

A Syntactic Analysis of a Sample Corpus of the Damascene Dialect Based on Chomsky's Transformational- Generative Theory

Submitted by: Dina Al-Sibai

Project Supervisor: Dr. Huda Ghali

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Introduction

Selecting a suitable grammar (the set of rules speakers follow when speaking) formalism for Arabic and the formulation of the grammar itself has been the subject of a big debate in the Arab countries for some time now. The few attempts to give a formal model for Arabic sentences were based on transformational-generative grammar and other more recent linguistic models such as Lexical Functional Grammar, dependency grammar, and functional grammar. However, in this study, we will attempt to use Chomsky's transformational-generative (TG) grammar in the description of one aspect of the Damascene dialect spoken in today's Syria.

The purpose of this study is to design a sample syntactic description of Syrian Arabic adverbs (using the Damascene dialect) which is based on Chomsky's transformational-generative theory, then to test the degree of universality of the deep structure in order to see how far that structure can account for languages other than English.

A transformational-generative grammar is a grammar that assigns to each sentence it generates both a deep structure and a surface structure analysis and systematically relates the two analyses. This relationship is called a "transformation," as if it were a process that transforms the abstract structure of meaning and syntax (deep structure), into a physical reality (surface structure) which concretely specifies the syntactic structure necessary for spoken or written communication.

In 1957, Noam Chomsky started a revolution with his book *Syntactic Structures*. He, and the other transformational-generative grammarians, are concerned with what a speaker knows about the sentences of his or her language; that is, the unconscious ability to interpret and produce sentences that the person may have never heard before.

The goal of transformational-generative grammar is to find a limited set of rules from which an unlimited number of sentences can be generated.

The transformational-generative linguists have taken it upon themselves to give an account of competence; that is, to determine what the rules are that underlie a language and how they work together to create the sentences of the language. This model of competence has three major components: syntax, phonology, and semantics. In Chomsky's view, syntax is "central," which is to say that sentences are principally formed within the syntactic component.

The syntactic component has two subcomponents: the base component and the transformational component. **The base component** contains a set of rules called **phrase-structure rules**, which provide the constituent structure for sentences. The base component also contains a **lexicon**; a list of words that indicates which words may be inserted into which structures. The output of the base component is a string of terms called a **deep structure**, which represents the basis for the meaning of a sentence. This deep structure feeds into the **transformational component**, which is a set of rules that turns the deep structure into a **surface structure**. The surface structure basically serves as the input to the phonological component, as well as to some semantic ones.

We may think of the *deep structure* as an abstract level representing the essential meaning of a sentence, whereas the *surface structure* corresponds to an actual sentence, as heard in discourse.

The advantage of using the same grammatical model for the Damascene dialect as is used for English is that it reveals what is common to both languages (“universal”) and what is different (“particular”).

STEP ONE: THE CORPUS

The Arabic language is one of the world’s most widely used languages. According to the Egyptian Demographic Center (2000), it is the mother tongue of about 300 million people. Arabic is the official language of many Arab nations in the Middle East and northern Africa, including Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, UAE, and Yemen (Sofer & Raimes, 2002 and World Book Encyclopedia, 1997). Furthermore, it is one of the six official languages of the United Nations.

There are two types of Arabic, spoken and written. Spoken Arabic consists of dialects. In this study, we will be discussing a sample of the Syrian dialect, specifically the Damascene dialect.

This section presents the corpus for which the grammar accounts and to which the transformational theory is to be ultimately applied.

The corpus consists of 50 sentences chronologically chosen from a story narrated by the informant. The informant was asked to tell a story about an experience he had been through. I asked my informant to try to include as many adverbs as he possibly could. I emphasized that the use of the adverbs should be used very naturally, in order for the corpus to be as authentic as possible. The task of narrating his experience was quite easy because Syrians, in general, very frequently use adjectives and adverbs, as it is a well known fact that Arabic is an emotionally rich language. In fact, this is why this aspect of Syrian Arabic interested me; especially the use of “*ktīr*” which is so commonly used by all Syrians that it has become a stereotype of the Syrian dialect. However, after the completion of this project, I was surprised that other adverbs, such as “*mnīh*” and “*dəgrī*”, are just as common in the Damascene dialect.

My informant’s name is Waseem Al-Sibai, and he is 26 years old. He is actually my brother-in-law. He was born and raised in Damascus, and he is only here for a brief visit. Because of this, I believe that the dialect he speaks is representative of the Damascene dialect.

Each sentence in the following corpus will be phonemically transcribed, then each sentence will be followed with its English translation. However, before extracting the 50 sentences which will be analyzed later, a complete narration of the experience (translated into English), which my informant chose to share with us for this project, will be provided, along with its phonemic transcription.

The following is a table which illustrates **the phonemic symbols** used for the phonemic transcription of the corpus.

The following is a literal transcription of the narrated recording. First, a phonemic transcription will be provided. Then, the passage will be translated into English. Finally, 50 sentences will be extracted. All highlighted adverbs will be dealt with, in detail, in a separate section.

Phonemic Transcription of Corpus

/ rāyeh ?ihkīlik ?issa b9imrī mā binsaha. nzilt min šī šahru nəs
9aldžžā?er bimuhmē rasmīyē. ?u?wwal ma nzilt min ?atyyara, **dəgri**
l?aēt sawwa? taksi džūwāt ?ilmatār. hasēt ?inno kār ktīr ?ādami u-zrīf
l?enno ?wal ma šāfnī, ktīr ?daya? 9alyyi u**dəgri** jāb 9attāl yysa9adni.
?isarāha, mā ?assar ?ezalamē. unehne rayyhīn lessyāra, w?i9et ?šanāti
killa 9arejli l?enno il9attāl mā kār hātəton **mazbūt** ubtadet **ktīr** rejli
tuja9ni, u-mākint 9ambegder ?imši 9arejli **mnīh**. ?ām ?alī ?sawwā? šū
ra?yak biṭrī?na ?innmir 9ašī daktōr ?išəflak yaha, u-yfhaslak yaha
mnīh, bala mā tkūn maksūra. ?imt radēt 9alē ?inno lāzim rūh
9alfəndo? **dəgri** l?enno 9indī mow9ed ba9d sa9tēn ubxāf ?it?axar.
?ām ?ali lā txāf bnōb. ?anā ba9ref ?ilbalad **mnīh**. xalīna nrūh
9adaktōr u?anā bedmanlak ?inno tūsāl 9alwa?t. ?iltilō tyyeb bes
mā tisre9 ktīr. ?ilmūhim, waṣallna ?idām 9yādet ?idaktōr usā9adni
?iswwā? mešān ?inzel 9al9yādē. **ktīr** ?istanā ma9i laḥatta fət la9ənd
?idaktōr. utūl halwa?t u?anā 9am ?ūl b?albi haswā? ktīr mnīh wlāzem
?ikərmō **mazbūt**. uba9d ma fahassni ?idaktōr **mnīh** wtammani ?inno

rejli mā fiyyā keser, katabli 9ala ?dəwwē lilwadža9, wtlə9t. u?wwal
ma tlə9t min ġərfet ?ilkašf, dawwart 9asawwā? mešān ?inkammel
tarī?na lilfəndo? bes ma la?ēt hada. ?imt sa?alt mumarrida, 9əndek
fikrā wēn ?isawwā? rāh? ?āmet ?alittli ?inno ?sawwā? meši **dəgri**
?wwal ma daxalt 9aġərfet ?ilkašf. ?imt **dəgri** rakadt 9ašāre9 ladawwər
9alē l?en ?šannāti kellāyata ma9ō. dawwart u9yyat **ktir** bes mā la?ēt
hada, wiktašafft ?inno ?isawwā? kān 9ami sa9edni mešān ?itamanlō
mazbūt uyəsr?ni. bes mā ntabah ?illhmār ?inno hfəzt nimret syārto
w?ana nazel 9adaktör. ?imt **dəgri** hamalt hāli urihhet 9ašərta
?uballaġt 9anō. ?āmu wašalūni 9alfəndo? uwa9adūni ?inno ?wwal mā
yimskū, yixabbrūni. **dəgri** hamalt hāli utlə9t 9algərfē mešān hətt rāsi
wnām bes mā ?idirrt nām **mnih** l?enno kint ma?hūr ktir l?enno ġəder
halharāmi yddhak 9alēi wyəsrō? ?išənnat. uba9d šī tllət sā9āt, ma šəft
?ila mwazzaf ?il?isti?bāl 9ami d? əli ?inno ?inzel lataht darūri. hamalt
hāli **dəgri** wnzəlt lataht. wa?t wašallt, la?ēt ?ešərrta māskīn elnasāb
wmradž9īn kil ?išanāti. 9adētən wit?akkat **mnih** ?inno kilši tamām
ušakarrtən wirrje9t laġərrfti. tʌbb9an bsabab halšaġglē, rāh 9alēi
?ilmow9ed wkānet rāyha trūh 9alēi ?šanāti kamān, bes alla satar
ulataf. wmin wa?tta, t9allamt ?inno mā ?iṣaq bihada w?inno lāzem
?āxod taksi yekōn tabe9 lilmaṭār mū hēk ?ay wāhed blā?ī ?idāmī./

English Translation of Corpus

I'm going to tell you a story which I will never forget. I went on a business trip to Algeria about a month and a half ago. When I first got off the airplane, I **immediately** saw a taxi driver inside the airport. I had a feeling that this driver was really nice because when he first saw me carrying my luggage, he became very upset and he **instantly** brought a porter to help. Honestly, this taxi driver did all he could do to help me. As we were going to the car, all my bags fell on my foot because the porter had not stacked the bags **correctly** on the trolley. My foot began to hurt **a lot**; I couldn't even walk **well**. Suddenly the taxi driver said: "How about going to a clinic so that a doctor can examine it **well** and this way you can make sure that it is not broken". I replied that I had to go **directly** to the hotel because I had an appointment in two hours and I was afraid that I would be late for it. He answered that I should not be afraid at all since he **completely** knew his way around town. "Let us go to a doctor," he said, "I guarantee that you will be on time." I really wanted to go to the hotel; however I agreed and told him not to drive too fast. We arrived at the clinic and the driver helped me out of the car. He waited **a lot** with me until it was my turn to enter the doctor's office. During the whole time I was saying to myself how kind he was and that I should tip him **well**. After **properly** examining my leg, the doctor assured me that it was not broken and wrote me a prescription for a painkiller. After I left the doctor's office, I began looking for the driver so that we could continue our trip to the hotel. But he was no where to be found. I asked one of the nurses and was told that he had left **straight** after I went into the doctor's office. Anxious and distressed, I **directly** ran out into the street looking around and shouting **a lot** but with little success. I was fast realizing that the taxi driver had driven away with all my luggage which I so naively had left in his car! It suddenly dawned on me that he had pretended to be so kind and helpful so I would **completely** trust him and, in turn, he would have the opportunity to steal what he wanted. However, this idiot did not realize that I had memorized the number of his car's license plate as he walked me into the clinic. So, I **directly** reported him to the nearest police station. The attending officer promised to call me once he was apprehended. I was also taken to the hotel by a police car. Tired and having missed my appointment, I went **straight** to my room so that I could take a nap. However, I was unable to sleep **well** because I was very tense and worried. I still could not believe how I was coned so easily. After about three hours I received a phone call from the reception desk informing me that I was urgently needed at the lobby. I **directly** went downstairs where a police officer told me that the taxi driver had been arrested. He also brought my luggage which I **thoroughly** examined piece by piece making sure that everything was in order. I thanked the officer **a lot** and expressed my appreciation for the quick return of my belongings. It goes without saying that ever since this incident, I have become more careful and less trusting. I've also learned that it is better to take a taxi which belongs to the airport, rather than any taxi which one may happen to find.

50 Extracted Sentences
(Literal English Translation & Arabic Syntactic Analysis)

By comparing the literal English translation of the Syrian sentences AND the grammatically correct English equivalent, the syntactic differences that exist between Damascene Arabic and English become quite obvious. The differences in their structures are easily seen when aligning both (literal & correct) sentences above each other. This is what I have done here. This truly is one of the most insightful and eye-opening sections of this project. It is so interesting to discover that some of the sentences in the Damascene dialect have the exact syntactic structure as the English sentences, e.g., (Sentences 8, 16, 17). This, in turn, does prove, even if on a small scale, the possibility of applying Chomsky's phrase structure rules on many sentences in the Damascene dialect. This is the initial corpus; hence only a very general syntactic analysis will be provided. Later, only the sentences containing adverbs will be extracted, and additional sentences will be added. **The final corpus, which consists of 40 sentences, will be analyzed in more detail in the next section.**

KEY

Color of Text	What is this?
Green	Phonemic Transcription of Arabic Sentences
Blue	Very General Syntactic Analysis
Red	Literal English Translation of Sentences
Orange	Grammatically Correct Translation of Sentences

1.	[rāyeh	ʔihkī	lik	ʔissa	b9imri	mā	binsaha]
	VP [VP			NP]
	Am+going+to	tell+you	story	in+my+lifetime	won't	forget+it	
	I'm going	to tell you	a story	which I	will never	forget.	

2.	[nzilt	min	šī	šhahr	wnəs	9aldžžāʔir]
	VP [VP		Comp			PP]
	Went+I	ago	about	month	and-half	to+Algeria
	I went	to Algeria				about a month and a half ago.

3.	u	[ʔwwal ma	nzilt	min ʔityyara,	dağri	laʔēt	sawwa?	taksi]
	Conj			VP				
	And	as soon as	got off	from the airplane,	immediately	saw+I	driver	taxi
	As soon as	I	got off	the airplane,	I immediately	saw	a taxi	driver.

4.	[hasēt	ʔinno	kān	ktīr	zrīf]
	VP [VP		Comp]
	Felt+I	that	he+was	very	nice
	I felt	that	he was	very	nice.

5. [ʔwwal ma šāfnī, ktīr ʔdaya? 9alyyi].

VP
As soon as saw+me, very upset for+me
As soon as he saw me, he became very upset.

6. [u dāgri jāb] [9attāl yysa9ədni].

VP [V NP]
And instantly brought porter help+me
And he instantly brought a porter to help me.

7. u [nihnē rayyhīn lissyāra, wʔi9et ʔišanāti killa 9arejli].

Conj VP
As+we were+going to+the+car, fell the+luggage all on+leg+my
As we were going to the car, all the luggage fell on my leg.

8. [il9attāl] [mā kān hāteṭ ʔn mazbū].

NP VP
The+porter not did stack them correctly
The porter didn't stack them correctly.

9. [u ʔibtadet ktīr] [rejli tuja9ni].

VP [VP NP]
And started a lot leg+my hurt+me
And My leg started to hurt me a lot

10. u [mā kint 9ambegder ʔimši 9arejli muh].

Conj VP
And wasn't+I able walk on+leg+my well
And I wasn't able to walk on my leg well.

11. šu raʔyak biṭrīʔna ʔinmir 9ašī daktōr

Inter VP
What do think+you on+our+way we+pass by any doctor
What do you think about going to a clinic on our way?

12. mišān [yišiflak yaha muh].

Conj VP
So examine+for+you it well
So that he can examine it well.

13. lāzem rūh 9alfəndo? dāgri.

VP
Have+to go to+the+hotel directly
I have to go directly to the hotel.

14. [9əndī] [mow9ed ba9d sa9tēn.]
 VP [VP NP]
 Have+I appointment after hours two
 I have an appointment after two hours.

15. [lā txāf bnōb.]
 VP
 Don't afraid at all
 Don't be afraid at all.

16. [ʔanā] [ba9ref ʔilbalad mūh.]
 NP VP
 I know the+town well
 I know perfectly the way around town.

17. [xalīna nrūh 9adaktōr].
 VP
 Let+us go to+the +doctor
 Let us go to the doctor.

18. w [ʔana] [bedmanlak ʔinno tūsal 9alwaʔt]
 Conj NP VP
 And I guarantee+you that arrive on+time
 I guarantee that you will arrive on time.

19. [kān ktīr bidi rūh 9alʔotēl]
 VP
 Did very want go to+the+hotel
 I really did want to go to the hotel.

20. [ʔiltīl ō tyēb bes mā tisre9]
 VP
 Told+him fine but don't speed
 I told him fine but don't speed.

21. [wa9alna ʔidām 9yādet ʔidaktōr]
 VP
 Arrived+we in+front+of clinic doctor
 We arrived in front of the doctor's clinic.

22. w [sa9adni ʔisswā? mišān ʔinzil min ʔisyyāra.]
 Conj VP
 And-helped+me driver so I+go from+the+car
 The driver helped me out of the car.

32. [dawwart u 9ayyaṭ kūr bes mā laʔēt hada.]
 VP
 Looked+I and shouted+I a lot, but didn't find+I anyone
 I searched and shouted a lot but I didn't find anyone.

33. [w- uktašaft ʔinno ʔisawwā? kān 9ami sa9edni mešān ʔitmanlo mazhūi]
 Conj VP[VP Comp]
 And-found out+I that the driver was helping+me so trust+him completely
 I found out that driver was helping me so that I would completely trust him.

34. [bes] [mā] [ntabah ʔilhmār ʔinno hfəzt nimret syyārto.]
 Conj Neg VP[VP Comp]
 But didn't realize idiot that memorized+I number car+his
 But the idiot didn't realize that I had memorized his license plate number.

35. ʔimt [dəgri] hamalt hāli u-rihet 9ašərta w-balaḡt 9ano.]
 Conj VP
 So+I directly got up I and-went+I to+the+police and-reported+I him
 I directly got up, went to the police station, and reported him.

36. ʔāmu [waṣalūni 9alfəndo? U wa9adūni ʔinno ʔwwal mā ymskū, yixabruni.]
 Conj VP[VP Comp]
 So+they drove+me to+the+hotel and-promised+me that as soon as capture+him, call+me
 So they drove me to the hotel and promised me that once they captured him they would call me

37. [dəgri] hamalt hali u tlə9t 9algərfē mišān hət rasi w nam]
 VP[VP Comp]
 Straight got up I and-went up+I to the room to put head+my and+sleep
 I directly got up and went to my room to take a nap.

38. [mā ʔidərt nam mūh.]
 VP
 Wasn't able+I sleep well.
 I wasn't able to sleep well.

39. [kint maʔhūr ktīr lʔenno ḡəder halharāmi yidhak 9alēi w yisro? ʔišinat.]
 VP[VP Comp]
 Was+I mad very because could this+criminal trick me and-steal bags+my
 I was very mad because this criminal tricked me and stole my bags.

40. u [ba9d šī tlit sa9āt, ma šəft ʔila mwazzaf ʔilʔstiʔbāl 9ami dʔili.]
 Conj VP
 And-after about three hours, saw+I that employee lobby was ringing+me
 After about three hours, the reception desk rang me.

41.	[hamalt	hali	doğri	w inzilt	lataht.]			
	Got up	I	directly	and went down+I	to+downstairs			
	I	got up	and directly	went	downstairs.			
42.	[wa?t	waşalt,	la?ēt	?işərta	māskīn	?ilnaşāb]		
	when	arrived+I,	found+I	the+police	capturing	the+criminal		
	When	I arrived,	I found	that the police	had captured	the criminal.		
43.	w [mraj9īn		kil	?išanāti.]				
	Conj		VP					
	And-	returned	all	the+bags				
	And they had returned		all	the bags.				
44.	[9adetən	w t?akkat	mnih	?inno	kilşī	tamām.]		
	VP[VP			Comp]		
	Counted+I+them	and-made sure+I	thoroughly	that	everything	right		
	I counted them	and	thoroughly made sure	that everything was in order.				
45.	u [şakartən	ktir	w irje9t	lagərfti.]				
	Conj		VP					
	And-	thanked+I+them	a lot	and- returned+I	to+room+my			
	I thanked them	a lot,	then I returned	to my room.				
46.	[bsabab	halşagglē,	rah	9alēi	?ilmow9ed.]			
			VP					
	because+of	this+situation,	missed	I	the+appointment			
	Because of	this situation,	I missed		the appointment.			
47.	[w kanet	rāyha	trūh	9alēi	?išanāti	kamān.]		
			VP					
	And was	going	miss out	I	the+bags	too		
	I was	also going	to lose		the bags.			
48.	[bes]	[Alla]	[satar	u laṭaf.]				
	Conj	NP	VP					
	But	Allah	protected	and-saved				
	But	Allah	did not	wish for	this to happen.			
49.	u [min	wa?ta	t9allamt	?inno	mā	lāzem	?iṣaq	biḥada.]
	Conj	VP[VP		Comp]
	And since then,	learned+I	that	shouldn't trust in+anyone				
	Since then,	I have learned	that I shouldn't trust anyone.					
50.	[lāzem	?āxod	taksi	?ikūn	tabe9	lilmaṭār.]		
			VP					
	Should	take	taxi	that belongs	to+the+airport			
	I should	take	a taxi	which belongs	to the airport.			

From this corpus, we can see that the majority of the sentences have the structure: **S → VP** or **S → Conj – VP**, and a few that have the structure: **S → NP – VP**. This was the original corpus. However, for the purposes of this study, **three changes** will be made in order to make the corpus more manageable:

- 1) Only the sentences containing adverbs will be extracted and grouped together in an orderly fashion.
- 2) Only simple sentences will be chosen.
- 3) In order for the corpus to better represent the adverbs we need to analyze, I asked my informant to provide approximately 5 extra sentences for each of the four adverbs; “**māzū**”, “**mnīh**”, “**ktīr**”, and “**d□gri**”.

The following is the resulting corpus, which is dealt with in detail.

Note: The sentences containing **purple verbs** are from the original corpus, and the sentences containing **pink verbs** are the additional sentences.

^ The Final Corpus :

/mnīh/

(1) /u	mā	mšit		mnīh/
Conj	Neg	pro inflec 1 st person sing + perf V		Adv
masc	masc	masc		masc
And	I couldn't	walk		well.

(2) /biyišəflak		yaha		mnīh/
pro inflect 3 rd person + imperf V	+ pron 2 nd person sing	N		Adv
masc		masc		masc
He will examine		it		properly.

(3) /ʔanā		ba9ref	ʔilbalad	mnīh/
N	pro inflect 1 st person sing imperf V		N	Adv
masc	masc		masc	masc
I	know		this town	well.

(4) /faḥṣni			ʔidaktōr	mnīh/
pro inflect 3 rd person + perf V + pro 1 st person sing			N	Adv
masc			masc	masc
The doctor			examined me	well.

(5) /mā		nimt		mnīh/
Neg	pron inflect 1 st person sing + perf V			Adv
masc	masc			masc
I didn't	sleep			well.

(6) /tʔakadt		mnīh	ʔinno	kilšī	tamām/
pro inflect 1 st person sing + perf V		Adv	Comp	[N	Adj]
masc		masc	masc	masc	masc
I made absolutely sure			that	everything	was fine.

(7) / daras pro inflect 3 rd person sing + perf V masc He studied	mnih Adv masc well	?imbāreh/ Comp [TAdv] masc yesterday.
--	------------------------------------	--

(8) / galet pro inflect 3 rd person sing + perf V fem She boiled	?il?ahwē N fem the coffee	mnih / Adv masc well.
---	------------------------------------	---------------------------------------

(9) /?imbāreh Comp (TAdv) masc yesterday	mā Neg masc I didn't	nimt pron inflect 1 st person sing + perf V masc sleep	mnih / Adv masc well.
---	-------------------------------	---	---------------------------------------

(10) / ktibi pron inflect 1 st person sing + imperf V + pron inflect 2 nd person sing fem Write		mnih / Adv masc clearly
---	--	---

(11) /?irrsept pro inflect 1 st person sing + perf V masc I failed	l?enno mā Comp [Neg] pro inflect 1 st person sing + perf V masc masc because I didn't	jāwapt pro inflect 1 st person sing + perf V masc answer	mnih / Adv masc well.
--	---	---	---------------------------------------

/mazbūt/

(12) /?il9attāl mā kān N Neg Aux pro inflect 3 rd person sing + perf V + pro inflect 3 rd person plural masc masc masc The porter did not	hāteṭan masc stack them	mazbūt / Adv masc correctly.
--	--------------------------------------	--

(13) / karam pro inflect 3 rd person sing + perf V masc He tipped	il9attāl N masc the porter	mazbūt / Adv masc well.
--	-------------------------------------	---

(14) /?isawwā? N masc The driver	sa9adni pron inflect 3 rd person + perf V masc helped me	mazbūt / Adv masc a lot.
---	--	--

(15) /mā Neg Masc I didn't	?akalt pro inflect 1 st person sing + perf V masc eat	mazbūt Adv masc well	l?enno kint šab9ān/ Comp [Aux Adj] masc masc masc because I was full.
-------------------------------------	--	--------------------------------------	---

(16) /mā	smi9t	mazbūt	l?enno kint b9īd/
Neg	pro inflect 1 st person sing + perf V	Adv	Comp [Aux Adv]
Masc	masc	masc	masc masc masc
I didn't	hear	well	because I was in the distance.

(17) /bitsū?	mazbūt/
pro inflect 3 rd person sing + imperf V	Adv
fem	masc
She drives	well.

(18) /drōs	mazbūt/
pro inflect 2 nd person singular + imperative imperfective V	Adv
masc	masc
Study	well.

(19) /?imbāreh	?irtiht	mazbūt/
Comp [TAdv]	pro inflect 1 st person sing + perf V	Adv
masc	masc	masc
Yesterday	I rested	well.

/ktīr/

(20) /ktīr	rejli	9ammtūja9ni/
Adv	N	pro inflect 1 st person sing + imperf V + pro inflect 1 st person sing
masc	masc	masc
My foot	hurts	a lot.

(21) /ktīr	?istannā	ma9i/
Adv	pro inflect 3 rd person sing + perf V	Comp [PP]
masc	masc	masc
He waited a lot with me.		

(22) /dawwart	ktīr	bes mā	la?ēt	hada/
pro inflect 1 st person sing + perf V	Adv	Comp [Neg	pro inflect 1 st person sing + perf V	N]
masc masc masc	masc	masc	masc	masc
I search a lot but I didn't find anyone.				

(23) /	šakartōn	ktīr/
pro inflect 1 st person sing + perf V + pro inflect 3 rd person plural	Adv	
masc	masc	
I thanked them	a lot.	

(24) /?anā	bhōbek	ktīr/
N	pro inflect 1 st person sing + imperf V + pro inflect 2 nd person sing	Adv
masc	fem	masc
I	love you	a lot.

(25) /fakkri/	ktir	?abelmā	džāwbī/
pro inflect 2 nd person singular + imperf V	Adv	Comp [Prep	pro inflect 3 rd person sing + imperf V]
fem	masc	masc	fem
Think	carefully	before	you give an answer.

(26) /lā	titraddad	ktir /
Neg	pro inflect 3 rd person sing + imperf V	Adv
masc	masc	masc
Don't	hesitate	too much.

(27) /?imbāreh	rakadna	ktir/
Comp[TAdv]	pro inflect 3 rd person plural + perf V	Adv
masc	masc	masc
Yesterday	we ran	a lot.

(28) /ktir	mudīri	9ammyiz9jnī /
Adv	Noun + personal pronoun	pro inflect 3 rd person sing + imperf V + pro inflect 1 st person sing
masc	masc	masc
My boss	is bothering me	a lot.

/dəgri/

(29) /dəgri	la?et	sawwa?	taksi/
Adv	pro inflect 1 st person sing + perf V	N	Adj
masc	masc	masc	masc
I immediately	found	a taxi	driver.

(30) /dəgri	jāb	9attāl/
Adv	pro inflect 3 rd person sing + perf V	N
masc	masc	masc
He directly	brought	a porter.

(31) /rāh		9alfəndo?	dəgri/
pro inflect 3 rd person sing + perf V		Comp [PP	Adv]
masc		masc	masc
He directly went		to the hotel.	

(32) /?isawwā?	miši	dəgri/
N	pro inflect 3 rd person sing + perf V	Adv
masc	masc	masc
The driver	left	immediately.

(33) /dəgri	rakadt	9ašāre9/
Adv	pro inflect 1 st person sing + perf V	Comp [PP]
masc	masc	masc
I directly	ran	to the street.

(34) / dəgri	rihit	9ašərta/
Adv	pro inflect 1 st person sing + perf V	Comp[PP]
masc masc masc		
I directly went to the police.		

(35) / dəgri	tlə9t	9algərfē /
Adv	pro inflect 1 st person sing + perf V	Comp[PP]
masc	masc	fem
I directly	went up	to my room.

(36) / dəgri	nzilt	lataht/
Adv	pro inflect 1 st person sing + perf V	Comp[PP]
masc	masc	masc
I directly	went	downstairs.

(37) / mā	tqArer	dəgri /
Neg	pro inflect 2 nd person sing + imperf V	Adv
masc	masc	masc
Don't	decide	right away.

(38) / rūh		dəgri	9albēt/
pro inflect 2 nd person sing + imperative imperf V		Adv	Comp[PP]
masc		masc	masc
Go		straight	home.

(39) / dəgri	āl	ʔinno huwē ʔilharami /
Adv	pro inflect 2 nd person sing + imperf V	Comp[NP]
masc	masc	masc masc masc
He immediately	said	that he was the burglar.

(40) / dəgri	rāyyhīn	lisīnama/
Adv	pro inflect 3 rd person plural + imperf V	Comp[PP]
masc	masc	fem
We are directly	going	to the cinema.

Damascene and English Adverbs

After listing these sentences, in which each group contains similar adverbs, the analysis of this particular corpus shows the following findings with regards to the four Damascene adverbs:

1. Damascene Adverbs ("māzbūt", "mnīh", "ktīr", and "dāgri")

Adverbs	Findings
/mnīh/	<p style="text-align: center; color: #0000FF;">Meaning: Adverb of manner.</p> <p>The adverb 'mnīh' in the Damascene dialect always comes after the verb. My informant says that he has never heard anyone use this adverb before the verb. The adverb 'mnīh' does not have to immediately follow the verb (e.g., sentences (1), (2), (3), & (4)); however, it is possible (e.g., sentences (5) & (6)). It is also worthy to note that this adverb frequently is used as the final last word in the sentence or clause (e.g., sentences (1), (2), (3), (4), & (5)).</p>
/māzbūt/	<p style="text-align: center; color: #0000FF;">Meaning: Adverb of manner</p> <p>The adverb 'māzbūt' in the Damascene dialect also always comes after the verb. However, my informant says that some people do use 'māzbūt' before the verb sometimes, but such cases are quite rare. Unlike 'mnīh', it seems that 'māzbūt' must immediately follow the verb; no separations are allowed. It is also quite apparent from these sentences that this adverb usually comes at the end of the sentence or clause.</p>
/ktīr/	<p style="text-align: center; color: #0000FF;">Meaning: Adverb of manner</p> <p>The adverb 'ktīr', just like 'mnīh' and 'māzbūt' seems to usually come after the verb (e.g., sentences (20), (22), & (23)), but not always (e.g., sentence (21)). I asked my informant if 'ktīr' can always be used interchangeably before and after the verb. He said that this adverb can't always be used interchangeably. For example, in (sentence (20)), it is impossible for 'ktīr' to come before the verb; however, in (sentences (21), (22), & (23)) it is possible to use 'ktīr' before or after the verb.</p>
/dāgri/	<p style="text-align: center; color: #0000FF;">Meaning: Adverb of direction</p> <p>Unlike the three previous adverbs, 'dāgri' is frequently used before the verb (e.g., sentences (29), (30), (31), (33), (34), (35), & 36)); however, it is also used after the verb (e.g., sentences (31) & (32)) I asked my informant if 'dāgri' can be used interchangeably before and after the verb. He replied that it can indeed be used interchangeably before and after the verb. What is even more interesting about this adverb is that it can be moved around in the sentence very easily. For example, notice how 'dāgri' is used in all the following positions:</p> <ul style="list-style-type: none"> • hamalt hali dāgri w nzilt lataht. • dāgri hamalt hali w nzilt lataht. • hamalt hali w dāgri enzilt lataht. • hamalt hali w nzilt dāgri lataht. • hamalt hali w nzilt lataht dāgri. • hamalt dāgri hali w nzilt lataht.

2. English Adverbs (“well”, “properly”, “a lot”, and “directly”, etc.)

In order to clearly see the differences between English and Damascene adverbs, we first need to list a group of English sentences (all the adverbial sentences in the original corpus), then give a corresponding translation in English. This way one can easily see how far English and Damascene adverbs function alike.

/mnih/

- (1) u mā kint 9amḃegḃer ?imši 9arejli mnih.
I wasn't able to walk on my leg well.
- (2) mišān yeḃflak yaha mnih.
So that he can examine it well.
- (3) ?anā ba9ref ?ilbalad mnih.
I know this town well.
- (4) u ba9dma faḃḃni ?idaktōr mnih. w katabli 9ala ?iədwē lilwaja9.
After the doctor examined me properly he wrote me a prescription for a painkiller.
- (5) mā ?idert nam mnih.
I wasn't able to sleep well.
- (6) 9adetān (mnih) w tt?akkadt (mnih) ?inno kilšī tamām.
I counted them and thoroughly made sure that everything was fine.

/mazbuut/

- {1} ?il9attāl mā kān ḃḃtetān mazbuut.
The porter didn't stack them correctly.
- {2} w lāzem ?ikermo mazbuut.
I have to tip him well.
- {3} w ktaḃaft ?inno ?isawā? kān 9ami sa9idni mišān ?itmannlo mazbuut
I found out that driver was helping me so that I would (completely) trust him (completely)

/ktir/

- [1] u-?ibtadet (ktir) rejli tuja9ni (ktir)
My leg started to hurt me a lot
- [2] (ktir) ?istanā (ktir) ma9i laḃata fət 9adaktōr.
He waited a lot with me right up till I entered the doctor's office
- [3] dawwart u 9ayyaḃ (ktir) bes mā la?ēt ḃada.
I looked around and shouted a lot but I didn't find anyone.

[4] u **šakartən** **ktir** w erje9t laǧərfti.
 I thanked them a lot, then I returned to my room.

/dəǧri/

1) u **dəǧri** ma nzilt min **ʔiṯyyara**, **dəǧri** laʔēt sawwaʔ taksi.
 As soon as I got off the airplane, I directly saw a taxi driver.

2) u **dəǧri** jāb 9attāl yysa9edni.
 He instantly brought a porter to help me.

3) lāzem rūh **(dəǧri)** 9alfəndoʔ **(dəǧri)**.
 I have to go directly to the hotel.

4) ʔāmet ʔaletli ʔinno ʔissawwāʔ miši **dəǧri** ʔwal ma daxalt 9aǧərfeṯ ʔilkašf.
 She replied that the driver left straight after I entered the examination room.

5) ʔimt **dəǧri** rakadt 9ašāre9 ladwer 9alē.
 I directly ran out to the street to look for him.

6) ʔimt **dəǧri** hamalt hāli u rihit 9ašərṯa w ballaǧt 9ano.
 I directly got up, went to the police station, and reported him.

7) **(dəǧri)** hamalt hali u **(dəǧri)** ʔə9t 9algərfeṯ mišān hət rasi w nam.
 I got up and directly went to my room to take a nap.

8) hamalt hali **(dəǧri)** w **(dəǧri)** ʔinzilt lataht.
 I got up and directly went downstairs.

If we look at all the sentences above, we will find that the adverb can occupy the same position in both English and the Damascene dialect. This is just the beginning; if we take an even closer look, we will find that not only do the adverbs function similarly, but that the whole syntactic structure of both the adverbial sentences in English and in the Damascene dialect are also almost the same. This truly is a very interesting finding.

STEP TWO:

PHRASE-STRUCTURE RULES

Phrase-Structure rules break down sentences, establishing their basic structures, regardless of the final form the sentences may take after transformational rules have been applied. Each rule has the form: $X \rightarrow Y - Z$. In this section, we will be using Chomsky's phrase-structure rules (PS rules) in order to generate the deep structure of some of the sentences in our corpus, particularly those sentences that contain the highlighted adverbs.

Sentences are composed of syntactic structures placed in particular orders as determined by the grammar of the language. The syntactic structures and the order of the elements vary from one language to another.

PS rules specify the constituency of syntactic categories in the language. For example, in English an $NP \rightarrow Art - N$, since the article always precedes the noun. Chomsky believes that these rules allow for the grammar of any language to be described in an efficient, yet highly economical manner. When using the TG theory, we have to be conscious at all times of striking a balance between constraining our grammar and attaining empirical adequacy.

For example, if we want to describe a noun phrase in English, we can use the following PS rules:

- a. $NP \rightarrow Det - N$ *the cat*
- b. $NP \rightarrow Det - A - N$ *those noisy cats*
- c. $NP \rightarrow N$ *cats*
- d. $NP \rightarrow A N$ *noisy cats*

We can mark optional subphrases with parentheses to make our grammar as compact as possible: $NP \rightarrow (Det) - (A) - N$ *cats, noisy cats, the cat, those noisy cats*

A PS rule clarifies two things:

1) Which smaller phrases (e.g., Det, N, V, etc.) are used to build bigger phrases (e.g., NP, VP, etc.)

2) How to order the smaller phrases. For example, the phrase-structure rule

$NP \rightarrow (Det) - (A) - N$, allows *noisy cats*, but not **cats noisy*.

However, if you look closely, we will notice that this alone is insufficient. For example, a pronoun can be a noun phrase. So we have to add an additional rule:

$NP \rightarrow Pron$ *she, you, ...*

The more sentences we look at in our corpus, the more we will have to revise or add rules that capture the kinds of sentence/phrase structures our language permits.

A partial account for the grammar of Damascene adverbs using Chomsky's PS rules:

Now we will attempt to find out to what extent we are able to use Chomsky's PS rules to account for the syntactic structures of Damascene sentences containing certain adverbs. Sentences containing similar adverbs will be grouped together. Next, we will attempt to write a partial grammar for the sentences in our corpus. But without even starting, you will find that we are faced with sentences that start with a VP, not an NP; and sentences that sometimes don't even have an NP at all. Even if we look at the sentences that have the structure NP - VP, we find that there is a difference between most of the VPs in the Damascene dialect and in English in that, for example, a Damascene VP usually contains a small pro which is not found in English VPs. Hence, Chomsky's PS rules have broken down instantly with regards to the analysis of the Damascene dialect. So, how are we to deal with these sentences? We will write a partial grammar for the sentences in our corpus using the same PS rules but with a few changes. The difficulties that we will be facing will open a window for us to later explore the types of transformations that will be needed in order to account for our sentences according to Chomsky's transformational-generative theory. These problems will become much more apparent later when we draw the tree diagrams for some of these sentences.

For now, we will approach the task of validating to what extent we can use Chomsky's PS rules (with a few changes) to generate Damascene sentences containing adverbs by going through the following steps:

- 1) **Step one:** Listing some of Chomsky's PS rules. Only the rules that are relevant to our study will be listed.
- 2) **Step two:** These rules will be followed by a list of the syntactic structure of the sentences in the corpus.
- 3) **Step three:** Attempt to write a special set of PS rules that can account for the remaining sentences that can not be generated by Chomsky's PS rules.

Step One:

A Partial PS Grammar for English sentences that contain adverbs:

- (a) $S \rightarrow S - (\text{Conj} - S)$
- (b) $S \rightarrow (\text{Imp}) - (\text{Neg}) - \text{NP} - (\text{Aux}) - (\text{ADVP}) - \text{VP} - (\text{Comp})$
- (c) $\text{VP} \rightarrow \text{V} - (\text{NP}) - (\text{ADVP}) - (\text{PP})$
- (d) $\text{ADVP} \rightarrow (\text{Deg}) - \text{ADV}$
- (e) $\text{Comp} \rightarrow \left\{ \begin{array}{l} \text{TAdv} \\ \text{that} - \text{S} \\ \text{Conj} - \text{S} \\ \text{ADJP} \\ \text{NP} \end{array} \right\}$
- (f) $\text{PP} \rightarrow \text{Prep} - \text{NP}$
- (g) $\text{AP} \rightarrow (\text{Deg}) - \text{Adj}$
- (h) $\text{Aux} \rightarrow \text{Tense} - (\text{M}) - (\text{Perf}) - (\text{Prog})$
- (i) $\text{Tense} \rightarrow \{ \text{pres, past} \}$
- (j) $\text{Perf} \rightarrow \text{have} - \text{EN}$
- (k) $\text{Prog} \rightarrow \text{be} - \text{ING}$
- (l) $\text{NP} \rightarrow (\text{Det}) - (\text{AP}) - \text{N}$
- (m) $\text{N} \rightarrow \{ \text{N, Pronoun} \}$

Step Two:

/mnih/

- | | | | | | |
|------|-------------|-----|--|-----|-----------------|
| (1) | Conj | Neg | pro inflect 1 st person sing + perf V | | Adv |
| (2) | Conj | | pro inflect 3 rd person + imperf V + pron 2 nd person sing | N | Adv |
| (3) | | N | pro inflect 1 st person sing imperf V | N | Adv |
| (4) | | | pro inflect 3 rd person + per V + pro 1 st person sing | N | Adv |
| (5) | | Neg | pron inflect 1 st person sing + perf V | | Adv |
| (6) | | | pro inflect 1 st person sing + perf V | Adv | Comp[N-Adj] |
| (7) | | | pro inflect 3 rd person sing + perf V | Adv | Comp[TAdv] |
| (8) | | | pro inflect 3 rd person sing + perf V | N | Adv |
| (9) | Comp (TAdv) | Neg | pron inflect 1 st person sing + perf V | | Adv |
| (10) | | | pron inflect 1 st person sing + imperf V + pron inflect 2 nd person sing | Adv | |
| (11) | | | pro inflect 1 st person sing + perf V | | Comp[Neg-V-Adv] |

/mazbüt/

- | | | | | | |
|------|-------------|-----|-----|--|-----|
| (12) | N | Neg | Aux | pro inflect 3 rd person sing + perf V + pro inflect 3 rd person plural | Adv |
| (13) | | | | pro inflect 3 rd person sing + perf V | N |
| (14) | N | | | pron inflect 3 rd person + perf V | Adv |
| (15) | | Neg | | pro inflect 1 st person sing + perf V | Adv |
| (16) | | Neg | | pro inflect 1 st person sing + perf V | Adv |
| (17) | | | | pro inflect 3 rd person sing + imperf V | Adv |
| (18) | | | | pro inflect 2 nd person singular + imperative imperfective V | Adv |
| (19) | Comp [TAdv] | | | pro inflect 1 st person sing + per V | Adv |

/kīr/

(20)	Adv	N	pro inflect 1 st person sing + imperf V + pro inflect 1 st person sing		
(21)	Adv		pro inflect 3 rd person sing + per V		Comp [PP]
(22)			pro inflect 1 st person sing + per V	Adv	Comp[Neg – V – N]
(23)	Conj		pro inflect 1 st person sing + perf V + pro inflect 3 rd person plural	Adv	
(24)		N	pro inflect 1 st person sing + imperf V + pro inflect 2 nd person sing	Adv	
(25)			pro inflect 2 nd person singular + imperf V	Adv	Comp [Prep – V]
(26)	Neg		pro inflect 3 rd person sing + imperf V	Adv	Comp[TAdv]
(27)			pro inflect 3 rd person plural + perf V	Adv	
(28)		N	pro inflect 3 rd person sing + imperf V + pro inflect 1 st person sing	Adv	

/dāgrī/

(29)	Adv		pro inflect 1 st person sing + perf V	N	Adj
(30)	Conj	Adv	pro inflect 3 rd person sing + perf V	N	
(31)			pro inflect 3 rd person sing + perf V		Comp [PP – Adv]
(32)	N		pro inflect 3 rd person sing + perf V		Adv
(33)	Adv		pro inflect 1 st person sing + perf V		Comp [PP]
(34)	Adv		pro inflect 1 st person sing + perf V		Comp[PP]
(35)	Adv		pro inflect 1 st person sing + perf V		Comp[PP]
(36)	Adv		pro inflect 1 st person sing + perf V		Comp[PP]
(37)	Neg		pro inflect 2 nd person sing + imperf V		Adv
(38)			pro inflect 2 nd person sing + imperative imperf V		Adv Comp[PP]
(39)			pro inflect 2 nd person sing + imperative imperf V	N	Adv Comp[PP]
(40)	Adv		pro inflect 3 rd person plural + imperf V		Comp[PP]

Step Three:

Since there are two types of sentences; nominal and verbal, two sets of PS rules will be provided.

1. A Partial PS Grammar for Damascene Nominal Sentences: There are only 7 nominal sentences out of the 40-sentence corpus. The following PS rules will generate sentences 3, 12, 14, 20, 24, 28, and 32.

The rules are as follows:

$S \rightarrow NP - (Neg) - (Aux) - VP$

$$VP \rightarrow \left\{ \begin{array}{l} \text{pro inflect 1}^{\text{st}} \text{ pers} \\ \text{pro inflect 2}^{\text{nd}} \text{ pers} \\ \text{pro inflect 3}^{\text{rd}} \text{ pers} \end{array} \right\} - \left\{ \begin{array}{l} \text{sing} \\ \text{plural} \end{array} \right\} + \left\{ \begin{array}{l} \text{per} \\ \text{imperf} \end{array} \right\} - \left\{ \begin{array}{l} \text{pro inflect 1}^{\text{st}} \text{ person} \\ \text{pro inflect 2}^{\text{nd}} \text{ person} \\ \text{pro inflect 3}^{\text{rd}} \text{ person} \end{array} \right\} - (\text{ADVP})$$

$Aux \rightarrow \text{Tense} - (\text{Prog})$

$\text{Tense} \rightarrow \left\{ \begin{array}{l} \text{pres} \\ \text{past} \end{array} \right\}$

$\text{Prog} \rightarrow /9am/$

$\text{ADVP} \rightarrow \text{Adv}$

$\text{NP} \rightarrow (\text{Det}) - \text{N}$

$\text{N} \rightarrow \left\{ \begin{array}{l} \text{Noun} \\ \text{Pro} \end{array} \right\}$

2. A Partial PS Grammar for Damascene Verbal Sentences:

There are 33 verbal sentences in the corpus. Obviously, we can say that the Damascene dialect does contain nominal sentences; however, verbal sentences are much more frequently used. The following PS rules will generate all the sentences in the corpus except for sentences 3, 12, 14, 20, 24, 28, and 32.

The rules are as follows:

$S \rightarrow (\text{Imp}) - (\text{Conj}) - (\text{Neg}) - (\text{Aux}) - \text{VP}$

$$\text{VP} \rightarrow \left\{ \begin{array}{l} \text{pro inflect 1}^{\text{st}} \text{ pers} \\ \text{pro inflect 2}^{\text{nd}} \text{ pers} \\ \text{pro inflect 3}^{\text{rd}} \text{ pers} \end{array} \right\} - \left\{ \begin{array}{l} \text{sing} \\ \text{plural} \end{array} \right\} + \left\{ \begin{array}{l} \text{per} \\ \text{imperf} \end{array} \right\} - \left\{ \begin{array}{l} \text{pro inflect 1}^{\text{st}} \text{ person} \\ \text{pro inflect 2}^{\text{nd}} \text{ person} \\ \text{pro inflect 3}^{\text{rd}} \text{ person} \end{array} \right\} - (\text{NP}) - (\text{ADV}) - (\text{Comp})$$

$$\text{Comp} \rightarrow \left\{ \begin{array}{l} /?inno/ \text{ (that)} - \text{S} \\ /!?enno/ \text{ (because)} - \text{S} \\ \text{TAdv (time adverbial)} \\ \text{PP} \\ \text{ADJP} \end{array} \right\}$$

$\text{ADV} \rightarrow \text{Adv}$

$\text{NP} \rightarrow (\text{Det}) - \text{N} - (\text{ADJP})$

$$\text{N} \rightarrow \left\{ \begin{array}{l} \text{Noun} \\ \text{Pro} \end{array} \right\}$$

$\text{Aux} \rightarrow \text{Tense} - (\text{Prog})$

$$\text{Tense} \rightarrow \left\{ \begin{array}{l} \text{pres} \\ \text{past} \end{array} \right\}$$

$\text{Prog} \rightarrow /9am/$

$\text{ADJ} \rightarrow \text{Adj}$

$\text{PP} \rightarrow \text{Prep} - \text{NP}$

STEP THREE: THE LEXICON

Next, we consult the lexicon, and then apply appropriate lexical insertion rules. The result of using the phrase structure rules and the lexicon is that we are able to draw a tree diagram which generates the deep structure. Deep structure, then, consists both of the ordered words and terms at the bottom of the tree and the tree itself, which is sometimes called a phrase-structure marker.

So far, we have been assuming that our Grammar contains three components:

- (1) PS Rules (also called Categorical Rules), e.g. $S \rightarrow NP - AUX - VP$
- (2) Lexicon, e.g., bite=V; cat = N; chase = V, etc.
- (3) Lexical Insertion Rule: For any terminal lexical category (i.e. one which is at the bottom of the tree), go to the Lexicon (2), and select from it any lexical item (=word) belonging to the same category, and insert it under the appropriate lexical category node.

However, such a Lexical Insertion Rule could easily generate ungrammatical sentences such as: * *The dog will pause the dog*. Since there doesn't seem to be any way in which we can predict whether a given verb does or does not permit a following NP-complement, it seems that this is the kind of idiosyncratic information which we will have to include in the Lexical Entry (=dictionary specification) for each individual verb. We can do this by specifying in the Lexicon the features that each word carries. For example, if we say a verb is transitive, then this means that the verb will have a following NP, and so on.

The features in the lexicon are marked with + to mean a positive feature, with - to mean a negative one, i.e., the absence of that feature, or with ± to mean either positive or negative. However, the absence of a feature usually implies the presence of another one: e.g. - masculine *means* + feminine.

Further, features in general may imply other features, which is responsible for introducing the concept of "redundancy". The feature, for example, + pronoun implies + noun; the feature human implies +animate, and so on.

This lexicon will only describe the lexical items that appear in the corpus, to which this study is limited. Every category of words appears in a separate section: nouns, verbs, adverbs, adjectives, determiners, prepositions, auxiliaries, negatives, conjunctions, and time adverbials. If a particular determiner, for example /il/, is found in more than one sentence, it will only be mentioned one time in the Lexicon. The numbers next to each word indicate the sentences they belong to.

Plus Noun (+N) Words

In describing these words, many symbols are used to stand for significant features.

N = nouns.
 pro = pronoun.
 anim = animate.
 hum = human.
 con = concrete.
 count = countable.
 mas = masculine.

(2) <i>yaha</i> “it” +N +pro ±anim ±hum ±con ±count +mas	(3) <i>balad</i> “town” +N -pro -anim -hum +con +count +mas	(3) <i>ʔanā</i> “I” +N +pro +anim +hum +con +count +mas	(4) <i>daktōr</i> “doctor” +N -pro +anim +hum +con +count +mas	(6) <i>kilšt</i> “everything” +N -pro -anim -hum ±con -count +mas	(8) <i>ʔahwē</i> “coffee” +N -pro -anim -hum +con -count -mas	(12) <i>9attāl</i> “porter” +N -pro +anim +hum +con +count +mas
(14) <i>sawwāʔ</i> “driver” +N -pro +anim +hum +con +count +mas	(20) <i>rejl</i> “leg” +N -pro -anim -hum +con +count +mas	(22) <i>ḥada</i> “anyone” +N -pro +anim +hum +con -count +mas	(28) <i>mudīr</i> “boss” +N -pro +anim +hum +con +count +mas	(29) <i>taksi</i> “taxi” +N -pro +anim -hum +con +count +mas	(31) <i>fəndoʔ</i> “hotel” +N -pro -anim -hum +con +count +mas	(33) <i>šāre9</i> “street” +N -pro -anim -hum +con +count +mas
(34) <i>šərṭa</i> “police” +N -pro +anim +hum +con -count +mas	(35) <i>gərfē</i> “room” +N -pro -anim -hum +con +count -mas	(38) <i>bēt</i> “house” +N -pro -anim -hum +con +count +mas	(39) <i>ḥabē</i> “pill” +N -pro -anim -hum +con +count -mas	(39) <i>gāda</i> “lunch” +N -pro -anim -hum +con -count -mas	(40) <i>sīnama</i> “cinema” +N -pro -anim -hum +con -count -mas	

Plus Verb (+V) Words

In this section, the following features will be used.

V = Verb.
 act = action. (If the V can be made imperative)
 perf = perfective. (-perf = imperfective)
 tran = transitive.
 inst = instrument. (a V may need an instrument)
 masc = masculine.

(1) mašā “walked” +V +act +perf -tran -inst +masc	(2) šūf “see” +V +act -perf +tran ±inst +masc	(3) ba9ref “know” +V -act -perf +tran -inst +masc	(4) faḥas “examine” +V -act -perf +tran ±inst +masc	(5) nām “slept” +V +act +perf -tran -inst +masc	(6) tʔakkat “ensured” +V -act +perf +tran -inst +masc	(7) daras “studied” +V +act +perf +tran -inst +masc
(8) ḡalēt “boiled” +V +act +perf +tran +inst -masc	(10) ʔiktebi “write” +V +act -perf +tran +inst -masc	(11) riseb “failed” +V -act +perf -tran -inst +masc	(11) jāwab “answered” +V +act +perf +tran -inst +masc	(12) ḡʔt “put” +V +act +perf +tran -inst +masc	(13) karam “tipped” +V +act +perf +tran -inst +masc	(14) sā9ad “helped” +V +act +perf +tran -inst +masc
(15) ʔakal “ate” +V +act +perf +tran -inst +masc	(16) sime9 “heard” +V +act +perf +tran -inst +masc	(17) sūʔi “drive” +V +act -perf +tran +inst -masc	(18) drōs “study” +V +act -perf +tran -inst +masc	(19) ʔirtāḡ “rested” +V +act +perf -tran -inst +masc	(20) tūja9 “hurts” +V -act -perf -tran -inst +masc	(21) ʔistanā “waited” +V +act +perf -tran -inst +masc
(22) dawwar “searched” +V +act +perf -tran -inst +masc	(22) laʔā “found” +V +act +perf +tran -inst +masc	(23) šakar “thanked” +V +act +perf +tran -inst +masc	(24) biḡeb “loves” +V +act -perf +tran -inst +masc	(25) fakkar “think” +V +act -perf -tran -inst +masc	(25) jāwab “answered” +V +act +perf -tran -inst +masc	(26) traddad “hesitated” +V -act +perf -tran -inst +masc
(27) rakad “ran” +V +act +perf -tran -inst +masc	(28) za9aj “disturbed” +V -act +perf +tran -inst +masc	(30) jāb “brought” +V +act +perf +tran -inst +masc	(31) rāḡ “went” +V +act +perf -tran -inst +masc	(32) miši “walked” +V +act +perf tran -inst +masc	(35) tūle9 “ascended” +V +act +perf -tran -inst +masc	(36) nizel “descended” +V +act +perf -tran -inst +masc

(37) qArrar “decided” +V +act +perf -tran -inst +masc	(38) rūh “go” +V +act -perf -tran -inst +masc	(39) kōl “eat” +V +act -perf +tran -inst +masc	(40) rāyeh “going” +V -act -perf -tran -inst +masc
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Plus Adverb (+Adv) Words

In this section, the following features will be used.

Adv = adverb.

eval = evaluative.

loc = locative.

man = manner.

tem = temporal.

deg = degree.

(1) mnīh “well”, “properly” +Adv +eval -loc +man -tem -deg	(12) mazbūt “well”, “correctly” +Adv +eval -loc +man -tem -deg	(20) kūr “a lot”, “very” +Adv -eval -loc +man -tem +deg	(29) dāgri “directly” +Adv -eval -loc +man +tem -deg
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Plus Adjective (+Adj) Words

In this section, the following features will be used.

Adj = Adjective.

infl = inflected.

der = derived.

qual = quality.

size = size.

stat = stative. (permanent quality)

dyn = dynamic. (comes after /kān/)

(6) tamām “fine” +Adj -infl -der +qual -size -stat -dyn	(15) šab9ān “full” +Adj -infl +der +qual -size -stat +dyn	(16) b9īd “far” +Adj -infl +der -qual -size -stat +dyn
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Plus Determiner (+Det) Words

In this section, the following features will be used.

Det = determiner.

def = definite.

poss = possessive.

sep = separable.

suff = suffix.

(3) /ʔil/ “the” +Det +def -poss -sep -suff	(20) /i/ “my” +Det +def +poss -sep +suff
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Plus Preposition (+Prep) Words

In this section, the following features will be used.

Prep = preposition.

sep = separable.

loc = location.

inst = instrumental.

(21) ma9 “with” +Prep +sep -loc -inst	(31) 9al “to” +Prep -sep +loc -inst	(36) li “to” +Prep -sep +loc -inst
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Plus Auxiliary (+Aux) Words

In this section, the following features will be used.

Aux = Auxiliary.

past = past.

mod = modal.

masc = masculine

(12) kān “was” +Aux +past -mod +masc	(20) 9am “is” +Aux -past -mod +masc	(16) kānet “was” +Aux +past -mod -masc
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