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Motivating Morpho-Syntactic Changes in Turkic Subordination*

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1. Introduction. It has often been claimed that diachronic change and first language acquisition reflect similar principles and tendencies, since (presumably) the former is to a great part due to the latter. As Kiparsky (1968:175) states, "the transmission of language is discontinuous, and a language is recreated by each child on the basis of the speech data it hears." Thus, a child acquiring the language of her parents might construct a grammar that is different than the one her parents' generation had internalized. For example, "[a] highly constrained rule may be generalized, or a difficult rule may fail to be learned." (Jeffers & Lehiste 1979: 98) Or, a given stage in the development of a language might have a high degree of exceptionality with respect to certain syntactic categories (cf. Lightfoot 1979) or with respect to certain rules (cf. Kiparsky 1968 and 1978), making the lexicon or the rule system opaque. Children would then construct a grammar which would be more transparent, with concomitant changes in the lexicon and/or in the rule system.

The claim that acquisition influences diachronic change is illustrated very clearly for Turkic languages in work by Slobin (in particular, in Slobin 1986).¹ The following quote illustrates this point of view:

Those parts of a language that are most stable over time should be acquired relatively early in the course of development and should be relatively easy to process. Conversely, the parts of the grammar most susceptible to change – either through internal change or under the influence of borrowing from other languages – should be those parts which are acquired late and which are relatively difficult to process. (Slobin 1986: 273)

In this paper, I shall assume the essential correctness of the general claim, without however accepting the conclusions and generalizations about the Turkic languages insofar as the proposed explanations for the putative diachronic changes are concerned. More specifically, mine differ from Slobin's proposals substantially when considering his particular claims about the historical developments in the Turkic languages, and I establish tendencies of change that are diametrically opposed to the psycholinguistic principles which Slobin claims underlie both historical changes in the Turkic languages and the acquisition of Turkish.

The relevant psycholinguistic principles are: 1. "If a semantic configuration can be expressed by a single, unitary form (synthetic expression) or by a combination of several separate forms (analytic expression), prefer the analytic expression." (Slobin 1986:278-79) 2. "... If a clause has to be reduced, rearranged, or otherwise deformed when not functioning as a canonical main clause ..., attempt to use or approximate the full or canonical form of the clause." (Slobin 1986:279) In addition, the assumption is made that left-branching structures are more difficult to parse than right-branching ones, and that therefore the former tend to be replaced by the latter. These principles and tendencies are designed to explain various phenomena of diachrony as well as of first language

acquisition. In this paper, I shall focus primarily on diachronic phenomena. I shall conclude that at least some of the diachronic changes observed go counter to principles 1 and 2, and I shall hypothesize that the changes are actually motivated by a tendency which is opposed to principle 2, i.e. a tendency towards overtly differentiating between main and subordinate clauses, irrespective of the means that are used to achieve such differentiation.

2. Facts of diachrony, typology and acquisition. There are primarily two phenomena concerning language change which are discussed in Slobin (1986). One is the observation that in many Turkic languages spoken in the former Soviet Union there has been a strong tendency to form subordinate clauses as in Russian (and in Indo-European in general), with free (i.e. non-affixal) subordinate particles and fully finite clauses. Note that subordinate clauses in Turkic are typically "nominalized", i.e. are not fully finite. A few representative examples from Modern Standard Turkish follow to illustrate this claim.

In fully finite clauses, Turkish has a wide variety of tense and/or aspect markers that are suffixed to the verb stem and produce so-called simple conjugation forms. These suffixes are followed by subject agreement markers drawn from a number of paradigms; the choice of these agreement markers is dictated by the tense/aspect suffix. The subject of these finite clauses is in the Nominative case which is not marked morphologically.

- (1) ben her gün sinema-ya gid-er -im
 I (NOM) everyday cinema -DAT go -AOR -1SG
 'I go to the movies every day'
- (2) ben yarın sinema-ya gid-eceğ-im
 I (NOM) tomorrow cinema-DATgo -FUT -1SG
 'I shall go to the movies tomorrow'

In subordinate clauses, we find essentially two nominalization markers on the stems, generating gerundive clauses. One type is roughly a factive gerundive (FG), while the other corresponds roughly to a subjunctive (which I shall gloss as "action nominal" [AN]).

- (3) ben [Hasan-in sinema-ya git-me -sin-i]
 I Hasan-GENcinema-DAT go -AN-3SG-ACC
 iste -di -m
 want -PST-1SG
 'I wanted for Hasan to go to the movies'
- (4) ben [Hasan-in sinema-ya git-tiğ-in -i]duy-du -m
 I Hasan-GENcinema-DATgo-FG -3SG-ACC hear-PST-1SG
 'I heard that Hasan went to the movies'

Both gerundive patterns share the following properties: their subject is marked for the Genitive case (in contrast to the nominative subject of finite clauses), the subject agreement suffixes come from a nominal possessive agreement paradigm

(rather than from any one of the verbal paradigms as in finite clauses), and the gerundive suffixes are placed in the same morphological slot as the tense/aspect suffixes in finite verbs. As a consequence of the last property, such gerundive verbs lack the numerous tense/aspect differentiations that can be expressed on simple finite verbs. While such semantic distinctions can be made in gerundive clauses, as well, periphrastic forms must be used, since the simple gerundive verb cannot express these distinctions by itself, due to the morphological reasons mentioned above.

From the perspective of Slobin's operational principles, we assess such gerundive clauses as follows: If nominalization affixes are viewed as markers of subordination, the resulting forms are not analytic, thus violating principle 1. Furthermore, in such clauses, the subject (when existent) is not in the Nominative case, as it is in fully finite main clauses, but in the Genitive; the gerundive markers show up instead of (and in the morphological slots for) the finite tense and aspect suffixes; furthermore, the subject agreement markers on the gerundive are from a different paradigm than the verbal agreement markers found on fully finite predicates. All of these factors conspire to make subordinate clauses quite different from main clauses, thus violating principle 2. Based on these operational principles, we would therefore expect that such clauses would be difficult to process; the change toward Indo-European patterns in their complex constructions in the Turkic languages used in the formerly Soviet areas would then be explained by these principles rather than, say, by direct political pressures. Here, I shall address this particular claim only in passing. Note also that we would expect such nominalized clauses to be difficult to acquire by children; as a matter of fact, it appears that Turkish children do acquire subordination and complementation about two or more years later than their peers who acquire Indo-European languages like English, French and Russian (cf. Slobin 1986: 273-274, 277).

A second point concerning diachronic change is made by Slobin with respect to a particular type of complex construction, namely relative clauses. He claims that these are particularly complex and complicated in Turkish, and that at least some of these complexities and difficulties have been simplified in most of the other Turkic languages. It is this construction which I will be addressing primarily in this paper, and I will show that, firstly, (most of) the supposed simplifications and neutralizations in the other Turkic languages are not new developments but rather are reflexes of older "simple" constructions, and that secondly, the supposed complexities of Turkish are innovations rather than reflexes of "old" patterns as assumed in Slobin's work. If so, the patterns in question cannot be viewed as universally and cognitively difficult—at least not within an approach like Slobin's which seeks to explain directionality in historical change via general psycholinguistic principles. To illustrate claim and counter-claim, let me turn to a discussion of relative clauses.

2.1. Relative clauses in Turkish. Modern Standard Turkish has relative clause constructions which exhibit properties similar to the complex constructions which we saw above. Those constructions have nominalized subordinate clauses which have argument function. In addition to whatever cognitive complexity is contributed by the morphological as well as the syntactic properties of nominalized clauses, relative clauses exhibit the following complication: relative clauses whose target is a subject or part of a subject are of a different form than those whose target is a non-subject.² This dichotomy is illustrated by the following examples.

Relative clauses whose target is a subject have modifier clauses headed by a "subject participle" (SP):

- (5) su -yu iç -en misafir
water -Acc. drink-SP guest
'the guest who drinks the water'
- (6) su -yu iç -miş (ol-an) misafir
water -Acc. drink-PERFP be-SP guest
'the guest who has drunk the water'

Relative clauses whose target is a non-subject have modifier clauses headed by an "object participle" (OP). While this terminology is one used in most of the recent literature on the topic of Turkish relative clauses (cf. Underhill 1972, Hankamer & Knecht 1976), this so-called object participle is nothing other than the familiar factive gerundive, which is not surprising from a typological perspective, since the canonical relative clause pattern is one that involves indicatives rather than subjunctives or infinitives.

- (7) misafir -in iç -tiğ-i su
guest -GEN drink-OP -3SG water
'The water which the guest drinks'
- (8) misafir -in iç -miş *(ol-duğ -u) su
guest -GEN drink-PERFP be -OP -3SG water
'The water which the guest has drunk'

Notice that relative clauses whose target is a non-subject are rather different from their counterparts whose target is a subject. The modifier clause has a subject, and that subject is overtly marked for genitive case. Furthermore, the participle bears overt agreement morphology with its subject, while the subject participle does not. Even where the same perfective participle is used in the two constructions, there is a difference: the perfective participle can be used by itself, as a non-agreeing predicate, in subject relative clauses as in (7). In contrast, it requires the presence of the copula bearing the appropriate agreement and non-subject participle forms when used in non-subject relative clauses as in (8).

Slobin points out that the non-subject type of relative constructions are "exceptionally rare in Turkish", a fact which he attributes to its complexity (Slobin 1986: 284). This complexity would be a function of a violation of his principle 2 by this construction, namely the fact that the modifier clause in non-object relative clauses is even less similar to a canonical main clause than a subject relative clause. Hence, while both types of relative clauses would be difficult to parse and to acquire (since they are both synthetic rather than analytic, thus violating principle 1, and are both left-branching), the subject relative construction would be evaluated as somewhat simpler, and one would therefore predict that it would be more stable diachronically than non-subject relative clauses. Furthermore, the choice that must be made between two participial forms is said to place a heavy burden on the speaker, and that therefore other Turkic languages show a "tendency to neutralize the surface distinction between subject

and nonsubject relatives, with use of a single form for all types" (Slobin 1986: 286). This neutralization towards a single form would have to develop in favor of the form which is claimed to be cognitively simpler, namely the subject participle and its concomitant syntactic properties: no genitive case, no non-verbal agreement form on the verb.

Indeed, this is exactly what Slobin claims to have happened:

Significantly, the form chosen, repeatedly, is the -An form.
(Slobin 1986: 286)

Some of the examples given in Slobin (1986) to illustrate this diachronic and typological claim are repeated below (I shall use the general gloss of participle (P), where the distinction between subject and non-subject participle is not clear or not relevant):

- (9) Turkmen: gel -en adam
 come-P man
 'The man who came' (Slobin 1986: 287; his 19)

This example would be equivalent in Turkish.

- (10) Turkmen: men-in yaz -an kitab-ım
 I -Gen. write -P book-1SG
 'The book that I wrote' (Slobin 1986: 287; his 19)

The Turkish equivalent would be as follows:

- (11) ben-im yaz -dığ -ım kitap
 I -Gen write -OP -1SG book
 'The book that I wrote'

We note that, indeed, Turkmen appears to have "neutralized" the two participial forms into one, and that this single form is the same as the Turkish subject participle and not its non-subject participle.

In the next section, I turn to older stages of Turkic, and I show that the morphological complexity of relative clauses in Modern Turkish is not a reflex of previous stages of Turkic which got neutralized in a number of other Turkic languages, but rather that they are innovations. The patterns in other Turkic languages, as exemplified by Turkmen, appear to be in part reflexes of older stages and in part due to individual developments, as we shall see later. In any event, they are not due to the kind of "neutralization" posited by Slobin. In what follows, I shall limit myself to relative clauses.

3. Old Turkic relative clause constructions. In this section, we shall see that the dichotomy between subject and non-subject relative clauses did not exist in the earliest Turkic texts that are available to us. While there were a number of participial morphemes did exist in relative clauses, they had primarily aspectual

(as well as secondarily temporal) functions, similar to corresponding (or sometimes identical) morphemes in main clauses. The Old Turkic documents consist of stone monuments from the 7th century AD (usually referred to as the Orkhon monuments) and Old Uighur manuscripts from the 8th century AD.

The assumption is usually made in Turkological literature that in constructions corresponding to relative clauses, the participles are "indifferent" between active and passive (e.g. v. Gabain 1941:76). This means that the syntactic and morphological properties of relative clauses are the same, irrespective of whether the target of relativization is a subject or a non-subject. In the examples that follow, I have noted between parentheses whether they correspond to a modern Turkish subject relative (SP) or to a non-subject relative (OP).³ In either instance, there is no agreement morpheme on the participle, nor is the subject of the modifier clause (in those examples that do have a subject) marked with the genitive case (although Old Turkic did have a genitive marker for possessors).⁴

- (12) il tut -siq yir
tribes rule -P place
'the territory from which the tribes should be ruled' ("OP")
(KTS 4; Tekin 1968:176) [future/necessitative]
- (13) tinsi ogli aytı -gma tag
Tinsi ogli call -P mountain
'the mountain called Tinsi ogli' ("OP")
(TII S 2-3; Tekin 1968:176) [factive, potential]
- (14) il biri -gmä täNri
state grant -P deity
'Heaven who has granted the state' ("SP")
(KT E 25; Tekin 1968: 176)
- (15) kör-ür köz-üm kör-mäz täg bol -ti
see -P(=AOR) eye -1SG see -P(=NEG-AOR) like become -PST 'my
seeing eyes became as if they did not see' ("SP")
(KT N 10; Tekin 1968: 177) [present state, action]
- (16) sigun tart -ar qaNli
maral pull -P(=Aor.) cart
'The cart pulled by a maral; the cart which a maral pulled'
(Hüen-tsang, translations; v. Gabain 1941:76)
- (17) açü -miz ...tut -miş yir
predecessor-1PL rule -P place
'The place(s) which our predecessors ruled; the place(s)
which were ruled by our predecessors' ("OP")
(KT E 19; Tekin 1968: 179) [perfective]

- (18) *igid -miş qagan*
 nourish -P kagan
 'The kagan who has nourished (you)' ("SP")
 (BK E 22; Tekin 1968: 179) [perfective]
- (19) *käl -mä -dük öd*
 come-NEG -P time
 'The time that hasn't come; the future' ("SP")
 (v. Gabain 1941:76) [factive; past]
- (20) *bar-duq yir -dä*
 go -P place -LOC
 'In the lands where you went' ("OP") [factive; past]
 (KT E 24; BK E 20; Tekin 1968: 178-79)

We note that in these examples, a rather large number of participle morphemes is displayed. These clearly express a variety of aspectual and also temporal functions. Interestingly enough, two of these morphemes are also found in Modern Turkish relative clauses: *-miş* and *-duq*. The first, as we saw earlier, can function as a subject participle (when it is the only verbal form used), while the latter is the canonical non-subject participle. Yet, in the Old Turkic data, either form could be used in either function (note, in particular, examples (17) versus (18) on the one hand, and (19) versus (20), on the other. What is constant in the functions of these morphemes is therefore their aspectual, modal and/or temporal functions, and not any putative function as a clue for the grammatical relation of the relativization target.

Comparing the grammar of relative clauses in Old Turkic with that of Modern Turkish, we note that the latter introduced a number of innovations: reduction in the number of participle markers; shift of the main function of these markers from modal/aspectual towards a function as a clue for the grammatical relation of the relativization target; genitive marking on the embedded subject (when there is one); overt agreement markers on the participle (when there is a subject to agree with, i.e. when the target is a non-subject).

We conclude, then, that most of the properties exhibited by relative clauses in Modern Turkish that are claimed in Slobin (1986) to be perceptually difficult, which make the construction difficult to acquire by children, and which are also claimed to be historically unstable are actually later innovations. The older cognate forms are much "simpler" and conform to principle 2, i.e. they are much more similar to canonical main clauses than are their Modern Turkish counterparts. Hence, the system proposed in Slobin (1986) would make the prediction that Old Turkic relative clauses should have been, relatively speaking, stable, and that constructions like those in Modern Turkish should not have arisen in the course of later developments—obviously an incorrect prediction.

I now turn to a brief discussion of relative clause constructions in other Turkic languages; however, due to space limitations, I shall only look at Turkmen as a representative.

4. Other (contemporary) Turkic languages. As we saw earlier, Turkmen relative clauses have only one participial form, and that is the form used as a

subject participle in Modern Turkish—the form claimed to be "simpler", in that it does not require agreement morphology. The following example is representative; it is quite similar to the one cited from Slobin (1986) earlier, and it corresponds to a Turkish non-subject relative clause.

- (21) Rus qoşunun -iN yerleş -en yer -in -e
Russian soldiers -Gen.settle -P place -3SG -DAT
Kulikovomeydanü diyilyer
Kulikovofield called
'The place where the Russian soldiers settled is called the Kulikovo
field'
(Alekseev & Karcov 1964, as cited in Schönig 1992/93:328)

Examples of this type are claimed to arise because the "[s]urface distinction" between the two types of relativization patterns in Turkish is "neutralize[d]" (Slobin 1986:286).

Note, however, that the Turkmen relative clause is every bit as "complex" as its Modern Turkish counterpart. The embedded subject is in the genitive case, thus violating principle 2, i.e. it is not in the "canonical" form for subjects. Furthermore, while the participle is indeed bare, i.e. devoid of agreement morphology, the construction itself does have agreement—namely on the head of the relative clause. In this context, it is important to realize that the head noun is not interpreted as possessed by the subject; in other words, the embedded subject is not a possessor. The agreement on the head noun (or head noun phrase) of the relative clause has the very same function as the agreement on the participle in its Turkish counterpart, namely to serve as subject agreement (rather than possessive agreement).

It appears, then, that there is no reason for claiming that in Turkmen, cognitively and perceptually complex and difficult Turkish patterns were neutralized in favor of "simpler" constructions. Rather, a certain Old Turkic pattern of relative clauses which would count as "simple", due to its resemblance to canonical main clauses and its lack of synthetic morphemes, underwent similar, but not identical, developments in Turkish and Turkmen towards what appear to be more "complex" constructions.

I draw the conclusion at this point that the historical development of the grammar of relative clauses in both Turkish and Turkmen cannot be explained by the proposals in Slobin (1986), and that these diachronic facts that were taken by him to illustrate and corroborate his principles actually are problematic for those principles. In concluding this discussion, I now turn to some hypotheses about the reasons for the developments we saw above that took place in the grammar of relative clauses in some Turkic languages.

5. Concluding hypotheses. In Turkish (as well as a number of other Turkic languages), the temporal/aspectual distinctions among certain participles were neutralized, and some of these nominalization morphemes were used instead to mark differences in terms of (non-)subjecthood of the relativization target, as mentioned. In a number of other Turkic languages, the neutralization did not only

concern temporal/aspectual distinctions, but the number of the morphemes as well, which was reduced to just one, as appears to be the case with Turkmen.

What is common in both types is an impoverishment in temporal/aspectual functions, and thus the common innovation is a clearer-cut array of differences between subordinate and main clauses (contra Slobin's principle 2) as compared to previous stages of all the Turkic languages. In this sense, Turkic languages do become more similar to Indo-European languages, i.e. the subordinate clause is clearly marked by means of overt markers and is thus set apart from the main clause, and subordinate clauses have different syntactic properties from those of main clauses. However, this is achieved not by means used in Indo-European (i.e. by free subordination morphemes), but by "Turkic" means, i.e. by nominalization (and case) suffixes (contra principle 1).

It appears, then, that neither principle 1 nor principle 2 is explanatory in its current form and needs to be refined.

The fact that the diachronic developments in complementation and subordination structures in Turkic, driven (so I claim) by the necessity to introduce clear distinctions between root and subordinate clauses, are very natural and led to stable and morphologically transparent syntactic states is shown by the fact that, despite very strong and politically enforced Arabic and Persian influences (e.g. right-branching structures, non-affixal complementizers, finite subordinate clauses) during the Ottoman centuries, Turkish still exhibits primarily Turkic properties in its syntax of subordination. The distinctions between "subject" and "non-subject" relative clauses are robust. Consequently, whatever changes towards Indo-European forms of subordination are found in the Turkic languages spoken in the formerly Soviet areas must, to a large part, be due to political (and perhaps socio-economic) pressures and cannot (exhaustively or even primarily) be explained by "deep-seated tendencies in Turkic, going back to the earliest records" (Slobin 1986:282). If so, the acquisition facts in Turkish (as claimed to be contrasting with those in the Indo-European languages) remain unexplained and must be investigated anew.⁵

Abbreviations

ACC	Accusative
AN	Subjunctive gerund (=action nominal)
AOR	Aorist
DAT	Dative
FG	Factive gerund
FUT	Future
GEN	Genitive
NEG	Negation
NOM	Nominative
OP	Object participle (=FG: Factive gerund)
P	Participle
PERFP	Perfect participle
PL	Plural
PST	Past
SG	Singular
SP	Subject participle

Notes

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¹This does not mean that I attribute this point of view to the current thinking of Dan Slobin. As a matter of fact, he has informed me that he now thinks differently about the relationship between first language acquisition and historical change. In this paper, my main objective was not to criticize Slobin; however, since his work is exceptional in having clearly articulated concrete and specific proposals concerning the relationship between acquisition and diachrony, I addressed some of the claims he made due to their general interest.

²This is only a rough generalization. There are some additional factors that also contribute to the choice of the particular pattern of relative clauses. For more detailed discussion and attempts at explaining the criteria governing the choice of the different patterns of relative clauses, the reader may consult a number of works that have addressed this issue; e.g. Barker, Hankamer & Moore (1990), Dede (1978), Hankamer & Knecht (1976), Kornfilt (1997), Zimmer (1987 and 1996). For our present purposes, the rough characterization of the two patterns given in the text will suffice.

³I have chosen the designation "OP" whenever the target of relativization is a non-subject. In Modern Turkish, whenever the subject relativization pattern is used in such an instance, the participle must bear a passive marker. None of the following examples exhibits the passive marker, thus justifying the designation "OP" in the instances it was used and where the translation appears to suggest application of passive. Note that the translations (which, in most instances, I took from the secondary sources noted with the examples) are only idiomatic and are not designed to convey any particular syntactic analysis. Note also that Old Turkic did have a passive morpheme.

⁴In the following list of examples, the capital letters after the examples designate a particular monument. KT: Kül Tigin; TII: the second monument erected for Tonyukuk. BK: Bilge Kagan. The designations for the directions (i.e. E: East, N: North, S: South) refer to the various faces of the monuments. Finally, the numbers after these letters refer to the lines.

⁵In this context, it is interesting to note that some recent acquisition studies report results that are surprising from the point of view of the principles proposed in Slobin (1986), while being rather expected in the light of the diachronic developments in Turkic subordination. Somashekar, Foley and Gair (1998) report that in the course of repetition experiments concerning Tulu, a south Indian Dravidian language, children were given as stimuli right-branching, fully finite correlative construction—the relative clause type closest to "canonical" main clauses. However, young children would instead utter left-branching, nominalized relative clauses—structures very similar to the Turkic relative clauses discussed in this paper, i.e. structures claimed to be cognitively much more difficult. It is mysterious at this point why Tulu children should be able to acquire such constructions earlier than their Turkish counterparts, and an evaluation of these

acquisition facts must await further study. Nevertheless, these facts are challenging in the light of the discussion presented in this paper.

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