)

	6	Remote Locative Adverb (Over There)
	7	Other
EngExp1Sit1_additional	1	add. here
	2	add. there
	3	add. over there
EngExp1Sit1_choiceadjustment	1	Proximal, then distal
	2	Distal, then proximal
EngExp1Sit1_NTLNumber	1	Yes
	2	No
EngExp1Sit2	1	Proximal Dem.PN (This)
	2	Distal Dem.PN (That)
	3	Determiner (The)
	4	Proximal Locative Adverb (Here)
	5	Distal Locative Adverb (There)
	6	Remote Locative Adverb (Over There)
	7	Other
EngExp1Sit2_additional	1	add. here
	2	add. there
	3	add. over there
EngExp1Sit2_choiceadjustment	1	Proximal, then distal
	2	Distal, then proximal
EngExp1Sit2_NTLNumber	1	Yes
	2	No
EngExp1Sit3	1	Proximal Dem.PN (This)
	2	Distal Dem.PN (That)
	3	Determiner (The)
	4	Proximal Locative Adverb (Here)
	5	Distal Locative Adverb (There)
	6	Remote Locative Adverb (Over There)

	7	Other
EngExp1Sit3_additional	1	add. here
	2	add. there
	3	add. over there
EngExp1Sit3_choice adjustment	1	Proximal, then distal
	2	Distal, then proximal
EngExp1Sit3_NTLNumber	1	Yes
	2	No
EngExp2Sit1	1	Proximal Dem.PN (This)
	2	Distal Dem.PN (That)
	3	Determiner (The)
	4	Proximal Locative Adverb (Here)
	5	Distal Locative Adverb (There)
	6	Remote Locative Adverb (Over There)
	7	Other
EngExp2Sit1_additional	1	add. here
	2	add. there
	3	add. over there
EngExp2Sit1_choice adjustment	1	Proximal, then distal
	2	Distal, then proximal
EngExp2Sit1_NTLNumber	1	Yes
	2	No
EngExp2Sit2	1	Proximal Dem.PN (This)
	2	Distal Dem.PN (That)
	3	Determiner (The)
	4	Proximal Locative Adverb (Here)
	5	Distal Locative Adverb (There)
	6	Remote Locative Adverb (Over There)
	7	Other
EngExp2Sit2_additional	1	add. here

	2	add. there
	3	add. over there
EngExp2Sit2_choice adjustment	1	Proximal, then distal
	2	Distal, then proximal
EngExp2Sit2_NTLNumber	1	Yes
	2	No
EngExp2Sit3	1	Proximal Dem.PN (This)
	2	Distal Dem.PN (That)
	3	Determiner (The)
	4	Proximal Locative Adverb (Here)
	5	Distal Locative Adverb (There)
	6	Remote Locative Adverb (Over There)
	7	Other
EngExp2Sit3_additional	1	add. here
	2	add. there
	3	add. over there
EngExp2Sit3_choice adjustment	1	Proximal, then distal
	2	Distal, then proximal
EngExp2Sit3_NTLNumber	1	Yes
	2	No
JapExp1Sit1	1	Proximal Pronominal Dem.PN (Kore)
	2	Distal Pronominal Dem.PN (Sore)
	3	Remote Pronominal Dem.PN (Are)
	4	Proximal Adnominal Dem.PN (Kono)
	5	Distal Adnominal Dem.PN (Sono)
	6	Remote Adnominal Dem.PN (Ano)

	7	Proximal Locative Adverb (Koko)
	8	Distal Locative Adverb (Soko)
	9	Remote Locative Adverb (Asoko)
	10	Other
JapExp1Sit1_additional	1	no
	2	ni
JapExp1Sit1_choiceadjustment	1	Proximal, then distal
	2	Distal, then proximal
JapExp1Sit1_NTLParticle	1	Yes
	2	No
JapExp1Sit2	1	Proximal Pronominal Dem.PN (Kore)
	2	Distal Pronominal Dem.PN (Sore)
	3	Remote Pronominal Dem.PN (Are)
	4	Proximal Adnominal Dem.PN (Kono)
	5	Distal Adnominal Dem.PN (Sono)
	6	Remote Adnominal Dem.PN (Ano)
	7	Proximal Locative Adverb (Koko)
	8	Distal Locative Adverb (Soko)
	9	Remote Locative Adverb (Asoko)
	10	Other
JapExp1Sit2_additional	1	no
	2	ni
JapExp1Sit2_choiceadjustment	1	Proximal, then distal
	2	Distal, then proximal
JapExp1Sit2_NTLParticle	1	Yes

	2	No
JapExp1Sit3	1	Proximal Pronominal Dem.PN (Kore)
	2	Distal Pronominal Dem.PN (Sore)
	3	Remote Pronominal Dem.PN (Are)
	4	Proximal Adnominal Dem.PN (Kono)
	5	Distal Adnominal Dem.PN (Sono)
	6	Remote Adnominal Dem.PN (Ano)
	7	Proximal Locative Adverb (Koko)
	8	Distal Locative Adverb (Soko)
	9	Remote Locative Adverb (Asoko)
	10	Other
JapExp1Sit3_additional	1	no
	2	ni
JapExp1Sit3_choiceadjustment	1	Proximal, then distal
	2	Distal, then proximal
JapExp1Sit3_NTLParticle	1	Yes
	2	No
JapExp2Sit1	1	Proximal Pronominal Dem.PN (Kore)
	2	Distal Pronominal Dem.PN (Sore)
	3	Remote Pronominal Dem.PN (Are)
	4	Proximal Adnominal Dem.PN (Kono)
	5	Distal Adnominal Dem.PN (Sono)

	6	Remote Adnominal Dem.PN (Ano)
	7	Proximal Locative Adverb (Koko)
	8	Distal Locative Adverb (Soko)
	9	Remote Locative Adverb (Asoko)
	10	Other
JapExp2Sit1_additional	1	no
	2	ni
JapExp2Sit1_choiceadjustment	1	Proximal, then distal
	2	Distal, then proximal
JapExp2Sit1_NTLParticle	1	Yes
	2	No
JapExp2Sit2	1	Proximal Pronominal Dem.PN (Kore)
	2	Distal Pronominal Dem.PN (Sore)
	3	Remote Pronominal Dem.PN (Are)
	4	Proximal Adnominal Dem.PN (Kono)
	5	Distal Adnominal Dem.PN (Sono)
	6	Remote Adnominal Dem.PN (Ano)
	7	Proximal Locative Adverb (Koko)
	8	Distal Locative Adverb (Soko)
	9	Remote Locative Adverb (Asoko)
	10	Other
JapExp2Sit2_additional	1	no
	2	ni
	1	Proximal, then distal

JapExp2Sit2_choiceadjustment	2	Distal, then proximal
JapExp2Sit2_NTLParticle	1	Yes
	2	No
JapExp2Sit3	1	Proximal Pronominal Dem.PN (Kore)
	2	Distal Pronominal Dem.PN (Sore)
	3	Remote Pronominal Dem.PN (Are)
	4	Proximal Adnominal Dem.PN (Kono)
	5	Distal Adnominal Dem.PN (Sono)
	6	Remote Adnominal Dem.PN (Ano)
	7	Proximal Locative Adverb (Koko)
	8	Distal Locative Adverb (Soko)
	9	Remote Locative Adverb (Asoko)
	10	Other
JapExp2Sit3_additional	1	no
	2	ni
JapExp2Sit3_choiceadjustment	1	Proximal, then distal
	2	Distal, then proximal
JapExp2Sit3_NTLParticle	1	Yes
	2	No
GerExp1Sit1	1	Proximal Pronominal Dem.PN (Diese-r-s)
	2	Distal Pronominal Dem.PN (Jene/-r/-s)
	3	Definite Article (Der/Die/Das)
	4	Proximal Locative Adverb (Hier)

281

	5	Distal Locative Adverb (Da/Dort)
	6	Remote Locative Adverb (Da/Dort Drüben)
	7	Other
GerExp1Sit1_additional	1	add. proximal locative adverb "hier"
	2	add. distal locative adverb "da/dort"
	3	add. remote locative adverb "da/dort drüben"
GerExp1Sit1_choiceadjustment	1	Proximal, then distal
	2	Distal, then proximal
GerExp1Sit1_NTLNumber	1	Yes
	2	No
GerExp1Sit1_NTLGender	1	Yes
	2	No
GerExp1Sit1_NTLCase	1	Yes
	2	No
GerExp1Sit2	1	Proximal Pronominal Dem.PN (Diese-r-s)
	2	Distal Pronominal Dem.PN (Jene/-r/-s)
	3	Definite Article (Der/Die/Das)
	4	Proximal Locative Adverb (Hier)
	5	Distal Locative Adverb (Da/Dort)
	6	Remote Locative Adverb (Da/Dort Drüben)
	7	Other
GerExp1Sit2_additional	1	add. proximal locative adverb "hier"
	2	add. distal locative adverb "da/dort"

	3	add. remote locative adverb "da/dort drüben"
GerExp1Sit2_choiceadjustment	1	Proximal, then distal
	2	Distal, then proximal
GerExp1Sit2_NTLNumber	1	Yes
	2	No
GerExp1Sit2_NTLGender	1	Yes
	2	No
GerExp1Sit2_NTLCase	1	Yes
	2	No
GerExp1Sit3	1	Proximal Pronominal Dem.PN (Diese-r-s)
	2	Distal Pronominal Dem.PN (Jene/-r/-s)
	3	Definite Article (Der/Die/Das)
	4	Proximal Locative Adverb (Hier)
	5	Distal Locative Adverb (Da/Dort)
	6	Remote Locative Adverb (Da/Dort Drüben)
	7	Other
GerExp1Sit3_additional	1	add. proximal locative adverb "hier"
	2	add. distal locative adverb "da/dort"
	3	add. remote locative adverb "da/dort drüben"
GerExp1Sit3_choiceadjustment	1	Proximal, then distal
	2	Distal, then proximal
GerExp1Sit3_NTLNumber	1	Yes
	2	No
GerExp1Sit3_NTLGender	1	Yes
	2	No
GerExp1Sit3_NTLCase	1	Yes

	2	No
GerExp2Sit1	1	Proximal Pronominal Dem.PN (Diese-r-s)
	2	Distal Pronominal Dem.PN (Jene/-r/-s)
	3	Definite Article (Der/Die/Das)
	4	Proximal Locative Adverb (Hier)
	5	Distal Locative Adverb (Da/Dort)
	6	Remote Locative Adverb (Da/Dort Drüben)
	7	Other
GerExp2Sit1_additional	1	add. proximal locative adverb "hier"
	2	add. distal locative adverb "da/dort"
	3	add. remote locative adverb "da/dort drüben"
GerExp2Sit1_choiceadjustment	1	Proximal, then distal
	2	Distal, then proximal
GerExp2Sit1_NTLNumber	1	Yes
	2	No
GerExp2Sit1_NTLGender	1	Yes
	2	No
GerExp2Sit1_NTLCase	1	Yes
	2	No
GerExp2Sit2	1	Proximal Pronominal Dem.PN (Diese-r-s)
	2	Distal Pronominal Dem.PN (Jene/-r/-s)
	3	Definite Article (Der/Die/Das)
	4	Proximal Locative Adverb (Hier)

	5	Distal Locative Adverb (Da/Dort)
	6	Remote Locative Adverb (Da/Dort Drüben)
	7	Other
GerExp2Sit2_additional	1	add. proximal locative adverb "hier"
	2	add. distal locative adverb "da/dort"
	3	add. remote locative adverb "da/dort drüben"
GerExp2Sit2_choiceadjustment	1	Proximal, then distal
	2	Distal, then proximal
GerExp2Sit2_NTLNumber	1	Yes
	2	No
GerExp2Sit2_NTLGender	1	Yes
	2	No
GerExp2Sit2_NTLCase	1	Yes
	2	No
GerExp2Sit3	1	Proximal Pronominal Dem.PN (Diese-r-s)
	2	Distal Pronominal Dem.PN (Jene/-r/-s)
	3	Definite Article (Der/Die/Das)
	4	Proximal Locative Adverb (Hier)
	5	Distal Locative Adverb (Da/Dort)
	6	Remote Locative Adverb (Da/Dort Drüben)
	7	Other
GerExp2Sit3_additional	1	add. proximal locative adverb "hier"
	2	add. distal locative adverb "da/dort"

	3	add. remote locative adverb "da/dort drüben"
GerExp2Sit3_choiceadjustment	1	Proximal, then distal
	2	Distal, then proximal
GerExp2Sit3_NTLNumber	1	Yes
	2	No
GerExp2Sit3_NTLGender	1	Yes
	2	No
GerExp2Sit3_NTLCase	1	Yes
	2	No

Table 117

9.7   Transcripts

A001 (A021) Exp 1 J (00:30-01:15/00:45)

Eto, ja, kono enpitsu. [Sit 1, direct, open-handed gesture] (laughs) eto de gouzaimasu. Eto sono pen o kudasai. [Sit 2, points directly] Arigatou gozaimasu. Soko no pen wo kudasai. [Sit 3, points directly] Arigatou gozaimasu. Hai.

A001 (A021) Exp 2 J (00:35-00:55/00:20)

Hoshi no kami wa donna desu ka? Hoshi no kami wa… eto… asoko ni arimasu. [Sit 3] *Haato no kami wa donna desu ka?* Haato no kami… koko ni arimasu. [Sit 1] Ah.. *Maru… maru no kami wa doko… donna desu ka?* Maru no kami wa soko ni arimasu (simultaneous, laughs). [Sit 2]

A001 (A021) Exp 1 E (03:27-04:10/00:43)

In English now ... Um, can I have this one? [Sit 1, points directly] Shall I write it here or (?) *You can write down, you have enough space to do it anywhere you want.* Yea (laughs) And can I have that one? [Sit 2, points directly] Yeap, thank you. *It's a lot of exercise* (laughs) *Yea. Ok.* Can I have that one over there? [Sit 3, points directly] (?) Yea. (laughs) *Perfect.*

A001 (A021) Exp 2 E (00:09-00:25/00:16)

Which one of the papers has the circle on it? That one. [Sit 2] *Which of the papers has the star on it?* The one over there. [Sit 3] *And which one has the heart on it?* Yea, this one. [Sit 1]

A002 Exp 1 J (02:47-03:30/00:43)

Sono pen o totte kudasai. [Sit 1, points directly] Soko no pen o totte kudasai. [Sit 2, points directly] Soko no pen o totte kudasai. [Sit 3, points directly]

A002 Exp 2 J (04:30-05:05/00:35)

Hoshi no kami wa donna desu ka? Donna... eh.... Dou? What do you mean? *Or doko is okay.* Ah, achi. [Sit 3, direct pointing] *Haato no kami wa doko desu ka?* Koko. [Sit 1, direct pointing] *Maru no kami wa doko desu ka?* Soko. [Sit 2, direct pointing]

A002 Exp 1 E (01:46-02:30/00:44)

Can I, Can I take this one? [Sit 1, points directly] ... Can I take this one? [Sit 2, points directly] ... Can I take that one? [Sit 3, points directly]

A002 Exp 2 E (05:07-05:25/00:18)

Which one is the paper with the heart? Here. [Sit 1, points directly] *Which one is the paper with the star?* There. [Sit 3, points directly] *And which one is the paper with the circle?* There. [Sit 2, points directly, squints eyes]

A003 (A023) Exp 1 J (00:00-00:45/00:45)

Pen o tsukatte ii desu ka? [Sit 1, touches pen] Ja... Ii desu ka? *Hai ii yo.* Ja... soko no pen moratte mo ii desu ka? [Sit 2, points directly] Arigato gozaimasu. Asoko no pen... [Sit 3, points directly] moratte mo ii desu ka?

A003 (A023) Exp 2, J (00:00-00:20/00:20)

Haato no kami wa doko desu ka? Eh... Koko ni arimasu. [Sit 1, points directly with arm close to body] *Hoshii no kami wa doko desu ka?* Ah... asoko ni arimasu. [Sit 2, points directly] *Maru no kami wa doko desu ka?* Maru wa... asoko ni arimasu. [Sit 3, points directly]

A003 (A023) Exp 1 E (01:03-01:40/00:37)

Could I use this pen? [Sit 1, points directly, arm close to body] *Yes.* Thank you. Could you pass me the pen over there? [Sit 2, points directly] Thank you. Hai. Could I have the pen over there on the table? [Sit 3, points directly] Thank you.

A003 (A023) Exp 2 E (04:02-04:20/00:18)

So the paper with the heart on it, which is it? Uhm, it's here? [Sit 1, points directly with finger, arm close to body] *Which is the piece of paper with the star on it?* Uhm, that it's over there? [Sit 2, points directly] *Which is the piece of paer with the circle on it?* Circle, it's, uhm, over there. [Sit 3, points directly]

A004 (A024) Exp 1 J (00:25-01:00/00:35)

Ummm… Pen totte. [Sit 1, points directly] *Mhmh.* Soko no pen totte. [Sit 2, points directly] Asoko no pen totte. [Sit 3, points downwards]

A004 (A024) Exp 2 J (03:35-03:57/00:22)

Hoshii no kami wa doko desu ka? Soko. [Sit 1, points directly] *Maru no kami wa doko desu ka?* Asoko. (softly) Soko. [Sit 2, points directly] *Haato no kami wa doko desu ka?* Achira no toko. [Sit 3, no pointing]

A004 (A024) Exp 1 E (01:21-01:56/00:35)

Give me (Gib mir) this pen please. [Sit 1, points directly, arm close to body] Give me (Gib mir) that. [Sit 2, points directly] Give me pen over there. [Sit 3, points directly]

A004 (A024) Exp 2 E (03:57-04:18/00:21)

Which is the piece of paper with the star on it? Here. [Sit 1, points directly and quickly, arm close to body] *Which is the piece of paper with the circle on it?* There. [Sit 2, points directly] *Which is the piece of paper with the heart on it?* Over there. [Sit 3, points directly]

A005 Exp 1 J (00:00-01:21/01:21)

Nihongo de onegaishi masu. Ah… pen o tsukatte ii desu ka? [Sit 1, open-handed gesture towards pen] *Hai, dozo.* Onaji de ii desu ne… Ii… ii yo? *Hai.* Ie o katte ii… desu yo… ika ikansu mo ii… *Hai… nandemo ii…*(more softly) *desu kedo… Hai.* Hai kondo ja… achi no pen o tsukatte ii desu ka? [Sit 3, open-handed gesture towards pen] *Haiii sou…* de gozaimasu… de tsusuki o katte ii desu ka? *Hai.* Hai (nods) *Hai.* Ja, sono pen o dashite ikimasu. [Sit 2, open-handed gesture] *Douzo. Hai, arigatou.*

A005 Exp 2 J (00:00-00:43/00:43)

Hoshi no kami wa doko desu ka? Koko ni arimasu. [Sit 1] *Haato no kami wa doko desu ka?* Soko ni arimasu. [Sit 2] *Maru no kami wa doko desu ka?* Asoko ni arimasu. [Sit 3]

A005 Exp 1 E (00:00-00:46/00:46)

I use this pen. [Sit 1] I use that pen. [Sit 2, points directly] *Hai. Dozo.* I use that pen. [Sit 3, points directly]

A005 Exp 2 E (00:00-00:31/00:31)

Which one is the piece of paper with the star on it? Here. [Sit 1] *Which one is the piece of paper with the heart on it?* There. [Sit 2] *Which one is the piece of paper with the circle on it?* Over there. [Sit 3]

A006 Exp 1 J (00:00-02:18/02:18)

Ja pen o totte kudasai. [Sit 1] *Dozo.* Hai. (unintelligable) Ah, sumimasen, pen o… sono pen o totte kudasai. [Sit 2, direct pointing] Dewa, tsugi wa mada o kakimasu. Hai. Hai, dewa, saigo no pen o… ano pen o totte kudasai. [Sit 3, direct pointing]

A006 Exp 2 J (00:00-00:28/00:28)

Hoshi no kami wa doko desu ka? Koko desu. [Sit 1] *Haato no kami wa doko desu ka?* Soko desu. [Sit 2] *Maru no kami wa doko desu ka?* Asoko desu. [Sit 3]

A006 Exp 1 E (00:00-01:08/01:08)

Could you take this pen please? [Sit 1, points directly] *Of course, here you go.* And could you take that pen please? [Sit 2, points directly] *Of course, here you go.* And could you take that pen please? [Sit 3, points directly]

A006 Exp 2 E (00:00-01:00/01:00)

Which one is the piece of paper with the star on it? Here. [Sit 1] *Which one is the piece of paper with the heart on it?* There. [Sit 2] *Which one is the piece of paper with the circle on it?* Over there. [Sit 3]

A007 Exp 1 J (0:00-1:00/01:00)

Kono pen… Kono pen o torimasu [Sit 1, open-handed gesture]. Ano pen o totte kudasai [Sit 2, direct pointing] Thank you. Ja, ano pen o totte kudasai. [Sit 3, direct pointing]

A007 Exp 2 J (02:23 − 02:45/00:22)

Hoshi no kami wa doko desu ka? Asoko. [Sit 3, direct pointing] *Haato no kami wa doko desu ka?* Koko ni arimasu. [Sit 1, open-handed gesture] *Maru no kami wa doko desu ka.* Asoko ni arimasu. [Sit 2, open-handed downward gesture]

A007 Exp 1 E (01:15-01:55/00:40)

Please, take me this pen. [Sit 1, points directly] Take me that pen. [Sit 2, opens hand towards object] Take me that pen. [Sit 3, opens hand towards object]

A007 Exp 2 E (02:47-03:08/00:21)

Which one is the piece of paper with the circle? Here. [Sit 2, points directly] *Which one is the piece of paper with the heart?* Here. [Sit 1, points directly] *Which one is the piece of paper with the star?* Over there. [Sit 3, points directly]

A008 (A028) Exp 1 J (01:45-02:40/00:55)

Sono pen o totte kudasai. [Sit 2, direct pointing] Kono pen o dashite kudasai. [Sit 1, quick direct pointing close to body] Watashi (unintelligible) no ue ni aru no pen… ano pen o dashite kudasai. [3, direct pointing]

A008 (A028) Exp 2 J (05:09-05:30/00:21)

Hoshii no kami wa doko desu ka? Maru ni tsuite no desu. [Sit 3, direct pointing] *Haato no kami wa donna desu ka?* Koko ni arimasu. [Sit 1, direct pointing] *Maru no kami wa doko desu ka?* Asoko ni arimasu. [Sit 2, direct pointing]

A008 (A028) Exp 1 E (02:58-03:40/00:42)

Can you pass me that pen? [Sit 2, points directly] Can I have this pen? [Sit 1, points directly, arm close to body] Can you pass me that pen? [Sit 3, points directly]

A008 (A028) Exp 2 E (06:02-06:24/00:22)

Which one the paper with the heart? This one. [Sit 1, points directly, arm close to body] *Which one is the paper with the star?* On the wall. [Sit 3, no pointing] *Which one is the paper with the circle?* That one. [Sit 2, points directly, arm close to body]

A009 Exp 1 J (00:00-00:50/00:50)

Kono pen o totte kudasai. [Sit 1, direct pointing]. Arigatou. *Douzou.* XX, soko no pen o kudasai! [Sit 2, direct pointing] Douzo. (Laughter) XX, achi no pen o kudasai! [Sit 3, direct pointing]

A009 Exp 2 J (03:35-04:10/00:35)

Hoshi no kami wa donna desu ka? Doko desu ka, donna desu ka. Kii no iru desu. *Ah, doko desu ka.* Kabe ni tsuite imasu. [Sit 3, direct pointing] *Haato no kami wa doko desu ka?* Haato no kami wa… tonari ni arimasu. [Sit 1, direct pointing] *Maru no kami wa doko desu ka?.* Martin to anata no aida ni arimasu. [Sit 2, direct pointing, clapping]

A009 Exp 1 E (01:07-01:35/00:28)

Please take that one. [Sit 1, points directly, arm close to body] Thank you. Please take that one. [Sit 2, points directly] Thank you. Please take th(ere/at). [Sit 3, points directly]

A009 Exp 2 E (04:20-05:38/01:18)

Whch one is the paper with the star on it? Stick to the wall. [Sit 3, no pointing] *Which one is the paper with the heart on it?* This one. [Sit 1, points directly, arm close to body] *And which one is the paper with the circle on it?* That. [Sit 2, points directly]

A010 Exp 1 J (0:00-01:00/01:00)

Sono pen o totte kudasai. [Sit 2, direct pointing] Ano pen o… [Sit 3, direct pointing] Kono pen. [Sit 1, direct pointing]

A010 Exp 2 J (02:32-03:20/00:48)

Hoshii no kami wa donna desu ka? Hoshi no (unintelligible) kami wa, kabe ni ameteiru. [Sit 3, direct pointing] *Maru no kami wa donna desu ka?* Asoko ni pen ni tsuite no kami desu. [Sit 2, direct pointing] *Haato no kami wa donna desu ka?* Anata no tonari no kami desu. [Sit 1, pointing directly, arm stretched]

A010 Exp 1 E (01:12-01:41/00:29)

Okay, so please bring the pen. [Sit 2, points directly] Thank you. So can I use this pen? [Sit 1, points directly] So can you take that pen? [Sit 3, points directly while shaking hand]

A010 Exp 2 E (03:26-03:45/00:19)

Which one is the paper with the heart on it? Uh, it's next to you? [Sit 1, points directly while making a half circle gesture] *Which one is the paper with the circle on it?* It's on the sofa. [Sit 2, points directly] *Which one is the paper with the star on it?* It's on the wall. [Sit 3, points directly with arm close to body]

A011 Exp 1 J (00:47-01:45/00:58)

Eto… koko ni pen wo arimasu ka? *Hai.* [Sit 1, open-handed gesture] Pen o totte kudasai. [Sit 2, open-handed gesture] Sumimasen. *Douzo.* Asoko no pen…tte. [Sit 3, direct pointing]

A011 Exp 2 J (03:05-04:00/00:55)

Haato no kami wa doko desu ka? Koko ni ariamasu. [Sit 1, pointing with palm of his hand] *Hoshi no kami wa doko desu ka?* Ano kou ni arimasu. [Sit 2, pointing, arm stretched] *Maru no kami wa doko desu ka?* A .. Asoko ni arimasu. [Sit 3, pointing, arm stretched]

A011 Exp 1 E (02:00-02:39/00:39)

Please can you take .. take this pen. [Sit 2, points directly] Please take, uh, that pen. [Sit 3, points directly] Please take this pen. [Sit 1, points directly with arm close to body]

A011 Exp 2 E (04:00-04:28/00:28)

Which one is the paper with the heart on it? It's there. [Sit 2, points directly with open palm] *Which one is the paper with the star on it?* Over there. [Sit 3, gestures with open hand] *Which one is the paper with the circle on it?* Here, there (unintelligible). [Sit 1, makes gesture of approximation]

291

A012 Exp 1 J (00:00-01:00/01:00)

Soko no aru no pen o totte itadakimasu ka. [Sit 2, pointing] Soko no pen o itadakimasu ka. [Sit 3, pointing] Koko no aru no pen o itadakimasu ka. [Sit 1, pointing]

A012 Exp 2 J (02:20-02:40/00:20)

Hoshi no kami wa doko desu ka? Asoko ni arimasu. [Sit 3, pointing, arm stretched] *Maru ni kami wa doko desu ka?* Soko ni arimasu. [Sit 2, pointing, arm stretched] *Hoshi no mai wa doko desu ka?* Soko no ote ni arimasu. [Sit 1, pointing, arm stretched]

A012 Exp 1 E (01:00-01:44/00:44)

Can you get me, uh, that pen? [Sit 2, points directly] Can you get me that pen? [Sit 3, points directly] Can you give me this pen? [Sit 1, points directly with arm close to body]

A012 Exp 2 E (02:40-03:00/00:20)

Which one is the paper with the heart on it? Heart? Uh, here. [Sit 1, points directly] *Which one is the paper with the star on it?* There. [Sit 3, points directly] *Which one is the paper with the circle on it?* Uh, there. [Sit 2, points directly]

A013 Exp 1 J (02:40-03:10/00:30)

Kono pen o itadakeru deshou ka. [Sit 1, pointing with hand, arm close to body] Koko (unintelligible) no pen o totte mo ii desu ka [Sit 2, pointing with open palm of the hand, arm stretched] Arigatou gozaimasu. Achira mo onegai shimasu. [Sit 3, pointing with open palm of the hand, arm stretched]

A013 Exp 2 J (03:35-03:50/00:15)

Hoshi no kami wa doko desu ka? Achi desu. [Sit 3, pointing, arm stretched] *Maru no kami wa doko desu ka?* Achi desu. [Sit 2, pointing, arm stretched] *Haato no kami wa doko desu ka?* Kore desu. [Sit 1, pointing, arm stretched]

A013 Exp 1 E (01:15-02:20/01:05)

I've to this pen. [Sit 1, points directly with arm close to body] *Okay.* And can I take this pen? [Sit 2, points directly] Could you bring that pen? [Sit 3, points directly]

A013 Exp 2 E (03:50-04:04/00:14)

Which one is the paper with the circle on it? Hai, it (uninitelligible) that. [Sit 2, points directly] *Which one is the paper with the heart?* This. [Sit 1, points directly] *Which one is the paper with the star?* That. [Sit 3, points directly]

A014 Exp 1 J (00:00-00:35/00:35)

Kono pen o tsukate ii desu ka. [Sit 1] Sokono pen o moraimasu ka. [Sit 2] Table no ue ni arimasu. [Sit 3]

A014 Exp 2 J (01:35-01:48/00:13)

Hoshi no kami wa doko desu ka? Koko desu. [Sit 1] *Maru no kami wa doko desu ka?* Boku to XX no aidani arimasu. [Sit 2] *Haato no kami wa doko desu ka?* Asoko desu. [Sit 3]

A014 Exp 1 E (00:35-01:08/00:33)

Give me a pen on the table. [Sit 1] Could I have that pen? [Sit 2] And that one over there. [Sit 3]

A014 Exp 2 E (01:48-02:05/00:17)

Which one is the piece of paper with the star on it? Here. [Sit 1] *Which one is the piece of paper with the circle on it?* On the … on the wall. [Sit 2] *Which one is the piece of paper with the heart on it?* Over there. [Sit 3]

A015 Exp 1 J (00:00-00:35/00:35)

XX, kono pen o totte kudasai. [Sit 1, no gestures] Arigatou gozaimasu. XX, sono pen o totte kudasai. [Sit 2, pointing, arm close to body] Arigatou gozaimasu. XX, ano pen o totte kudasai. [Sit 3, pointing]

A015 Exp 2 J (01:40-01:58/00:18)

Hoshi no kami wa doko desu ka? Koko desu. [Sit 1, points directly at post-it] *Maru no kami wa doko desu ka?* Soko desu. [Sit 2, pointing] *Haato no kami wa doko desu ka?* Asoko desu. [Sit 3, pointing]

A015 Exp 1 E (0:44-01:17/00:33)

So, XX, could you pick up that, uh, this pen please? [Sit 1] Thank you. And XX, could you pick up that pen please? [Sit 2] Thank you. And XX, could you pick up the pen over there please? [Sit 3] Thank you.

A015 Exp 2 E (00:19-00:33/00:14)

Which is the piece of paper with the star on it? Here. [Sit 1] *Which ist the piece of paper with the circle on it?* There. [Sit 2] *Which ist the piece of paper with the heart on it?* Over there. [Sit 3]

A016 Exp 1 J (00:00-00:36/00:36)

Kono pen o tsukatte ii desu ka. [Sit 1] Arigatou gozamisu. XX, sono pen o dashite kudasai. [Sit 2] Arigatou gozaimasu. XX, asoko ni aru pen o dashite kudasai. [Sit 3] Arigatou sumimasen.

A016 Exp 2 J (00:00-00:22/00:22)

Hoshi no kami wa doko desu ka? Tsukue no ue ni arimasu watashi to XX no aida ani arimasu. [Sit 1] *Maru no kami wa doko desu ka?* XX no mae ni arimasu. [Sit 2] *Haato no kami wa doko desu ka?* Tonari no table no ue ni arimasu. [Sit 3]

A016 Exp 1 E (00:00-00:32/00:32)

Can I have the pen please? [Sit 1] Thank you. And XX, can I have that pen please? [Sit 2] Thanks. XX, could you pass me that pen please? [Sit 3] Thank you very much.

A016 Exp 2 E (00:23-00:45/00:22)

Which is the piece of paper with the star on it? There's on the table between you and me. [Sit 1] *Which is the piece of paper with the circle on it?* It's on the table in front of XX. [Sit 2] *Which is the piece of paper with the heart on it?* It is on the table which is next to us. [Sit 3]

A017 Exp 1 J (00:00-00:28/00:28)

Kono pen o tsukatte ii desu ka. [Sit 1, pointing, arm close to body] Are. [Sit 2, pointing, arm close to body] *Douzo.* Are. [Sit 3, pointing, arm close to body]

A017 Exp 2 J (00:00-00:15/00:15)

Hoshi no kami wa doko desu ka? Teberu no ue ni aru [Sit 1] *Maru no kami wa doko desu ka?* Anata no mae ni [Sit 2] *Haato no kami wa doko desu ka?* Anata no tonari ni aru. [Sit 3]

A017 Exp 1 E (00:00-00:51/00:51)

Can I take that pen? [Sit 1, points directly with arm close to body] Next blue one? [Sit 2, no pointing] And the, this one. [Sit 3, points directly]

A017 Exp 2 E (00:00-00:55/00:55)

Which is the piece of paper with the star on it? On the table. [Sit 1] *Which is the piece of paper with the circle on it?* In front of you [Sit 2] *Which is the piece of paper with the heart on it?* Between table and chair… [Sit 3]

A018 (A022, C034) Exp 1 J (01:20-01:40 / 00:20)

Kono pen o kudasai. [Sit 1, pointing with finger, arm close to body] Sono pen o kudasai. [Sit 2, pointing with finger, arm close to body] Ano pen o kudasai. [Sit 3, pointing, arm close to body]

A018 (A022, C034) Exp 2 J (04:28-04:52 / 00:24)

Sankake no kami wa doko desu ka? [Sit 3] Hoshi no kami wa doko desu? Koko no kami desu. [Sit 1, pointing with head] Maru no kami wa doko desu ka? Soko no kami desu. [Sit 2, pointing with head]

A018 (A022, C034) Exp 1 E (01:50-02:15/00:25)

Can you give me this pen? [Sit 1, points directly with arm close to body] Can you give me that pen? [Sit 2, points directly] Can you pass me the pen over there? [Sit 3, no gestures]

A018 (A022, C034) Exp 2 E (04:05-04:25/00:20)

Which one is the piece of paper with the star on it? This one here. [Sit 1, no gestures] *Which one is the piece of paper with the circle on it?* That one. [Sit 2, points with head] *Which one is the piece of paper with the triangle on it?* The one over there. [Sit 3, points with head]

A019 Exp 1 J (00:00-00:18/00:18)

Ja pen o totte moraimasu ka. [Sit 1, pointing with head] Soko no pen o totte moraimasu ka. [Sit 2, pointing down] Kono pen o totte moraimasu ka. [Sit 3, pointing down]

A019 Exp 2 J (00:00-00:11/00:11)

Haato no kami wa doko desu ka? Koko desu. [Sit 1, pointing, arm close to body] *Hoshi no kami wa doko desu ka?* Asoko desu. [Sit 2, pointing] *Maru no kami wa doko desu ka?* Koko no table desu. [Sit 3, pointing]

A019 Exp 1 E (00:00-00:35/00:35)

Could you give me a pen? [Sit 1] Thank you. Could you give me that pen? [Sit 2] Thank you. And could you give me that pen over there? [Sit 3] Thank you.

A019 Exp 2 E (00:14-00:29/00:15)

Which is the piece of paper with the heart on it? Oh, right here. [Sit 1] *Which ist the piece of paper with the star on it?* Over there, the other side of the table. [Sit 2] *Which is the piece of paper with the circle on it?* It's on the (unintelligible) table. [Sit 3]

A020 Exp 1 J (00:00-02:17/02:17)

Kono pen o motte mo ii desu ka. [Sit 1] Ano pen o totte moratte ii desu ka. [Sit 3] Sono pen mo totte kudasai. [Sit 2]

A020 Exp 2 J (00:00-01:05(01:05)

Haato no kami wa doko desu ka? Koko. [Sit 1] *Maru no kami wa doko desu ka?* Asoko. [Sit 3] *Hoshi no kami wa doko desu ka?* Soko. [Sit 2]

A020 Exp 1 E (02:55-04:20/01:25)

Uh .. Can I use this? [Sit 1] Thank you. Uhm … Could you bring the one over there? [Sit 3] Ok, can I have this pen? That pen? [Sit 2]

A020 Exp 2 E (02:22-02:40/00:18]

Which is the piece of paper with the heart on it? Here. [Sit 1] *Which is the piece of paper with the star on it?* There. [Sit 2] *And which is the piece of paper with the circle on it?* There, over there. [Sit 3]

A021 (A001) Exp 1 J (00:30-01:15/00:45)

Eto, ja, kono enpitsu … sono pen o kudasai [Sit 1, direct, open-handed gesture] (laughs) eto de gouzaimasu. Eto sono pen o kudasai. [Sit 2, points directly] Arigatou gozaimasu. Migite no pen wo kudasai. [Sit 3, points directly] Arigatou gozaimasu. Hai.

A021 (A001) Exp 2 J (00:35-00:55/00:20)

Hoshi no kami wa donna desu ka? Hoshi no kami wa… eto… asoko ni arimasu. [Sit 3] *Haato no kami wa donna desu ka?* Haato no kami… koko ni arimasu. [Sit 1] Ah.. *Maru… maru no kami wa doko… donna desu ka?* Maru no kami wa soko ni arimasu (simultaneous, laughs). [Sit 2]

A021 (A001) Exp 1 D (02:14-03:05/00:51)

Wollen wir einmal noch auf deutsch machen? Ja. Äh, kannst du mir, äh, diesen geben? [Sit 2, points directly] Ja, dankeschön. Ja, dankeschön. Und auch den da? [Sit 3, points directly] Yup. *U-huh.* Ja (laughs) und kann ich den haben? [Sit 1, points directly] Thanks. Ja. Danke. (laughs) *Vielen Dank.*

A021 (A001) Exp 2 D (01:00-01:15/00:15)

Welches ist das Papier mit dem Herz? Hier. [Sit 1] *Und das mit dem Stern?* Äh das da. [Sit 2] *Und das mit dem Kreis?* Ja, da. [Sit 3]

A022 (A018, C034) Exp 1 J (01:20-01:40 / 00:20)

Kono pen o kudasai. [Sit 1, pointing with finger, arm close to body] Sono pen o kudasai. [Sit 2, pointing with finger, arm close to body] Ano pen o kudasai. [Sit 3, pointing, arm close to body]

A022 (A018, C034) Exp 2 J (04:28-04:52 / 00:24)

Sankake no kami wa doko desu ka? [Sit 3] Hoshi no kami wa doko desu? Koko no kami desu. [Sit 1, pointing with head] Maru no kami wa doko desu ka? Soko no kami desu. [Sit 2, pointing with head]

A022 (A018, C034) Exp 1 D (02:37-03:00/00:23)

Kannst du mir den Stift geben? [Sit 1, points with head] Kannst du mir den Stift da drüben geben? [Sit 2, no gestures] Kannst du mir den Stift dahinten geben? [Sit 3, no gestures]

A022 (A018, C034) Exp 2 D (03:45-04:04/00:19)

Welches ist das Papier mit dem Stern? Das hier vorne. [Sit 1, points directly with arm close to body] *Welches ist das Papier mit dem Dreieck?* Das dahinten. [Sit 3, points with head] *Welches ist das Papier mit dem Kreis?* Das da vorne. [Sit 2, no gestures]

A023 (A003) Exp 1 J (00:00-00:45/00:45)

Pen o tsukatte ii desu ka? [Sit 1, touches pen] *Ja… Ii desu ka? Hai ii yo.* Ja… soko no pen moratte mo ii desu ka? [Sit 2, points directly] Arigato gozaimasu. Asoko no pen… [Sit 3, points directly] moratte mo ii desu ka?

A023 (A003) Exp 2, J (00:00-00:20/00:20)

Haato no kami wa doko desu ka? Eh… Koko ni arimasu. [Sit 1, points directly with arm close to body] *Hoshii no kami wa doko desu ka?* Ah… asoko ni arimasu. [Sit 2, points directly] *Maru no kami wa doko desu ka?* Maru wa… asoko ni arimasu. [Sit 3, points directly]

A023 (A003) Exp 1 D (02:14-02:53/00:39)

Darf ich den Stift benutzen? [Sit 1, points directly, arm close to body] *M-hm.* Ok. Und dann .. Könnte ich den Stift benutzen? [Sit 2, points directly] *Ja.* Vielen Dank. Ähm, dann, darf ich den Stift .. [Sit 3, points directly] *Ja.* benutzen. Dankeschön.

A023 (A003) Exp 2 D (04:23-04:38/00:15)

Welches ist das Stück Papier mit dem Herzen? Ähm, hier? [Sit 1, points directly, arm close to body] *Welches ist das Stück Papier mit dem Stern?* Ähm, da? [Sit 2, points directly] *Welches ist das Stück Papier mit dem* Ähm, da, dort. [Sit 3, points directly] *Kreis?*

A024 (A004) Exp 1 J (00:25-01:00/00:35)

Ummm… Pen totte. [Sit 1, points directly] *Mhmh.* Soko no pen totte. [Sit 2, points directly] Asoko no pen totte. [Sit 3, points downwards]

A024 (A004) Exp 2 J (03:35-03:57/00:22)

Hoshii no kami wa doko desu ka? Soko. [Sit 1, points directly] *Maru no kami wa doko desu ka?* Asoko. (softly) Soko. [Sit 2, points directly] *Haato no kami wa doko desu ka?* Ashiranotoko. [Sit 3, no pointing]

A024 (A004) Exp 1 D (02:02-02:33/00:31)

Gib mir bitte den (stressed) Stift. [Sit 1, points directly, arm close to body] Gib mir bitte diesen (stressed). [Sit 2, points directly, arm close to body] Gib mir bitte jenen (stressed). [Sit 3, points directly]

A024 (A004) Exp 2 D (04:22-04:37/00:15)

Welches ist Papier mit dem Stern drauf? Hier? [Sit 1, points directly and quickly, arm close to body] *Welches ist das Stück Papier mit dem Kreis drauf?* Da. [Sit 2, points directly and quickly, arm close to body] *Welches ist das Stück Paper mit dem Herzen?* Da, oben. [Sit 3, points directly and quickly]

A025 Exp 1 J (00:00-01:30/01:30)

Kono pen. [Sit 1, pointing, arm stretched] Kono pen. [Sit 2, pointing, arm stretched] Ano pen o kudasai. [Sit 3, pointing, arm stretched]

A025 Exp 2 J (00:00-01:00)

Haato no kami wa doko desu ka? Koko desu. [Sit 1, pointing, arm stretched] *Hoshi no kami wa doko desu ka?* Soko desu. [Sit 2, pointing, arm stretched] *Maru no kami wa doko desu ka?* Asoko desu. [Sit 3, pointing , arm stretched]

A025 Exp 1 D (01:32-02:49/01:17)

Der Stift bitte. [Sit 2, points directly]   Der Stift bitte. [Sit 3, points directly] Der Stift hier. [1, points directly]

A025 Exp 2 D (01:04-01:41/00:37)

Welches ist das Papier mit dem Herzen drauf? Hier. [Sit 1, points directly] *Welches ist das Papier mit dem Stern drauf?* Hier. [Sit 2, points directly] *Welches ist das Papier mit dem Kreis drauf?* Der. [Sit 3, points directly]

A026 Exp 1 J (00:00-01:31/01:31)

Sono pen o kashite kudasai. [Sit 2, pointing, arm close to body] Kono pen o totte kudasai. [Sit 1, pointing, arm close to body] Ano pen o totte kudasai. [Sit 3, pointing, arm stretched]

A026 Exp 2 J (03:15-03:30/00:15)

Maru no kami wa doko desu ka? Soko. [Sit 2, pointing, arm close to body] *Haato no kami wa doko desu ka?* Koko. [Sit 1, pointing, arm close to body] *Hoshi no kami wa doko desu ka?* Asoko. [Sit 3, pointing, arm stretched]

A026 Exp 1 D (01:35-03:00/01:25)

Kannst du mir diesen Stift geben? [Sit 2, points with arm close to body] Kannst du mir den Stift geben? [Sit 1, points with finger] Kannst du mir diesen Stift geben? [Sit 3, points with arm close to body]

A026 Exp 2 D (03:40-03:55/00:15)

Welches ist das Papier mit dem Kreis drauf? Da. [Sit 2, points directly] *Welches ist das Papier mit dem Herz drauf?* Hier. [Sit 1, points directly] *Welches ist das Papier mit dem Stern drauf?* Hier. [Sit 3, points directly]

A027 Exp 1 J (00:00-01:30/01:30)

Soko no pen o totte kudasai. [Sit 2, pointing, arm close to body] Kono pen o totte kudasai. [Sit 1, pointing, arm close to body] Kono pen o totte kudasai. [Sit 3, pointing, arm stretched]

A027 Exp 2 J (03:15-03:30/00:15)

Maru no kami wa doko desu ka? Koko. [Sit 2, pointing, arms stretched] *Haat no kami wa doko desu ka?* Koko. [Sit 1, pointing, arm close to body] *Hoshi no kami wa doko desu ka?* Asoko. [Sit 3, pointing, arm stretched]

A027 Exp 1 D (01:38-03:00/01:23)

Kannst du mir den Kuli geben? [Sit 2, points directly] Danke. Kannst du mir den Kuli nehmen? [Sit 1, points directly] Danke. Kannst du mir diesen Kuli nehmen? [Sit 3]

A027 Exp 2 D (03:40-03:55/00:15)

Welches ist das Papier mit dem Kreis drauf? Hier. [Sit 2, points directly] *Welches ist das Papier mit dem Herz drauf?* Hier. [Sit 1, points directly] *Welches ist das Papier mit dem Stern drauf?* Da. [Sit 3, points directly]

A028 (A008) Exp 1 J (01:45-02:40/00:55)

Sono pen o totte kudasai. [Sit 2, direct pointing] Kono pen o dashite kudasai. [Sit 1, quick direct pointing close to body] Watashi (unintelligable) no ue ni aru no pen o dashite kudasai. [3, direct pointing]

A028 (A008) Exp 2 J (05:09-05:30/00:21)

Hoshii no kami wa doko desu ka? Maru ni tsuite no desu. [Sit 3, direct pointing] *Haato no kami wa donna desu ka?* Koko ni arimasu. [Sit 1, direct pointing] *Maru no kami wa doko desu ka?* Asoko ni arimasu. [Sit 2, direct pointing]

A028 (A008) Exp 1 D (03:50-04:33/00:43)

Kannst du mir den Stift? [Sit 2, points directly] Dankeschön. Darf ich das einmal benutzen? [Sit 1, points directly, arm close to body] Äh, kannst du mir den Stift (unintelligible) geben? [Sit 3, points directly]

A028 (A008) Exp 2 D (05:31-06:00/00:29)

Welches ist das Papier mit dem Herz? Auf dem Tisch. [Sit 1, points directly] *Welches ist das Papier mit dem Stern?* Äh, auf dem Wand? [Sit 3, no pointing] *Welches ist das Papier mit dem Kreis?* Zwischen Stern und Herz. [Sit 2, pointing around to circle in the area]

A029 Exp 1 J (00:37-01:00/00:23)

Soko no pen o totte mo ii desu ka. [Sit 3, pointing, arm stretched] Soko no pen o. [Sit 2, pointing, arm stretched] Kore o totte moraimasu ka. [Sit 1, pointing, arm close to body]

A029 Exp 2 J (00:25-00:46/00:21)

Haato no kami wa doko desu ka? Haato no kami wa .. soko ni arimasu. [Sit 1, pointing, arm stretched] *Hoshi no kami wa doko desu ka?* Hoshi? Kore ka. Ii ka. Soko ni arimasu. [Sit 2, stands up and points] *Maru no kami wa doko desu ka?* Asoko ni desu. [Sit 3, pointing, arm stretched]

A029 Exp 1 D (01:04-01:31/00:27)

Könntest du mir das geben? [Sit 3, points directly] Dann nochmal das auch? [Sit 2, points directly] Das hier? [Sit 1, points directly]

A029 Exp 2 D (00:48-01:04/00:16)

Welches ist das Papier mit dem Herzen drauf? Hier. [Sit 1, points directly] *Welches ist das Papier mit dem Stern drauf?* Da. [Sit 2, points directly] *Welches ist das Papier mit dem Kreis drauf?* Da. [Sit 3, points directly]

A030 Exp 1 J (00:00-00:31/00:31)

Hai… ja, kono pen o karitemo ii desu ka? Hai. Doumo Koko no pen o kaite mo ii desu. Ano pen o hoshii desu.

A030 Exp 2 J (00:00-00:15/00:15)

Maru no kami wa doko desu ka? Koko desu. [Sit 1, pointing directly at post-it] *Haat no kami wa doko desu ka?* Koko desu. [Sit 2, pointing directly at post-it] *Hoshi no kami wa doko desu ka?* Asoko desu. [Sit 3, pointing, arm stretched]

A030 Exp 1 D (00:36-01:05/00:29)

Kannst du mir den Stift geben? [Sit 2, points directly] Kannst du mir diesen Stift geben? [Sit 1, points directly with arm close to body] Den, den Stift. [Sit 3, points directly]

A030 Exp 2 D (00:15-00:28/00:13)

Welches ist das Papier mit dem Kreis drauf? Hier? [Sit 1, points directly post-it]
Welches ist das Papier mit dem Herzen drauf? Hier. [Sit 2, points directly post-it]
Welches ist das Papier mit dem Stern drauf? Da. [Sit 3, points directly post-it]

A031 Exp 1 J (00:00-00:48/00:48)

Sai sho no ippon (unintelligible) ko agite. [Sit 1] Soko ni aru pen o totte moratte ii desu ka. [Sit 2, open handed gesture] Arigatou. Soko ni atte no pen o morai ii desu ka. [Sit 3, open handed gesture]

A031 Exp 2 J (00:00-00:24/00:24)

Haato no kami wa doko desu ka? Koko ni arimasu. [Sit 1, points at post-it] Soko ni arimasu. [Sit 2, open handed gesture] *Hoshi no kami wa doko desu ka?* Achi ni arimasu. [Sit 3, open handed gesture]

A031 Exp 1 D (00:50-01:35/00:45)

Darf ich diesen Stift benutzen? [Sit 1, holds pen in one hand] Und .. können Sie .. diesen Stift mir geben? [Sit 2, points directly post-it] Können Sie mir das andere Stift .. geben? [Sit 3, points directly post-it]

A030 Exp 2 D (00:48-01:34/00:46)

Welches ist das Papier mit dem Herzen drauf? Hier. [Sit 1, touches post-it] *Welches ist das Papier mit dem Kreis drauf?* Da? [Sit 2, points directly post-it] *Welches ist das Papier mit dem Stern drauf?* Also … Ja, da. [Sit 3, points directly post-it]

A032 Exp 1 J (00:05-00:28/00:23)

Nihongo de. Hai. Kono pen o tsukatte ii desu ka. [Sit 1, points directly] Kono pen o tsukatte ii desu ka? [Sit 2, points directly]. Son open o kudasai [Sit 3, points directly].

A032 Exp 2 J (00:04-00:14/00:10)

Haato no kami wa doko desu ka? Koko desu. [Sit 1, points directly post-it] *Maru no kami wa doko desu ka?* Soko desu. [Sit 2, points directly post-it] Asoko desu. [Sit 3, points directly at post-it].

A032 Exp 1 D (00:30-00:53/00:23)

Darf ich den Stift benutzen? [Sit 1, points with arm close to body] Darf ich den Stift benutzen? [Sit 2, points directly with arm close to body] Darf ich den Stift benutzen? [Sit 3, points directly at pen]

A032 Exp 2 D (00:15-00:30/00:15)

Welches ist das Papier mit dem Kreis drauf? Hier. [Sit 1, points directly with arm close to body] *Welches ist das Papier mit dem Stern drauf?* Da. [Sit 2, points directly at pen] *Welches ist das Papier mit dem Herzen drauf?* Da. [Sit 3, points directly at pen]

A033 Exp 1 J (00:00-00:30/00:30)

Koko no pen o totte moraimasu ka. [Sit 1]   Kono pen o totte moraimasu ka. [Sit 2] Achi no pen o totte moraimasu ka. [Sit 3, open handed gesture]

A033 Exp 2 J (00:00-00:15/00:15)

Maru no kami wa doko desu ka? Maru no kami wa koko desu watashi no mae desu. [Sit 1] *Hoshi no kami wa doko desu ka?* Soko no kami desu. [Sit 2] *Haato no kami wa doko desu ka?* Ano kami desu. [Sit 3]

A033 Exp 1 D (00:33-01:04/00:31)

Kannst du mir den Stift geben? [Sit 2, points directly with arm close to body] Kannst du mir … diese? Ne. Der? Kuli? [Sit 3, points directly with arm close to body] Dankeschön. Und kannst du mir die andere geben? [Sit 1, no gestures] Dankeschön.

A033 Exp 2 D (00:17-01:02/00:45)

Welches ist das Papier mit dem Kreis drauf? Hier. [Sit 1, no gestures] *Welches ist das Papier mit dem Stern drauf?* Da .. ist das. [Sit 2, no gestures] *Welches ist das Papier mit dem Herz drauf?* Dort. [Sit 3, points directly with arm close to body]

A034 Exp 1 J (00:00-02:20/02:20)

P … Pen o motte mo ii desu ka. [Sit 1] Arigatou. Ano pen o motte mo ii desu ka. [Sit 3] Soko no pen o totte kudasai. [Sit 2]

A034 Exp 2 J (00:00-01:05(01:05)

Haato no kami wa doko desu ka? Koko. [Sit 1] *Maru no kami wa doko desu ka?* Asoko. [Sit 3] *Hoshi no kami wa doko desu ka?* Soko. [Sit 2]

A034 Exp 1 D (05:12-06:47/01:35)

Kann ich den Stift benutzen? [Sit 1] Dann ich frage ob ich den Stift haben kann. [Sit 2] Kann ich den, den Stift, ja, dankeschön. [Sit 3]

A034 Exp 2 D (02:45-03:02/00:17)

Welches ist das Papier mit dem Herzen drauf? Hier? [Sit 1] *Welches ist das Papier mit dem Stern drauf?* Stern ist .. da. [Sit 2] *Welches ist das Papier mit dem Kreis drauf?* Da. [Sit 3]

A035 Exp 1 J (00:57-02:10/00:13)

Kono pen o tsukate ii desu ka. [Sit 1] Table no ue no pen o tsukate ii desu ka. [Sit 2] Anata no mae no pen o tsukate ii desu ka. [Sit 3]

A035 Exp 2 J (02:54-04:19/01:25)

Haato no kami wa doko desu ka? Koko. [Sit 1] *Hoshi no kami wa doko desu ka?* Xx no mae ni aru, ne. [Sit 2] *Maru no kami wa doko desu ka?* Soko. [Sit 3]

A035 Exp 1 D (00:00-01:00/01:00)

Ich möchte diese Kugelschreibe benutzen. [Sit 1] Kannst du mir den Kugelschreiber leihen? [Sit 2] Kannst du mir den leihen? [3, points at pen with arm close to body, then at herself]

A035 Exp 2 D (04:20-05:07/00:47)

Welches ist das Papier mit dem Herzen drauf? Ist hier. [Sit 1, points at post-it with arm close to body] *Welches ist das Papier mit dem Stern drauf?* Dort. [Sit 2, points at post-it with arm close to body] *Welches ist das Papier mit dem Kreis drauf?* Da. [Sit 3, points post-it with arm close to body]

A036 Exp 1 J (00:50-01:02/00:12)

Kono pen wo totte kudasai? [Sit 1] Sono pen wo totte kudasai? [Sit 2] Ano pen wo totte kudasai? [Sit 3]

A036 Exp 2 J (02:15-02:45/00:30)

Haato no kami wa doko desu ka? Koko desu. [Sit 1] *Hoshi no kami wa doko desu ka?* Soko ni arimasu. [Sit 2] *Maru no kami wa doko desu ka?* Ano (unintelligible) ni arimasu. [Sit 3]

A036 Exp 1 D (01:10-01:35/00:25)

Kannst du mir bitte den Stift geben? [Sit 1] Und kannst du mir bitte … den Stift geben? [Sit 2] Kannst du mir bitte diesen Stift geben? [Sit 3]

A036 Exp 2 D (02:50-03:00/00:10)

Welches ist das Papier mit dem Herzen drauf? Jenes. [Sit 1] *Welches ist das Papier mit dem Stern drauf?* Äh, da. [Sit 2] *Welches ist das Papier mit dem Kreis drauf?* Äh, .dort. [Sit 3]

A037 Exp 1 J (00:00-00:25/00:25)

Kono pen moratte ii desu ka. [Sit 1, points directly at pen] Sono pen moratte ii desu ka. [Sit 2, points directly at pen] Ano pen moratte ii desu ka. [Sit 3, points directly at pen]

A037 Exp 2 J (03:17-04:27/01:10)

Haato no kami wa doko desu ka? Kono tegami o kudasai. [Sit 1] *Hoshi no kami wa doko desu ka?* Temae ni aru kami o kudasai. [Sit 2] *Maru no kami wa doko desu ka?* Asoko ni aru no kami no tegami o kudasai. [Sit 3]

A037 Exp 1 D (00:40-02:50/02:10)

Kannst du diesen Kugelschreiber vorne vor mir geben? [Sit 1] Kannst du mir jenen Kugelschreiber geben? [Sit 2] Kannst du mir jenen Kugelschreiber da liegt geben? [Sit 3]

A037 Exp 2 D (04:30-05:16/00:46)

Welches ist das Papier mit dem Herz drauf? Kannst du mir diesen Brief geben? [Sit 1] *Welches ist das Papier mit dem Stern drauf?* Kannst du mir jenen Brief geben? [Sit 2, points with finger] *Welches ist das Papier mit dem Kreis drauf?* Der da auf dem Tisch liegt. [Sit 3]

A038 Exp 1 J (00:00-00:28/00:28)

Kono pen o totte kudasai. [Sit 1, pointing] Are no pen … o totte kudasai. [Sit 2, pointing] Are no pen o totte muraimasu ka. [Sit 3, pointing]

A038 Exp 2 J (00:00-00:25/00:25)

Hoshi no kami wa doko desu ka? Watashi no mae ni arimasu. [Sit 1, no gestures] *Haato no kami wa doko desu ka?* XX no mae ni arimasu. [Sit 2, no gestures] *Maru no kami wa doko deus ka?* Tonari no table no ue ni arimasu. [Sit 3, no gestures]

A038 Exp 1 D (00:00-00:41/00:41)

Kannst du mir den Kuli hier geben? [Sit 1, pointing] Kannst du mir den Kuli geben? [Sit 2, pointing] Kanst du mir den Kuli dort geben? [Sit 3, pointing]

A038 Exp 2 D (00:00-00:50/00:50)

Welches ist das Papier mit dem Stern drauf? Das hier. *Welches ist das Papier mit dem Herzen drauf?* Dort, da. [Sit 2, pointing] *Welches ist das Papier mit dem Kreis drauf?* Das dort drüben. [Sit 3, pointing]

A039 Exp 1 J (00:00-00:30/00:30)

Kono pen o kudasai. [Sit 1, pointing] Sono pen o kudasai. [Sit 2] Ano pen o kudasai. [Sit 3]

A039 Exp 2 J (00:00-00:12/00:12)

Haato no kami wa koko ni arimasu. [Sit 1] Hoshi no kami wa soko ni arimasu. [Sit 2] Maru no kami wa asoko ni arimasu. [Sit 3]

A039 Exp 1 D (00:00-00:25/00:25)

Bitte gib mir diesen Stift. [Sit 1] Bitte gib mir den Stift. [Sit 2] Bitte gib mir jenen Stift. [Sit 3]

A039 Exp 2 D (00:00-00:39/00:39)

Welches ist das Papier mit dem Herzen drauf? Dieses. [Sit 1] Welches ist das Papier mit dem Stern drauf? Das. [SIt 2] Welches ist das Papier mit dem Kreis drauf? Das da drüben. [Sit 3]

A040 Exp 1 J (00:15-00:35/00:20)

Kono pen o dashite kudasai. [Sit 1] Sono pen o dashite kudasai. [Sit 2] Ano pen o dashite kudasai. [Sit 3]

A040 Exp 2 J (01:20-01:46/00:26)

Koko. [Sit 1, pointing, arm close to body] Soko. [Sit 2, pointing, arm stretched] Asoko ni arimasu. [Sit 3, pointing, arm stretched]

A040 Exp 1 D (00:27-01:10/00:43)

Kannst du mir diesen Stift geben? [Sit 1, pointing] Kannst du mir den Stift geben? [Sit 2, pointing] Kannst du mir den Stift dort geben? [Sit 3, pointing]

A040 Exp 2 D (02:01-02:55/00:54)

Hier. [Sit 1, pointing with head] Dort. [2, pointing with head] Da drüben. [Sit 3, pointing with head]

B001 Exp 1 E (00:00-00:38/00:38)

May I have the pen please? [Sit 1, open handed gesture] Thank you! May I have that pen please? [Sit 2, points downwards] And XX, would you please bring me that pen? [Sit 3, points directly]

B001 Exp 2 E (00:00-00:31/00:31)

Which one is the piece of paper, the post-it with the star on it? This is the post-it. [Sit 1, points directly] *Yea. Which one is the piece of paper with the heart on it?* Um, this is that post-it. [Sit 2, points directly] *Which one is the piece of paper with the circle on it?* The post-it affixed .. Uh, that is the post-it! [Sit 3, points directly]

B001 Exp 1 D (00:00-00:30/00:30)

Würdest du mir bitte den Stift geben? [Sit 1] Danke. XX, würdest du mir bitte den Stift geben? [Sit 2] Danke. Würdest du bitte aufstehen und mir (stressed) den Stift geben? [Sit 3]

B001 Exp 2 D (00:00-00:23/00:23)

Welches ist das Post-it mit dem Stern? Mit dem Stern drauf? Da! [Sit 1, points directly]

Welches ist das Post-it mit dem Herz drauf? Der Zettel da. [Sit 2, points directly]

Welches ist das Post-it mit dem Kreis drauf? Der Zettel .. huch, ich hab „da" gesagt ..

Dieses Post-it! [Sit 3, points directly]

B002 Exp 1 E (01:24-02:15/00:51)

Uhm, can I use this pen? [Sit 1, pointing with head] Uhm, can I use that pen please?
[Sit 3, pointing with arm close to body] Thank you. Can I please use the pen that I
haven't used already? [Sit 2, no gestures]

B002 Exp 2 E (04:17-06:30/02:13)

Which one is the piece of paper with the heart on it? This piece of paper that's, yea,
here, closest to me. [Sit 1, pointing directly with arm close to body] *Which one is the
piece of paper with the star on it?* Uhm ... I'm not allowed to use prepositions? Yes. I
would say that the piece of paper that has a star on it is .. difficult .. Hm, this is
difficult. .. Uh .. hm. This is so difficult, I'm trying to figure out how I say this. *Uhm,
I'll give you a hint, so. So .. Well, there's no right or wrong anyway ..* Ok .. *So.* So
I would say that it's .. Uhm .. Hm ... Sorry. *No worries.* Yea. *So for example, if you
were to use like a distance, a marker of distance maybe?* Yea. I would say that it's ...
If we're saying that the heart is zero degrees, I would say that the star is around seventy
degrees. [Sit 2, no gestures] *Ok, and the last piece of paper, the one with the circle on
it?* And the circle is .. uhm ... 110 degrees. [Sit 3, no gestures] *Ok, perfect.*

B002 Exp 1 D (02:35-03:40/01:05)

Darf ich mal mit diese Stift anfangen? [Sit 1, pointing with arm close to body] *Ja, bitte
sehr.* Dankeschön. Ähm .. ok .. ähm .. und .. ähm ... Kann ich bitte, ähm, diesen Stift
benutzen? [Sit 3, pointing with arm close to body] Dankeschön. Und, äh, ich würde
gerne noch den letzten pen benutzen, wenn das okay ist. [Sit 2, pointing with arm close
to body] Dankeschön.

B002 Exp 2 D (06:34-07:53/01:19)

Welches ist das Stück Papier mit dem Herz drauf? Äh, das Papier mit dem Herz drauf
ist der .. null Grad, also, genau. [Sit 1, no gestures] *Was ist das Stück Papier mit dem
Stern drauf?* Ähm, das Papier, so ... hm, interessant, weil das Präposition darauf ist in
dem Satz. Also, äh, das Sternpapier ist eigentlich das Papier 70 Grad (unintelligible),
whatever. [Sit 2, no gestures] *Ok, was ist das Stück Papier mit dem Kreis drauf?* Das
Papier liegt ... hm, das is' bei, also, 110 Grad, also.. [Sit 3, no gestures] *Perfekt.*

B003 Exp 1 E (01:35-02:15/00:40)

Ok, could I have this one, this pen please? [Sit 2, pointing directly] And now, I'd like to have this one. [Sit 1, pointing directly] Right, so that leaves this one [Sit 3, points directly]

B003 Exp 2 E (03:42-03:55/00:13)

Which one is the piece of paper with the heart on it? This one. [Sit 1, points directly with arm close to body] *Which one is the piece of paper with the star on it?* That one. [Sit 2, points directly] *Which one is the piece of paper with the circle on it?* Over there. [Sit 3, points directly]

B003 Exp 1 D (02:30-03:20/01:00)

Ich hätte gerne diese Stift. [Sit 2, points directly] Ähm, ich wollte auch diese Stift haben. [Sit 3, points directly] Ähm, und dann letztens diesen hier [Sit 1, points directly with arm close to body]

B003 Exp 2 D (03:58-04:15/00:17)

Welches ist das Stück Papier mit dem Herzen? Hier. [Sit 1, points directly with arm close to body] *Welches ist das Stück Papier mit dem Stern?* Das da. [Sit 2, points directly] *Welches ist das Stück Papier mit dem Kreis?* Diese dort. [Sit 3, points directly]

B004 Exp 1 E (00:00-00:50/00:50)

Could I have that pen? [Sit 1, points with finger] Thanks. Could I have the pen .. there. [Sit 3, points with arm close to body] Could you hand me that pen? [Sit 2, points with arm close to body]

B004 Exp 2 E (02:00-02:12/00:12)

Which piece of paper is the one with the heart on it? This piece of paper. [Sit 1, puts hand on piece of paper] *Which piece of paper is the one with the star on it?* That one over there. [Sit 3, points directly] *Which piece of paper is the one with the circle on it?* That one. [Sit 2, points directly]

B004 Exp 1 D (01:00-01:30/00:30)

Darf ich das haben? [Sit 1, points directly with arm close to body] Danke. Darf ich einmal das haben? [Sit 2, points directly] Und dann darf ich das haben? [Sit 3, points directly with arm close to body]

B004 Exp 2 D (02:13-02:30/00:17)

Welches ist das Papier mit dem Herzen drauf? Hier. [Sit 1, puts hand on piece of paper] *Welches ist das Papier mit dem Kreis drauf?* Äh, Kreis? Da. [Sit 2, points directly] *Welches ist das Papier mit dem Stern drauf?* Da. [Sit 3, points directly]

B005 Exp 1 E (01:15-02:29/01:14)

Could you give me that pen? [Sit 1, points directly with arm close to body] Could somebody give me that pen? [Sit 3, points directly] Could I have that pen? [Sit 2, points directly]

B005 Exp 2 E (00:00-01:00/01:00)

Which is the piece of paper with the star on it? That one. [Sit 1, points directly with arm close to body] *Which is the piece of paper with the circle on it?* That one. [Sit 2, points directly] *Which is the piece of paper with the heart on it?* That one. [Sit 3, points directly]

B005 Exp 1 D (01:25-02:23/00:58)

Könnte ich ein' Stift haben. [Sit 1, points with hand] Und den anderen Stift bitte? [Sit 3, points with fingers, arm close to body] Und den letzten Stift. [Sit 2, no gestures]

B005 Exp 2 D (00:20-00:36/00:16)

Welches ist das Papier mit dem Stern drauf? Diese. [Sit 1, points directly with arm close to body] *Welches ist das Papier mit dem Kreis drauf?* Diese. [Sit 2, points directly] *Welches ist das Papier mit dem Herz drauf?* Da drüben. [Sit 3, points directly with arm close to body]

B006 Exp 1 E (00:00-01:00/01:00)

Could you please give me that pen? [Sit 2, points at pen] And could you please give me that pen? [Sit 1, points directly with arm close to body] And could you please give me that pen? [Sit 3, points with arm close to body]

B006 Exp 2 E (00:15-00:45/00:30)

Which one is the piece of paper with the star on it? This one. [Sit 1, touches post-it] *Which one is the piece of paper with the circle on it?* That one. [Sit 2, points directly at post-it note with arm close to body] *Which one ist the piece of paper with the heart on it?* That one. [Sit 3, points at post-it note with arm close to body]

B006 Exp 1 D (01:00-02:00/01:00)

Könntest du mir bitte den Stift geben? [Sit 1, points directly with arm close to body] Könnte ich bitte den Stift haben? [Sit 2, points directly with arm close to body] Und könnt' ich bitte den Stift haben? [Sit 3, points directly with arm close to body]

B006 Exp 2 D (00:45-01:15/00:30)

Welches ist das Stück Papier mit dem Stern drauf? Dieses. [Sit 1, touches post-it]
Welches ist das Stück Papier mit dem Kreis drauf? Dieses hier. [Sit 2, points at post-it note with arm close to body] *Welches ist das Stück Papier mit dem Herzen drauf?*
Das drüben. [Sit 3, points at post-it note with arm close to body]

B007 (B027) Exp 1 E (00:00-00:50/00:50)

XX, would you please get me that pen? [Sit 1, points directly] Thank you. XX, would
you please get me that pen? [Sit 2, points directly] Thank you. And finally would please
get me that pen? [Sit 3, points directly]

B007 (B027) Exp 2 E (03:40-03:15/00:35)

Which one is the piece of paper with the star on it? It's over there. [Sit 3, points
directly] *Which is the piece of paper with the heart?* Here. [Sit 1, points directly] *Which
is the piece of paper with the circle?* In the middle. [Sit 2, points directly]

B007 (B027) Exp 1 D (02:18-03:10/00:52)

XX, gib mir bitte das Stift. [Sit 1, points directly with arm close to body] XX, bitte das
Stift, geben mir, gib mir bitte. [Sit 2, points directly] Und, äh, das Stift dort. [Sit 3,
points directly]

B007 (B027) Exp 2 D (04:40-05:10/00:30)

Welches ist das Papier mit dem Herz? Mit dem Herz? Herz liegt hier. [Sit 1, points
directly with arm close to body] *Welches ist das Papier mit dem Kreis?* Kreis, ähm, es
liegt dort? [Sit 3, points directly] *Welches ist das Papier mit dem Stern?* Stern ist dort
[Sit 3, points directly] und Kreis ist da. [Sit 2, points directly]

B008 (B029) Exp 1 E (00:00-00:38/00:38)

Okay, so XX could you pass me that pen please? [Sit 1, points directly, arms close to
body] Then, I also need that pen. [Sit 2, points directly, arms close to body] And then
the pen over there, could you pass that? Thank you. [Sit 3, points directly]

B008 (B029) Exp 2 E (02:25-02:51/00:28)

Which is the piece of paper with the heart on it? The heart is closes to me. [Sit 1, points
directly, arms close to body] *Which is the piece of paper with the star on it?* The star
is .. over there? [Sit 2, points directly, arms close to body] *Which is the piece of paper
with the circle on it?* The circle is over there. [Sit 3, points directly]

B008 (B029) Exp 1 D (01:22-01:50/00:28)

Könntest du mir bitte diese pen geben? [Sit 1, points directly, arms close to body] Und, äh, diese? [Sit 2, points directly, arms close to body] Und noch diese. [Sit 3, points directly]

B008 (B029) Exp 2 D (03:10-03:26/00:16)

Welches ist das Papier mit dem Herzen? Das ist hier. [Sit 1, points directly, arms close to body] *Welches ist das Papier mit dem Stern?* Das ist da. [Sit 2, points directly, arms close to body] *Welches ist das Papier mit dem Kreis?* Das ist da. [Sit 3, points directly]

B009 Exp 1 E (00:00-00:40/00:40)

XX, can you please pass me the pen? [Sit 1, points with hand] XX, can you please pass me the pen? [Sit 2, points slightly with hand] XX, can you please pass me the pen? [Sit 3, no gestures]

B009 Exp 2 E (00:00-00:20/00:20)

Which is the piece of paper with the circle on it? It's this one here. [Sit 1, points directly post-it note] *Which is the piece of paper with the heart on it?* It's the one next to XX. [Sit 2, points directly] *Which is the piece of paper with the star on it?* The one that XX is pointing at. [Sit 3, no gestures]

B009 Exp 1 D (00:50-01:21/00:31)

XX, bitte, das, das Pen? [Sit 1, points directly with arm close to body] Ist das korrekt? *Here you go.* Ja. XX, bitte, das, äh .. *Stift.* Stift. [Sit 2, points slightly with hand] XX, bitte, das Stift. [Sit 3, no gestures] Dankeschön.

B009 Exp 2 D (00:57-01:14/00:17)

Welches ist das Papier mit dem Kreis? Diese. [Sit 1, points post-it note] *Welches ist das Papier mit dem Herz?* Äh, da oben. [Sit 2, points directly] *Welches ist das Papier mit dem Stern?* Da oben (unintelligible). [Sit 3, no gestures]

B010 Exp 1 E (00:00-01:45/01:45)

Could I have that pen please? [Sit 2, points with finger] Could I have that, this pen here please? [Sit 1, points with fingers] And could I have that pen there? [Sit 3, points with arm close to body]

B010 Exp 2 E (00:00-01:00/01:00)

Which is the piece of paper with the star on it? The one in front of me. .. Oh, das war eine Präposition. This one right here. [Sit 1, points with finger] *Which one ist the piece of paper with the circle on it?* The one by you. *That is also a preposition.* Um .. (laughs) The one there. [Sit 2, points with finger] *Which is the piece of paper with the heart on it?* The one over there. [Sit 3, points with arm close to body]

B010 Exp 1 D (01:45-02:45/01:00)

Darf ich den Stift bitte haben? [Sit 2, points with finger] Und darf ich auch diesen Stift haben? [Sit 1, points with finger] Und darf ich den Stift da drüben haben? [Sit 3, points with finger]

B010 Exp 2 D (01:00-01:30/00:30)

Welches ist das Papier mit dem Stern drauf? Der grade hier. [Sit 1, points with finger] *Welches ist das Stück Papier mit dem Kreis drauf?* Der da. [Sit 2, points with arm close to body] *Welches ist das Stück Papier mit dem Herzen drauf?* Der da drüben. [Sit 3, points with arm close to body]

B011 Exp 1 E (00:12-00:50/00:38)

Please can you pass me the pen? [Sit 1, points directly, arms close to body] Thank you. Please can you pass me the pen? [Sit 3, points directly] Please pass me that pen. [Sit 2, points directly]

B011 Exp 2 E (02:18-02:31/00:13)

Which is the piece of paper with the circle on it? This one. [Sit 1, points directly with arm close to body] *Which is the piece of paper with the star on it?* That one. [Sit 2, points directly with arm close to body] *Which is the piece of paper with the heart on it?* That one. [Sit 3, points directly]

B011 Exp 1 D (00:55-01:40/00:45)

Ich möchte .. äh … Pen? *Stift.* Stift. [Sit 2, pointing, arm close to body] Und äh … Ich möchte diese Stift? [Sit 1, pointing, arm close to body] Entschuldigung, ich möchte die Stift. [Sit 3, pointing, arm stretched]

B011 Exp 2 D (02:35-02:59/00:24)

Welches ist das Stück Papier mit dem Kreis drauf? Ähm .. Das. Das ist. [Sit 1, points directly with arm close to body] *Welches ist das Stück Papier mit dem Stern?* Das ist. [Sit 2, points directly] *Welches ist das Stück Papier mit dem Herz?* Das ist. [Sit 3, points directly]

B012 Exp 1 E (00:00-00:20/00:20)

Could you please pass me that pen? [Sit 1] Could you please pass me that pen? [Sit 2] Could you please pass me that pen there? [Sit 3]

B012 Exp 2 E (00:00-00:35/00:35)

This one. [Sit 1] It's that one. [Sit 2] That one there. [Sit 3]

B012 Exp 1 D (00:25-00:51/00:26)

Kannst du mir bitte den Stift geben? [Sit 2] Uhmm… Kannst du mir bitte den Stift hier geben? [Sit 1] Kannst du mir bitte auch den da geben? [Sit 3]

B012 Exp 2 D (00:40-01:15/00:35)

Diese hier. [Sit 1] Das da. [Sit 2] Das da. [Sit 3]

B013 Exp 1 E (00:00-00:39/00:39)

XX, can you please pass me the pen? [Sit 2, points directly] XX, can you please pass me this pen? [Sit 1, points directly with arm close to body] XX, can you please pass me the pen? [Sit 3, points directly]

B013 Exp 2 E (00:00-00:55/00:55)

Which one is the piece of paper with the circle on it? In front of me. *That's a preposition.* Argh. … … … … … … … … … That's hard. Uhm. … … … Can I say this one? *"This one" is fine.* This one. [Sit 1, points with open palm and arm close to body] *Which one is the piece of paper with the heart on it?* That one. [Sit 2, points directly] *Which one is the piece of paper with the star on it?* That one. [Sit 3, points directly]

B013 Exp 1 D (00:08-00:37/00:29)

XX, kannst du bitte die pen zu mir geben? [Sit 2, points directly with arm close to body] XX, kannst du die pen bitte zu mir geben? [Sit 1, points directly with arm close to body] Danke. XX, kannst du die pen bitte zu mir geben? [Sit 3, points directly]

B013 Exp 2 D (00:57-01:08/00:11)

Welches ist das Papier mit dem Kreis drauf? Diese. [Sit 1, points with open palm and arm close to body] *Welches ist das Papier mit dem Herzen drauf?* Diese. [Sit 2, points directly] *Welches ist das Papier mit dem Stern drauf?* Diese. [Sit 3, points directly]

B014 Exp 1 E (01:05-01:20/00:15)

Hey man, I can't move my hands, can you pass me that pen? [Sit 2] And then, um, the other pen [Sit 3] and then this one? [Sit 1]

B014 Exp 2 E (04:38-06:30/01:51)

Where's the heart? Um .. right here. [Sit 1] *Where's the star?* Um .. on that, over there, like, in that, again. Not too far away from me over there? [Sit 2] *And where's the circle?* Way over there, at the … on the other side. [Sit 3]

B014 Exp 1 D (01:31-02:20/00:49)

For German I'd probably say, um … um … I think I would use „hier", „da" und „dort". „Kannst du mir den Stift da geben?" [Sit 1] oder „Kannst du mir diesen Stift hier geben?" [Sit 2] oder „Kannst du mir den Stift, der dort drüben … Den Stift dort drüben mir geben?" [Sit 3]

B014 Exp 2 D (06:40-08:05/01:25)

Auf welchem Teil des Tisches ist das Herz? Ist das was, das Herz? Ähm … […] Es ist gleich hier. [Sit 1] *Auf welchem Teil des Tisches ist der Stern?* Stern? Ähm … Ist .. gleich .. da, äh, dort drüben? [Sit 2] *Und auf welchem Teil des Tisches ist der Kreis?* Ähm .. ganz weit dort drüben, keine Ahnung. [Sit 3]

B015 Exp 1 E (00:00-03:00/03:00)

Please give me the pen way over there. [Sit 3] Please give me that, this pen. [Sit 2] And also that pen. [Sit 1]

B015 Exp 2 E (04:18-05:12/00:54)

Which is the post-it note with the heart on it? Right here. [Sit 1] *Which one is the piece of paper with the star on it?* Over there. [Sit 2] *And which one is the post-it note with the circle on it?* Way back there. [Sit 3]

B015 Exp 1 D (03:05-03:51/00:47)

Kannst du mir den Kugelschreiber dort geben? [Sit 3] Sowie auch der da? [Sit 2] Und diesen auch. [Sit 1]

B015 Exp 2 D (05:15-05:52/00:37)

Welches ist das Post-it Note mit dem Herzen drauf? Es ist hier. [Sit 1] *Welches ist das Post-it Note mit dem Stern drauf?* Ähm .. darüber. [Sit 2] *Und welches ist das Post-it mit dem Kreis drauf?* Ganz weit darüber. [Sit 3]

B016 Exp 1 E (03:50-06:07/02:17)

Can you give me that pen? [Sit 2] Can you give me this pen? [Sit 1] Can you give me the pen over there? [Sit 3]

B016 Exp 2 E (06:42-07:00/00:18)

Which one is the post-it note with the heart on it? This one. [Sit 1] *Which one is the post-it note with the star on it?* That one. [Sit 2] *Which one is the post-it note with the circle on it?* That one. [Sit 3]

B016 Exp 1 D (04:25-04:55/00:30)

Kannst du mir die Kugelschreiber geben? [Sit 1, 2, 3]

B016 Exp 2 D (07:12-07:37/00:25)

Welches ist das post-it mit dem Herzen drauf? Diese. [Sit 1] *Welches ist das post-it mit dem Stern drauf?* Der da. [Sit 2] *Und welches ist das post-it mit dem Kreis drauf?* Diesen da. [Sit 3]

B017 Exp 1 E (00:00-01:57/01:57)

Could you get me this pen here, [Sit 1] that pen over there [Sit 2] and the one right over there. [Sit 3]

B017 Exp 2 E (04:05-05:00/00:55)

Which is the post-it note with the heart on it? This one here. [Sit 1] *Which one is the post-it note with the star on it?* Um, that one over there. [Sit 2] *And which is the post-it note with the circle on it?* And that one, too. [Sit 3]

B017 Exp 1 D (02:05-03:10/01:05)

Konntest du mir dieses pen hier mir geben? [Sit 1] Auch dieses pen (unintelligible). [Sit 2] Und diese Stift auch. [Sit 3]

B017 Exp 2 D (05:05-05:35/00:30)

Welches ist das post-it note mit dem Herz drauf? Dieses hier. [Sit 1] *Welches ist das post-it note mit dem Stern drauf?* Diese über da. [Sit 2] *Welches ist das post-it mit dem Kreis drauf?* Das. [Sit 3]

B018 Exp 1 E (00:00-01:10/01:10)

Can you please give me the pen? [Sit 1] Can you please give me the pen over there? [Sit 2] Can you please give me the pen furthest away? [Sit 3]

B018 Exp 2 E (02:10-04:20/02:10)

Which is the piece of paper with the heart on it? This piece of paper with the heart on it is the one I can see best. [Sit 1] *Which is the piece of paper with the star on it?* The piece of paper with the star on it is that one. [Sit 2] *Which is the piece of paper with the circle on it?* The piece of paper with the circle on it is that one over there. [Sit 3]

B018 Exp 1 D (01:22-01:40/00:22)

Kannst du mir den Stift geben? [Sit 1] Kannst du mir bitte den nahe liegenden Stift geben? [Sit 2] Kannst du bitte mir den am weitesten liegenden Stift geben? [Sit 3]

B018 Exp 2 D (00:18/00:18)

Welches ist das Papier mit dem Herz drauf. Das. [Sit 1] *Welches ist das Papier mit dem Stern drauf?* Das. [Sit 2] *Welches ist das Papier mit dem Kreis drauf?* Das. [Sit 3]

B019 Exp 1 E (02:00-02:55/00:55)

That pen please. [Sit 2, pointing to the pen] This pen. [Sit 1] That pen please. [Sit 3]

B019 Exp 2 E (03:50-05:23/01:33)

Which is the piece of paper with the heart on it? This one. [Sit 1] *Which is the piece of paper with the star on it?* The yellow one. [Sit 2] *Which is the piece of paper with the circle on it?* That one. [Sit 3, pointing at it]

B019 Exp 1 D (03:12-03:20/00:08)

Dit Stift bitte. [Sit 1, pointing to it] Dat Stift bitte. [Sit 2, pointing to it] Dat Stift bitte. [Sit 3, pointing to it]

B019 Exp 2 D (05:27-06:23/00:56)

Welches ist das Papier mit dem Herzen drauf? Mein Papier. [Sit 1] *Welches ist das Papier mit dem Stern drauf?* Der gelbe Papier (unintelligible, speaking dutch). [Sit 2] *Welches ist das Papier mit dem Kreis drauf?* Dat Papier. [Sit 3]

B020 Exp 1 E (00:00-00:15/00:15)

Could I get that pen please? [Sit 1, pointing] Could I get (stressed) that pen please? [Sit 2, pointing] Could I get (stressed) that pen please? [Sit 3, pointing]

B020 Exp 2 E (00:00-00:12/00:12)

This one. [Sit 1, pointing] That one. [Sit 2, pointing] That one. [Sit 3, pointing]

B020 Exp 1 D (00:21-00:35/00:14)

Kann ich diesen Stift haben? [Sit 1, pointing] Kann ich (diesen) Stift haben? [Sit 2, pointing] Und kann ich diesen Stift bekommen? [Sit 3, pointing]

B020 Exp 2 D (00:15-00:32/00:17)

Das hier. [Sit 1, pointing] Das da. [Sit 2, pointing] Das dort drüben. [Sit 3, pointing]

B021 Exp 1 E (00:05-00:45/00:40)

Can you hand me that pen, please? Thanks. [Sit 2, points directly with arm close to body] Um, can you pick up this pen for me? Thank you [Sit 1, points directly with arm close to body] Um, can you hand me that pen? [Sit 3, points directly]

B021 Exp 2 E (02:16-02:30/00:14)

Which one is the piece of paper with the star on it? This one. [Sit 1, points directly with arm close to body] *Which is the piece of paper with the circle on it?* That one. [Sit 2, points directly with arm close to body] *Which is the piece of paper with the heart on it?* The one over there? [Sit 3, points directly]

B021 Exp 1 J (00:50-01:20/00:30)

Ja, sochi no pen o wtashino ue no. [Sit 3, pointing, arm stretched] Eto .. kono pen o watashi a totte kure. [Sit 1, pointing with finger, arm close to body] Ja, sono p pen watashi no tonari no [Sit 2, pointing, arm close to body]

B021 Exp 2 J (01:57-02:10/00:13)

Hoshi no kami wa doko desu ka? Koko. [Sit 1, pointing with finger, arm close to body] *Maru no kami wa doko desu ka?* Sono. [Sit 2, pointing with arm stretched] *Haato no kami wa doko desu ka?* Achi. [Sit 3, pointing, arm stretched]

B022 Exp 1 E (00:45-01:50/01:05)

Okay, so, uhm, XX, could you please give me the closest pen to me? [Sit 1, no gestures] Thank you. And then, uhm, could you please give me the pen which is closest to you? [Sit 2, no gestures] *Okay.* Thank you. And then could you please give me the pen which is furthest from you? Which is .. uh, furthest away? [Sit 3, no gestures]

B022 Exp 2 E (04:20-04:43/00:23)

So which is the piece of paper with the heart on it? So, the piece of paper which is closest to me. [Sit 1, no gestures] *Which is the piece of paper with the circle on it?* Let me take a look. It's the piece of paper which is directly behind you [Sit 2, no gestures] *Which is the piece of paper with the star on it?* I'm assuming it's the piece of paper over there [Sit 3, no gestures]

B022 Exp 1 J (02:58-03:40/00:42)

Eto, sumimasen, kochira no pen o agete kudasai. [Sit 1, pointing with finger, arm close to body] Soko, soko no pen o agete kudasai. [Sit 2, pointing, arm close to body] Achira .. asoko pen. [Sit 3, pointing with arm close to body]

B022 Exp 2 J (04:45-05:16/00:31)

Haato no kami wa doko desu ka? Watashi no mae desu. [Sit 1, no gestures] *Maru no kami wa doko desu ka?* Maru no kami wa … anata no tonari desu. [Sit 2, no gestures] *Hoshi no kami wa doko desu ka?* Ichiban tou kou na desu. [Sit 3, no gestures]

B023 Exp 1 E (00:00-01:02/01:02)

Hand me that pen. [Sit 2] Can you hand me this pen? [Sit 1] Can you give me that pen over there? [Sit 3]

B023 Exp 2 E (00:00-00:30/00:30)

Which one is the piece of paper with the heart on it? This one here. [Sit 1] *Which one is the piece of paper with the star on it?* That one over there. [Sit 2] *Which one is the piece of paper with the circle on it?* The one way over there. [Sit 3]

B023 Exp 1 J (01:20-01:55/00:35)

Kono pen onegai shimasu. [Sit 1, pointing with head] Ano pen onegai shimasu. [Sit 2, pointing with head] Asoko no pen? [Sit 3, no gestures]

B023 Exp 2 J (00:37-01:18/00:41)

Haato no kami wa doko desu ka? Chikaku no kami. [Sit 1, points with head] *Hoshi no kami wa doko desu ka?* Asoko no kami desu. [Sit 2, points with head] *Maru no kami wa doko desu ka?* Asoko no kami desu. [Sit 3, points down]

B024 Exp 1 E (00:00-01:00/01:00)

Can I have that pen please? [Sit 2, points directly] Can you pass me that pen please? [Sit 3, points directly] Can I have this pen please? [Sit 1, points directly with arm close to body]

B024 Exp 2 E (02:15-02:33/00:18)

Which one is the piece of paper with the star on it? That one. [Sit 2, points directly] *Which is the piece of paper with the heart on it?* This one. [Sit 1, points directly] *Which one is the piece of paper with the circle on it?* That one, over there. [Sit 3, points directly]

B024 Exp 1 J (01:18-01:55/00:37)

Sono pen o totte kudasai. [Sit 2, pointing, arm stretched] Kono pen o totte kudasai. [Sit 1, pointing, arm close to body] Ano pen o totte kudasai. [Sit 3, pointing, arm stretched]

B024 Exp 2 J (02:33-02:50/00:17)

Hoshi no kami wa doko desu ka? Asoko. [Sit 2, pointing, arm stretched] *Haato no kami wa doko desu ka?* Kono. [Sit 1, poiting, arm close to body] *Maru no kami wa doko desu ka?* Ano. [Sit 3, pointing, arm stretched]

317

B025 Exp 1 E (00:00-01:00/01:00)

Can I have that pen please? [Sit 2, points directly] Can you pass me that pen please? [Sit 3, points directly] Can I have this pen please? [Sit 1, points directly with arm close to body]

B025 Exp 2 E (02:15-02:33/00:18)

Which one is the piece of paper with the star on it? That one. [Sit 2, points directly] *Which is the piece of paper with the heart on it?* This one. [Sit 1, points directly] *Which one is the piece of paper with the circle on it?* That one, over there. [Sit 3, points directly]

B025 Exp 1 J (01:18-01:55/00:37)

Ano pen o totte kudasai. [Sit 3, pointing, arm stretched] Kono pen o totte kudasai. [Sit 1, pointing, arm stretched] Ano pen o totte kudasai. [Sit 2, pointing, arm stretched]

B025 Exp 2 J (02:33-02:50/00:17)

Hoshi no kami wa doko desu ka? Asoko desu. [Sit 2, pointing, arm stretched] *Haato no kami wa doko desu ka?* Koko desu. [Sit 1, pointing, arm stretched] *Maru no kami wa doko desu ka?* Asoko desu. [Sit 3, pointing, arm stretched]

B026 Exp 1 E (00:00-01:15/01:15)

Uhm, okay, uhm .. Pen please. [Sit 1, points directly with arm close to body] Uhm .. Pen please? [Sit 2, points directly] Uh, pen please! [Sit 3, points directly]

B026 Exp 2 E (02:15-02:30/00:15)

So which one is the piece of paper with the star on it? Uh, that one. [Sit 2, points directly] *Which is the piece of paper with the heart on it?* Uh, this one. [Sit 1, points with hand] *Which one is the piece of paper with the circle on it?* That one over there. [Sit 3, points directly with arm close to body]

B026 Exp 1 J (01:20-01:55/00:35)

Pen o kudasai. [Sit 1, pointing, arm close to body] Pen o kudasai. [Sit 2, pointing, arm stretched] Pen o kudasai. [Sit 3, pointing, arm stretched]

B026 Exp 2 J (02:30-02:47/00:27)

Hoshi no kami wa doko desu ka? Hoshi no kami wa .. sochi. [Sit 2, pointing, arm stretched] *Haato no kami wa doko desu ka?* Haato no kami wa koko desu. [Sit 1, pointing, arm close to body] *Maru no kami wa doko desu ka?* Maru no kami wa asoko desu. [Sit 3, pointing, arm close to body]

B027 (B007) Exp 1 E (00:00-00:50/00:50)

XX, would you please get me that pen? [Sit 1, points directly] Thank you. XX, would you please get me that pen? [Sit 2, points directly] Thank you. And finally would please get me that pen? [Sit 3, points directly]

B027 (B007) Exp 2 E (03:40-04:00/00:20)

Which one is the piece of paper with the star on it? It's over there. [Sit 3, points directly] *Which is the piece of paper with the heart?* Here. [Sit 1, points directly] *Which is the piece of paper with the circle?* In the middle. [Sit 2, points directly]

B027 (B007) Exp 1 J (00:55-01:40)

XX, sono pen o totte kuremasu ka. [Sit 1, pointing with arm close to body] XX, sono pen o totte kuremasu ka. [Sit 2, pointing] XX, ano pen o totte kuremasu ka. [Sit 3, pointing downwards]

B027 (B007) Exp 2 J (04:00-04:25/00:25)

Hoshi no kami wa doko desu ka? Hoshi no (unintelligible) muko desu. [Sit 3, points down] *Maru no kami wa doko desu ka?* (unintelligible) [Sit 2, points down] *Haato no kami wa …* Haato no menomae ni arimasu. [Si 1, points down]

B028 Exp 1 E (03:00-04:15/01:15)

Give me this. [Sit 1, points with head] Give me the pen next to the heart. *That's a preposition.* Can you give me the pen near you? Can you give me the pen there? [Sit 2, points with head] Can you give me that pen? [Sit 3, points with head]

B028 Exp 2 E (05:57-06:24/00:27)

Which one is the post-it note with the star on it? The one on the window? Ugh. The one .. ugh. The one over there. *Over is a preposition.* That one. [Sit 3, points with head] *Which one is the post-it note with the circle on it?* This one. [Sit 1, points with head] *Okay. And which one is the post-it note with the heart on it?* That one. [Sit 2, points with head]

B028 Exp 1 J (04:43-05:20/00:37)

Kore kudasai. [Sit 1, pointing with head] Sore kudasai. [Sit 2, pointing with head] Are kudasai. [Sit 3, pointing with head]

B028 Exp 2 J (06:26-06:41/00:15)

Hoshi no kami wa doko desu ka? Achi. [Sit 3, pointing with head] *Maru no kami wa doko desu ka?* Kochi. [Sit 1, pointing with head] *Haato no kami wa doko desu ka?* Kochi. [Sit 2, pointing with head]

B029 (B008) Exp 1 E (00:00-00:37/00:37)

Okay, so XX could you pass me that pen please? [Sit 1, points directly, arms close to body] Then, I also need that pen. [Sit 2, points directly, arms close to body] And then the pen over there, could you pass that? Thank you. [Sit 3, points directly]

B029 (B008) Exp 2 E (02:25-02:50/00:25)

Which is the piece of paper with the heart on it? The heart is closes to me. [Sit 1, points directly, arms close to body] *Which is the piece of paper with the star on it?* The star is .. over there? [Sit 2, points directly, arms close to body] *Which is the piece of paper with the circle on it?* The circle is over there. [Sit 3, points directly]

B029 (B008) Exp 1 J (00:40-01:15)

Eto .. sono pen wa hoshii[n] desu ga onegai shimasu [Sit 1, pointing with palm of his hand, arm close to body] Ano pen wa onegai shimasu. [Sit 2, pointing, arm stretched] Chotto shitsurei desu ga .. ano pen mo. Hai, dozo. [Sit 3, pointing, arm stretched]

B029 (B008) Exp 2 J (02:53-03:05)

Haato no kami wa doko desu ka? Eto kochira desu. [Sit 1, pointing with arm close to body] *Hoshi no kami wa doko desu ka?* Sochira desu. [Sit 2, pointing, arm stretched] *Maru no kami wa doko desu ka?* Achira desu. [Sit 3, pointing with arm]

B030 Exp 1 E (00:00-01:10/01:10)

Can I have the pen? [Sit 2, points directly] Can I have .. orange pen? [Sit 1, points directly with arm close to body] Can I have .. the pen? [Sit 3, points directly]

B030 Exp 2 E (00:00-00:17/00:17)

So, which one is the piece of paper with the heart on it? This. [Sit 1, points directly] *Which one is the piece of paper with the star on it?* That. [Sit 2, points directly] *Which is the piece of paper with the circle on it?* That one over there. [Sit 3, points directly]

B030 Exp 1 J (00:00-00:47/00:47)

Eto .. Ano. Ano pen. [Sit 3, pointing, arm close to body] Sono pen. [Sit 2, pointing, arm stretched] Kono pen. [Sit 1, pointing, arm close to body]

B030 Exp 2 J (00:20-00:40/00:20)

Haato no kami wa doko desu ka? Kore desu. [Sit 1, pointing, arm close to body] *Hoshi no kami wa doko desu ka?* Sore desu. [Sit 2, pointing, arm stretched] *Maru no kami wa doko desu ka?* Are desu. [Sit 3, pointing, arm stretched]

B031 Exp 1 E (00:00-

Can I please have, have that pen? [Sit 1, points directly with arm close to body] *Yea.* Can I please have that pen? [Sit 2, points directly] And can I please have that pen over there? [Sit 3, points directly]

B031 Exp 2 E (00:00-00:30/00:30)

Which is the piece of paper with the star on it? That one. [Sit 1] *Which is the piece of paper with the heart on it?* That one. [Sit 2] *Which is the piece of paper with the circle on it?* That one over there. [Sit 3]

B031 Exp 1 J (00:00-00:39/00:39)

Pen o onegai shimasu? [Sit 1, pointing, arm close to body] Pen o … Pen? *Kono?* Hai. [Sit 2, pointing, arm stretched] Pen o. [Sit 3, pointing, arm stretched]

B031 Exp 2 J (00:35-01:05/00:30)

Haato no kami wa doko desu ka? Kono kami desu. [Sit 1] *Maru no kami wa doko desu ka?* Sono kami desu. [Sit 2] *Hoshi no kami wa doko desu ka?* Ano kami desu. [Sit 3]

B032 Exp 1 E (00:00-01:32/01:32)

May I use it? [Sit 1] Pen please. [Sit 2, points with open palm] May I have .. it? [Sit 3, points with arm close to body]

B032 Exp 2 E (00:00-00:28/00:28)

Which one ist the piece of paper with *the circle on it?* This one. [Sit 1, points with arm close to body] *Which one is the piece of paper with the star on it?* This one. [Sit 2, points with arm close to body] *Which one is the piece of paper with the heart on it?* That one. [Sit 3, points with arm close to body]

B032 Exp 1 J (01:10-01:57/00:47)

Kore tsukate ii desu ka. [Sit 1, points] Kono pen o tsukate ii desu ka. [Sit 2, points] Are o tsukate ii desu ka. [Sit 3,m points, arm close to body]

B032 Exp 2 J (00:28-00:49/00:21)

Maru no kami wa doko desu ka? Kore wa kami desu. [Sit 1, points at post-it note] *Hoshi no kami wa doko desu ka?* Hoshi no kami wa soko desu. *Haato no kami wa doko desu ka?* Haato no kami wa are desu. [Sit 3, points, arm close to body]

B033 Exp 1 E (00:00-01:00/01:00)

Uh, may I please have that pen? [Sit 1, points directly at pen] Okay, may I have that pen? [Sit 3, points directly at pen] Could I have that one, please? [Sit 2, points directly at pen]

B033 Exp 2 E (00:00-00:15/00:15)

Which one is the piece of paper with the heart on it? This one. [Sit 1, points directly at post-it] *Which one is the piece of paper with the circle on it?* That one? [Sit 2, points with arm close to body] *Which one is the piece of paper with the star on it?* The one over there? [Sit 3, points with arm close to body]

B033 Exp 1 J (01:05-01:52/00:47)

Sono .. Sono pen onegai shimasu. [Sit 3, pointing, arm stretched] Sono pen onegai shimasu. [Sit 2, pointing, arm stretched] Kono pen onegai shimasu. [Sit 1, pointing, arm close to body]

B033 Exp 2 J (00:18-00:31/00:13)

Haato no kami wa doko desu ka? Koko desu. [Sit 1, pointing, arm close to body] *Maru no kami wa doko desu ka?* Soko desu. [Sit 2, pointing, arm close to body] *Hoshi no kami wa doko desu ka?* Asoko desu. [Sit 3, pointing, arm stretched]

B034 Exp 1 E (00:00-01-24/01:24)

May I have that pen please? [Sit 2, points with arm close to body] May I have that pen please? [Sit 3, points directly] May I have this pen? [Sit 1, points with arm close to body]

B034 Exp 2 E

Which one is the piece of paper with the circle on it? This here. [Sit 1, brings hands close to post-it] *Which is the piece of paper with the heart on it?* That paper. [Sit 2, points with finger] *Which ist the piece of paper with the star on it?* The paper over there. [Sit 3, points directly]

B034 Exp 1 J (01:24-02:47)

Sono pen wa motte kite kuru. [Sit 2, points directly]. Eto asoko pen wa tsukare desu. [Sit 3, points directly] Eto kono pen o kudasai. [Sit 2, points directly]

B034 Exp 2 J (00:50-01:17/00:27)

Maru no kami wa doko desu ka? Kono kami desu. [Sit 1, points with head] *Haato no kami wa doko desu ka?* Sono kami desu. [Sit 2, no gestures] *Hoshi no kami wa doko desu ka?* Asoko, asoko no kami. [Sit 3, no gestures]

B035 Exp 1 E (00:00-01:24/01:24)

Well, do you reckon you could pass me that pen way over there? [Sit 3, points directly] Could I have that pen right here? [Sit 1, points with arm close to body] May I have that pen right there? [Sit 2, points with arm close to body]

B035 Exp 2 E (00:00-00:47/00:47)

Which one is the piece of paper with the circle on it? The paper right here. [Sit 1, points with arm close to body] *Which is the piece of paper with the heart on it?* The paper right over there. [Sit 2, points directly at post-it] *Which is the piece of paper with the star on it?* The paper over there. [Sit 3, points directly at post-it note]

B035 Exp 1 J (01:50-02:35/00:45)

Eto .. Kore wa pen kudasai. [Sit 1, pointing, arm close to body] Sore wa pen kudasai. [Sit 2, pointing, arm close to body] Eto … Ah Asore wa? Asore wa pen kudasai. [Sit 3, pointing, arm stretched]

B035 Exp 2 J (00:50-01:17/00:27)

Maru no kami wa doko desu ka? Eto .. kore wa. [Sit 1, pointing, arm close to body] *Haato no kami wa doko desu ka?* Sore. [Sit 1, pointing, arm close to body] *Hoshi no kami wa doko desu ka?* Asore desu. [Sit 3, pointing, arm close to body]

B036 Exp 1 E (00:00-00:40/00:40)

Could you pass me that pen please? [Sit 1, points with arm close to body] Could you pass me that pen over there? [Sit 3, points with arm close to body] Could you pass me that pen in front of you? Oh. [Sit 2, hints with head]

B036 Exp 2 E (00:00-01:00/01:00)

Which one is the piece of paper with the circle on it? This one. [Sit 1, hints with head] *Which is the piece of paper with the star on it?* That one. [Sit 2, hints with head] *Which is the piece of paper with the heart on it?* That one over there. [Sit 3, hints with head]

B036 Exp 1 J (00:40-01:15/00:35)

Ano pen o kaaishite kuremasu ka. [Sit 2, points directly] Ano pen wa onegai shimasu. [Sit 3, points directly] Tsugi no. [Sit 1, bows towards pen]

B036 Exp 2 J (01:05-01:20/00:15)

Maru no kami wa doko desu ka? Kochi. [Sit 1, pointing, arm close to body] *Hoshi no kami wa doko desu ka?* Kore. [Sit 2, pointing, arm close to body] *Haato no kami wa doko desu ka?* Achira. [Sit 3, pointing with thumb, arm close to body]

B037 Exp 1 E (00:12-01:15/01:03)

May I have that pen please? [Sit 1, points with arm close to body] Can I have that pen? [Sit 2, points with arm close to body] Could I have that pen please? [Sit 3, points with arm close to body]

B037 Exp 2 E (00:10-00:45/00:35)

Which one is the piece of paper with the heart on it? That one. [Sit 1, points with arm close to body] *Which one is the piece of paper with the circle on it?* That one. [Sit 2, points with arm close to body] *Which one is the piece of paper with the star on it?* That one. [Sit 3, points directly]

B037 Exp 1 J (01:55-03:10/00:15)

Kono pen kudasai? [Sit 1, pointing, arm close to body] Sono pen arimasu ka. [Sit 2, pointing, arm close to body] Ano pen kudasai. [Sit 3, pointing, arm stretched]

B037 Exp 2 J (00:46-01:22/00:26)

Haato no kami wa doko desu ka? Koko. [Sit 1, pointing, arm stretched] *Maru no kami wa doko desu ka?* Kore. [Sit 2, pointing, arm stretched] *Hoshi no kami wa doko desu ka?* Asoko desu. [Sit 3, pointing, arm stretched]

B038 Exp 1 E (00:12-01:15/01:03)

May I have this one? [Sit 1, points with arm close to body] Can I have that pen? [Sit 2, points with arm close to body] Can I have that pen? [Sit 3, points directly]

B038 Exp 2 E (00:10-00:45/00:35)

Which one is the piece of paper with the heart on it? That one. [Sit 1, points with arm close to body] *Which one is the piece of paper with the circle on it?* That one. [Sit 2, points with arm close to body] *Which one is the piece of paper with the star on it?* That one. [Sit 3, points with arm close to body]

B038 Exp 1 J (01:55-03:10/00:15)

Kono pen o agemasu ka. [Sit 1, points directly] Kono pen o agemasu ka. [Sit 2, points directly] Ano pen o agemasu ka. [Sit 3, points directly]

B038 Exp 2 J (00:46-01:22/00:36)

Haato no kami wa doko desu ka? Koko desu. [Sit 1, pointing, arm close to body] *Maru no lkami wa doko desu ka?* Sore desu. [Sit 2, pointing, arm close to body] *Hoshi no kami wa doko desu ka?* Asoko desu. [Sit 3, pointing, arm close to body]

B039 Exp 1 E (00:12-01:15/01:03)

Can I have that pen? [Sit 1, points with arm close to body] Can I have that pen? [Sit 2, points with arm close to body] Can I have that pen? [Sit 3, points with arm close to body]

B039 Exp 2 E (00:10-00:45/00:35)

Which one is the piece of paper with the heart on it? That one. [Sit 1, points with arm close to body] *Which one is the piece of paper with the circle on it?* That one. [Sit 2, points with arm close to body] *Which one is the piece of paper with the star on it?* That one. [Sit 3, points directly at post-it note]

B039 Exp 1 J (01:55-03:10/00:15)

Kono pen o agemasu ka. [Sit 1, points directly] Sono pen o agemasu ka. [Sit 2, points directly] Ano pen o agemasu ka. [Sit 3, points directly]

B039 Exp 2 J (00:55-01:15/00:25)

Haato no kami wa doko desu ka? Kochira. [Sit 1, pointing, arm close to body] *Maru no kami wa doko desu ka?* Sochira. [Sit 2, pointing, arm close to body] *Hoshi no kami wa doko desu ka?* Asoko desu. [Sit 3, pointing, arm stretched]

B040 Exp 1 E (00:00-00:40/00:40)

Can you give me this one? [Sit 1, points with arm close to body] Can you give me that pen? [Sit 2, hints with head] Can you give me that pen? [Sit 3, looks in the direction of it]

B040 Exp 2 E (00:00-00:16/00:16)

Which one is the piece of paper with the heart on it? This paper. [Sit 1, hints with head] *Which one is the piece of paper with the circle on it?* That paper. [Sit 2, hints with head] *Which one is the piece of paper with the star on it?* The paper over there. [Sit 3, hints with head]

B040 Exp 1 J (00:40-01:52/01:12)

Koko no pen morain desu ka. [Sit 1, no gestures] Kore pen o moraimasu ka. [Sit 2, no gestures] Kore … Uh. [Sit 3, no gestures] *Douzo.*

B040 Exp 2 J (00:20-00:53/00:33)

Haato no kami wa doko desu ka? Kore desu. [Sit 1, pointing with head] *Maru no kami wa doko desu ka?* Kono desu. [Sit 2, pointing with head] *Hoshi no kami wa doko desu ka?* Kono desu. [Sit 3, pointing with head]

B101 Exp 1 E (00:00-00:23/00:23)

Can I have the pen closes to me please? [Sit 1, no gestures] *Okay.* Can I have the pen next that's closest to me, please? [Sit 2, no gestures] *Okay.* Can I have the pen that's furthest away from me please? [Sit 3, no gestures]

B101 Exp 2 E (00:00-00:20/00:20)

Nearest to me. [Sit 1] Closest to you. [Sit 2] On the table. [Sit 3]

B102 Exp 1 E (00:00-00:35/00:35)

Please can I have this pen? [Sit 3, points directly] Thank you. Um, now can I have this pen? [Sit 1, points directly, arms close to body] Thank you. And can I have the last pen? [Sit 2, points directly]

B102 Exp 2 E (00:56-01:22/00:26)

Which piece of paper is the one with the circle on it? This one. [Sit 1, points directly, arms close to body] *Which piece of paper is the one with the heart on it?* That one. [Sit 2, points directly, arms close to body] *Which piece of paper is the one with the star on on it?* This one. [Sit 3, points directly]

B103 Exp 1 E (00:00-00:40/00:40)

Can I please have that pen? [Sit 1, points directly with arm close to body] Thank you. Can I have that pen as well? [Sit 2, points directly with arm close to body] Thank you. And can I have that pen over there? [Sit 3, points directly]

B103 Exp 2 E (01:00-01:19/00:19)

Which is the piece of paper with the circle on it? This one. [Sit 1, points with finger] *Which is the piece of paper with the star on it?* That one. [Sit 2, points directly with arm close to body] *Which is the piece of paper with the heart on it?* The one over there. [Sit 3, points directly]

B104 Exp 1 E (00:58-01:42/00:44)

Can I use that pen now? [Sit 1, points directly with arm close to body] Can I use the other pen? [Sit 2, points directly] XX, can you pass me this pen? [Sit 3, points directly]

B104 Exp 2 E (02:28-02:42/00:14)

Which one is the piece of paper with the circle on it? That one, the one with the circle. [Sit 1, points directly with arm close to body] *Which one is the piece of paper with the heart on it?* The one over there. [Sit 2, points directly] *Which one is the piece of paper with the star on it?* The one over there. [Sit 3, points directly]

B105 Exp 1 E (00:30-01:31/01:01)

Can I have that? [Sit 1, points directly with arm close to body] Uh ... Throw me that pen. [Sit 3, points directly] Borrow the pen, does that work? [Sit 2, points directly] *Yea, that works as well.*

B105 Exp 2 E (00:00-00:24/00:24)

Which is the piece of paper with the heart on it? Nearest to me. [Sit 1, no gestures] *Which is the piece of paper with the circle on it?* Second? [Sit 2, no gestures] *Which is the piece of paper with the star on it?* Furthest. [Sit 3, no gestures]

B106 Exp 1 E (00:00-00:46/00:46)

Pass me the pen please. [Sit 1, points directly with arm close to body] Pass me that pen. [Sit 3, points directly] Can you pass me that, please? [Sit 2, points directly] Thank you.

B106 Exp 2 E (00:00-00:17/00:17)

Which one is the piece of paper with the circle on it? That one. [Sit 1, points directly with arm close to body] *Which one is the piece of paper with the heart on it?* That one over there. [Sit 2, points directly] *Which one is the piece of paper with the star on it?* That one over there. [Sit 3, points directly]

B107 Exp 1 E (00:00-00:51/00:51)

Okay, uhm, could you pass me that pen please? [Sit 1, points directly with arm close to body] Could you pass me that one please? [Sit 3, points directly with arm close to body] Uhm, could you pass me that one there please? [Sit 2, points directly with arm close to body]

B107 Exp 2 E (00:00-00:27/00:27)

Which is the piece of paper with the circle on it? This one here. [Sit 1, points directly with arm close to body] *Which one is the piece of paper with the star on it?* That one. [Sit 2, points directly with arm close to body] *Which is the piece of paper with the heart on it?* This one. [Sit 3, points directly with arm close to body]

B108 Exp 1 E (00:00-02:45/02:45)

Give me that pen please. [Sit 1, pointing directly with arm close to body] Pass me that pen please. [Sit 3, pointing directly with arm close to body] Pass me that pen please. [Sit 2, pointing directly with arm close to body]

B108 Exp 2 E (00:00-00:16/00:16)

Which is the piece of paper with the heart on it? This piece of paper. [Sit 1, pointing with finger] *Which is the piece of paper with the star on it?* That piece of paper. [Sit 2, points directly with arm close to body] *Which is the piece of paper with the circle on it?* That piece of paper. [Sit 3, points directly with arm close to body]

B109 Exp 1 E (00:00-02:45/02:45)

Pass me that pen? [Sit 1] Could you also pass me that pen? [Sit 3, pointing directly with arm close to body] Okay, this pen please. [Sit 2, points directly with arm close to body]

B109 Exp 2 E (00:00-00:16/00:16)

Which is the piece of paper with the heart on it? This. [Sit 1, pointing with finger] *Which is the piece of paper with the star on it?* That. [Sit 2, pointing directly with arm close to body] *Which is the piece of paper with the circle on it?* That one. [Sit 3, points directly with arm close to body]

B110 Exp 1 E (01:37-02:47/01:10)

Pass me that pen. [Sit 2] Pass me this pen. [Sit 1] Pass me that pen over there. [Sit 3]

B110 Exp 2 E (03:15-03:30/00:15)

Which one is the post-it note with the heart on it? This one. [Sit 1] *Which one is the post-it note with the star on it?* That one. [Sit 2] *Which one is the post-it note with the circle on it?* That one over there. [Sit 3]

B111 Exp 1 E (00:00-01:02/01:02)

Could you pass me this pen? [Sit 1] Could you pass me that pen? [Sit 2] Could you pass me that pen? [Sit 3, pointing at pen]

B111 Exp 2 E (00:00-00:22/00:22)

Which is the piece of paper with the heart on it? This one. [Sit 1, pointing at post-it note] *Which is the piece of paper with the star on it?* That one. [Sit 2] *Which is the piece of paper with the circle on it?* That one [Sit 3, pointing at it]

B112 Exp 1 E (00:00-01:27/01:27)

Could you give me this pen? [Sit 1] Could you give me that pen? [Sit 2, points at pen] Could you give me that pen? [Sit 3, points at pen]

B112 Exp 2 E (01:57-02:35/00:38)

Which one is the piece of paper with the heart on it? It's this one. [Sit 1, points at it] *Which is the piece of paper with the star on it?* It's that one. [Sit 2] *Which is the piece of paper with the circle on it?* It's that one. [Sit 3, points at post-it note]

B113 Exp 1 E (00:00-00:38/00:38)

Can you pass me that pen? [Sit 1, 2, 3, pointing at pen in each case]

B113 Exp 2 E (01:06-02:10/01:04)

Which is the piece of paper with the heart on it? This one. [Sit 1, pointing at post-it note] *Which is the piece of paper with the star on it?* That one. [Sit 2, pointing at it] *Which is the piece of paper with the circle on it?* That one. [Sit 3, pointing at it]

B114 Exp 1 E (01:45-03:10/01:25)

Could I please have this pen? [Sit 1] Could I please have that pen? [Sit 2] Could I please have the pen over there? [Sit 3]

B114 Exp 2 E (03:40-04:30/00:50)

Which one is the piece of paper with the heart on it? This one. [Sit 1] *Which is the piece of paper with the star on it?* That one. [Sit 2] *Which is the piece of paper with the circle on it?* That one. [Sit 3, pointing at it]

B115 Exp 1 E (00:50-02:40/01:50)

Could you pass me this pen. [Sit 1] Could you pass me this pen. [Sit 2] Could you pass me this pen. [Sit 3]

B115 Exp 2 E (02:53-03:50/00:57)

Which one is the piece of paper with the heart on it? This one. [Sit 1] *Which one is the piece of paper with the star on it?* That one. [Sit 2] *Which one is the piece of paper with the circle on it?* This one. [Sit 3]

B116 Exp 1 E (00:50-02:40/01:50)

Could you pass me that pen? [Sit 1] Could you pass me that pen? [Sit 2] Could you pass me that pen? [Sit 3]

B116 Exp 2 E (02:53-03:50/00:57)

Which one is the piece of paper with the circle on it? That one. [Sit 1] *Which one is the piece of paper with the star on it?* That one. [Sit 2] *Which one is the piece of paper with the heart on it?* That one. [Sit 3]

B117 Exp 1 E (00:50-02:40/01:50)

Could you pass me that pen? [Sit 1] Could you pass me this pen? [Sit 2] Could you pass me that pen? [Sit 3]

B117 Exp 2 E (02:53-03:50/00:57)

Which one is the piece of paper with the circle on it? It's that one. *Which one is the piece of paper with the star on it?* That one. *Which one is the piece of paper with the heart on it?* This one. [Sit 3]

B118 Exp 1 E (00:50-02:40/01:50)

Can you pass me that pen? [Sit 1] Can you pass me that pen? [Sit 2] Can you pass me that pen? [Sit 3]

B118 Exp 2 E (02:53-03:50/00:57)

Which one is the piece of paper with the circle on it? This one. *Which one is the piece of paper with the star on it?* Uhm … This one. *Which one is the piece of paper with the heart on it?* And this one. [Sit 3]

B119 Exp 1 E (00:00-00:22/00:22)

Could you pass me this pen? [Sit 1, pointing, arm close to body] Could you pass me that pen? [Sit 2, pointing] Could you pass me this pen? [Sit 3, pointing, arm stretched]

B119 Exp 2 E (00:00-00:15/00:15)

That one. [Sit 1, pointing, arm close to body] That one. [Sit 2, pointing, arm close to body] It's … That one. [Sit 3, pointing, arm stretched]

B120 Exp 1 E (00:00-00:31/00:31)

Pass me that pen, would you? [Sit 1] Pass me that pen, please. [Sit 2] Pass me that pen, please. [Sit 3]

B120 Exp 2 E (00:00-00:11/00:11)

That one. [Sit1] That one. [Sit 2] That one. [Sit 3]

C001 Exp 1 D (03:15-03:52/00:37)

Kannst du mir den Stift geben, der, äh, da ist? [Sit 1, no gestures] Kannst du mir den zweiten Stift geben? [Sit 2, no gestures] Und kannst du mir den letzten Stift auch noch geben? [Sit 3, no gestures]

C001 Exp 2 D (07:15-07:33/00:18)

Welches ist das Papier mit dem Herzen? Das am Schrank. Ach ne, das am Monitor. [Sit 3, no gestures] *Welches ist das Papier mit dem Kreis?* Äh, das vor uns. [Sit 1, no gestures] *Welches ist das Papier mit dem Stern?* Das am Schrank .. oder Regal. [Sit 2, no gestures]

C001 Exp 1 E (05:30-06:25/00:55)

Could you give me the .. uh, what is it? Pencil? No, it's not a pencil .. *Pen.* Pen, th pen, uhm, where the circle is. [Sit 1, pointing with arm close to body] *Ok.* Don't know. Uhm, then I would like to have the second pen, or, the other pen in the middle of the room. (unintelligible) [Sit 2, no gestures] Uhm .. and then I would like to have the pen at my laptop. [Sit 3, no gestures]

C001 Exp 2 E (07:38-08:00/00:22)

Which post-it .. It's a post-it, actually .. is the one with the star on it? Uhm, yea it's the one on the red cupboard. [Sit 2, no gestures] *Which one is the one with the heart on it?* Uhm, the one over there, at the monitor [Sit 3, no gestures] *And which one is the one with the circle on it?* The one next to us, or in front of us. [Sit 1, no gestures]

C002 Exp 1 D (05:15-06:10/00:45)

Kannst du mir den Stift geben? [Sit 1, points with arm close to body] *Ja.* Okay. Ähm, kannst du mir vielleicht den Stift geben? [Sit 3, points with pen, arm close to body] *Den Stift?* Ja, den. Und den, kannst du mir den auch geben? [Sit 2, points directly]

C002 Exp 2 D (02:30-02:46/00:16)

Welches ist das Papier mit dem Herzen drauf? Ja das. [Sit 3, points directly] *Welches ist das Papier mit dem Stern drauf?* Das. [Sit 2, points directly with arm close to body] *Welches ist das Papier mit dem Kreis?* Das. [Sit 1, points directly with arm close to body]

C002 Exp 1 E (00:00-01:34/01:34)

Okay, could you hand me, what is it? A felt-tip-pen, right? [Sit 1, no gestures] XX, can you pass me, this, doesn't matter really, this one? [Sit 3, points directly] This one .. Oh no, this one. [Sit 2, points directly]

C002 Exp 2 E (02:45-03:04/00:19)

Which one is the piece of paper with the circle on it? This one. [Sit 1, points directly with arm close to body] *Which on is the piece of paper with the heart on it?* A-ha! It's that one. [Sit 3, points directly and enthusiastically] *Which one is the piece of paper with the star on it?* It's this one. [Sit 2, points directly with arm close to body]

C003 (C023) Exp 1 D (00:00-00:36/00:36)

Magst du mir den Stift da geben bitte? [Sit 1, no gestures] Dankeschön. Dann hätte ich gerne den Stift da drüben. [Sit 2, points directly] Und dann hätte ich gerne den Stift, den ich da hinten nicht sehen kann, aber der da liegt. [Sit 3, points with arm close to body]

C003 (C023) Exp 2 D (03:35-03:49/00:14)

Welches ist das Papier mit dem Kreis? Das da. [Sit 1, points directly with arm close to body] *Welches ist das Papier mit dem Herz?* Das am Ende des Tisches. [Sit 2, points directly with arm close to body] *Welches ist das Papier mit dem Stern?* Das am Ende des Raumes. [Sit 3, points with hand, arm close to body]

C003 (C023) Exp 1 E (01:08-01:30/00:22)

Can you please pass me that pen? [Sit 1, points directly with arm close to body] Thanks. Can you please give me that pen that's in front of you? [Sit 2, points directly] Thank you. And the last pen that's over there. [Sit 3, points directly with arm close to body]

C003 (C023) Exp 2 E (04:00-04:16/00:16)

Which is the piece of paper with the circle on it? That one. [Sit 1, points directly with arm close to body] *Which is the piece of paper with the star on it?* This one over there. [Sit 2, points directly] *Which is the piece of paper with the heart on it?* The furthest one away. [Sit 3, points directly with arm close to body]

C004 (C024) Exp 1 D (00:00-00:58/00:58)

Kannst du mir bitte den Stift .. da? Oder, das auch? Da vorne .. geben? [Sit 1, no gestures] Dankeschön. Kannst du mir den .. bitte den Stift geben, der bei dir liegt? *Bei ist auch eine Präposition.* Ah, okay, okay, also, ähm, direkt vor .. ach ne, das geht ja auch nicht .. Ähm, den, den Stift .. Und man darf auch nicht den Ort nennen? Also, „auf der anderen Seite des Tisches" oder so? Das ist auch nicht okay, ne? *Das ist auch ne Präposition.* Den Stift dort, einfach dann? [Sit 2, points directly] Okay. Vielen Dank. Und kannst du mir vielleicht den letzten Stift dort geben? [Sit 3, no gestures]

C004 (C024) Exp 2 D (04:08-04:36/00:28)

Welches ist das Papier mit dem Kreis? Ähm .. Das Papier, das am nächsten an mir dran ist? [Sit 1, no gestures] *Welches ist das Papier mit dem Herz?* Ähm .. Das Papier .. ähm .. Warte. Das Papier da vorne? [Sit 2, points directly with arm close to body] *Welches ist das Papier mit dem Stern?* Ähm, das Papier dort hinten? [Sit 3, no gestures]

C004 (C024) Exp 1 E (01:50-02:22/00:32)

Can you please hand me the pen .. right over here? [Sit 1, points directly with arm close to body] Thank you. Can you maybe give me the other pen? [Sit 2, points directly with arm close to body] And can you maybe give me the next pen, right over there? [Sit 3, no gestures]

C004 (C024) Exp 2 E (04:40-05:00/00:20)

Which is the piece of paper with the circle on it? Uhm, this one right here. [Sit 1, points directly with arm close to body] *Which one is the piece of paper with the heart on it?* Uhm, the one over there? [Sit 2, points with head] *Which one is the piece of paper with the star on it?* The one back there? [Sit 3, points directly]

C005 Exp 1 D (01:08-01:40/00:32)

Ich hätte bitte gerne einmal den Stift da. [Sit 3, points directly] Dann bräuchte ich einmal den Stift. [Sit 1, points directly with arm close to body] Und den Stift bitte. [Sit 2, points directly with arm close to body]

C005 Exp 2 D (02:55-03:06/00:11)

Welches ist das post-it mit dem Herz drauf? Das. [Sit 1, points directly with arm close to body] *Welches ist das post-it mit dem Stern drauf?* Das hier. [Sit 2, points directly] *Welches ist das post-it mit dem Kreis drauf?* Das da. [Sit 3, points directly]

C005 Exp 1 E (01:58-02:24/00:26)

So could you please give me that pen over there? [Sit 3, points directly with arm close to body] Thank you. And that one, please. [Sit 1, points directly with arm close to body] Thank you. And that one. [Sit 2, points directly with arm close to body]

C005 Exp 2 E (03:08- 03:18/00:10)

Which is the post-it with the heart on it? This one. [Sit 1, points directly with arm close to body] *Which is the post-it with the star on it?* This one. [Sit 2, points directly] *Which is the post-it with the circle on it?* That one. [Sit 3, points directly with arm close to body]

C006 Exp 1 D (01:10-01:42/00:32)

Äh, kann ich, äh, den Stift haben? [Sit 1] Gut. Äh, XX, kannst du mir diesen Stift da geben? [Sit 3] Jetzt brauch' ich, bräuchte ich diesen Stift da. [Sit 2]

C006 Exp 2 D (02:05-02:23/00:18)

Welches ist das Papier mit dem Herz? Das. [Sit 1] *Welches ist das Papier mit dem Stern?* Ähm, dieses. [Sit 3] *Welches ist das Papier mit dem Kreis?* Das. [Sit 2]

C006 Exp 1 E (00:56-01:21/00:25)

Can I have this pen? [Sit 1] XX, could you give me that pen? [Sit 3] And now that pen? [Sit 2]

C006 Exp 2 E (02:23-02:38/00:15)

Which is the piece of paper with the heart on it? Uh, that one? [Sit 2] *Which is the piece of paper with the circle on it?* This one. [Sit 1] *Which is the piece of paper with the star on it?* That one. [Sit 3]

C007 Exp 1 D (00:37-01:20/00:43)

XX, kannst du mir diesen Stift geben? [Sit 2] Dankeschön. Kann ich bitte Stift Nummer zwei haben? [Sit 3] Kannst du mir diesen Stift geben? [Sit 1]

C007 Exp 2 D (03:40-03:56/00:16)

Welches ist das Papier mit dem Herzen? Mit dem Herzen? Ähm, dieses dort. [Sit 2] *Welches ist das Papier mit dem Stern?* Das mit dem Stern liegt dort hinten. [Sit 3] *Welches ist das Papier mit dem Kreis?* Direkt vor mir. [Sit 1]

C007 Exp 1 E (02:32-03:00/00:28)

XX, can I get this pen over there? [Sit 3] XX, can I get the other pen? [Sit 2] Thank you. Can I get this pen please? [Sit 1]

C007 Exp 2 E (03:59-04:15/00:16)

Which one is the piece of paper with the heart on it? That's the one in this box. [Sit 2] *Which is the piece of paper with the star on it?* It's the one over there. [Sit 3] *Which is the piece of paper with the circle on it?* This one. [Sit 1]

C008 Exp 1 D (00:02-00:55/00:53)

Ähm … XX, ich hätte gerne den Stift. [Sit 2] XX, den Stift dort bitte. [Sit 3] Danke sehr. Kann mir jemand diesen Stift geben? [Sit 1]

C008 Exp 2 D (00:00-00:28/00:28)

Welches ist das Papier mit dem Stern drauf? Das da. [Sit 3] *Welches ist das Papier mit dem Kreis drauf?* Dieses. [Sit 1] *Welches ist das Papier mit dem Herz drauf?* Das. [Sit 2]

C008 Exp 1 E (00:00-00:35/00:35)

Ähm, could you please pass me the pen? [Sit 2] Thanks. Can you bring me that pen over there? [Sit 3] May I have this pen? [Sit 1]

C008 Exp 2 E (00:30-00:42/00:12)

Which is the piece of paper with the star on it? That one. [Sit 3] *Which is the piece of paper with the circle on it?* This one. [Sit 1] *Which is the piece of paper with the heart on it?* That one. [Sit 2]

C009 Exp 1 D (00:00-00:12/00:12)

Darf ich den Stift benutzen? [Sit 1, points directly with arm close to body] Okay. Darf ich den Stift benutzen? [Sit 2, points directly] Darf ich den letzten Stift benutzen? [Sit 3, no gestures]

C009 Exp 2 D (00:00-00:13/00:13)

Welches ist das Papier mit dem Herz drauf? Das hier. [Sit 1, pointing] *Welches ist das Papier mit dem Stern drauf?* Das da. [Sit 2,pointing] *Welches ist das Papier mit dem Kreis drauf?* Das da. [Sit 3, pointing]

C009 Exp 1 E (00:00-00:15/00:15)

Can I have this one? [Sit 1, points directly with arm close to body] May I have that one? [Sit 2, points directly] May I have the last one? [Sit 3, no gestures]

C009 Exp 2 E (00:00-00:12/00:12)

Which is the piece of paper with the heart on it? This. [Sit 1, pointing] *Which is the piece of paper with the star on it?* That. [Sit 2, pointing] *Which is the piece of paper with the circle on it?* That one over there. [Sit 3, pointing, arm stretched]

C010 (C026) Exp 1 D (00:00-00:38/00:38)

Kann ich diesen Stift nehmen? [Sit 2, hints with head] Kann ich den Stift … dort nehmen?   [Sit   3,   hints   with   head] Kann ich den Stift auf der Heizung haben? [Sit 3, no gestures]

C010 (C026) Exp 2 D (00:00-00:33/00:33)

Welches ist das Papier mit dem Herzen drauf? Dieses. [Sit 1, points directly with arm close to body] *Welches ist das Papier mit dem Kreis drauf?* Dieses. [Sit 2, points directly with arm close to body] *Welches ist das Papier mit dem Kreis drauf?* Das dort. [Sit 3, points directly]

C010 (C026) Exp 1 E (01:15-01:40/00:25)

Could you hand me this pen? [Sit 1, points directly with arm close to body] Can I have the pen? [Sit 2, points with both hands] Can I have the (unintelligible) pencil? [Sit 3, points directly]

C010 (C026) Exp 2 E (00:40-00:58/00:18)

Which is the piece of paper with the heart on it? This one here. [Sit 1, points with arm close to body] *Which is the piece of paper with the circle on it?* That one. [Sit 2, points directly with arm close to body] *Which is the piece of paper with the star on it?* This one over there. [Sit 3, hints with head]

C011 (C027) Exp 1 D (00:00-00:50/00:50)

Darf ich diesen Stift haben? [Sit 2, hints with head] Darf ich den dortigen Stift haben? [Sit 3, points slightly with hand] Kann ich den letzten Stift haben? [Sit 3, no gestures]

C011 (C027) Exp 2 D (00:00-00:33/00:33)

Welches ist das Papier mit dem Herzen drauf? Dieses. [Sit 1, points with arm close to body] *Welches ist das Papier mit dem Kreis drauf?* Das. [Sit 2, points directly with arm close to body] *Welches ist das Papier mit dem Stern drauf?* Das dort. [Sit 3, points directly]

C011 (C027) Exp 1 E (01:08-01:58/00:50)

May I have this pen? [Sit 1, points slightly with hand] May I have that pen? [Sit 2, points directly with arm close to body] May I have that pen? [Sit 3, points with arm close to body]

C011 (C027) Exp 2 E (00:40-00:58/00:18)

Which is the piece of paper with the heart on it? This one. [Sit 1, hints with head] *Which is the piece of paper with the circle on it?* That one. [Sit 2, points directly with arm close to body] *Which is the piece of paper with the star on it?* That over there. [Sit 3, points directly with arm close to body]

C012 (C040) Exp 1 D (04:52-06:18/01:26)

Kannst du mir den geben? Den Stift, XX? [Sit 1] Dankeschön. Kannst du mir den geben, XX? [Sit 3] Kannst du mir bitte diesen Stift reichen? [Sit 2]

C012 (C040) Exp 2 D (02:43-03:01/00:18)

Welches ist das Papier mit dem Herzen drauf? Dieses hier. [Sit 1] *Welches ist das Papier mit dem Stern drauf?* Das da. [Sit 2] *Welches ist das Papier mit dem Kreis drauf?* Das da drüben. [Sit 3]

C012 (C040) Exp 1 E (02:34-04:00/01:26)

Can you give me this pen? [Sit 2] Can you give me this one here please? [Sit 3] This one. [Sit 1]

C012 (C040) Exp 2 E (02:22-02:38/00:16)

Which is the piece of paper with the heart on it? This one. [Sit 1] *Which is the piece of paper with the star on it?* This one. [Sit 2] *Which is the piece of paper with the circle on it?* This one far away from us. [Sit 3]

C013 (C033) Exp 1 D (00:35-01:15/00:40)

XX, kannst du mir bitte diesen Stift hier geben. [Sit 1, no gestures] XX, kannst du mir diesen Stift da geben? [Sit 2, no gestures] XX, kannst du mir diesen Stift dort drüben geben? [Sit 3, no gestures]

C013 (C033) Exp 2 D (04:00-04:26/00:26)

Welches ist das Papier mit dem Herzen drauf? Äh ... das hier. [Sit 1, points with hand] *Welches ist das Papier mit dem Kreis drauf?* Ähm ... das dort. [Sit 2, points directly with arm close to body] *Welches ist das Papier mit dem Stern drauf?* Äh, das dort drüben. [Sit 3, points directly with arm close to body]

C013 (C033) Exp 1 E (01:30-02:07/00:37)

XX, could you please give me this pencil? [Sit 1, points with hand] XX, could you please give me .. that pencil? [Sit 2, no gestures] And XX, could you please give me that pencil over there? [Sit 3, no gestures]

C013 (C033) Exp 2 E (04:30-04:44/00:14)

Which is the piece of paper with the heart on it? This one. [Sit 1, points directly with arm close to body] *Which is the piece of paper with the circle on it?* That one. [Sit 2, points with finger] *Which is the piece of paper with the star on it?* That one over there. [Sit 3, points directly with arm close to body]

C014 (C029) Exp 1 D (00:30-03:42/03:12)

Gibst du mir bitte diesen Stift hier? [Sit 1] Gibst du mir bitte den Stift ganz dort drüben? [Sit 3] Gibst du mir bitte den Stift dort? [Sit 2]

C014 (C029) Exp 2 D (06:08-06:59/00:51)

Welcher Teil des Tisches hat das Herz drauf? Dieser Teil hier. [Sit 1] *Welcher Teil des Tisches hat den Stern drauf?* Jenes Teil da? [Sit 2] *Welcher Teil des Tisches hat den Kreis drauf?* Ganz dort drüben. [Sit 3]

C014 (C029) Exp 1 E (04:12-04:48/00:36)

Could you please pass me this pen right here. [Sit 1] Could you please pass me the pen over there? [Sit 2] Could you please pass me the pen all the way over there [Sit 3]

C014 (C029) Exp 2 E (07:00-07:37/00:37)

Which part of the table is the heart located on? It's the part right here. [Sit 1] *Which part of the table is the star located on?* It's the part right over there. [Sit 2] *Which is the part of the table with the circle located on it?* It's the part all the way over there. [Sit 3]

C015 (C035) Exp 1 D (00:00-00:30/00:30)

XX, kannst du mir bitte den Stift geben? [Sit 1, points directly] XX, kannst du mir bitte den Stift geben? [Sit 2, points directly] XX, kannst du mir bitte diesen Stift geben. [Sit 3, points directly]

C015 (C035) Exp 2 D (00:00-00:22/00:22)

Welches ist das Papier mit dem Stern drauf? Dieses hier? [Sit 1, points directly post-it note] Welches ist das Papier mit dem Kreis drauf? Ähm, dieses Papier? [Sit 2, points directly] Welches ist das Papier mit dem Herzen? Äh .. Das Papier .. liegt dort? [Sit 3, points directly]

C015 (C035) Exp 1 E (00:00-00:24/00:24)

XX, can you give me the pen please? [Sit 1, points directly] XX, can you give me the pen please. [Sit 2, points directly] XX, can you give me the pen please? [Sit 3, points directly] Thank you.

C015 (C035) Exp 2 E (00:25-00:37/00:12)

Which is the piece of paper with the star on it? This is the paper. [Sit 1, points directly post-it note] *Which is the piece of paper with the circle on it?* This paper? [Sit 2, points directly] *Which is the piece of paper with the heart on it?* The paper over there? [Sit 3, points directly]

C016 (C036) Exp 1 D (00:00-00:22/00:22)

Ok. Könntest du mir diesen Stift reichen? [Sit 1, points directly] Könntest du mir einmal diesen Stift reichen? [Sit 2, points directly] Und wärst du auch so lieb mir auch den letzten Stift zu geben? [Sit 3, no gestures]

C016 (C036) Exp 2 D (00:00-00:21/00:21)

Welches ist das Papier mit dem Stern drauf? Dieses hier. [Sit 1, points directly] *Welches ist das Papier mit dem Kreis drauf?* Das Papier neben XX. [Sit 2, points directly] *Welches ist das Papier mit dem Herz drauf?* Das was am weitesten weg ist von uns [Sit 3, no gestures]

C016 (C036) Exp 1 E (00:00-00:35/00:35)

Could you please pass me this pen? [Sit 1, points directly] Thank you. XX, can I have the pen next to you please? [Sit 2, no gestures] Thank you. And would you be so kind to give me the pen that is very far? [Sit 3, no gestures]

C016 (C036) Exp 2 E (00:00-00:17/00:17)

Which is the piece of paper with the star on it? This one. [Sit 1, points directly] *Which is the piece of paper with the circle on it?* That one. [Sit 2, points directly] *Which is the piece of paper with the heart on it?* The one over there. [Sit 3, points directly]

C017 (C037) Exp 1 D (00:00-00:31/00:31)

XX, könntest du mir diesen Stift geben bitte? [Sit 1, points directly with arm close to body] XX, könntest du mir diesen Stift reichen bitte? [Sit 2, points directly with arm close to body] Danke. XX, könntest du mir diesen Stift reichen bitte? [Sit 3, points directly]

C017 (C037) Exp 2 D (01:50-02:06/00:11)

Welches ist das Papier mit dem Stern drauf? Das hier. [Sit 1, points with finger, arm close to body] *Welches ist das Papier mit dem Kreis drauf?* Dieses. [Sit 2, points with finger, arm close to body] *Welches ist das Papier mit dem Herzen drauf?* Das. [Sit 3, points directly with arm close to body]

C017 (C037) Exp 1 E (00:38-00:59/00:21)

XX, could you pass me this pen please? [Sit 1, points directly] XX, could you pass me this pen please? [Sit 2, points directly] Thank you. And XX, could you pass me that pen please? [Sit 3, points directly]

C017 (C037) Exp 2 E (02:10-02:24/00:14)

Which is the piece of paper with the star on it? This. [Sit 1, points directly with arm close to body] *Which is the piece of paper with the circle on it?* That. [Sit 2, points directly] *Which is the piece of paper with the heart on it?* That one. [Sit 3, points directly with arm close to body]

C018 (C039) Exp 1 D (01:05-01:31/00:26)

Kannst du mir bitte den Stift hier geben? [Sit 1, pointing, arm close to body] Kannst du mir bitte den anderen Stift geben? [Sit 2, pointing, arm close to body] Kannst du mir bitte den Stift dahinten geben? [Sit 3, no gestures]

C018 (C039) Exp 2 D (02:59-03:12/00:13)

Welches ist das Papier mit dem Herz drauf? Dieses hier. [Sit 1, pointing, arm stretched] *Welches ist das Papier mit dem Stern drauf?* Das da. [Sit 2, pointing, arm stretched] *Welches ist das Papier mit dem Kreis drauf?* Das da hinten. [Sit 3, pointing, arm stretched]

C018 (C039) Exp 1 E (01:39-02:04/00:25)

Please give me the pencil? [Sit 1, pointing, arm close to body] Thanks. Can you give me the other pencil? [Sit 2, pointing, arm stretched] Thanks. Can you give me the pencil. [Sit 3, no gestures] Thanks.

C018 (C039) Exp 2 E (03:12-03:23/00:11)

Which is the piece of paper with the heart on it? This here. [Sit 1, pointing, arm close to body] *Which is the piece of paper with the star on it?* This there. [Sit 2, pointing] *Which is the piece of paper with the circle on it?* And this over there. [Sit 3, pointing]

C019 (C025) Exp 1 D (00:00-00:25/00:25)

XX, kannst du mir bitte den Stift geben? [Sit 2, points directly with arm close to body] XX, kannst du mir bitte den Stift geben? [Sit 1, points with arm close to body] XX, kannst du mir bitte den Stift geben? [Sit 3, points directly]

C019 (C025) Exp 2 D (00:00-00:27)

Welches ist das Papier mit dem Kreis drauf? Dieses. [Sit 1, points directly with arm close to body] *Welches ist das Papier mit dem Herzen?* Das. [Sit 2, points directly with arm close to body] *Welches ist das Papier mit dem Stern?* Ähm ... das? [Sit 3, points directly with arm close to body]

C019 (C025) Exp 1 E (00:33-00:54/00:21)

XX, can you give me that pen please? [Sit 2, points directly with arm close to body] XX, can you give me that pen please? [Sit 1, points with arm close to body] XX, can you give me that pen please? [Sit 3, points directly]

C019 (C025) Exp 2 E (00:27-00:38/00:11)

Which is the piece of paper with the circle on it? This. [Sit 1, points directly with arm close to body] *Which is the piece of paper with the heart on it?* That. [Sit 2, points directly with arm close to body] *Which is the piece of paper with the star on it?* That. [Sit 3, points directly with arm close to body]

C020 Exp 1 D (00:00-00:33/00:33)

XX, gibst du mir bitte den Stift? [Sit 3], points directly Gibst du mir bitte den Stift? [Sit 2], points directly Kannst du mir bitte den Stift geben? [Sit 1]

C020 Exp 2 D (00:00-00:22/00:22)

Welches ist das Papier mit dem Herzen drauf? Das hier. [Sit 1, touches with finger] *Welches ist das Papier mit dem Stern drauf?* Das da. [Sit 2, points directly] *Welches ist das Papier mit dem Kreis drauf?* Das da. [Sit 3, points directly]

C020 Exp 1 E (00:40-01:05/00:25)

XX, could you please hand me the pencil? [Sit 3, points directly] Can you please give me that pencil? [Sit 2, points directly] Can you please give me that pencil? [Sit 1, points directly with arm close to body]

C020 Exp 2 E (00:25-00:34/00:09)

Which is the piece of paper with the heart on it? This one. [Sit 1, touches post-it with finger] *Which is the piece of paper with the star on it?* That one. [Sit 2, points directly with arm close to body] *Which is the piece of paper with the circle on it?* That one. [Sit 3, points directly with arm close to body]

C021 Exp 1 D (00:28-02:16/1:48)

Könntest du mir den Stift geben? [Sit 2, points with arm close to body] Könntest du mir diesen Stift geben? [Sit 1, points directly at pen with arms close to body] Würdest du mir den Stift geben? [Sit 3, points directly at pen]

C021 Exp 2 D (00:16-00:53/00:37)

Welches ist das Papier mit dem Herzen drauf? Das. [Sit 2, points directly] *Welches ist das Papier mit dem Kreis drauf?* Hier. Das hier. [Sit 1, points directly with arm close to body] *Welches ist das Papier mit dem Stern drauf?* Das. [Sit 3, points directly with arm close to body]

C021 Exp 1 J (04:25-05:28/01:03)

Pen onegai shimasu. [Sit 2] Pen onegai shimasu. [Sit 1, points directly] Pen o kudasai .. onegai shimasu. [Sit 3, points directly]

C021 Exp 2 J (01:30-02:18/00:48)

Haato no kami wa doko desu ka? Kore wa. [Sit 2, points directly at post-it] *Maru no kami wa doko desu ka?* Kore. [Sit 1, points directly at post-it] *Hoshi no kami wa doko desu ka?* Sore. [Sit 3, points directly]

C022 Exp 1 D (01:24-02:27/01:03)

Kannst du mir den Stift geben? [Sit 1, points directly pen with arms close to body] Kannst du mir diesen Stift geben? [Sit 2, points directly at pen] Würdest du mir bitte den Stift überreichen? [Sit 3, points directly pen]

C022 Exp 2 D (00:30-00:57/00:27)

Welches ist das Papier mit dem Herzen drauf? Dieses? [Sit 2, points directly] *Welches ist das Papier mit dem Kreis drauf?* Das ist das Papier mit dem Kreis drauf. [Sit 1, points directly with arm close to body] *Welches ist das Papier mit dem Stern drauf?* Das ist das Papier mit dem Stern drauf. [Sit 3, points directly]

C022 Exp 1 J (04:37-05:40/01:03)

Pen onegai shimasu. [Sit 2, points directly] Pen onegai shimasu. [Sit 1, points directly] Pen onegai shimasu. [Sit 3, points directly]

C022 Exp 2 J (01:30-02:18/00:48)

Haato no kami wa doko desu ka? Kore wa. [Sit 2, points directly] *Maru no kami wa doko desu ka?* Kore wa. [Sit 1, points directly] Sore. [Sit 3, no gestures]

C023 (C003) Exp 1 D (00:00-00:36/00:36)

Magst du mir den Stift da geben bitte? [Sit 1, no gestures] Dankeschön. Dann hätte ich gerne den Stift da drüben. [Sit 2, points directly] Und dann hätte ich gerne den Stift, den ich da hinten nicht sehen kann, aber der da liegt. [Sit 3, points with arm close to body]

C023 (C003) Exp 2 D (03:35-03:49/00:14)

Welches ist das Papier mit dem Kreis? Das da. [Sit 1, points directly with arm close to body] *Welches ist das Papier mit dem Herz?* Das am Ende des Tisches. [Sit 2, points directly with arm close to body] *Welches ist das Papier mit dem Stern?* Das am Ende des Raumes. [Sit 3, points with hand, arm close to body]

C023 (C003) Exp 1 J (01:47-02:20/00:33)

Hajimarimashou. Ja…mazu…. Kono pen o kudasai. [Sit 1, points directly] Kou no pen o onegai shimasu. [Sit 2, points directly] Teberu no ue no pen o agemasu. [Sit 3, points directly]

C023 (C003) Exp 2 J (04:25-04:55/00:30)

Maru no kami wa doko desu ka? Doko dattara…. ma, koko. [Sit 1, no gestures] *Haato no kami wa doko desu ka?* Soko desu. [Sit 2, points directly] *Hoshi no kami wa doko desu ka?* Asoko .. desu. [Sit 3, points directly]

C024 (C004) Exp 1 D (00:00-00:58/00:58)

Kannst du mir bitte den Stift .. da? Oder, das auch? Da vorne .. geben? [Sit 1, no gestures] Dankeschön. Kannst du mir den .. bitte den Stift geben, der bei dir liegt? *Bei ist auch eine Präposition.* Ah, okay, okay, also, ähm, direkt vor .. ach ne, das geht ja auch nicht .. Ähm, den, den Stift .. Und man darf auch nicht den Ort nennen? Also, „auf der anderen Seite des Tisches" oder so? Das ist auch nicht okay, ne? *Das ist auch ne Präposition.* Den Stift dort, einfach dann? [Sit 2, points directly] Okay. Vielen Dank. Und kannst du mir vielleicht den letzten Stift dort geben? [Sit 3, no gestures]

C024 (C004) Exp 2 D (04:08-04:36/00:28)

Welches ist das Papier mit dem Kreis? Ähm .. Das Papier, das am nächsten an mir dran ist? [Sit 1, no gestures] *Welches ist das Papier mit dem Herz?* Ähm .. Das Papier .. ähm .. Warte. Das Papier da vorne? [Sit 2, points directly with arm close to body] *Welches ist das Papier mit dem Stern?* Ähm, das Papier dort hinten? [Sit 3, no gestures]

C024 (C004) Exp 1 J (02:43-03:10/00:27)

Kono pen o kurete onegai shimasu. [Sit 1, points directly] Son open o kurete onegai shimasu. [Sit 2, points directly] Arigatou gozaimasu. Ano pen o kurete onegai shimasu. [Sit 3, points directly]

C024 (C004) Exp 2 J (05:03-05:32/00:29)

Maru no kami wa doko desu ka? Kochi desu. [Sit 1, points directly] *Haato no kami wa doko desu ka?* Sochi desu. [Sit 2, points directly] *Hoshi no kami wa doko desu ka?* Achi desu. [Sit 3, points directly]

C025 (C019) Exp 1 D (00:00-00:25/00:25)

XX, kannst du mir bitte den Stift geben? [Sit 2, points directly with arm close to body] XX, kannst du mir bitte den Stift geben? [Sit 1, points with arm close to body] XX, kannst du mir bitte den Stift geben? [Sit 3, points directly]

C025 (C019) Exp 2 D (00:00-00:27)

Welches ist das Papier mit dem Kreis drauf? Dieses. [Sit 1, points directly with arm close to body] *Welches ist das Papier mit dem Herzen?* Das. [Sit 2, points directly with arm close to body] *Welches ist das Papier mit dem Stern?* Ähm ... das? [Sit 3, points directly with arm close to body]

C025 (C019) Exp 1 J (00:00-01:00/01:00)

Kono pen o kudasai. [Sit 1, points directly] Sono pen o totte kudasai. [Sit 2, points directly] Ano pen o kudasai. [Sit 3, points directly]

C025 (C019) Exp 2 J (00:39-00:51/00:12)

Maru no kami wa dokko desu ka? Kore. [Sit 1, points directly at post-it] *Haato no kami wa dokko desu ka?* Soko desu. *Hoshi no kami wa dokko desu ka?* Asoko. [Sit 3, points directly]

C026 (C010) Exp 1 D (00:00-00:38/00:38)

Kann ich diesen Stift nehmen? [Sit 2, hints with head] Kann ich den Stift … dort nehmen? [Sit 3, hints with head] Kann ich den Stift auf der Heizung haben? [Sit 3, no gestures]

C026 (C010) Exp 2 D (00:00-00:33/00:33)

Welches ist das Papier mit dem Herzen drauf? Dieses. [Sit 1, points directly with arm close to body] *Welches ist das Papier mit dem Kreis drauf?* Dieses. [Sit 2, points directly with arm close to body] *Welches ist das Papier mit dem Kreis drauf?* Das dort. [Sit 3, points directly]

C026 (C010) Exp 1 J (00:00-00:44/00:44)

Kono pen o … [Sit 1, points directly] Arigatou. Sono pen o. [Sit 2, points directly] Sono pen o agete kudasai. [Sit 3, points directly]

C026 (C010) Exp 2 J (01:15-01:30/00:15)

Haato no kami wa doko desu ka? Koko. [Sit 1, points with head] *Hoshi no kami wa doko desu ka?* Soko. [Sit 2, points with head] *Maru no kami wa doko desu ka?* Asoko. [Sit 3, points with head]

C027 (C011) Exp 1 D (00:11-00:50/00:50)

Darf ich diesen Stift haben? [Sit 2, hints with head] Darf ich den dortigen Stift haben? [Sit 3, points slightly with hand] Kann ich den letzten Stift haben? [Sit 3, no gestures]

C027 (C011) Exp 2 D (00:00-00:30/00:33)

Welches ist das Papier mit dem Herzen drauf? Dieses. [Sit 1, points with arm close to body] *Welches ist das Papier mit dem Kreis drauf?* Das. [Sit 2, points directly with arm close to body] *Welches ist das Papier mit dem Stern drauf?* Das dort. [Sit 3, points directly]

C027 (C011) Exp 1 J (00:08-00:53/00:45)

Kono pen o totte kudasai. [Sit 1, points directly] Sono pen o (unintelligible). [Sit 2, points directly] Sono pen o totte kudasai. [Sit 3, points directly]

C027 (C011) Exp 2 J (01:10-01:26/00:16)

Haato no kami wa doko desu ka? Koko. [Sit 1, points directly] *Hoshi no kami wa doko desu ka?* Soko. [Sit 2, points directly] *Maru no kami wa doko desu ka?* Asoko. [Sit 3, points directly]

C028 Exp 1 D (00:00-00:32/00:32)

Dann hätt' ich gerne diesen Stift. [Sit 2, points directly at pen] Und dann hätt' ich gern' diesen Stift. [Sit 3, points directly at pen] Und dann hätt' ich gern' diesen Stift. [Sit 1, points directly with arm close to body]

C028 Exp 2 D (00:00-00:13/00:13)

Welches ist das Papier mit dem Kreis drauf? Das hier. [Sit 1, points directly with arm close to body] *Welches ist das Papier mit dem Stern drauf?* Das. [Sit 2, points directly at post-it note] *Welches ist das Papier mit dem Herzen drauf?* Das da hinten. [Sit 3, points directly at it]

C028 Exp 1 J (00:45-01:10/00:25)

Kono pen. [Sit 1, pointing, arm close to body] Kono pen. [Sit 2, pointing, arm close to body] Shita ni no pen. [Sit 3, points downwards]

C028 Exp 2 J (00:27-01:03/00:36)

Maru no kami wa doko desu ka? Maru no kami wa kore desu. [Sit 1, pointing, arm close to body] *Hoshi no kami wa doko desu?* Hoshi? Hoshi wa soko desu. [Sit 2, pointing, arm close to body] *Haato no kami wa doko desu?* Asoko desu. [Sit 3, pointing, arm stretched]

C029 (C014) Exp 1 D (00:30-03:42/03:12)

Gibst du mir bitte diesen Stift hier? [Sit 1] Gibst du mir bitte den Stift ganz dort drüben? [Sit 3] Gibst du mir bitte den Stift dort? [Sit 2]

C029 (C014) Exp 2 D (06:08-06:59/00:51)

Welcher Teil des Tisches hat das Herz drauf? Dieser Teil hier. [Sit 1] *Welcher Teil des Tisches hat den Stern drauf?* Jenes Teil da, dort? [Sit 2] *Welcher Teil des Tisches hat den Kreis drauf?* Ganz dort drüben. [Sit 3]

C029 (C014) Exp 1 J (05:23-05:38/00:15)

Kono pen o agete kurete kudasai. [Sit 1, no gestures] Sono pen o agete kurete. [Sit 2, no gestures] Ano pen o agete kurete kudasai. [Sit 3, no gestures]

C029 (C014) Exp 2 J (07:38-08:05/00:27)

Haato wa doko desu ka? Soko, soko desu. [Sit 1, no gestures] *Hoshi wa doko desu ka?* Soko desu. [Sit 2, no gestures] *Maru wa doko desu?* Asoko desu. [Sit 3, no gestures]

C030 Exp 1 D (00:00-00:15/00:15)

Kannst du mir diesen Stift geben? [Sit 1] Kannst du mir den Stift geben? [Sit 2] Kannst du mir jenen Stift geben? [Sit 3]

C030 Exp 2 D (00:00-00:28/00:28)

Welches ist das Papier mit dem Herzen drauf? Das's dieses Papier. [Sit 1] *Welches ist das Papier mit dem Stern drauf?* Das is' ... ja, das is' das Papier. [Sit 2] *Welches ist das Papier mit dem Kreis drauf?* Das is' .. jenes Papier. [Sit 3]

C030 Exp 1 J (00:45-01:00/00:15)

Koko no pen o kudasai. [Sit 1, no gestures] Soko no pen o kudasai. [Sit 2, no gestures] Asoko pen o kudasai. [Sit 3, no gestures]

C030 Exp 2 J (00:30-00:57/00:27)

Haato no kami wa doko desu ka? Koko no kami desu. [Sit 1, no gestures] *Hoshi no kami wa doko desu ka?* Soko no kami desu. [Sit 2, no gestures] *Maru no kami wa doko desu ka?* Asoko no kamu desu. [Sit 3, no gestures]

C031 Exp 1 D (00:00-00:31/00:31)

Kann ich den benutzen? [Sit 1, points directly with arm close to body] Kann ich diesen benutzen? [Sit 2, points directly] Kann ich den da drüben haben? [Sit 3, points directly with arm close to body]

C031 Exp 2 D (00:00-01:03/01:03)

Welches ist das Papier mit dem Stern drauf? Das hier. [Sit 1] *Welches ist das Papier mit dem Herz drauf?* Das da. [Sit 2] *Welches ist das Papier mit dem Kreis drauf?* Das da drüben. [Sit 3]

C031 Exp 1 J (00:00-00:20/00:20)

Kore tsukatte ii. [Sit 1, points directly] Sore tsukatte ii. [Sit 2, points directly] Are onegai shimasu. [Sit 3, points directly]

C031 Exp 2 J (00:00-00:18/00:18)

Hoshi no kami wa doko desu ka? Koko desu. [Sit 1, points directly] *Maru no kami wa doko desu ka?* Soko desu. [Sit 2, points directly] *Haato no kami wa doko desu ka?* Asoko desu. [Sit 3, points directly]

C032 Exp 1 D (01:45-02:49/01:04

Kannst du mir bitte den Stift geben? [Sit 1, points with hand, arm close to body] Kannst du mir den Stift bitte geben? [Sit 2, points with arm close to body] Kannst du mir den bitte geben? [Sit 3, points directly]

C032 Exp 2 D (01:05-01:41/00:36)

Welches ist das Papier mit dem Herzen drauf? Das da. [Sit 1, points directly at it] *Welches ist das Papier mit dem Stern drauf?* Das. [Sit 2, points directly at it] *Welches ist das Papier mit dem Kreis drauf?* Das dort. [Sit 3, points directly at it]

C032 Exp 1 J (00:00-01:10/01:10)

Kono pen kudasai? [Sit 1, pointing, arm stretched] Kono pen kudasai. [Sit 2, pointing, arm stretched] Ano pen kuadasai. [Sit 3, pointing, arm stretched]

C032 Exp 2 J (00:00-01:00/01:00)

Haato no kami wa doko desu ka? Kami wa ... Kore. [Sit 1, pointing, arm stretched] Hoshi no kami wa doko desu ka? Kami wa .. soko desu? [Sit 2, pointing, arm stretched] Maru no kami wa doko desu ka? Asoko. [Sit 3, pointing, arm close to body]

C033 (C013) Exp 1 D (00:35-01:15/00:40)

XX, kannst du mir bitte diesen Stift hier geben. [Sit 1, no gestures] XX, kannst du mir diesen Stift da geben? [Sit 2, no gestures] XX, kannst du mir diesen Stift dort drüben geben? [Sit 3, no gestures]

C033 (C013) Exp 2 D (04:00-04:26/00:26)

Welches ist das Papier mit dem Herzen drauf? Äh ... das hier. [Sit 1, points with hand] *Welches ist das Papier mit dem Kreis drauf?* Ähm ... das dort. [Sit 2, points directly with arm close to body] *Welches ist das Papier mit dem Stern drauf?* Äh, das dort drüben. [Sit 3, points directly with arm close to body]

C033 (C013) Exp 1 J (02:16-02:55/00:29)

XX, kono pen o agete kudasai. [Sit 1, no gestures] XX, sono pen o agete kudasai. [Sit 2, no gestures] XX, ano pen o agete kudasai. [Sit 3, pointing with head]

C033 (C013) Exp 2 J (04:48-05:12/00:24)

Haato no kami wa doko desu ka? Haato no kami wa koko desu. [Sit 1, pointing with open palm, arm close to body] *Maru no kami wa doko desu ka?* Maru no kami wa soko desu. [Sit 2, pointing with open palm, arm close to body] *Hoshi no kami wa doko desu ka?* Hoshi no kami wa asoko desu. [Sit 3, pointing, arm close to body]

C034 (A018, A022) Exp 1 D (02:37-03:00/00:23)

Kannst du mir den Stift geben? [Sit 1, points with head] Kannst du mir den Stift da drüben geben? [Sit 2, no gestures] Kannst du mir den Stift dahinten geben? [Sit 3, no gestures]

C034 (A018, A022) Exp 2 D (03:45-04:04/00:19)

Welches ist das Papier mit dem Stern? Das hier vorne. [Sit 1, points directly with arm close to body] *Welches ist das Papier mit dem Dreieck?* Das dahinten. [Sit 3, points with head] *Welches ist das Papier mit dem Kreis?* Das da vorne. [Sit 2, no gestures]

C034 (A018, A022) Exp 1 J (01:20-01:40 / 00:20)

Kono pen o kudasai. [Sit 1, pointing with finger, arm close to body] Sono pen o kudasai. [Sit 2, pointing with finger, arm close to body] Ano pen o kudasai. [Sit 3, pointing, arm close to body]

C034 (A018, A022) Exp 2 J (04:28-04:52 / 00:24)

Sankake … kono kami wa doko desu ka? [Sit 3] Hoshi no kami wa doko desu? Koko no kami desu. [Sit 1, pointing with head] Maru no kami wa doko desu ka? Soko no kami desu. [Sit 2, pointing with head]

C035 (C015) Exp 1 D (00:00-00:30/00:30)

XX, kannst du mir bitte den Stift geben? [Sit 1, points directly] XX, kannst du mir bitte den Stift geben? [Sit 2, points directly] XX, kannst du mir bitte diesen Stift geben. [Sit 3, points directly]

C035 (C015) Exp 2 D (00:00-00:22/00:22)

Welches ist das Papier mit dem Stern drauf? Dieses hier? [Sit 1, points directly at it] Welches ist das Papier mit dem Kreis drauf? Ähm, dieses Papier? [Sit 2, points directly] Welches ist das Papier mit dem Herzen? Äh .. Das Papier .. liegt dort? [Sit 3, points directly]

C035 (C015) Exp 1 J (00:00-00:28/00:28)

Kono pen o agete kudasai. [Sit 1, pointing, arm stretched] XX, sono pen o agete kudasai. [Sit 2, pointing, arm stretched] XX, ano pen o agete kudasai. [Sit 3, pointing, arm stretched]

C035 (C015) Exp 2 J (00:40-00:57/00:17)

Hoshi no kami wa doko desu ka? Kono kami. [Sit 1, directly pointing at it, arm stretched] Maru no kami wa doko desu ka? Sono kami desu. [Sit 2, pointing, arm stretched] Haato no kami wa doko desu ka? Ano kami desu. [Sit 3, pointing, arm stretched]

C036 (C016) Exp 1 D (00:00-00:22/00:22)

Ok. Könntest du mir diesen Stift reichen? [Sit 1, points directly] Könntest du mir einmal diesen Stift reichen? [Sit 2, points directly] Und wärst du auch so lieb mir auch den letzten Stift zu geben? [Sit 3, no gestures]

C036 (C016) Exp 2 D (00:00-00:21/00:21)

Welches ist das Papier mit dem Stern drauf? Dieses hier. [Sit 1, points directly] *Welches ist das Papier mit dem Kreis drauf?* Das Papier neben XX. [Sit 2, points directly] *Welches ist das Papier mit dem Herz drauf?* Das was am weitesten weg ist von uns [Sit 3, no gestures]

C036 (C016) Exp 1 J (00:00-00:51/00:51)

Kono pen o agete kudasai. [Sit 1, no gestures] Sono pen o agete kudasai. [Sit 2, pointing, arm close to body] Ano pen o agete kudasai. [Sit 3, no gestures]

C036 (C016) Exp 2 J (00:00-00:20/00:20)

Hoshi no kami wa doko desu ka? Koko desu. [Sit 1, pointing, arm close to body] Maru no kami wa doko desu ka? Soko desu. [Sit 2, pointing, arm close to body] Haato no kami wa doko desu ka? Asoko desu. [Sit 3, pointing, arm close to body]

C037 (C017) Exp 1 D (00:00-00:31/00:31)

XX, könntest du mir diesen Stift geben bitte? [Sit 1, points directly with arm close to body] XX, könntest du mir diesen Stift reichen bitte? [Sit 2, points directly with arm close to body] Danke. XX, könntest du mir diesen Stift reichen bitte? [Sit 3, points directly]

C037 (C017) Exp 2 D (01:50-02:06/00:11)

Welches ist das Papier mit dem Stern drauf? Das hier. [Sit 1, points with finger, arm close to body] *Welches ist das Papier mit dem Kreis drauf?* Dieses. [Sit 2, points with finger, arm close to body] *Welches ist das Papier mit dem Herzen drauf?* Das. [Sit 3, points directly with arm close to body]

C037 (C017) Exp 1 J (01:05-01:30/00:25)

XX, pen o kudasai? [Sit 1, pointing with open palm, arm close to body] XX, pen o kudasai? [Sit 12, pointing, arm close to body] XX, pen o kudasai. [Sit 3, pointing, arm stretched]

C037 (C017) Exp 2 J (02:25-02:45/00:20)

Hoshi no kami wa doko desu ka? Hoshi? Kore. [Sit 1, pointing, arm close to body] Maru no kami wa doko desu ka? Kore. [Sit 2, pointing, arm close to body] Haato no kami wa doko desu ka? Kore. [Sit 3, no gestures]

C038 Exp 1 D (00:00-00:28/00:28)

Gib mir bitte den Stift hier. [Sit 1, pointing] Gib mir bitte den Stift. [Sit 2, pointing] Gib mir bitte den Stift da. [Sit 3, pointing]

C038 Exp 2 D (00:00-00:19/00:19)

Das hier. [Sit 1, pointing] Das da. [Sit 2, pointing] Das da drüben. [Sit 3, pointing]

C038 Exp 1 J (00:30-00:51/00:21)

Kono pen o totte kudasai. [Sit 1, pointing] Are no pen o kudasai. [Sit 2, pointing] Are no pen o kudasai. [Sit 3, pointing]

C038 Exp 2 J (00:00-00:15/00:15)

Watashi no mae ni aru. [Sit 1, pointing] XX no mae no aru. [Sit 2, pointing] Kabe ni aru. [Sit 3, pointing]

C039 (C018) Exp 1 D (01:05-01:31/00:26)

Kannst du mir bitte den Stift hier geben? [Sit 1, pointing, arm close to body] Kannst du mir bitte den anderen Stift geben? [Sit 2, pointing, arm close to body] Kannst du mir bitte den Stift dahinten geben? [Sit 3, no gestures]

C039 (C018) Exp 2 D (02:59-03:12/00:13)

Welches ist das Papier mit dem Herz drauf? Dieses hier. [Sit 1, pointing, arm stretched] *Welches ist das Papier mit dem Stern drauf?* Das da. [Sit 2, pointing, arm stretched] *Welches ist das Papier mit dem Kreis drauf?* Das da hinten. [Sit 3, pointing, arm stretched]

C039 (C018) Exp 1 J (02:11-02:42/00:31)

Enpitsu o kudasai? [Sit 1, pointing, arm close to body] Arigatou. Kore enpitsu kudasai? [Sit 2, pointing, arm stretched] Sore enpitsu kudasai? [Sit 3, pointing, arm stretched]

C039 (C018) Exp 2 J (03:25-03:44/00:19)

Haato no kami wa doko desu ka? Kore. [Sit 1, pointing, arm close to body] Hoshi no kami wa doko desu ka? Sore. [Sit 2, pointing, arm close to body] Maru no kami wa doko desu ka? Sore. [Sit 3, pointing, arm close to body]

C040 (C012) Exp 1 D (04:52-06:18/01:26)

Kannst du mir den geben? Den Stift, XX? [Sit 1] Dankeschön. Kannst du mir den geben, XX? [Sit 3] Kannst du mir bitte diesen Stift reichen? [Sit 2]

C040 (C012) Exp 2 D (02:43-03:01/00:18)

Welches ist das Papier mit dem Herzen drauf? Dieses hier. [Sit 1] *Welches ist das Papier mit dem Stern drauf?* Das da. [Sit 2] *Welches ist das Papier mit dem Kreis drauf?* Das da drüben. [Sit 3]

C040 (C012) Exp 1 J (00:40-02:20/01:40)

Sono enpitsu o kudasai? [Sit 2] Kono pen o kudasai. [Sit 1] Ano pen o kudasai. [Sit 3]

C040 (C012) Exp 2 J (00:00-02:16/02:16)

Haato no kami wa doko desu ka? Koko. [Sit 1] *Maru no kami wa doko desu ka?* Ano. [Sit 3] *Hoshi no kami wa doko desu ka?* Kono. [Sit 2]

# 10 Auflistung von Konferenzbeiträgen auf Grundlage der vorliegenden Dissertationsschrift

Lechner, Simone. 2018 "Deictic contrast relations in learners of English
as a Second Language." British Association of Applied Linguistics
(BAAL), York, Great Britain.

Lechner, Simone. 2018. "Cross-Linguistic Influence in the Acquisition of
Distance Relations by Learners of English, German and Japanese as a
Second Language." J-SLA, Tokyo, Japan.

Lechner, Simone. 2018. "Deictic Contrast Relations in Learners of
English as a Second Language." EMLAR, Utrecht, Netherlands.

Lechner, Simone. 2017. "Second Language Acquisition of Deictic
Distance Relations." ELSJ Spring Forum, Tokyo, Japan.

11 This, That and The Other
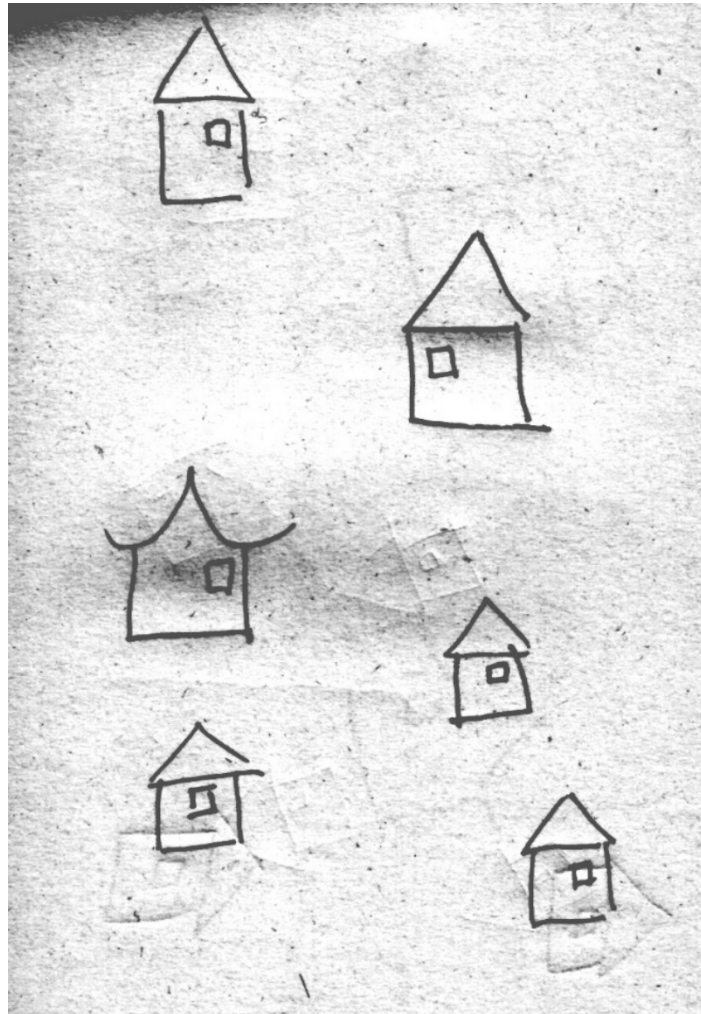
Eidesstattliche Erklärung nach § 7 PromO Fak GW

Hiermit erkläre ich an Eides statt, dass ich die vorliegende Dissertationsschrift selbst verfasst und keine anderen als die angegebenen Quellen und Hilfsmittel verwendet habe.

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