Issues in the Acquisition of Turkish as a Native Language: A Contrastive Analysis

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Abstract

This report combines data from a variety of studies on the acquisition processes of Turkish and English as native languages. Using studies from Linguistics and Developmental Psychology, an overview of the incorrect (as judged by adult speakers) structures children produce is given, with an emphasis on the differences between Turkish and Indo-European languages. The intent is not to consider any certain error class in-depth, but rather to provide a summary of certain archetypal errors in each language, focusing upon contrasting elements that can be used to support or weaken theories of language acquisition. Various hypotheses regarding the psychological and logical reasons behind these errors are analyzed and compared to research on the English acquisition process, in order to determine which aspects of Turkish pose particular challenges for its learners. It is argued that the acquisition of Turkish as a native language is straightforward in terms of morphology and case inflection, but cognitively demanding once the child begins to learn the structures required to express semantically complex concepts such as aspect and clause embedding.

Key Words: Language Acquisition, Morphology, Verb Tense Irregularity, Semantics, Aspect, Turkish, English, Causatives, Case Inflection, Relative Clauses
Introduction

Turkish is an agglutinative language characterized by high grammatical regularity. Many morphological and syntactic changes that present challenges to L1 English learners due to their irregularity or unpredictability are comparatively straightforward for Turkish learners. For example, the absence of irregular past tense forms, irregular plural nouns, and wh-word movement in Turkish eliminates some of the typical issues encountered in the acquisition of English. Turkish does present challenges to the L1 learner, however, some of which are strikingly different than those encountered by English learners. The semantic complexity and counter-intuitive syntactic variations of certain structures in Turkish whose English counterparts are acquired relatively easily provide an opportunity for contrastive analysis. Put roughly, children’s difficulties with Turkish seem to be more related to semantics and syntactic change than morphological irregularity.

Single words that take five or more different morphemes are not uncommon in Turkish, and words can be created that express the meaning of an entire sentence in English. Ekmekci (1982) uses the following example to demonstrate1:

Görev - len - dir - e - me - dik - ler - imiz - den mi - siniz?

Task- verb forming suffix - CAUS - can - NEG - NOM - PL-

1PPL POSS - ABL question marker – 2PPl(formal)

“Are you one of those whom we couldn’t assign a position?”

Although these creations may appear complex to the outside observer, due to their logical and regular construction, they do not present significant difficulties during acquisition (Slobin 1986). For Turkish children, the primary areas of difficulty arise both in production and comprehension of certain semantically complex structures. Some common errors made by children during their acquisition of Turkish include misuse of, or failure to use the morpheme - mlş2, which is used as alternative to the particles –En and –DI to indicate aspect and evidentiality

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1 The abbreviations used to label suffixes throughout this report follow: (1PS) First person singular; (1PPL) First person plural; (2PS) Second person singular; (2PPL) Second person plural; (3PS) Third person singular; (3PPL) Third person plural; (NOM) Nominative; (ACC) Accusative; (ABL) Ablative; (DAT) Dative; (LOC) Locative; (GEN) Genitive; CAUS (Causative); (NEG) Negative; (POSS) Possessive; (ADJ) Adjective; (PASS) Passive; (OPT) Optative; (SR) Subject relative; (NSR) Non-Subject relative

2 Most suffixes in Turkish obey a strict vowel harmony; some consonants also shift depending upon placement next to plosives or sonorant/non-sonorant consonants. Capitalized letters indicate that vowel harmony/consonant shift rules are applied to create the correct form. See Türkçe/Turkish by A. Sumru Özsoy (2005).
in different circumstances, and misunderstanding or misuse of embedded clauses such as relative clauses (RCs) and noun clauses (NCs). Furthermore, while learning the available word-creation methods, Turkish children over-generalize some productive suffixes, creating new words that, despite their logical construction, are preempted from use by a word in the lexicon of Turkish. This type of error is analyzed in the section comparing Causative formations in Turkish and English. Interestingly, most of the production errors in Turkish appear during later phases of language acquisition, once inflectional morphology has been completely mastered, whereas Indo-European language learners exhibit the opposite developmental pattern (Slobin 1986). Regardless of the particular structure, the hypothesis that a strong correlation exists between regularity, ease-of-processing, and swift acquisition is consistently supported.

It is important to note that the errors examined in this report are not the only ones made by Turkish children in the later stages of language acquisition, but merely a selection of relatively large error classes that highlight the idiosyncrasies of Turkish when compared to English. While some of these have counterparts in English, others are difficulties which are not encountered during English acquisition. This report focuses upon elements of these two languages that present different obstacles to learners, forming a contrastive analysis that can be used to draw conclusions about the structures and concepts that create difficulties along the path to adult-like speech.

According to Slobin, “crosslinguistic study of child language indicates that languages do not differ greatly in terms of ease of acquisition. However, for any particular type of language, some systems of grammar are easier to acquire than others” (1986). Children’s “tough spots” in acquiring their native language can be hypothesized to occur for various reasons, including semantic complexity, irregular formation, or difficulty with pronunciation. The structures that present challenges to learners are often those with the greatest complexity in terms of deviation from a standard form, or those with counter-intuitive formation paradigms (Slobin 1986).

In the section examining semantically challenging aspects of English and Turkish, an overview of the functions served by the –mlş morpheme, which is used to indicate evidentiality and aspect (Aksu 1978), is given. Children’s acquisition of this particle follows a distinct path connected to their overall cognitive development (Slobin & Aksu 1982). Two examples of constructions with differing complexity in English and Turkish are analyzed: the Causative, which requires a periphrastic construction in English but only the addition of the causative infix –DIr in Turkish, and RC/NC formations, which are generally indicated by clear syntactic and lexical markers in English, but require complex reordering and reformation in Turkish (Slobin 1986). Except for the relative particle –ki, which is borrowed from Persian, an Indo-European language, Turkish does not use special pronouns or other particles to mark relative clauses, presenting a further challenge to learners (Slobin 1986). Attention will also be given to lexical causatives, i.e. rise – raise in English; yanmak (to burn) – yakmak (to make burn/to light) in
Turkish, which present cases where the standard causative form is blocked from usage by a word in the vocabulary (Ammon & Slobin 1979).

**Issues in the Acquisition of Turkish as a Native Language**

“…the remarkable regularity and transparency of Turkish morphology precludes a high rate of error in the early phases of development. Where errors typically occur is in later phases, when the Turkish-speaking child encounters problems of complex syntax, as discussed in relation to nominalization errors and errors in deverbal denominal derivation, and the late acquisition of relative clauses” (Aksu-Koc & Slobin 1985: 847).

1. **Case Inflection**

“The full means for expressing case relations are never mastered in an Indo-European language by age 2, as they are in Turkish” (Slobin 1986:275).

The regular agglutinative system of Turkish contains very few constructions which exhibit irregular morphology. It would seem that the cognitive systems of children learning Turkish noun inflection and verbal suffixation are considerably less taxed than those of English learners, who must learn the word order-based case system of English and memorize irregular forms of plural nouns and past tense verbs, as well as idiosyncratic forms of adjectives and adverbs. Although a few such irregularities can be identified in Turkish, they are not of the volume and variety of those in English and other Indo-European languages such as German and Russian. “All forms of nominal case-marking are present [in Turkish] by 23 months, and... multiple suffixes appear on nouns as early as 15 months: possessive + dative, possessive + accusative, possessive + locative” (Slobin & Kuntay 1999: 153).

Turkish utilizes case marking for nominative, accusative, ablative, dative, locative and genitive cases. Children learn this system easily, exhibiting error free usage before the age of two (Slobin 1986). In contrast, difficulties with case distinction during the acquisition of Indo-European languages have been widely recorded. This can be attributed to the semantic complexity of morphemes in many European languages that carry several meanings, such as definite articles that combine case, number, and meaning in one word (Slobin 1986). The method of article derivation in German is a good example of this phenomenon. Not only must children memorize the gender of each noun, but they must also apply the correct article according to case (semantic role), and singularity/plurality, with some regulation of word order. This is clearly more complex than the Turkish case-marking system, which relies upon regular suffixes to mark the six cases as follows:

Nominative: Null ending for singular non-genitive nouns*

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* Unless cited, examples are original creations of the author
Ex: Araba
“Car”

Accusative: -(y)I**
Ex: Araba-yı getir-di-m
Car-ACC bring-Past-1PS
“I brought the car”

Dative: -(y)A
Ex: Araba-ya git-ti-m
Car-DAT go-Past-1PS
“I went to the car”

Ablative: -DA
Ex: Araba-dan çık-ti-m
Car-ABL exit-Past-1PS
“I exited the car”

Locative: -DA
Ex: Araba-da-yım
Car-LOC-1PS
“I’m in the car”

Genitive: -(n)İn(3rd person possessor) + -(s)İ(possessed object)***
Merve-nin araba-sı
Merve-GEN (Possessor) car-GEN (Obj)
“My Merve’s car”

*Plurality is marked by –1Ar; if the noun is possessed, it takes the ending required by its possessor.

**(y) is used if the word stem ends in a vowel

***Different endings exist for 1PS, 1PPl, 2PS, 2PPl, and 3PPl…; this example only applies to 3PS.

Examining creativity during the acquisition of Turkish, Ekmekci points out several cross-linguistic parallels that illuminate the psycholinguistic processes underlying creative production and application of rule-based morphology (1987). Aksu and Slobin have shown that, by around 15 months, Turkish children have understood that root and affix are separable, and that “added morphemes provide an interpretational semantic function in context” (Aksu & Slobin 1985: 847). This is supported by examples from children’s speech when a stem-final –k preceding a
suffix beginning with a vowel is not deleted; the classic example of this is Ekmekçi’s (1982) report of her daughter producing *bebeki* instead of *bebeği* (the possessed object in the Turkish genitive).

1) *Annenin bebekı* (the *k* is not dropped, indicating application of suffixing grammar)

2) Annenin *bebeği*

“*The mother’s baby*”

* indicates incorrect usage

Since the child has not heard an adult produce this form, it cannot be attributed to mere memorization, which indicates the development of the child’s productive ability (Aksu & Slobin 1985:845).

As a result of this logical and regular system, the morphology required for case-inflection is easily acquired. Precocious children produce statements with multiple morphemes as early as 15 months (Slobin & Kuntay 1999). Examples of the advanced production ability of very young Turkish speakers follow:

Age 16 Months:

Ellerime                             (bak)

Hand:Pl:POSS:1SG:DAT   (look)

“*Look at my hands*”

Age 23 Months:

Götürsünler      beni

Take:OPT:3PL  Pro:1SG:ACC

“*Let them take me (there)*”

These examples support the assumption that structures with a one-to-one relationship between surface form and meaning are easier to acquire and produce (Slobin 1986). The clear case-inflection and regular verbal morphology in Turkish allow children to produce complex structures at an age when English-speaking children are still acquiring these concepts. This is a generalization, because Turkish also contains some irregular forms, as is discussed in the following section; however, in the areas of case-inflection and verbal semantics, Turkish clearly

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4 Taken from Slobin & Kuntay 1999; reporting findings from Ozcan (1996); Topbas & Mavis & Basal (1997)

5 This concept is elaborated further in the section examining clausal subordination
presents fewer challenges to children than English and other Indo-European languages, and it is not too bold to propose a semantic bootstrapping relationship involving regularity, separation of form and meaning, and ease of processing and production.

2. Irregular Verbal Morphology

“Of central concern… is whether regular and irregular forms are a product of a single, associative process, or products of dual processes where regulars and irregulars dissociate” (Nakipoglu & Ketzre 2006).

Over-regularization of irregular forms in English, especially for the past tense and irregular plurals, has been widely researched, because it provides valuable data for a variety of disciplines (Marcus et al. 1992). Several prominent theories about the cognitive structure that develops and is eventually able to produce error-free speech have been proposed, such as the Single Mechanism model (Rumelhart & McLelland 1986), the Rule and Competition model (Yang 2002) and the Blocking/Retrieval model (Marcus 2002). Because over-regularization of the English past tense can be considered as a paradigm for rule use, in depth research has been done into its psycholinguistic implications (Marcus et al. 1992). However, in Turkish, opportunities for over-regularization in verb tenses are exceptionally rare, limited to 13 verbs which exhibit irregular morphology in the conjugation of the aorist.

The Turkish Aorist is one of the special cases where an opportunity for over-regularization or irregularization of a verb tense exists. 13 out of 230 monosyllabic verb stems in Turkish display idiosyncratic morphology when compared to other verbs in the lexicon (Nakipoglu & Ketrez 2006). Some of the most common verbs in the child’s lexicon exhibit this irregularity, including al-ır (takes), bil-ır (knows), bul-ur (finds), dur-ur (stops), gel-ır (comes), gör-ür (sees), ol-ur (becomes), and ver-ır (gives). Instead of taking the –Ar suffix, as would be expected for a monosyllabic verb which ends in a consonant, these verbs take –Ir, which is the regular formation for polysyllabic verbs ending in a consonant (Nakipoglu & Ketrez 2006). The following examples demonstrate some common monosyllabic verbs which take regular morphology:

böl-er (divides/splits)
gir-er (enters)
gül-er (laughs)

6 A group of nouns also exhibit irregular morphology when case-inflected. Most of these words are taken from Arabic or Persian; such as şehir(city)- şehri(city-ACC). However, a few historically Turkish nouns also display this irregularity, i.e.,ömür(lifetime)- ömrü (lifetime-ACC). Detailed research regarding possible over-regularizations/irregularizations during the acquisition of these nouns is not available.
Nakipoglu and Ketriz determined classes of errors that should be common due to this irregularity, and tested their hypotheses on children in five different age groups from G1 (mean age 3;5) to G5 (mean age 7;9). They report an overall error rate of 18% for monosyllabic verbs, with children showing “non-adult like performance with respect to the aorist until the age of 7;9” (2006). As in the acquisition of the English past tense, the expansion of the child’s vocabulary is correlated with increased error rates, but, in Turkish, irregularization errors begin to dominate in G2 (mean age 4;5) (Nakipoglu & Ketriz 2006). This is hypothesized to occur because of a change in the prevailing form as the child acquires more words. The child’s first verbs are primarily monosyllabic, causing the –Ar morpheme to be overgeneralized. As vocabulary increases, the –Ir suffix becomes dominant due to a higher prevalence of polysyllabic verbs in the lexicon. Also, as the child learns the available morphology, she is able to process and produce more complex forms (causatives, passive, etc.) from verb stems, which, due to the agglutinative nature of Turkish, necessarily result in the formation of polysyllabic verb stems taking the regular –Ir morpheme, even for the verbs that exhibit irregularity in their monosyllabic stems (Nakipoglu & Ketriz 2006).

1) bul-ur (finds)
2) bul-un-ur (is found)
3) böl-er (divides)
4) böl-ün-ür (is divided)

Therefore, -Ir becomes much more common than –Ar due to expanding vocabulary and morphological knowledge. This results in a lengthy irregularization period as the child narrows her search space for irregular forms until the correct distinctions are acquired.

Research regarding the acquisition of irregular past tense forms in English and other Indo-European languages has consistently shown that children’s acquisition of irregular past-tense verbs follows a U-shaped path (Marcus 2000). The child first produces the correct forms, which are assumed to be imitations of adult speech. As vocabulary increases, -ed past tense forms dominate, which leads to a period of over-regularization. This process occurs in conjunction with the child’s understanding that stem and suffix are separable, yielding the ability to form the past tense forms of newly acquired verbs, even if they have not been encountered in adult speech (Marcus 2000). The acquisition of the Turkish aorist also follows this path, with children first producing correct forms, then beginning to over-regularize and irregularize as vocabulary increases (Nakipoglu & Ketrez 2006). Marcus has noted, however, that the U-Shaped

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7 According to the dominant rule, -ar would be expected instead of -ur.

8 Bölmek (to divide) also has a monosyllabic stem with a sonorant ending, but it follows the regular morphology.
curve may be a result of misinterpretation of child-speech data because, when the influx of new vocabulary is accounted for, the usage of any one verb follows a linear path from over-regularization to correct usage (2004).

Token frequency also influences which verbs are over-regularized or irregularized. English has approximately 200 irregular verbs and thousands of verbs which use the productive morpheme -ed to form the past tense (Bybee & Slobin 1982). Without considering the frequency with which each verb is used, any analysis of the acquisition of irregular forms cannot be accurate. Although the number of irregular verbs in both languages is small when compared to the overall verbal lexicon (much more so in Turkish than in English), the verbs that take irregular morphology are some of the most common in daily speech and form the majority of the child’s early verbal vocabulary (Bybee & Slobin 1982; Nakipoglu & Ketrez 2006). Kucera and Francis determined that 27 of the 30 most used verbs in American English are irregular, but that only 8 of the next 30 most-frequent verbs are irregular (1967). Accordingly, regular forms do not dominate until the child’s vocabulary expands. In-depth research on usage frequency of irregular verbs in Turkish is not available; however, considering the meanings of these verbs, it can be hypothesized that they are also some of the most frequently used. This contributes to the complexity involved in distinguishing irregular verbs from regular ones, as the early verbal vocabulary provides a distorted impression of the respective frequencies of these verbs in adult speech.

Aksu & Slobin also discuss the various functions of the Turkish aorist as a marker of aspect and modality with semantic functions including the expression of habituality, possibility, and inquiry, noting that, because the morpheme lacks a direct relationship between form and function, it is learned more slowly than most others that indicate tense, aspect and modality (1985). These various functions of the aorist may also put stress on children’s cognitive systems, resulting in performance errors; however, research is not available to support this hypothesis for Turkish.

Although the irregular aorist conjugations are sources of errors during Turkish acquisition, they do not seem to have the far-reaching effects observed during acquisition of the irregular past tense forms in English. Both irregularization and over-regularization errors are common in the Turkish aorist, but they involve a change of only one phoneme, regardless of the type of error (overregularization or irregularization) and the particular verb. It is clear that this does not require the same degree of rote memorization and rule-blocking as the English past tense, simply because English contains many more irregular forms, some of which deviate sharply from the base form of the verb9.

9 See Bybee & Slobin (1982) for an in-depth discussion of relationships between classes of irregular verbs (schemas), and an analysis of over-regularization errors in English.
**Semantic Development in Turkish**

“The phenomena of Linguistic Ontogeny are therefore complex: the child’s developing language system reflects a progressive adjustment between structures derived from his own uses of language, that is, from those functions which he has already acquired, and the structures of the model to which he has access - structures which are themselves functional in origin” (Halliday 1970: 323).

The previous section focused upon grammatical formations which are more regular, intuitive, and logical in Turkish than they are in English (and the Indo-European language family). The irregular verbal morphology and case distinctions in English are quite complicated when compared to the regularity and clear separation of meaning and function used in Turkish. However, as has already been mentioned, Turkish is not without its difficulties, which are primarily related to semantic complexity and clausal subordination, and which appear in the later stages of acquisition.

Constructions related to aspect which display a logical application of productive morphology, but are not accepted by adult speakers as correct are present in both Turkish and English. This reveals a presumably universal tendency for children acquiring any language to apply its grammar in creative ways, some of which may be perceived as incorrect due to idiomatic or lexical constraints which preclude their usage in adult speech. The basis of these errors may not be related to idiosyncrasies in the particular language being acquired, but rather to a step in the developmental process wherein the child perceives a certain relationship as logical (Slobin 1982).

1) The –mis Particle: Evidentiality and Aspect

“The semantic similarity… between perfect and inferential lies in the fact that both categories present an event not in itself, but via its results” Comrie (1976:110).

The morpheme –mıs has two ostensibly distinct functions in Turkish. It is used as an alternative to the past tense direct experience marker –Dİ when reporting an indirect experience, (as ‘reported’ speech is used to indicate indirect experience in English) and as a marker of the perfective aspect on adjectives. However, Aksu (1978) and Comrie (1976) connect inferential forms with the perfective aspect, relating these ideas – because the perfective aspect indicates completion, it can often be connected with the absence of the speaker during the process of an action.

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10 Capitalized letters indicate that vowel harmony or consonant shift are applied to determine the correct form of the morpheme depending upon the stem to which it is suffixed.
Since indirect experience is related to other situations such as surprise, inference, and hearsay, –mlş is commonly used in these situations as well (Slobin & Aksu, 1982). This is dependent upon context, as shown in the following explanations:

*Merve gitmiş* (Merve left/went)

- **Hearsay:** The speaker heard someone else say that Merve left, and is reporting this information.
- **Surprise:** The speaker was expecting Merve to stay, and states this upon noticing that she has left.
- **Inference:** The speaker notices that Merve’s car is gone, and infers that she has left.

This form is used regularly in daily speech, and is semantically distinct from the past tense marker –DI.

–mlş is also used to create adjectives in the perfective aspect such as ölmüş (dead), and pişmiş (cooked). The –mlş particle is used in situations where the action is complete, as opposed to the –(y)An particle, which indicates the imperfective aspect.

1) Ders-ten sıkıl-an öğrenci

Lesson-ABL bore-ImpfADJ student

“The student who is getting bored of the lesson”

2) Ders-ten sıkıl-mış öğrenci

Lesson-ABL bore-PerfADJ student

“The student who is (has become) bored of the lesson”

The perfective aspect can only be used to form adjectives in cases where all semantic roles are specifically mentioned, making both the process and the end state obvious (Slobin & Aksu 1982). Thus, adding the perfective aspect onto a verb which does not logically indicate a resultant state is not correct, unless the situation is limited to a frame where an end state is possible. The following examples demonstrate this concept:

3) yapmış çocuk*

Do-PerfADJ child

4) yazmış adam*

Write-PerfADJ man
The constructions above are not correct, because the verbs do and write do not logically refer to an end state unless further qualified (Slobin & Aksu 1982).

5) banyo yapmış cocuk
   Bath do-PerfADJ child
   “A/The child who has taken a bath”

6) kitap yazmış adam
   Book write-PerfADJ man
   “A/The man who has written a book”

These formations are permissible because the frames are limited respectively to bath and book, which can be logically completed in relation to the semantics of the verbs do and write.

The first usages of the –mIş morpheme occur several months after the development of the past tense particle –DI (Aksu 1978). Beginning with story-telling and picture description, which are clear instances of indirect experience, the child slowly begins to separate direct and indirect experiences, and increasingly uses –mIş in situations where the process was not witnessed, and only the resultant state is evident (Slobin & Aksu 1982). This particle first appears on process and stative verbs, probably because the difference in perfective and imperfective aspect is most obvious for these meanings.

“…there seem to be good psychological grounds for positing a general development from completive and perfective aspect to past tense. What is added in the Turkish case is a modal coloring, perhaps based on the implicit cognizance that perception of a resultant state while implying an antecedent process, does not imply that the speaker himself was a witness to that process” (Slobin & Aksu 1982: 191).

In English, indirect experience must be shown by lexical means, such as words like “apparently” or “evidently”, or by the usage of reported speech – the speaker’s direct or indirect experience is often ambiguous when the perfective aspect is used. Ambiguity, albeit of a different kind, occurs in Turkish also, especially when the context of an utterance is not clear; however, the two past tense morphemes clearly separate the realms of direct and indirect, and misuse of either form is likely to create misunderstanding (Slobin & Aksu 1982). The linguistic development of this semantic distinction follows the cognitive development of the child; as the importance of the past manifests itself in present results, the child’s usage of past tense verbs

\[11\] Consider the ambiguity that would occur in the interpretation of the aforementioned example “Mer ve gitmiş” if the context was not clear to the listener.
develop – around the age of three a Turkish-speaking child can correctly separate the past tense into direct and indirect experiences (Aksu 1978).

### 2) Causative Structures

“We are able to understand the structures underlying the utterances of the child to the extent that we understand the purposes he is using language for” (Halliday 1970: 322).

“Both the inflectional structure in Turkish and the periphrastic structure in English start appearing in child speech between the ages of two-and-a-half and three” (Ammon & Slobin 1979: 6).

The complexity of a grammatical structure can influence development of the capacity to express and process a semantic concept. Slobin & Ammon note the variety of tools (lexical, morphological, and syntactic) for forming the causative in English (1979). The periphrastic constructions using make, have, let, get, and help add additional subtlety to the semantics of the English causative. Turkish, however, mainly uses the causative infix –DIR (or –v/Ir for polysyllabic verb stems ending in a vowel) to create this meaning. The normal SOV order is not altered, and the suffix is simply inserted after the stem of the verb, obeying the standard vowel harmony.

1) Adam öl-dü
   Man die-Past
   “The man died”

2) Merve adam-I öl-dür-dü
   Merve man-ACC die-CAUS-Past
   “Merve killed the man” (lit. “made the man die”)

By testing children’s comprehension of complex causative sentences in English and Turkish from the ages 2;0-4;4, Slobin and Ammon (1979) were able to track the development of this ability and use the data in a cross-linguistic comparison of the development of causative structures. In their first group, aged 2;0-2;4, they recorded a correct comprehension rate of 7% for English-speakers, and 37% for Turkish-speakers. In the oldest group, aged 4;0-4;4, English-speakers understood 70% of the examples correctly, whereas Turkish-speakers understood 95% correctly. Overall, the average comprehension rate for each language was 38% for English and 81% for Turkish. These results clearly indicate a difference in complexity which causes English-speakers to acquire causative structures later in the language development process, probably due to the variation of forms and lexical subtleties in English.

However, like English, Turkish has some verbs that can create inherently causative meanings due to their transitivity, and others that are not normally used in the causative because
they are intransitive. A classic example is the verb pair yanmak (to burn/to be on fire), and yakmak (to light/make burn). Ekmekci recorded this interaction between a mother and her daughter at the age of 4;3:

1) Adult: Bu serin-le-t-ici (referring to tea)
   
   This cool-VERB-CAUS-ADJ
   
   “This is cooling” (lit. “makes one cool”)

Child: HayIr. *Yan-ı-t-ı-cı

   No. Burn (intransitive)-CAUS-ADJ

2) Yakı-cı (the correct form)

   Burn (transitive)-ADJ

   “Burning” (lit. “makes one burn/hot”)

   The mother creates the adjective “refreshing” or “cooling” by first creating a causative verb from the adjective “serin,” and then applying the adjective suffix –ı-cı. Seeking to disagree with her mother, the child forms a causative adjective with the same productive suffix, but uses the intransitive form of “burn”, which is incorrect12.

   Slobin and Ammon note that Turkish-speaking children’s ability to acquire these structures more quickly may be based on the clear morphological marking of the direct object, as opposed to word-order marking utilized in English (1979). This implies that the main obstacle English-speaking children face is determining the correct agent-object relationship.

   They also propose that Turkish provides more local cues for determining relations between parts of a sentence, whereas English requires that the entire sentence be kept in mind, in order to properly connect the semantic relationships of its constituents (1979:11). It is hypothesized that the easily acquired and exception-less inflectional morphology, and the unchanging SOV word order contribute to Turkish children’s relative ease in comprehending the causative.

3) Relativization and Nominalization

“Languages strive – as much as possible – toward one-to-one mapping between surface forms and underlying meanings” (Slobin 1986: 277).

12 Several other examples of misapplication of productive suffixes in Turkish can be found in Ekmekci (1987)
Marked dissimilarity between English and Turkish is evident in the acquisition, production, and understanding of adjective clauses and nominal clauses. In Slobin’s study on relative clauses in Turkic and Indo-European languages, he discusses several differences between these language families that have important implications for learners and adult speakers. The non-transparent and variable forms of subordination in Turkish are hypothesized to be responsible for difficulties in acquiring and producing these clauses (1986).

The method of embedding clauses, that is, creating relative and nominal clauses, requires involved processing in Turkish. Several different structures are needed to create embedded clauses, and their complexity is surprising when compared to English relative clauses. Slobin notes two main classes of relative clauses upon which he bases his comparison of the two language families: subject relatives (SR), which are used in constructions describing the subject of a clause, and non-subject relatives (NSR), which are used in cases where the relative clause refers to the object, and, when required by the particular verb and semantic intent of the speaker, oblique cases (of which, to whom, etc…) (1986:275). These classes are distinguished by two verbal relativizers: -En\(^{13}\), used in SRs, and -DIk, used in NSRs.

1) şirket-imiz-de yap-ı-an iş

Company-1PPL-LOC make-PASS-SR work

“The work (that is) \(^{14}\) done at our company”

2) bizim konu-tuğ-umuz konu

Pro-1PPL talk-NSR-1PPL topic

“The topic (that) we talked about”

Additionally, the particle –DAki is used as a locative relativizer. Relative clauses are commonly used to describe the locations of objects, which creates circumstances where child and adult speakers must choose between two possible SR particles (Slobin 1986)

3) Oda-nız-daki yatak

Room-2PPL-LOC-relative

4) Oda-nız-da ol-an yatak

\(^{13}\) -En can also indicate the object in sentences that have indefinite subjects (Slobin 1986).

\(^{14}\) In English, relative pronouns are often omitted in writing and daily speech, because the referent of the clause is clear for both speaker and listener. Slobin (1986) does not discuss possible issues pertaining to comprehension and production of ‘reduced’ relative clauses.
Both of these constructions mean “The bed (that is) in your room.” Therefore, Turkish has multiple methods for producing constructions that could be simply expressed by ‘that’ in English.

English, in contrast to the various methods of relativization used by Turkish, normally uses pronouns to mark these clauses, and the form of the clause is left generally unchanged (Slobin, 1986:274). Accordingly, English-speaking children can understand quite complex relative structures by the age of four (de Villiers et al. 1979), whereas Turkish children still have not mastered the system of relativization by 4;6 (Slobin 1986).

Especially for NSRs, a sharp departure from the standard Turkish clause structure is evident. Data from experiments with both children and adults suggests that NSRs are more difficult to process, and, for children, more frequently misunderstood (Slobin 1986). However, Slobin reports that 56% of relative clauses produced by English-speaking children in his data set were NSRs, showing that the discrepancy cannot lie in the increased cognitive load caused by NSRs (1986). The transparency of English relative clauses in terms of surface-marking and adherence to the standard clausal form is probably more easily acquired and less demanding for the production system.

Slobin bases his evaluation of the complex formation of Turkish relative clauses upon the argument that historically unstable constructions are also the most difficult to acquire. Because languages tend toward direct correspondence between surface forms and semantic function, those constructions exhibiting a clear correspondence between form and meaning should remain stable historically, and should also be acquired easily (1986).15

“One reason the Turkish case inflectional system is so easily mastered, for example, is because it adheres closely to such a criterion of transparency. By contrast, Turkic relative clause constructions are highly nontransparent and therefore are reformulated in history, replaced by paraphrases in conversation, and acquired with difficulty” (Slobin 1986:277).

Indeed, Turkish-speaking children utilize relative clauses much less frequently than English-speaking children, and, even in adult speech, Turkish speakers use far fewer relative clauses than English speakers (Slobin 1986). Turkish-speaking children and adults use less than

15 The historical and linguistic data compiled in Slobin (1986) strongly support this hypothesis. It is shown that the methods for case-inflection in Indo-European languages have undergone constant change throughout recent history, whereas they have remained stable in Turkish for at almost 1200 years. The opposite is true for clausal subordination, which has retained roughly the same form across Indo-European languages; however, Turkic languages utilize various methods for forming relative and nominative clauses, many of which are borrowed from Indo-European languages (1986: 276-7).
half as many relative clauses as English speakers in normal speech, supporting the proposal that
cognitively taxing structures are avoided where possible (1986). This theory could be further
supported by psycholinguistic research evaluating the processing load put on both listeners and
speakers during comprehension and production of relative clauses from early childhood to
adulthood. Testing individuals with native competence in both languages would also be
revealing, as preference for a certain means of expression in either language could indicate
support or weaken the cognitive load hypothesis.

Conclusion

Every language has idiosyncratic structures with cognitive implications that are
illuminated by studying the native language acquisition process. Using comparative analysis, the
boundary between Universal and Language-specific obstacles along the acquisition path can be
more closely defined. This report has highlighted several differences between Turkish and
English which make different areas more or less complex in each language. In general, two main
conclusions can be drawn about their divergent acquisition paths:

1) Due to its high regularity and its clear morphological separation of function and form, Turkish
is more straightforward than English in terms of basic verbal morphology and case inflection.
This is illustrated by the precocious language development of Turkish speaking-children, and the
relative ease with which they master the morphological system around the age of two.

2) As complexity of expression and cognitive ability develop, Turkish presents its learners with
situations that are more complex than their English counterparts, most notably the development
of aspect, evidentiality, and modality through acquisition of the relationship between the –mlş
and –DI particles, and the comprehension and production of relative clauses. This results in a
long period, lasting at least until 8 years of age, wherein the Turkish-speaking child’s cognitive
ability develops to the point where her speech can be considered adult-like.

Further psycholinguistic research specifically focused upon the acquisition of Turkish is
necessary in order to draw more convincing conclusions about the cognitive implications of the
structures discussed in this report. The foundations built by Slobin, Aksu, Kretz, Nakipoglu, and
many others could be greatly expanded by testing the vast body of research available on English
acquisition to ascertain the extent to which developmental theories created for English also hold
true for Turkish.

References

Aksu-Koc, A. (1978). Aspect and Modality in the Child’s Acquisition of the Turkish Past Tense. Doctoral
Dissertation, University of California, Berkeley.


