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DIPLOMAMUNKA

MA THESIS

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Anglisztika MA

Angol elméleti nyelvészet szakirány

2023

CERTIFICATE OF RESEARCH

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“On the Morphosyntax of Lebanese Arabic: Form II, Its Manifestations
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DIPLOMAMUNKA

MA THESIS

On the Morphosyntax of Lebanese Arabic: Form II, Its Manifestations and Functions.

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Abstract

This thesis studies the templatic morphosyntax of Lebanese Arabic roots, in particular, form II and its function(s). It proposes that form II is exclusively causative in Lebanese Arabic. Other functions traditionally ascribed to form II are morphophonological variants of form I. The data provided in the study show that the causative function is the one and only function of form II, and all other functions are homophones of form II, rather than form II per se. These other functions are argued to be an allomorph of form I. Causativity in Lebanese Arabic is also under close inspection in the thesis to determine the factors that license lexical and syntactic causation. Reflexivity and control play an important role in determining the licensing of the second binyan.

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“Once you sow the seeds of theory, it is very hard to go back.” –den Dikken, 2022.

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1. Introduction

Word formation in Arabic is a process which includes a wide variety of patterns called *binyanim* (from Hebrew/Arabic *binyan/bunyan* meaning ‘structure’). The most common roots in Arabic are triliteral roots that are composed of three vowel-less base consonants ‘radicals’. Arabic words are then formed by adding a combination of vowels and/or prefixes. Each vowel combination inserted between the base radicals has a unique meaning and creates new words with different semantics. These combinations of vowels and prefixes are categorized into numbered forms.

1.1 Forms

Form I is the basic verbal *binyan*, wherein the first radical gets an /a/ vowel after it, while the second radical can take any of the three short Arabic vowels /a/, /u/ or /i/. The meaning that form I takes on depends on the vowel that follows the middle consonant. The third radical also gets a vowel after it but it is not relevant so it will be left out¹. The pausal form of Arabic does not make use of that final vowel. Form I, therefore, should look this way ‘C₁aC₂VC₃’. Form II, which is the focus of the thesis, is formed by geminating the middle consonant of form I with a double /a/ vowel in between. Hence, form II is ‘C₁aC₂C₂aC₃’. Arabic grammatical tradition states that form II has multiple meanings, with one of the most salient meanings of it being the causative. By geminating the middle radical of form I (base verb), one can get the causative meaning of form I.

¹ Short vowels at the end of verbs show the tense/aspect and mood of the verb. Lebanese Arabic does not retain short vowels at the end of words, and long vowels shorten.

This thesis presents the causative as the **only** meaning of form II, and shows that the other meanings the traditional literature talks about are not, in fact, form II. Other traditional meanings of form II include intensification and forming verbs from nouns or adjectives (denominal verbs). One other way to form the causative in Arabic is by adding a glottal stop as a prefix, apocoping the vowel between the first two radicals but maintaining the /a/ vowel penultimately. This is called form IV and is of the pattern ‘ʔaC₁C₂aC₃’.

1.2 LA and MSA

In Lebanese Arabic, these rules and forms pattern in the same way that they do in Modern Standard Arabic (MSA based on Classical Arabic CA). Lebanese Arabic is systemic in the way verbs are formed, but their meanings may vary from what is found in MSA. While MSA’s form I allows for any of the three short vowels after its second radical, LA is more restrictive in that manner. In MSA, form I may be the declarative/basic form ‘C₁aC₂aC₃’, which can conversely be the causative in MSA if form I had any of the vowel combinations but only one argument. The second /a/ vowel, in the case of a causative form I, would be the result of the ablaut causative signaling an increase in the number of arguments of the verb, thus allowing it to be causative (Ford, 2009). ‘C₁aC₂uC₃’ as form I in MSA, on the other hand, is used for inchoative constructions. The final possible MSA pattern of form I is ‘C₁aC₂iC₃’ which encompasses affective verbs. In LA, MSA’s ‘C₁aC₂aC₃’ is realized as such, and it takes on the same meaning of that of MSA. The other two patterns, however, have both merged into one pattern in LA, namely ‘C₁iC₂iC₃’, which is sometimes realized as ‘C₁uC₂iC₃’ as a result of pharyngeal harmony, but is still one pattern nonetheless. This means that LA’s ‘C₁iC₂iC₃’ is both MSA’s ‘C₁aC₂uC₃’ and ‘C₁aC₂iC₃’, and as such, it can correspond to either, depending on the original vowel found in MSA.

Many more gaps across paradigms exist in LA than in MSA. This is exemplified by the forms that exist in MSA, which are over 10 forms, sometimes with no gaps, as opposed to the (non-)accidental gaps in the LA paradigm. These gaps are sometimes found in the basic form I and up to form IV. Whereas MSA could have three patterns for form I, LA is restricted to one pattern only. MSA can potentially have ‘C₁aC₂aC₃’, ‘C₁aC₂uC₃’, and ‘C₁aC₂iC₃’ as form I, each with a different meaning. ‘C₁aC₂aC₃’ is the declarative or basic meaning, ‘C₁aC₂uC₃’ is the inchoative, and ‘C₁aC₂iC₃’ is the affective. LA, on the other hand, may only have ‘C₁aC₂aC₃’ or ‘C₁iC₂iC₃’, with the former being the declarative/basic meaning and the latter being either the inchoative or the affective. Where these gaps in the paradigm are found in LA, other forms ‘fill in’ for the absent meanings. This means that form II would be found as a substitute for a missing form I, or a form IV as a ‘surrogate’ form I.

This seemingly chaotic -but not random- distribution of forms in LA gives rise to multiple questions. Why do forms II and IV substitute form I in some cases, and why are there gaps in form I in the first place? These are some of the questions that this thesis attempts to answer, as well as aiming to uncover the true nature of forms I, II and IV in LA as well as their distribution and functions. With special focus on form II as the one and true causative of Lebanese Arabic, this thesis aims to explore and explain the nuances of the morphosyntactic and semantic apparatus within the trichotomy of forms I, II and IV. As a descriptive and analytical study, this thesis serves as a vehicle of understanding Lebanese Arabic morphosyntax and semantics and providing a more comprehensive picture of the subtle differences and intricacies of the actual spoken language, i.e. Lebanese Arabic, vis-à-vis the prescriptive Modern Standard Arabic. Hence, the central hypotheses of this thesis are:

(i) LA's form II functions with the causative as its only meaning.

(ii) The denominative, estimative, and intensive meanings are all of form I, with the pronounced form a homophonous (allomorphic or allophonic) form of the second binyan.

(iii) Form IV is a non-productive class because it also is a manifestation of form I.

2. Literature Review

Much of the literature and work on this topic focuses on Modern Standard Arabic or Classical Arabic, less so on Levantine Arabic, and only minimally on Lebanese Arabic. This is no reason for concern, however, as MSA and CA can still be comparable to LA in most aspects. Even where they do not agree, there is usually a rationale behind that and an explanation for such deviation, that is, if we consider CA to be the language from which the rules originate in LA. Indeed, it is one of the goals of this thesis to analyze and explain LA's forms I, II, and IV, without necessarily treating them as deviation, i.e. LA does not have to conform to the rules found in CA. It is important to make the distinction, since Levantine Arabic, which is a more specific variant of Arabic relative to MSA (with Lebanese Arabic here being the most specific variant under study), is closer to Lebanese Arabic but does not account for everything that happens in Lebanese Arabic either. Even in Levantine Arabic, differences exist in the various paradigms and models. For example, Jordanian and Syrian Arabic allow for more verbs in form IV than Lebanese Arabic. The reasons can be morphological or syntactic in nature, without ruling out the role of phonological variation. To this end, the thesis mentions findings in MSA/CA and attempts to explain the similarities and/or differences with Lebanese Arabic.

2.1 Form I

One such case is found in Hallman (2006) where unaccusatives in form I of a triliteral root may take any of the short vowels medially. As an example, he cites:

(1) *“falata l-kalb-u*

get-loose the-dog-NOM

‘The dog got loose’”

While this holds true for MSA/CA, Lebanese Arabic is different in its treatment of verbs in form I. This particular verb is rendered as ‘filit’. Final short vowels are omitted in LA as they are semantically superfluous. Originally intended as a mark of tense in CA, they are no longer of any importance as other markers already show the tense of the verb. ‘Filit’ is thus a ‘CiCiC’ form I verb, which in LA shows a distinct meaning than that of what LA ‘CaCaC’ verbs do, in that ‘CiCiC’ is intransitive if a verb has both patterns where ‘CaCaC’ is allowed too. This arguably makes things less complex than MSA/CA in that LA’s verb forms are in a 1 to 1 relationship with their semantic meanings (even in the case of phonological homophones), whereas MSA/CA’s verbs can render multiple meanings for the same form. For example, a ‘CaCaC’ verb in MSA/CA may be transitive, intransitive or causative (ablaut of the middle vowel). Lebanese ‘CaCaC’ verbs necessarily denote transitivity if they cannot alternate with ‘CiCiC’. If a LA verb has both ‘CaCaC’ and ‘CiCiC’ in form I, then we are dealing with an intransitive ‘CiCiC’. Other instances of intransitivity where an alternation between transitive and intransitive meanings exists involve a complete gap in form I as ‘CaCaC’, for which form II exists and denotes a ‘basic’ meaning that is typical of form I.

2.2 Form II: Causative, Denominative, Intensive

2.2.1 Manifestation

The discussion about form II’s morphological entry is a topic of debate. The template that form II satisfies is CaCCaC, yet, as Maas (2005) points out, this may be misleading. Unlike Latin words, and Romanized transcriptions of Arabic, which I myself am guilty of in this thesis, Arabic words do not show gemination as a series of identical sounds together. In Arabic, the second root radical of form II is forticized with the use of a ‘shadda’ marker above the forticized consonant.

This marker can be left out altogether, which still yields a form II with a doubled second radical. Here, it becomes evident that the topic of disagreement revolves around the categorization of the second consonant. Maas cites McCarthy's 1982 paper on prosodic templates analyzing this phenomenon as "augmentation by a consonantal mora on level 4a (stem-W) with the spreading of phonetic information from the second radical – in other words, not as reduplication." McCarthy (1982) argues for the existence of different tiers within a morphological template. In McCarthy's analysis, form II 'CaCCaC' would have the second radical as one consonant occupying two consonantal slots at the stem level, which does indeed show that this is not reduplication. El Zarka (2005) provides evidence that Arabic gemination is an instance of reduplication without necessarily refuting McCarthy's analysis. She also shows that gemination can fossilize, and I argue that that's the case with Lebanese Arabic's form II.

Maas (2005) shows that Arabic's geminated forms with only two root radicals are the only example of bona fide reduplication, forms like 'radda' 'he responded' which would become 'radadtu' in the first singular past form. It is argued that such forms exhibit an instance of two identical consonants. While this is true for CA/MSA, El Zarka refutes it for modern Arabic varieties, for which these verbs and their forms have lexicalized. In Lebanese Arabic, 'radadtu' 'I responded' would be 'raddayt', geminating the second consonant 'd' and treating the verb as being of a root 'r-d-y/w' (defective verbs).

Whether LA's form II shows an instantiation of gemination by total or partial doubling or doubling by strengthening bare segments (consonant strengthening) (Pott, 1862; mentioned in El Zarka, 2005) is pivotal for this thesis. Form II proper must be well defined and thus systemically consistent, which is shown via its causative function. And since the causative is the one true function of form II, then it should be an example of fossilized gemination of the second root

radical, as opposed to its homophonous realizations, which show a strengthening of form I's second consonant, i.e. not reduplication.

2.2.2 *Causative*

Saad (1974) examines the issues of causativization and passivization in MSA/CA and lightly touches on this in LA. He argues that there are certain transitive verbs that cannot be passivized in Arabic, like 'tazawwaja' 'to marry someone'. He cites the form 'tuzuwwijat' as infelicitous for the 3rd singular feminine passive, although an internet search reveals that this form is actually attested but is not passive. The reason 'tazawwaja' cannot be passivized is that this verb is itself a higher form from the triliteral root 'Z-W-J' and to passivize it, we must go back to its basic form, 'zawwaja' 'to get someone married' and therefore 'zuwwijat' 'she was wedded to someone' would be the passive construction. This is how MSA/CA forms their passive constructions. However, LA strictly uses the anticausative as the passive form, and while not central to this thesis' goals, it holds significance in showing where MSA/CA and LA disagree.

Saad goes on to say that form II was originally intensive or repetitive in function, and that causativity is a result of "simple semantic transfer". The examples he uses involve so-called hollow verbs, which are verbs with the glides 'w' or 'y' as their middle radical. Most hollow verbs have a long 'a' vowel medially in form I. Thus, in form II, the geminated middle radical would be either of the glides, sometimes both are available, such as in LA 'nayyam' 'to make someone sleep' and 'nawwam' 'to hypnotize/anesthetize someone'. Here, the latter is true to the intensive/repetitive meaning mentioned in Saad, while the former takes on a causative meaning. In his choice of hollow verbs, Saad overlooks the possibility of having two verbs with a geminated middle radical like in 'nayyam' and 'nawwam'. Then, we might be dealing with homophonous forms, of which one is the intensive, while the other is the causative.

There are reasons to believe that form II in LA is exclusively causative, while the intensive is formed via a gemination process making it homophonous with form II. These reasons will be discussed in the data and discussion section of the thesis.

2.3 Denominative

In her 1988 paper entitled *Syntax and Semantics of the Form II Modern Standard Arabic Verb*, DeMiller provides an in-depth analysis of form II in MSA and concludes that the main function of form II is causative/factitive², and that the intensive function of the verb arises when it is not causativizable. The factitive function is a subcategory of the denominative function of form II, if exists at all (cf. footnote 2). Forming denominal verbs from nouns in LA is akin to English's conversion process from a noun to a verb (cf. 'to paint' from 'paint', LA's 'lawwan' 'to color' from 'lawn/lon' 'color').

Lebanese Arabic assigns 'CaCCaC' to verbs that are borrowed from foreign languages. These verbs typically do not have causative or intensive meanings. Such verbs are exemplified by 'tassat' 'to test' 'sayyav' 'to save', for which form I '*tasat' and '*sayav' does not exist. If, however, these verbs are borrowed directly from English 'to test' and 'to save' as verbs, then LA must view these verbs as nouns somehow and thus licensing them in form II, but not any other form, since denominal form II comes from a noun and is not a verb originally, in that the morphology of the noun does not go back to triliteral root from which we can cast into and onto different patterns and binyanim.

² The factitive function is a subject of debate. Leemhuis (1973: 251) cited in DeMiller (1988) states that the "factitive indicates the effectuation of a state or condition". DeMiller also cites Beeston (1970) giving one example of the factitive and questioning whether it might also be a denominative.

2.4 Intensive

El Zarka (2005) in her discussion on reduplication in Arabic argues that the intensive function could be grouped together with the pluractional and repetitive functions. Such a proposition should be taken seriously and compared to repetition through reduplication. In the data section of this thesis, evidence for such a categorization is provided.

The intensive form of LA has geminated middle consonants, just like form II. However, it is entirely possible that the intensive is a homophone of form II and is not morphologically derived qua form II. The intensive could be derived from a gemination of the second root radical and not a separate binyan that is built up from form I per se, but rather an allomorph of it.

2.5 Estimative

One other marginal function of form II as mentioned by DeMiller and many others as part of the Arabic grammatical tradition is the estimative. Out of the 117 verbs she surveyed and analyzed, only two fit the description of the estimative function of form II. These verbs were ‘kaḏḏaba’ ‘to call someone a liar’ and ‘faḏḏala’ ‘to prefer someone or something over someone or something else’. Indeed, these two verbs do exist in LA but their treatment in the language differs from that of actual estimatives. LA’s estimative verbs are uniformly of the tenth form X ‘staC₁C₂aC₃’ and serve a meaning of ‘to deem someone/something as X’ with X being the word denoted by the original adjective/noun. Lebanese Arabic’s ‘kazzab’ (always transitive) ‘to call someone a liar’ (for which the more salient ‘kazzab’ ‘to lie/tell a lie’ exists) and ‘faḏḏal’ ‘to prefer someone or something over someone or something else’ can therefore be treated as instantiations of the denominal function of form II wherein the former comes from ‘kizbe’ ‘a lie’ and the latter either from ‘faḏel’ ‘exquisiteness/superiority’ or may be treated as a lexicalized item borrowed

from MSA/CA. It is clear that these two verbs are not causative/estimative since verbs that serve either function can participate in the different patterns of the paradigm, whereas these two verbs do not, which is what we see with denominals in form II.

A general assumption in the literature states that form I is the ‘basic’ form and all other forms are higher forms derived from form I (Ford, 2009). If that assumption were true, and it should be treated as such in order to better understand form II, then it becomes imperative to study the different patterns and functions of form I as well, as that will prove to be a pivotal point in what determines the subsequent function of form II. Form I can pattern as ‘CaCaC’ and ‘CiCiC’ (‘CuCiC’ with pharyngeal consonants) in Lebanese Arabic. These forms correspond to MSA’s ‘CaCaCa’ ‘CaCiCa’ and ‘CaCuCa’. The distinction that MSA makes here is the transitivity of the verb, in that ‘CaCiCa’ can be transitive, while ‘CaCuCa’ is necessarily intransitive. A closer look at LA shows that the two distinct forms have taken on a life of their own. While ‘CaCaC’ may agree with MSA’s description of the same pattern of the binyan, i.e. transitive, ‘CiCiC’ is not that simple. LA’s ‘CiCiC’ exhibits varied behavior with different types of subjects and/or predicates. The semantics of ‘CiCiC’ seems to be more complex. This will be further discussed in the coming sections based on den Dikken’s 2022 paper on the Hungarian suffix *-ik*.

3. Methodology

Lebanese is the dialect of Levantine Arabic under study in this thesis, and while Syrian and Jordanian Arabic are very close to Lebanese Arabic, they are not identical. For this reason, native speakers of Lebanese Arabic were consulted. To this date, no complete and comprehensive dictionaries of Lebanese Arabic exist, which may be the thesis's most significant limitation. However, being a native speaker of the language, the author could come up with various verbs, and where needed, Matthew Aldrich's '*Levantine Arabic Verbs*'³ (2017), which is a book based on Lebanese Arabic and includes 750 verbs in its index, was consulted for ideas. The book shows 'CaCaC' 'CiCiC' alternations without saying much about that. For this reason, the author's intuition as a native speaker along with the other consultants was relied on to determine which verbs allow for such alternations and the semantics of each verb. The consultants provided ideas, verbs and their intuitions regarding some verbs and their meanings. Another useful tool was the website <http://www.livingarabic.com> which includes data from real spoken language, as heard and transcribed with accurate vowel patterns. Some verbs that can alternate in form I were searched for on the website in order to obtain actual contexts from spoken language in which they occur. The website includes data from various varieties of Arabic, including Levantine. Only those marked by [L] for Lebanese were chosen, with serious consideration for [S] 'Syrian' and [J] 'Jordanian' instantiations as the consultants were able to confirm their existence in LA. For semantic differentiation where needed, the consultants were presented with 'tests' that included hypothetical scenarios wherein two or more forms/patterns were acceptable and were told to

³ The book contains inaccuracies in its categorization of the verbs into their respective binyanim, perhaps the greatest of which was including verbs like 'far3a' 'to show' with form XI, when in reality, such verbs belong to form I and/or form II. Indeed, 'far3a' 'to show' and two other similar verbs will be a topic of discussion in the coming sections.

specify their preference for a certain form providing justification for their choice. This served to create a more complete picture of forms and patterns that seemed problematic in that homophones or different vocal melodies were found. Mainly, the consultants were asked to give meanings and preferences where ‘CaCaC’ and ‘CiCiC’ alternations were licit. Here lies another limitation of the study: Native speakers of Lebanese Arabic sometimes allow for more than one form/pattern for a certain semantic interpretation. Taken at face value, this would mean that there would not be a one-to-one correspondence between form and meaning/semantic interpretation, which would complicate matters. A deeper look into this showed that even when many forms or patterns were allowed, there was a preferred form in almost all of the cases. This helps counteract the limitation by acknowledging the variation in choice while still focusing on the more common and accepted forms to provide for the bigger picture.

It is important to note that Lebanese Arabic encompasses different accents and dialects for which different forms and patterns apply. For this reason, the underlying form is assumed to be uniform, while the pronounced form may vary.

The verbs used throughout the thesis are conjugated for the third person masculine singular, which is zero conjugation in reality, and so this unmarked ‘bare’ form is used invariably for every verb. Conjugation rules still apply for person, gender and number, but contribute very little semantically and so are left out.

The discussion of the data starts with form II, identifying its key functions and moves on to form I and its relevance to form II and causation. Causation in this thesis will only encompass these verbs which mean ‘to make someone or something do/be X’, verbs which are causative in nature, like ‘open’, will not be treated as ‘to make something open’, and thus are excluded from the thesis’ definition of ‘causative’. In essence, only syntactic causatives will be under study, not

lexical causatives. When more than two verbs were used as examples, said verbs were put in numbered tables. For transliteration, IPA symbols were used. Consonants were numbered when found in consonant clusters to show whether it is a geminate cluster or two different consonants. Numbers were otherwise left out. Although closely related and an interesting subject, passives and anticausatives are out of the scope of this thesis as the focus is causativity and form II.

Last but not least, www.wiktionary.org provided invaluable insights into meanings, etymologies and alternative forms of numerous words and verbs that may or may not be mentioned in this thesis.

4. Data and Analysis

4.1 Form II

As form II is the ultimate goal of discussion in this thesis, it will be discussed first. The bulk of discussion will be in this section, followed by a discussion of form I. Form II, whether built up from the basic triliteral root, which lacks a vocal pattern, or from form I, includes a geminated middle consonant with a vocal scheme of short ‘a’ sounds between the consonants. ‘C₁aC₂C₂aC₃’ is uniformly found to represent form II. The various different meanings ascribed to it are the subject of study in this section. The most salient meaning is the causative/factitive (denominal/denominative⁴). I argue that the denominative function is actually form I, taking on the pattern and shape of form II, which denominal verbs default to when there is lack of information on the other forms or even complete absence from the paradigm. This is consolidated by the fact that the denominative function is the most productive of all the other functions that look like form II but are underlyingly form I. It is precisely so because there is no shortage of nouns that can be verbalized using form II. Evidence for this is provided in the coming section. The sections are divided such that every non-causative function is addressed before the causative function, in order to clear those out of the way, then the causative function is introduced and discussed in light of the other functions not being form II.

⁴ These terms are used interchangeably in the literature without any apparent difference in their meanings.

4.1.1 Denominatives

A. Indigenous denominal verbs

Denominative form II⁵ verbs may be indigenous or borrowed. The latter is more productive, as more nouns/actions can be borrowed from other languages than for indigenous coined words turned verbs. The list of indigenous form II denominal verbs can include those which have already undergone lexicalization, and those that are formed based on the coinage of new nouns or actions. An example of a lexicalized denominal form II would be ‘sakkar’ ‘to close’ derived from Arabic ‘sukkaar’ ‘lock’ (LA ‘sikir’ ‘valve’). Thus, ‘sakkar’ to close’ is not derived from a basic root ‘s-k-r’ (which forms words related to drinking alcohol) or a form I ‘*sakar’ which does not exist, but rather a noun which meant ‘lock’ or ‘valve’.

Such verbs cannot participate in the verb formation paradigm using different vowel combinations and affixes. The only forms allowed for denominals of form II to take on are the passive, through adding an initial ‘t-’ or ‘n-’ prefix⁶, and verbal nouns⁷ ‘ti-C₁C₂-ee-C₃’.

I postulate that what licenses this transformation is an inherent property of verbs in Arabic to passivize, even if intransitive, as Saad (1974) notes that the transitive/intransitive classification is not the only thing at play when passivizing Arabic verbs, but rather whether or not the verb can be causativized. Thus, every verb which is passivizable will have the possibility to do so without

⁵ Here, an important distinction must be made, since not all denominatives are of uniformly form II. Only nouns which can be distilled into three basic radicals may undergo verbalization using form II. If a noun is otherwise irreducible to three radicals, then it takes on a different form, namely ‘C₁aC₂C₃aC₄’ if the noun boils down to four consonants (cf. quadrilateral forms), and ‘C₁aC₂C₃C₄aC₅’ if it has five consonants.

⁶ Passives in Lebanese Arabic do not follow MSA/CA’s pattern of ‘CuCIC’, but rather take on forms V and VII, the former of which is ‘t-’ + form II, while the latter is ‘n-’ + form I. Both forms also represent the anticausative in Arabic.

⁷ Maas (2005) excludes verbal nouns (Masdars) from the verbal paradigm. He maintains that a verbal noun in Arabic does not participate in the binyan system as a distinctive form.

necessarily partaking in the systemic morphological framework of the language. Similarly, once a verb is formed, a verbal noun can thus be derived from said form, akin to English gerunds.

Coined denominal form II verbs include indigenous nouns which have found their way into the verbal realm when a certain action came into existence and thus the need for a verb for said event arose. With the onset of drifting using cars, the need for a verb ‘to drift’, or more precisely, ‘to do a donut’ came to light, and since drifting leaves a donut shaped circle on the ground, which looks like the number 5 in Arabic, ‘xamse’ ‘five’ was the noun from which the verb ‘xammas’ ‘to drift/do a donut’ was derived. Similarly, ‘xammas’ can be passivized ‘txammas’ and the verbal noun would be ‘tixmees’.

Lexicalized and coined indigenous verbs only differ by the time they have been around and so will be treated as one category.

B. Borrowed denominal verbs

Borrowed verbs behave in an identical manner; the foreign noun is stripped of its vowels⁸, broken down into three root consonants, and gemination placed on its middle consonant. Table 1 presents some denominal form II verbs borrowed from English into LA. Note that these verbs lose their original vowels and take on form II vowel scheme ‘a-a’.

Table 1

1. ‘dallat’ ‘to delete’
2. ‘sayyav’ ‘to save’
3. ‘tassat’ ‘to test’

⁸ The glides /w/ and /y/ are treated as consonants and are usually the reflexes of /o:/ /u:/ and /ay/ /ey/ respectively.

4. 'lawwat' 'to loot'
5. 'fawwal' 'full'
6. 'fakkas' fax

A question that arises in light of verbalizing what seem to be verbs already is the following: How can LA see verbs such as 'delete', 'save' and 'fax' as nouns in order for them to take on denominal form II when borrowed? The answer to that lies in LA itself.

There are some nouns which cannot be verbalized using any of the forms, as their meanings would conflict with meanings already existing in the paradigm. Take 'd^ʕareb' 'prank' as an example. To prank someone is 'ʕimil d^ʕareb' 'to do+prank' and not 'd^ʕarrab', since the latter would be form II of 'd^ʕarab' to hit, for which form II does not exist '*d^ʕarrab'. This is a lexical ban imposed by the language on some denominal form II verbs. However, any denominal verb borrowed into LA may be expressed periphrastically using the verb which collocates with the noun from which the verb was derived as an auxiliary, and changing the original verb into the object of the auxiliary and thus nominalizing it. Table 2 illustrates with examples from table 1.

Table 2

1. 'ʕimil delete' 'to do a delete'
2. 'ʕimil save' 'to do/make a save'
3. 'ʕimil test' 'to do a test'
4. 'ʕimil/axad loot' 'to do a looting/ to take loot'

5. '*ʕimil full' ⁹
6. 'baʕat fax' 'to send a fax'

Thus, these borrowed verbs are introduced to the language as their nominal counterpart 'to delete' = 'to do a delete', and this is how LA casts them into the second binyan.

A good test for the 'non-causativity' of denominal verbs is combining the imperfective form of the verb with the auxiliary 'xalla' conjugated for the 3rd singular masculine 'xalle:' with the 3rd singular masculine pronoun attached to it. A causative constructed with this periphrastic structure would yield a double causative. Table 3 shows that this is not the case for denominal verbs.

Table 3

Denominal verb	Denominal verb + 'xalle:'
1. 'dallat' 'to delete'	'xalle: ydallit' 'he made him delete'
2. 'sayyav' 'to save'	'xalle: ysayyiv' 'he made him save'
3. 'lawwat' 'to loot'	'xalle: ylawwit' 'he made him loot'
4. 'sakkar' 'to close'	'xalle: ysakkir' 'he made him close'

A true causative form II would show a double causative when coupled with 'xalla' (cf. table 9). Since this is not the case for denominal verbs, we can safely say that they are not causatives of the second binyan.

⁹ In this case, to make something full is inevitably causative and thus the periphrastic verb '*ʕimil full' is not licensed.

Verbs and nouns which cannot be reduced to three consonants do not take form II. Instead, they take on form Iq¹⁰ (from which quadriliteral root verbs are formed) if they have four consonants. El Zarka (2005) treats this as CvCCvC template regardless of whether the consonant cluster is a geminate C₂ or C₂C₃. If her analysis is right, then quadriliteral verbs (and roots) are in themselves trilaterals with a twist¹¹. Examples include ‘hawvar’ ‘to Hoover’ where the long vowel is treated as a consonant /w/. Since quadriliteral root verbs borrowed from English are of form Iq, which is form I for non trilateral roots, then it cannot be confused with a causative meaning. However, trilateral roots as in table 1 may be mistaken for being causative for the mere fact that they look like form II.

I posit that denominal form II is a phonological homophone and that form II must be purely causative. The only distinction between ‘delete’ and ‘hoover’ is that the former can be divided into ‘d-l-t’ while the latter has to be ‘h-w-v-r’ and thus they take on different binyanim. If we assume that ‘to delete’ and ‘to Hoover’ distribute in the same way as verbs, then there is no reason, save for phonological constraints (i.e. ‘delete’ is trilateral and ‘hoover’ is quadriliteral), for them to be of a different binyan. ‘Hoover’ takes form Iq and ‘delete’ is in form II only phonologically, and so it is actually form I disguised as form II since this is how indigenous denominals form in the language.

¹⁰ Quintiliteral roots (never native) include words which contain five consonants as in ‘download’. ‘Download’ contains ‘d-w-n-l-d’ and can be verbalized as ‘dawnlad’. For quintiliteral verbs, the periphrastic structure is more natural, i.e. ‘šimil download’ ‘to download’. Quadriliteral roots which contain two adjacent glides are exclusively periphrastic: ‘šimil join’ ‘to join’ and not ‘*džawyan’ nor ‘*džaywan’.

¹¹ El Zarka notes that many quadriliteral verbs have a sonorant occupying the coda position of the first syllable of C₁vC₂C₂vC₃ verbs. (2005; 378).

C. Root absence

This is not to say that indigenous denominals are of a genuine form II binyan. Rather, they take on the guise of form II. Evidence for this can be found in the difference between ‘sakkar’ ‘to close’ and ‘tarzam’ ‘to translate’. Just like ‘dallat’ and ‘hawvar’, the only difference between ‘sakkar’ and ‘tarzam’ is the number of consonants. Thus, this phonological constraint forces the former into a form seemingly belonging to binyan II. The question to be asked here, therefore, is why the verbalization of nominals takes on form II and not form I. If we assume that form I is the ‘basic’ meaning from which all other meanings are built, and if form I is itself derived from an indigenous trilateral root, then it is only logical that denominal verbs take on the next available binyan, i.e. form II, to map onto. That is, the absence of a native trilateral root prohibits a verb from participating in the Arabic binyan system as a whole, and while form I ‘CvCvC’ is only available for native trilateral roots, ‘CaCCaC’ is the exclusive binyan for non-native or native-but-improvised trilateral roots. Since form I ‘CvCvC’ is specifically the insertion of a vowel between native root radicals, a-a being the unmarked vocal pattern¹², while i-i ‘CiCiC’ being more marked, those words which do not have a native trilateral root cannot take ‘CvCvC’. Therefore, denominal form I takes the unmarked a-a pattern and doubles the second consonants in order to ensure the unmarkedness of the vocal input (‘CaCCaC’ is consistently of the pattern a-a). This is what makes denominal form I look like it is form II, i.e. the conflation of the morphological and phonological layout. In the next section, the estimative function of form II will be discussed and detailed then compared to the denominative function.

¹² The vocal pattern ‘a-a’ is unmarked in the case of form I assignment of its pattern, but marked in the sense of assigning a vowel to ‘CvCvC’ itself. This markedness in choosing a vowel for ‘CvCvC’ is what prevents denominal verbs from acquiring ‘CaCaC’ and rather taking ‘CaCCaC’ which has a consistent pattern, i.e. it is unmarked for the entire input.

4.1.2 Estimatives

Often cited in the literature as one of form II's functions, the estimative is arguably the least productive function, even in MSA (DeMiller, 1988). This kind of verb shows the speaker's opinion, impression, or perspective on something (i.e. the speaker's estimation). If a speaker deems something as being cheap, for instance, they can express that with an estimative verb (typically of form X). This is done by prefixing 'sta-' on intransitive form I verbs and apocoping the first vowel, creating a consonant cluster of C₁ and C₂, then changing the second vowel to /a/. Transitive form I verbs do take form X, but their meaning in the latter would be 'to do something in the sense of form I'. Table 4 shows verbs in form I, form II, and form X. The reason to include form I and II is to show that estimative verbs in LA always participate in the binyan system if their estimative is of form X.

Table 4

Form I (intransitive)	Form II 'C ₁ aC ₂ C ₂ aC ₃ '	Form X 'staC ₁ C ₂ aC ₃ '
1. 'ruxis' ^s 'to be cheap/ to become cheap(er)'	'raxxas' ^s 'to make something cheaper'	'starxas' ^s 'to deem something as cheap'
2. 'kitir' 'to become larger in number'	'kattar' 'to increase the amount of something/ to add too much of something'	'staktar' 'to deem something as being too much'
3. 'yile: ¹³ 'to become (more) expensive'	'yalla:' 'to increase the price of something'	'stayla' 'to deem something as expensive'

¹³ Verbs that end with a long vowel are called defective verbs. This long vowel serves as a consonant. In 'yile:' 'to become (more) expensive', the root assumed here is 'y-l-y/w' of which the last radical turns into a long vowel if found word-finally.

4. ‘hile:’ ‘to become sweet/beautiful’	‘halla:’ ‘to sweeten something’	‘staħla’ ‘to deem something as beautiful’
5. ‘z ^ʕ uyir’ ‘to become small(er)’	‘z ^ʕ ayyar’ ‘to make something small(er)/ to minimize’	‘staz ^ʕ yar’ ‘to deem something as small’
6. ‘xire:’ ‘to defecate’	‘?xarra’ ‘to make someone defecate’	‘staxra’ ‘to deem someone as unworthy’
7. ‘?sihil’ ‘to be/become easy’	‘sahhal’ ‘to make something easy’	‘stashal’ ‘to deem something as easy’

The verbs in table 4 are invariably of the pattern ‘CiCiC/CuCiC’ in form I. This will be the topic of discussion in the coming sections, as form I ‘CaCaC’ and ‘CiCiC/CuCiC’ hold stark differences in their semantics. The ‘CiCiC’ pattern is found with most intransitive verbs, but not all, while ‘CaCaC’ is typically associated with transitivity. If a verb were to take on form X, being ‘CaCaC’ in form I, then the meaning of form X would not be estimative, but rather ‘doing something in the sense of form I’. The data therefore shows that, indeed, the estimative is a productive process in LA, with form X as its binyan.

This raises questions about the status of the two form II estimative verbs discussed in DeMiller (1988), namely, ‘kaððab’ ‘to say that someone is a liar’ (LA ‘kazzab¹⁴’) and ‘fad^ʕd^ʕal’ ‘to prefer something/someone over something else’. If we were to treat these two verbs as estimatives, and thus say that form II does have an estimative function, then the question that arises

¹⁴ This verb exists with two meanings in LA, the first meaning is to tell a lie, while the second is to say that someone is a liar.

here is why are these verbs in form II, rather than form X? A prerequisite to having an estimative form X verb in LA as shown by table 4 is the existence of an intransitive form I, as the estimative is built from and upon form I. The two verbs ‘kazzab’ and ‘fad^ʕd^ʕal’ do not participate in the paradigm as form I ‘*kizib/*kazab’ or ‘fud^ʕil¹⁵/*fad^ʕal’, and accordingly cannot take on form X. If we postulate that these verbs cannot be an estimative form X binyan, and so they seek to manifest themselves in the next available binyan (cf. denominal form II behavior), then we end up predicting three things about the second binyan of LA:

(i) Form II has homophones, each of which has its own meaning, but none of which are the causative. Form II is exclusively causative.

(ii) Form II does not represent the estimative, and these two verbs are not estimative in function and form.

(iii) ‘CaCCaC’ is the unmarked skeleton in LA morphology unto which ‘stray’ verbs can be projected. ‘CaCCaC’ can be form II’s representative pattern, if the verb is causative, and form I if otherwise.

In the coming discussion regarding the intensive function of form II, the first conclusion will be verified. Examined carefully, the two estimative verbs ‘kazzab’ and ‘fad^ʕd^ʕal’ may turn out to be denominal rather than estimative. Since the aforementioned verbs exhibit a similar behavior to that of denominal form II verbs, in that they do not participate in the paradigm, and bearing on the fact that ‘kizbe’ ‘a lie’ and ‘fad^ʕel’ ‘superiority’ are existing nouns, then we may say with confidence that what looks like an estimative meaning is nothing more than a denominal form II verb. This makes sense especially considering that true estimatives are uniformly of form X. Then,

¹⁵ The verb ‘fud^ʕil’ is ‘to remain as leftover’ has nothing to do with the meaning of ‘fad^ʕd^ʕal’ ‘to prefer’.

the estimative function of form II is a mirage, and what we are dealing with here are denominal verbs that take on estimative meanings.

4.1.3 Intensives

A. Intensive/Causative dichotomy

It is argued that form II verbs are intensive or repetitive in origin, and that historically, the causative function is the result of a semantic transfer (Saad, 1974). Indeed, the Arabic grammatical tradition does regard the intensive/repetitive as one of the main functions of form II. Table 5 presents intensive verbs along their form I patterns in LA.

Table 5

Form I	Intensive
1. 'ʔatal' 'to kill'	'ʔattal' 'to massacre'
2. 'dafaʔ' 'to push'	'daffaʔ' 'to push with force'
3. 'daʕam' 'to support s.o. or s.t.'	'daʕʕam' 'to fortify/buttreass'
4. 'kasar' 'to break'	'kassar' 'to break into pieces'

The verbs in table 5 show a clear difference with genuine causative form II formations: Intensive verbs do not have the meaning of 'to make someone do *form I*'. These verbs, rather, show the degree of intensity of form I. In this section, McCarthy's 1982 research on prosodic and

morphemic templates and morphemic tiers becomes relevant. I maintain that the intensive is not form II proper, but form I with a forticized C₂. This form of intensification or repetition of the verb is found cross-linguistically (Rainer, 2015).

Gemination, or reduplication of the part or the whole signifies many things. Among the functions it serves is the intensive, repetitive, iterative and pluractional verbs. This lengthening of the second consonant of form I is augmentation by consonantal mora, i.e. not reduplication (McCarthy, 1982). Form II, as a causative binyan, therefore, involves a reduplicated second radical, i.e. another instance of C₂. This becomes especially interesting coupled with the fact that causativity increases the number of arguments, which is mirrored in the morphemic template by an extra consonant. Thus, we end up with two different associations for the ‘CaCCaC’ skeleton, which are shown as follows:

(2) ‘kasar’ ‘to break’ → ‘kassar’ ‘to break into pieces’

C	V	C C	V	C
		\ /		
k	a	s	a	r

(3) ‘libis’ ‘to wear’ → ‘labbas’ ‘to make someone/something wear something’

C	V	C C	V	C
l	a	b b	a	s

(2) is an exemplary illustration of consonantal mora taking place on the underlying form I ‘kasar’. The result is an augmented/intensified form I. In (3), a consonant is added on form I, presenting us with a new form, i.e. form II, with an extra consonant associated with the second C₂

slot in the skeleton. Then, we can identify a pristine form II (causative), and conclude that the intensive is but another allomorph of form I, which is homophonous with form II.

B. Gradience: Pluractionality, repetition, and intensification

A crucial part of the intensive discussion is the degree of intensity that we are dealing with. Gemination and reduplication in Arabic may denote pluractionality, repetition or intensification (El Zarka, 2005). Greenberg (1991) cited in El Zarka (2005; 374) notes that the Semitic intensive might be better analyzed as expressing verbal plurality. Indeed, LA can vouch for such an approach. Consider the verbs in table 6, which completely lack a perfective form I¹⁶, but readily available in form II.

Table 6

Form I (perfective) ‘CVCVC’	Form I (imperfective) ‘yiC ₁ C ₂ VC ₃ ’	Form II ‘CaCCaC’
1. ‘*kazab/*kizib’ ‘he lied’	‘ʕam yikzob’ ‘he is lying’	‘kazzab’ ‘he lied’
2. ‘*ʕaxar/*ʕixir’ ‘he snored’	‘ʕam yiʕxor’ ‘he is snoring’	‘ʕaxxar’ ‘he snored’
3. ‘*zahar/*zahir’ ‘it bloomed’	‘ʕam yizhor’ ‘it is blooming’	‘zahhar’ ‘it bloomed’
4. ‘*naʔat/*nuʔit’ ‘it dripped’	‘ʕam yinʔot’ ‘it is dripping’	‘naʔʔat’ ‘it dripped’
5. ‘*sʕafar/*sʕufir’ ‘it/he whistled or wheezed’	‘ʕam yisʕfor’ ‘it is wheezing ¹⁷ ’	‘sʕaffar’ ‘it/he whistled’

¹⁶ This is different than missing form I verbs for the denominal. Pluractional verbs do indeed participate in the various binyanim throughout LA’s verbal paradigm, but there is a gap in their form I. Moreover, these pluractional verbs, unlike denominal verbs, do have a native trilateral root from which various nouns and verbs are derived.

¹⁷ This form is typically used to denote wheezing lungs/chest. Form II ‘sʕaffar’ is used for whistling exclusively.

The gaps the table shows in the perfective form I of these verbs can be explained according to verbal pluractionality:

Lebanese Arabic does not allow a perfective form I for verbs which usually denote pluractionality or multiplicity of the event at hand. It is not unthinkable for someone to tell one lie throughout their entire life, but it is very uncommon. As such, LA disallows a ‘CvCvC’ for ‘he lied’, and instead forces the verb to take on a pluractional/intensive ‘CaCCaC’ which replaces the usual form I. If the event is ongoing, then LA accepts an imperfective form I ‘yiC₁C₂VC₃’. This is another piece of evidence for the intensive ‘CaCCaC’ being form I in disguise. Knowing that imperfective ‘yCaCCiC’ for pluractional verbs is also available with imperfective form I, the former is used to denote a single occurrence of the event ‘ʕam yikzob’ ‘he told one lie/ he is lying’, while the latter would indicate pluractionality or intensity ‘ʕam ykazzib’ ‘he is telling lies’. Other meanings of the imperfective form ‘yCaCCiC’ can denote continuity ‘he is whistling right now continuously’, repetition ‘it is dripping again and again right now’ or iteration (frequentative) ‘he is snoring right now (like he always does)’.

Reduplication of a biconsonantal root is a productive way to form frequentative verbs in Lebanese Arabic. Discussed in El Zarka (2005), table 7 presents data from Lebanese Arabic with biconsonantal verbs in form I, then forming the frequentative out of the reduplication of the root.

Table 7

Form I	Frequentative
1. ‘ʔas ^s ’ ¹⁸ ‘to cut’	‘ʔas ^s ʔas ^s ’ ‘to cut repeatedly/into pieces’

¹⁸ It is well known that these roots are trilateral in CA/MSA, with the second and third radical being identical, i.e. ‘q-s^s-s^s’ ‘to cut’. Such verbs show a biconsonantal form I with a ‘shadda’ gemination on the ‘s’, i.e. ‘qas^s’ is the long quality of the second radical, without representing another instance of it in orthography. For Lebanese Arabic, however, we will assume that this does not happen, as it has already been discussed that biconsonantal verbs behave like defective verbs (cf. above).

2. ‘ʕad ^s ’ ‘to bite’	‘ʕad ^s ʕad ^s ’ ‘to bite repeatedly/intensely’
3. ‘ʕad’ ‘to pull’	‘ʕadʕad’ ‘to tug (intense pulling)’ ‘to pull repeatedly’
4. ‘raʕ’ ‘to sprinkle’	‘raʕraʕ’ ‘to sprinkle repeatedly’
5. ‘fod ^{e:} ’ ‘to be empty’	‘fad ^s fad ^s ’ ‘to get something off of one’s chest’

The last verb in table 7 shows that alternation between biconsonantal and defective verbs in LA. The frequentative/intensive of both forms is uniformly ‘C₁aC₂C₁AC₂’, i.e. a reduplication of the first syllable containing only two consonants. To causativize ‘fod^{e:}’ ‘to be empty’, we simply insert the ‘CaCCaC’ pattern, ‘fad^sd^sa’ ‘to empty something’ thus becomes the causative of ‘fod^{e:}’. Such a defective verb showed us the difference between the intensive ‘fad^sfad^s’ ‘to get something off of one’s chest’ and the causative ‘fad^sd^sa’ ‘to empty something’ on the morphophonological level. The intensive is clearly form I with a tweak, while the causative is the real form II ‘CaCCaC’. The next section discusses the causative function of form II.

4.1.4 Causative

The bulk of this discussion so far has been about every other function associated with form II in traditional grammars. It has been shown that these functions are not manifestations of form II, nor do they represent form II, but form I. With these ‘distractors’ out of the way, we may begin discussing the causative function of form II. Form II has a geminated middle consonant, which is added onto the middle consonant of form I. Thus, the meaning obtained is ‘to make someone/something do **FORM I**’. We know that the causative is the one and only function of form II because of the unavailability of any other binyan that yields a causative meaning.

Form IV, which in CA/MSA can be used as a causative binyan, has lost its function in Neo-Arabic (El Zarka, 2005). This is also true for Lebanese Arabic. Not only has form IV lost the causative meaning in LA, but it has been reinterpreted as being of form Iq (quadrilateral roots). Form IV is of the pattern ‘ʔaC₁C₂aC₃’, wherein the initial glottal stop is a prefix and not part of the root. In LA, this glottal stop was reinterpreted as being part of the root and thus the pattern became ‘C₁aC₂C₃aC₄’, with the glottal stop occupying the first consonantal slot (Brustad & Zuniga, 2019). The latter pattern is used to form quadrilateral-root verbs. If form IV was recognized as a form proper in Lebanese Arabic, then the initial glottal stop of the perfective form IV would disappear with the imperfective conjugation, since it is supposed to be a prefix. However, this is not the case. The glottal stop persists in the imperfective and thus shows that it became part of the root, rather than a prefix used to obtain form IV. Evidence for this is found in the imperfective of form IV, which should be ‘yiC₁C₂iC₃’, but is ‘yC₁aC₂C₃iC₄’ (imperfective of form Iq). This is illustrated in table 8.

Table 8

Perfective form IV (LA Perfective form Iq)	Imperfective form IV	Imperfective form Iq
1. ‘ʔaʕlan’ ‘to announce’ ROOT: ʕ-L-N	‘ʔyiʕlin’ ‘ʔhe announces’	‘yʔaʕlin’ ‘he announces’ ROOT: ʔ-ʕ-L-N
2. ‘ʔadʕrab’ ‘to go on a strike’ ROOT: Dʕ-R-B	‘*yidʕrib’	‘yʔadʕrib’ ‘he goes on a strike’ ROOT: ʔ-Dʕ-R-B

3. ‘ʔardaf’ ‘to disregard s.o. or s.t.’ ROOT: R-D-F	‘*yirdif’	‘yʔardif’ ‘he disregards s.o. or s.t.’ ROOT: ʔ-R-D-F
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As table 8 shows, form IV in Lebanese Arabic has completely been replaced by and reinterpreted as form Iq, which is a manifestation of form I (cf. above). This should be treated as yet another piece of evidence that form II is the causative of Lebanese Arabic, in light of Saad (1974), where he speculates about the reason a language should maintain three classes of causatives, namely the ablaut form I causative (mentioned in Ford, 2009), form II and form IV. Saad regards the causative as a semantic transfer from the intensive or repetitive function. He cites evidence from Classical Arabic, which confirms that form II was historically used as the intensive/repetitive rather than the causative, and that form IV is essentially the causative of CA without completely precluding form II and the ablaut form I. Since Lebanese Arabic has lost form IV, and with it merging with form I, form II remained as the only contender for the causative. Ablaut form I will be discussed in the coming sections.

For every other function, there exists a binyan or a way to form it without having to resort to form II, but save for the periphrastic structure, Lebanese Arabic can only form the causative through the second binyan. Moreover, the periphrastic structure, when applied to form II, results in a double causative, further consolidating our verdict regarding form II. Table 9 shows verbs in form I, form II and imperfective (non-past) forms I and II with the auxiliary ‘xalle:’ ‘he let him do X/ he made him do X’. In Table 9, the perfective 3rd person singular masculine will be treated as

such, unlike the previous sections where it was treated as the infinitive. This facilitates comparison with the periphrastic forms. Where the object can be omitted, it was put between parentheses.

Table 9

Form I	Form I + 'xalle:'	Form II	Form II + 'xalle:'
1. 'siriʕ' 'it/he sped up'	'xalle: yisriʕ' 'he made him speed up'	'sarraʕ' 'he made him/it speed up'	'xalle: ysarriʕ' 'he made him ¹⁹ make s.o. or s.t. speed up'
2. 'libis' 'he wore (s.t.)'	'xalle: yilbos' 'he made him wear (s.t.)'	'labbas' 'he made s.o. wear (s.t.)/he coated s.t.'	'xalle: ylabbis' 'he made him make s.o. wear s.t./ he made him coat s.t.'
3. 'ʕirib' 'he drank (s.t.)'	'xalle: yiʕrab' 'he made him drink (s.t.)'	'ʕarrab' 'he made s.o. drink (s.t.)' 'he gave s.o. to drink'	'xalle: yʕarrib' 'he made him make s.o. drink (s.t.)'
4. 'dʕohik' 'he laughed'	'xalle: yidʕhak' 'he made him laugh'	'dʕahhak' 'he made s.o. laugh'	'xalle: ydʕahhak' 'he made him make s.o. laugh'
5. 'ziʕil' 'he became sad'	'xalle: yizʕal' 'he made him be sad'	'zaʕʕal' 'he made s.o. sad'	'xalle: yzaʕʕil' 'he made him make s.o. sad'
6. 'sakat/sikit' 'he became silent/ he shut up'	'xalle: yiskot' 'he made him be silent/ he made him shut up'	'sakkat' 'he made s.o. or s.t. silent' 'he silenced s.o. or s.t.'	'xalle: ysakkit' 'he made him make s.o. or s.t. silent' 'he made him silence s.o. or s.t.'
7. 'zabat/zubit' 'it became functional'	'xalle: yizbat' 'he made it functional'	'zabbat' 'he fixed' 'he made s.t. function'	'xalle: yzabbat' 'he made him fix s.t.' 'he made him make s.t. function'

¹⁹ The reason this object is 'him' and not 'someone' is because the auxiliary 'xalla' has the 3rd singular masculine object pronoun suffix at the end as a long 'e:'. The subject is 'he' because 'xalla' is conjugated for the 3rd person singular masculine 'he'.

Two significant findings that the data presented in table 9 helps adduce are listed as follows:

(i). Periphrastic causation applied to form II always results in a double causative. This ascertains the thesis' assumption about form II. It is without a doubt the causative of Lebanese Arabic.

(ii). Periphrastic causation with form I is not tantamount to form II's causative. While this may not be apparent in most cases, stative verbs show this discrepancy. Periphrastic causation with form I for stative verbs causes this state to come about, while form II is the direct cause of the state on the object. Examples 5 and 6 in table 9 are illustrative of this alternation.

The second finding will become relevant in the discussion of form I. If the intensive is the form I with a forticized second radical, and the causative is form II, which is homophonous with the intensive, how do we know which is which? Furthermore, do we posit that there are certain verbs that take both? If not, what licenses either meaning? This will be the focal point of the coming section.

4.2 Form I

Before a discussion on form I can be started, we must take a look at the periphrastic alternation for the intensive, to contrast it with what was found in table 9. For this reason, table 10 presents basic form I verbs and intensive form I verbs from table 5 together with their periphrastic counterparts.

Table 10

Form I basic	Form I basic + 'xalle:'	Form I intensive	Form I intensive + 'xalle:'
1. 'ʔatal' 'to kill (s.o.)'	'xalle: yiʔtol' 'he made him kill (s.o.)'	'ʔattal' 'he massacred'	'xalle: yʔattil' 'he made him massacre'
2. 'dafaʃ' 'to push (s.o.)'	'xalle: yidfoʃ' 'he made him push (s.o.)'	'daffaʃ' 'he pushed with force'	'xalle: ydaffiʃ' 'he made him push with force'
3. 'daʃam' 'to support s.o. or s.t.'	'xalle: yidʃam' 'he made him support (s.o/s.t.)'	'daʃʃam' 'he buttressed/fortified(s.o/s.t.)'	'xalle: ydaʃʃim' 'he made him buttress/fortify (s.o/s.t.)'
4. 'kasar' 'to break (s.o.) or (s.t.)'	'xalle: yiksor' 'he made him break (s.o/s.t.)'	'kassar' 'he broke (s.o/s.t.) into pieces'	'xalle: ykassir' 'he made him break (s.o/s.t.) into pieces'

The data in table 10 leave no room for doubt on the status of intensives. These verbs are not of form II. Intensives with 'xalle:' do not result in a double causative. Instead, the periphrastic causative does exactly what one would expect it to do: It causativizes the intensive form I.

Thus, the derivation of form II must be explored. When is form II licensed? When does the geminated/forticized middle consonant result in an intensive, and when does it result in a causative (form II)? And if there is no phonological or morphological way to distinguish between the

intensive and the causative, what can be done to uncover the factors at play on the level of form I that license causativity/intensification?

In order to do this, we must place form I under a semantic microscope, detailing nuances in meaning and distribution.

4.2.1 Transitivity in form I verbs

A distinction must be made here between transitive verbs whose internal argument is the root itself reduplicated and those that take a proper internal argument different than the root. Maas (2005) treats the former as syntactic reduplication. For example, an intransitive verb may be transitivized by using the masdar (noun) from its trilateral root as its cognate object:

(4) ‘ʕatʕas ʕatʕsa’ ‘he sneezed a sneeze’

(5) ‘ne:m nawme’ ‘he slept a sleep’

Such verbs will not be treated as truly transitive; since the only complement²⁰ these verbs take is their reduplicated root²¹.

To elaborate a formal description of transitivity in Lebanese Arabic, we must look at the binyanim with which form I verbs pattern. These are ‘CaCaC’ and ‘CiCiC’, of which the latter may be ‘CaCuC’ or ‘CaCiC’ in Classical Arabic/ Modern Standard Arabic. Ford (2009) discusses the ablaut of the middle vowel to render a causative in MSA. He gives three examples illustrated in table 11.

²⁰ It is not clear whether these cognate objects, i.e. masdars, are a true argument of their verbs.

²¹ Reduplicated in the sense of Maas (2005).

Table 11

Form I 'CaCvC'	Ablaut form I 'CaCaC'
1. 'ħazin' 'to be sad'	'ħazan' 'to make someone sad'
2. 'ħarum' 'to be prohibited'	'ħaram' 'to prohibit something'
3. 'falat' 'to be released'	'falat' 'to release someone'

While the data in table 11 hold true for CA/MSA, this is not the case in LA. Stative verbs, those that translate to 'to be X' are invariably of the form 'CiCiC'. Table 12 shows Lebanese Arabic stative verbs in form I, their ablaut counterpart, if applicable, and their geminated middle consonant counterparts to check whether the latter shows intensification or a causative form II.

Table 12

Form I	Form I ablaut	Geminated middle consonant
1. 'ziʕil' 'to be sad'	'*zaʕal'	'zaʕʕal' 'to make someone sad'
2. '?ħirim' 'to be prohibited'	'ħaram' 'to prohibit someone from doing or having something'	'ħarram' 'to make something prohibited for someone'
3. 'xirib' 'to become broken/to break down'	'xarab' 'to ruin/destroy something'	'xarrab' 'to ruin something intensely/to obliterate'
4. 'birid' 'to become cold'	'barad' 'to become cold'	'barrad' 'to make something cold'
5. 'sixin' 'to become hot'	'saxan' 'to become hot'	'saxxan' 'to make something hot/ to heat something'

6. ‘ʕirif’ ‘to know’	‘*ʕaraf’	‘ʕarraʕ’ ‘to make someone know something/ to identify/introduce something’
7. ‘kibir’ ‘to become bigger’	‘*kabar’	‘kabbar’ ‘to make something bigger/ to magnify something’
8. ‘ʕibiʕ’ ‘to be satisfied’	‘*ʕabaʕ’	‘ʕabbaʕ’ ‘to make someone satisfied’ ‘to saturate something (intensive)’
9. ‘ʕiriʔ’ ‘to sweat/ be sweaty’	‘*ʕaraʔ’	‘ʕarraʔ’ ‘to make someone or something sweat/sweaty’
10. ‘ʕilit’ ‘to be released/become loose’	‘?ʕalat’ ‘to be released/to become loose’	‘ʕallat’ ‘to make something be loose/ unleash something’

The data in table 12 opens the door for a lot of inferences and interpretations. To keep the analysis structured, each discussion that table 12 gives way to will be examined in a separate section.

A. Ablaut form I

An intransitive stative form I verb in LA is of the pattern ‘CiCiC’. The ablaut ‘CaCaC’ never yields a syntactic causative. Examples 2 and 3 in table 12 are illustrations of a lexical causative brought about by the ablauted form I. Examples 4, 5 and 10 show no difference between their ‘CiCiC’ and ‘CaCaC’. This lack of difference exhibited by the two patterns is an indication that the number of arguments did not change, as opposed to examples 2 and 3, where the number of arguments increased by one after applying the ablaut to ‘CiCiC’. In the rest of the examples,

the ablaut form is missing completely. In light of this data, not much can be said about the role of the ablaut. A deeper analysis of ‘CiCiC’ is required first, which may be the key for understanding the ablauted form. Thus, I will return to this after analyzing ‘CiCiC’.

B. ‘CiCiC’

It is apparent that stative verbs uniformly pattern as ‘CiCiC’. The lack of the ablauted form in some stative verbs can be explained by the ‘CiCiC’ preference. This ‘i-i’ melody, however, is also found within active (i.e. non-stative) transitive verbs such as ‘libis’ ‘to put on clothes/wear something’ and ‘jirib’ ‘to drink’. Thus, what motivates an ‘i-i’ melody is something that both stative verbs and transitive verbs of the like of ‘drink’ have in common. Den Dikken (2022) analyzes this link in Hungarian transitive and unergative verbs as a manifestation of the personal dative. A personal dative, as described in Horn (2008:169) is a “pronominal in transitive clauses which obligatorily coindexes the subject but whose semantic contribution is ill-understood”. An example of such personal datives in English includes:

(6) I’m gonna have me some burgers.

Horn (2008:180) argues that ‘the appearance of these Personal Datives serves to show the satisfaction of a current intention, need, or desire’, i.e. fulfilling a preference on the part of the subject. Den Dikken concludes that Hungarian ‘-ik’ suffix found on ingestive and unergative verbs is an “institutionalized personal dative”: “The coidentification of the subject and the postverbal pronominal element –which in English ‘personal dative’ constructions is usually a weak pronoun rather than a reflexive– is what provides the perfect foundation for an explanation of the reflexive behavior of digestive verbs” (Den Dikken, 2022: 231).

This is consistent with what Lebanese Arabic ‘CiCiC’ verbs exhibit, which is also found in the reflexive ‘SE’ particle of the Romance languages. A verb that expresses something done for the benefit of the subject may take ‘CiCiC’ as its form I pattern. This is true for transitive verbs like ‘ʃirib’ ‘to drink’ and ‘libis’ ‘to put clothes on’. For unergative verbs, the subject is an agent and thus the personal dative analysis holds. However, unaccusative verbs also take the ‘CiCiC’ pattern in LA (cf. table 12). This is so because of the reflexive nature of the subject of unaccusative verbs ‘theme’ which shows a change of the state or location of the subject, and thus the subject has ‘something being done unto it’, hence the reflexive marker ‘i-i’ is present. Hungarian ‘-ik’ and Romance ‘SE/SI’ clitics with unaccusatives have a corresponding distribution. In Hungarian, ‘-ik’ is found on unaccusative verbs.

Den Dikken (2022: 224) gives two examples from Hungarian for unaccusative verbs that take the reflexive clitic ‘-ik’:

(7) *A vonat érkez-ik. Az ember öregsz-ik.*

the train arrive-ik the person age-ik

‘The train is arriving.’ ‘The person is ageing. / Humans age.’

Lebanese Arabic’s ‘CiCiC’ is also the invariable pattern of unaccusatives. Then, it may be described as LA’s reflexive marker.

As for the behavior of intransitive and transitive ‘CiCiC’ verbs in Lebanese Arabic, an interesting alternation relative to control arises when the ablaut is applied on some intransitive and transitive verbs. This will be discussed in detail in the coming section.

C. 'CiCiC' and control

Some verbs in table 12 show no difference in meaning between their 'CiCiC' and 'CaCaC' forms. However, the distribution of these verbs is such that they are not always used interchangeably. Table 13 presents verbs which show no apparent difference in 'CiCiC' and 'CaCaC' forms alongside the geminated middle consonant version.

Table 13

Form I 'CiCiC'	Form I 'CaCaC'	Geminated mid consonant
1. 'sixin' 'to become hot'	'saxan' 'to become hot'	'saxxan' 'to make something hot/ to heat something'
2. 'birid' 'to become cold'	'barad' 'to become cold'	'barrad' 'to make something cold'
3. 'rikid' 'to run'	'rakad' 'to run'	'rakkad' 'to make someone or something run'
4. 'himil' 'to carry'	'hamal' 'to carry'	'hammal' 'to make someone carry something' 'to load something up (intensive)'
5. 'ʔiʔid' 'to sit down'	'ʔaʔad' 'to sit down'	'ʔaʔʔad' 'to make someone sit down'
6. 'wiʔiʔ' 'to fall/drop'	'waʔaʔ' 'to fall/drop'	'waʔʔaʔ' 'to make something fall/drop'
7. 'hilif' 'to swear'	'halaf' 'to swear'	'hallaf' 'to make someone swear'

In table 13, the verbs presented showed no difference in meaning whether pronounced with the reflexive marker ‘i-i’ as a ‘CiCiC’ pattern or ‘CaCaC’. However, while the consultants did confirm that both patterns are attested and felicitous, they did not accept them in all contexts. ‘CiCiC’ pattern verbs were more accepted with non-human subjects, that is, indicating a lack of agency. Even with human subjects, ‘CiCiC’ verbs were used in contexts where the subject had no agency over the actuality of the event, but rather experienced it. Examples include number 3 ‘rikid’, where this was more acceptable with toddlers, as they are seen to have no overt control over their steps, whether they walk steadily, wobble, or even run. Example 5 showed an interesting insight when used to describe someone’s behavior. If someone was, say, scolded, and told to behave himself, then ‘ʔiʔid ʕa:ʔel’ ‘he sat down mindfully’ was used to mean that said person was ‘forced’ to behave regardless of whether or not they wanted that. The ‘CaCaC’ form ‘ʔaʕad ʕa:ʔel’ was used to indicate that said person behaved himself out of his own volition.

Examples 2 and 3 provided verbs that only took non-human subjects with ‘CiCiC’, and both human and non-human subjects with ‘CaCaC’. This minute difference in semantics in these two particular verbs gives us a detailed explanation of how ‘CiCiC’ and ‘CaCaC’ vary. The examples describe an event of becoming hot or cold, typically used with water. Water is usually heated (or made hot) by the use of a boiler. When the boiler is hot, this indicates that the water is also hot. The boiler is what made the water hot, but without human agency, it cannot have initiated this change of state. Thus, a form II causative with the boiler being the causer and the water the causee is not accepted. How do speakers of LA account for this difference, then? Typically, the boiler takes on a ‘CaCaC’ form, indicating that it has turned hot ‘pseudo-autonomously’, as a human agent was needed to initiate that change of state. The water, however, having no control whatsoever over its change of state, takes the ‘CiCiC’ pattern. To further bolster the conclusion

here, the consultants confirmed that a boiler would indeed take ‘CiCiC’ if it became hot as a result of being in the sun, i.e. not a change of state initiated by a human being (where the boiler would take a ‘CaCaC’ pattern).

Another significant observation one can make out of table 13 is the fact that such verbs that show control alternation in their semantics but an equal surface meaning give us a causative form II whenever their middle consonant is geminated. This is the first clue in the search for factors at play in the formation of the causative/intensive dichotomy. Before this generalization is made, table 14 presents verbs that show a difference in surface meaning between ‘CiCiC’ and ‘CaCaC’ and then shows the geminated middle consonant counterpart to check whether the meaning of the latter would indeed be intensive.

Table 14

Form I ‘CiCiC’	Form I ‘CaCaC’	Geminated mid consonant
1. ‘ʔitil’ ‘to die’	‘ʔatal’ ‘to kill’	‘ʔattal’ ‘to massacre’
2. ‘xirib’ ‘to break down/ to become broken’	‘xarab’ ‘to ruin/destroy something’	‘xarrab’ ‘to ruin something intensely/ to obliterate’
3. ‘ʔ*xubis’ ‘to be mixed’	‘xabas’ ‘to mix something’	‘xabbas’ ‘to mix things up (intensive)’
4. ‘ʔ*xubit ^s ’ ‘to be hit’	‘xabat ^s ’ ‘to hit’	‘xabbat ^s ’ ‘to bang intensely’

While there is no shortage of intensive verbs in Lebanese Arabic, finding intensive verbs with a ‘CiCiC’/‘CaCaC’ alternation proved to be difficult. The last two examples in table 14, however, reveal an important fact:

Verbs that have a ‘CaCaC’ but no ‘CiCiC’ form I cannot be causativized using form II. Such verbs are intensive when the middle consonant is geminated.

More revealing is the fact that purely ‘CaCaC’ form I verbs have something in their semantics that prevent them from causativizing using form II. Table 15 puts all data together in order to reach conclusive rules.

Table 15

Form I ‘CiCiC’	Form I ‘CaCaC’	Causative form II	Intensive form I
1. *-	‘ṡatʿas’ ‘to sneeze’	*-	‘ṡatʿʿas’ ‘to sneeze a lot’
2. *-	‘jatʿaf’ ‘to mop (the floor)’	*-	‘jatʿʿaf’ ‘to clean one’s bum with a constant beam of water’
3. *-	‘kafaf’ ‘to reveal partly’	*-	‘kafʿaf’ ‘to reveal in full’
4. *-	‘ḥabas’ ‘to jail someone’	*-	‘ḥabbas’ ‘to jail multiple people’
5. *-	‘dabaḥ’ ‘to slit someone’s throat’	*-	‘dabbah’ ‘to massacre’

6. *-	‘ʔatʔaʕ’ ‘to cut’	*-	‘ʔatʔʔaʕ’ ‘to cut into pieces’
7. *-	‘kasar’ ‘to break’	*-	‘kassar’ ‘to break into pieces’
8. *-	‘xazaʔ’ ‘to tear’	*-	‘xazzaʔ’ ‘to tear to pieces’
9. ‘ʔitil’ ‘to die’	‘ʔatal’ ‘to die’ ‘to kill’	*-	‘ʔattal’ ‘to massacre’
10. ‘xirib’ ‘to break down/become broken’	‘xarab’ ‘to ruin/destroy something’	*-	‘xarrab’ ‘to ruin intensely/ obliterate’
11. ‘dʕohik’ ‘to laugh’	*-	‘dʕaħħak’ ‘to make someone laugh’	*-
12. ‘simiʕ’ ‘to hear’	*-	‘sammaʕ’ ‘to make someone hear’	*-
13. ‘sibiħ’ ‘to swim’	*-	‘sabbaħ’ ‘to make someone swim’	*-
14. ‘ziʕil’ ‘to become sad’	*-	‘zaʕʕal’ ‘to make someone sad’	*-
15. ‘ʕibiʕ’ ‘to become satisfied’	*-	‘ʕabbaʕ’ ‘to make someone satisfied/ ‘to saturate (INT.)’ ²²	*-

²² One could argue that the intensive meaning of this verb is merely the causative applied to non-human objects and therefore saturate becomes: to make ‘non-human object’ satisfied.

16. 'miri?' 'to pass by'	'mara?' 'to pass by'	'marra?' 'to let someone pass'	* _
17. 'misik' 'to hold something'	'masak' 'to hold something'	'massak' 'to make someone hold something'	*-
18. 'hirib' 'to escape'	'harab' 'to escape'	'harrab' 'to make/let something escape' 'to smuggle'	*-
19 'filih' 'to take clothes off'	'falah' 'to take clothes off'	'fallah' 'to take someone's clothes off/make them take their clothes off' 'to mug/pickpocket someone'	*-
20. 'zubit' 'to become functional'	'zabat' 'to become functional'	'zabbat' 'to fix something' 'to make something functional'	*-

This comprehensive list of verbs allows us to formulate the following generalizations:

(i) Verbs that have 'CiCiC' but not 'CaCaC' form I can be causativized using form II, but cannot be intensified with a gemination of their middle consonant.

(ii) Verbs that have ‘CaCaC’ but not ‘CiCiC’ form I cannot be causativized using form II, but can be intensified with a gemination of their middle consonant.

(iii) Verbs that have both ‘CiCiC’ and ‘CaCaC’ in form I

a. can be causativized with form II but not intensified if their ‘CiCiC’ and ‘CaCaC’ patterns have the same meaning.

b. cannot be causativized with form II, but rather intensified by geminating their middle consonant if their ‘CiCiC’ and ‘CaCaC’ patterns have different meanings.

Then, to answer the question of what exactly the ablaut does in form I, we can say that it allows verbs which show a lack of control on the part of the subject to assume control and grants a sense of agency. Verbs which exhibit the intensive alternation with both ‘CiCiC’ and ‘CaCaC’ are assumed to start from ‘CaCaC’ and then applying the ‘i-i’ melody on these verbs shows a reflexive that takes an extrasentential element as its agent/cause. Verbs of this type are ‘kill’ and ‘to ruin something’, both are of ‘CaCaC’ pattern and become ‘to die (i.e. to kill reflexive)’ and ‘to become broken/to break down (ruin reflexive)’ respectively when found as ‘CiCiC’.

The semantics of causativity in Lebanese Arabic, therefore, becomes relevant in the discussion of the licensing of either causation or intensification. The coming section discusses some ‘rogue’ verbs which grant us a deeper perspective on the matter.

4.2.2 The Semantics of Causation in Lebanese Arabic

In the discussion of reflexive and personal dative verbs, verbs of ingestion played an important role in this institutionalized form of reflexivity. Lebanese Arabic’s ‘jirib’ ‘to drink’ shows this reflexivity and ‘jarrab’ ‘to make someone drink’ thus becomes the form II causative of

the verb. The other important verb of ingestion, namely ‘to eat’, has not been discussed yet. The reason it was left out is because this verb shows a very interesting behavior. ‘To eat’ in Lebanese Arabic is ‘ʔakal’. There is no ‘*ʔikil’ in LA, which suggests that the geminated-middle-consonant version of this verb would be ‘ʔakkal’ ‘to eat (intensive)’. However, such a verb does not exist. This seemingly quirky behavior is explained by the fact that another verb, ‘tʔaʕma:’ ‘to feed, to make eat’ exists. The latter belongs to a very small class of verbs that have this pattern: ‘C₁aC₂C₃a:’. Only two other verbs are of this pattern and will be discussed later.

The long vowel at the end of this verb is –historically– a reflex of ‘e:’, which itself alternates with the glide ‘y’ or a long ‘i:’ vowel. We know this because the imperfective form of this verb contains a glide ‘y’ when conjugated to the first and second persons singular and plural, masculine and feminine. In the third person singular, the reflex is ‘i:’ and ‘i’ for the masculine and feminine respectively. Thus, we can extrapolate that the long vowel at the end of the verb is a reflex of ‘i’/‘y’. Short vowels at the end of words disappear in Lebanese Arabic, and long vowels shorten. The way we know that we have a long vowel at the end of this word is through spelling, but also the imperfective which shows a clear glide ‘y’ for the first and second persons. This vowel, then, underwent lengthening in order to be ‘preserved’. What could license lengthening in that instance is a process of metathesis. Metathesis of the last consonant, i.e. C₃, and the reflexive ‘i’ of ‘CiCiC’ happened, which led to the lengthening of the ‘i’ vowel. What exactly motivated this metathesis will be explored in this section.

‘To feed/ to make eat’ is found as a verb which has no geminated middle consonant, formally, since gemination cannot occur on the first consonant in a consonant cluster (the pattern we are dealing with here is ‘C₁aC₂C₃a:’). This is due to the lack of a vowel that can separate the implosive and explosive parts of the geminate. This is not the case, however, for words which do

have gemination on their final consonant, even without a vowel. Words like that include ‘sizill’ ‘note/record’. Gemination in that position is debatable, but what is sure is that the supposed geminate shifts the stress to the syllable with the geminate. Likewise, ‘tʿaʕma’ ‘to feed/make eat’ may have a geminate second consonant.

The other way this verb diverges from a causative form II ‘CaCCaC’ is the fact that it has a mixed vocal melody ‘a-i’. I posit that this mix shows both the form II melody ‘a-a’ and the reflexive one ‘i-i’. Verifying this hypothesis without having other similar verbs to look at would have been difficult, especially with the other ingestion verb, ‘to drink’ being ‘ʕirib’ and ‘ʕarrab’ ‘to make drink’ respectively, i.e. behaving normally. Interestingly, however, two consultants who speak different varieties/dialects of Lebanese reported that in their dialects, the causative reflex of ‘ʕirib’ is actually ‘ʕarba:’. This confirms that ‘tʿaʕma’ is form II and causative in nature. The metathesis is then necessary in order to ensure that the reflexive marker manifests itself in the verb. This explains why ‘ʕarba:’ ‘to make drink’ is found only in two dialects (‘ʕarrab’ is found everywhere else), but ‘tʿaʕma:’ is the only form for a causative ‘eat’ verb. A form II causative ‘CaCCaC’ pattern prerequires a ‘CiCiC’ form I (cf. above). ‘To eat’ is ‘ʕakal’, while ‘ʕikil’ does not exist, ‘ʕakkal’ as a form II causative cannot exist either. ‘To feed’ is not found as ‘tʿuʕim’ or ‘tʿiʕim’, i.e. ‘CiCiC’, then ‘tʿaʕma:’ is what is found as both a causative ‘CaCCaC’ and a ‘CiCiC’ by proxy (reflexive ‘i’). Therefore, ‘tʿaʕʕam’²³ ‘to feed’ cannot exist as its ‘CiCiC’ prerequisite is not fulfilled.

The other ‘C₁aC₂C₃a:’ verbs reported were ‘farʕa:’ ‘to show/make see’ and ‘farʕa:’ ‘to brush (one’s teeth)’. Similar to ‘to feed/make eat’, ‘farʕa:’ lacks a ‘CiCiC’ form ‘to see’. The verb

²³ ‘tʿaʕʕam’ exists as a verb that means ‘to vaccinate/ to get vaccinated’. This is a denominal verb formed from the noun ‘tʿoʕom’ ‘vaccine’ and not a causative form II.

‘to see’, exists as a hollow verb²⁴ ‘ʃe:f’, so it is not visibly ‘CaCaC’ or ‘CiCiC’. This verb could be either. A piece of evidence that ‘ʃe:f’ might be a ‘CiCiC’ verb is the fact that ‘ʃawwaf’ ‘to make see’ is attested. It is not always the case, however, that one can use ‘ʃawwaf’ ‘make see’. It can only be used to express accidental/unintended sightings as in the following statement:

(8) ʃu ʃawwafak fiya?
 What made see.IT.YOU in.HER
 What made you see her?

The causer of the event of seeing in the previous statement was a dummy subject ‘it’. Indeed, this is the only way that ‘ʃawwaf’ can occur, because an intended event of ‘make see’ cannot be otherwise accidental. Thus, ‘farza:’ is form II causative ‘to make see’ where a ‘CiCiC’ form lacks and the former steps in for it. Brushing teeth can also similarly be thought of as ‘make brushed’.

The conclusion that can be reached here is that, semantically, the licensing of causation can be linked to the reflexive element in form I. Verbs that lack a ‘CiCiC’ form I, therefore, can only be intensified –as form I- by geminating the middle consonant, and cannot be causativized using form II, but rather periphrastically with an auxiliary. The auxiliary itself contains that reflexive element in its manifestation ‘xalla:’. The geminate in ‘xalla:’ can be argued to be a separate consonant, or ‘xalla:’ itself being a form II causative, but this goes beyond the scope of the thesis.

²⁴ These are verbs that have a ‘w’ or ‘y’ as a middle root radical. Recall that in section B.2. of the literature review, these hollow verbs may manifest their middle radical as any of the long vowels ‘a’ ‘u’ or ‘i’, of which the last two are the long vowel version of the glides ‘w’ and ‘y’ respectively.

As for verbs that have both a ‘CiCiC’ and ‘CaCaC’ in form I, those that lack a difference in surface meaning show that reflexivity persists even in ‘CaCaC’, with control being the only distinction. Verbs that do show a difference between their ‘CiCiC’ and ‘CaCaC’ forms lose the reflexive element and thus cannot be causativized using form II. In other words, causative form II ‘CaCCaC’ is the product of either ‘CiCiC’ if ‘CaCaC’ does not exist, or a product of a reflexive ‘CaCaC’, with ‘CiCiC’ a prerequisite for a reflexive ‘CaCaC’. That is to say that a reflexive ‘CaCaC’ cannot exist on its own without having a ‘CiCiC’ form as well.

4.3 On reflexives and causativity: Participles and Passives

4.3.1 Participles

Participles in Lebanese Arabic are connected to control, which is itself connected to causativity. Thus, describing the control dynamics in the participial system allows for a better understanding of causativity and what licenses it.

The participial system of LA exhibits rather intriguing behavior when the issue of causativity comes into light. Each binyan has an active and a passive participle. The active participle denotes an *agent/causer* role, while the passive participle is used with *themes/patients*. Active and passive participles of active form I verbs show the agent-causer/theme-patient alternation. The active participles of form I verbs in Lebanese Arabic are ‘Ce:CiC’ (‘Ca:CiC’ in case of a neighboring pharyngeal consonant) and ‘C₁aC₂C₃e:n’ (‘C₁aC₂C₃a:n’ in case of a neighboring pharyngeal consonant) respectively. The latter, however, is not well understood for modern spoken varieties of Arabic. Traditional literature on Classical and Modern Standard Arabic cites ‘C₁aC₂C₃a:n’ as one of the intensive/augmentative active participles. As a matter of fact, traditional Arabic grammars do not cite this pattern as exclusively form I’s participle. It is treated

as one of the intensive active participles with no mention of form I. Moreover, form I in CA/MSA has one active participle, namely, ‘Ca:CaC’.

An important observation for Lebanese Arabic is that ‘C₁aC₂C₃e:n’ is ubiquitous as one of the active participles of the first binyan. Such ubiquity cannot be observed in CA/MSA, which suggests an actual split for active participles in LA. Thus, ‘C₁aC₂C₃e:n’ differs semantically from CA/MSA’s intensive one and proffers insight into form I, granted that split is understood properly. Intuitively, questions about the nature of this participle and the split it causes arise: What is the distribution of both participles? What licenses either of them? How can participles be connected to control, and thus, causativity?

Batan & Prochazka (2016) analyze this participle in Shawi Arabic (Syria) as an active participle of form I and consider it to surface as a function of verbs that denote a process or change of state. Holes (2004) describes ‘C₁aC₂C₃a:n’ as an active participle for verbs that denote temporary states and have no ‘Ca:CaC’ pattern. Holes does not specify a certain dialect in his description, but is describing modern dialects of Arabic. He acknowledges that some verbs have both patterns, then says that for those verbs ‘Ca:CaC’ is predicated of inanimate entities while ‘C₁aC₂C₃a:n’ is predicated of animate beings.

For LA, it seems that these observations hold true, to an extent. For some verbs that have both ‘Ca:CaC’ and ‘CaCCa:n’, the type of referent, i.e. animate being or inanimate entity, does not matter and both patterns can occur for either type.

For the purposes of this thesis, only details which can be linked to causativity, e.g. control, will be discussed. Then, no analysis of the morphosyntax of ‘C₁aC₂C₃e:n’ will be presented, and relevant observations from the data will be analyzed in connection to control. I posit that

C₁aC₂C₃e:n' is not an active participle but rather closer to a passive participle, as there is no control, and the subject (of which the participle is predicated) is an 'experiencer' rather than an agent or causer. Consider the verbs and participles in table 16. 'Ca:CaC' is the "Active Participle", while "N-Participle" is the 'C₁aC₂C₃e:n' pattern.

Table 16

Form I	Active Participle	N-Participle
1. 'ziʕil' 'to be sad'	*-	zaʕle:n 'sad'
2. 'dʕohik' 'to laugh'	'ʔdʕa:hik' 'laughing'	'dʕahke:n' 'laughing'
3. 'ze:ʕ' 'to be hungry'	'*ze:yiʕ' (cf. CA/MSA 'dʒa ʔiʕ' 'hungry')	'zu:ʕa:n' ²⁵
4. 'libis' 'to put on clothes'	'le:bis' 'dressed'	*-
5. 'hodʕir' 'to watch'	'ha:dʕir' 'watched'	'hadʕra:n' 'watched'
6. 'ʔaʕad' 'to sit down'	'ʔe:ʕid' 'sitting down'	*-
7. 'ʕotʕiʃ' 'to be thirsty'	*-	'ʕatʕe:n' 'thirsty'
8. 'ʕatʕas' 'to sneeze'	'ʕa:tʕis' 'sneezed'	*-
9. 'himil/hamal' 'to carry'	'ha:mil' 'carrying' (hamal/himil)	'hamle:n' 'carrying' (himil, abstract only)
10. 'fihim' 'to understand'	'fe:him' 'understanding'	'fahme:n' 'understanding'

It is predictable that stative verbs would have n-participles, since a state of sadness, hunger, thirst etc. cannot be actively induced/instigated by an agent, but rather is experienced by them.

²⁵ From 'zawʕa:n', the diphthong 'aw' becomes a long 'u' in some instances.

Likewise, unergative verbs are expected to allow for active participles, since their subjects are assigned agent roles and thus consciously instigate the event.

Yet, evidence from verb 9 in table 16 suggests that the active/n-participle alternation is connected to control. When asked about the ‘CiCiC’/‘CaCaC’ alternation for this verb (i.e. ‘himil/hamal’ ‘to carry’), the consultants confirmed that ‘hamal’ is the form they would use in a scenario that involves conscious, willful and deliberate carrying. This is not to say that ‘himil’ is exclusively a non-control event by the subject. The subject could carry things upon the request of someone, and while still in ‘conscious’ control of that event, it is of the form ‘himil’. Another example would be the event of carrying by the subject after seeing, say, an old lady doing that by herself. Even without her request, the subject could offer to carry her stuff and the surface form would still be ‘himil’.

One example of metaphorical (abstract) carrying is being worried about someone: ‘himil hamm’, literally, to carry someone’s worry. The control form of the verb is accepted, but less salient, i.e. ‘hamal hamm’. This distinction between the two patterns of the verb is accentuated when using participles:

‘hamle:n’, the passive participle can only be used to describe someone who is ‘carrying the worry of someone’.

(9) <i>Bayyo</i>	<i>hamle:n</i>	<i>hammo.</i>
<i>father.his</i>	<i>carry.N-PRT</i>	<i>worry.his</i>

His father is carrying his worry. I.E.: His father is worried about him.

If, on the other hand, the father is carrying bread, for example, then the n-participle is no longer licensed:

(10) a. *Bayyo* *ħa:mi* *l-xibiz*

father.his *carry.ACTPRT* *the-bread*

His father is carrying the bread.

b. **Bayyo* *ħamle:n* *l-xibiz*

father.his *carry.N-PRT* *the-bread*

**His father is carrying the bread.*

In (10) b, the n-participle is no longer available as a predicate for the subject.

Example (11) is an indication that LA's active and n-participles do not differentiate between animate beings and inanimate entities, as the both participles could be predicated of the father in the example. Another example of both participles being licensed for predication of an inanimate entity is 'fall/drop'. Consider example (11) where the subject is 'the phone', i.e. inanimate object, and example (12) with the subject being 'the man'.

(11) a. *L-talifon* *waʔʕa:n* *kaza* *marra*

the-phone *fall.N-PRT* *many* *time.SG*

The phone has fallen many times.

b. *L-talifon* *we:ʔiʕ* *kaza* *marra*

the-phone *fall.ACTPRT* *many* *time.SG*

The phone has fallen many times.

(12) a. <i>L-zalame</i>	<i>waʔa:n</i>	<i>kaza</i>	<i>marra</i>
<i>the-man</i>	<i>fall.N-PRT</i>	<i>many</i>	<i>time.SG</i>

The man has fallen many times.

b. <i>L-zalame</i>	<i>we:ʔiʕ</i>	<i>kaza</i>	<i>marra</i>
<i>the-man</i>	<i>fall.ACTPRT</i>	<i>many</i>	<i>times.SG</i>

The man has fallen many times.

The above examples rule out the possibility of the animate/inanimate alternation as the cause of the split. Batan & Prochazka's analysis (2006) arguing that the n-participle surfaces for verbs that denote a process or change of state is not viable here either, since table 16 shows verbs that denotes a process or a change of state where 'Ca:CiC' or both participles are available.

This makes the control a serious contender for the semantics of n-participles in Lebanese Arabic. Consider the third verb in table 16, 'to be hungry'. Classical and Modern Standard Arabic assign 'dʒa:ʔiʕ' 'hungry' as the active participle of form I. Lebanese Arabic, on the other hand, strictly bans this pattern: '*ʒeyiʕ' is not acceptable; only 'ʒuʔa:n' 'hungry' is, i.e. the n-participle. This also suggests that LA 'rearranged' the participial system based on the active/n-participle split and transferred those verbs which do not fit the semantics of one of the participles to the other, hence the n-participle pattern for 'hungry', instead of the active participle.

Hunger is a state for which control is not possible, and the subject of hunger is an experiencer, not an agent. This goes for all such verbs where control is not possible. If control is mandatory, e.g. in 'libis' 'to wear/put on clothes', where the subject cannot accidentally fit into a

dress, then only the active participle is licensed 'le:bis' and not '*labse:n'. If control is optional, then the choice of the participle is the active participle corresponding to a 'CaCaC' form I, while the n-participle would correspond to a 'CiCiC' pattern.

Hence, the following can be noted:

- (i) N-participles are the only participles available for verbs where control is necessarily absent.*
- (ii) Active participles are the only participles available for verbs where control is necessarily present.*
- (iii) For verbs where control is optional, active participles correspond to form I 'CaCaC', while n-participles correspond to 'CiCiC'.*

Through their connection to control, then, participles can contribute to understanding causation in Lebanese Arabic, as the latter is also linked to control.

4.3.2 Passives

Cited above as being out of the scope of this thesis, and thus not to be discussed, arises the issue of the relationship between causativity and reflexivity, and while the thesis does not go into details with the endeavor of deciphering the dynamics of passive constructions and causativity/reflexivity, some points are worth noting and sharing to aid the process of recommendation for future research on the topic.

The relationship between causativity and reflexivity is often discussed in the literature with regard to passives and middle constructions. An example of a causative/passive ambiguity in English is cited in Washio (1993: 46):

- (13) John had his watch stolen by Mary.

Two readings are available here, namely, a causative reading where John caused Mary to steal his watch, and a passive one, where John is not the causer but rather an “affectee” in Washio’s words.

To begin discussing such constructions in Lebanese Arabic, one must understand that LA’s passives are anticausative, in that these verbs are caused but the cause/causer is unknown. The unperceived cause/causer does not usually appear in passive constructions as an adjunct, i.e. English’s *‘by-phrase’*. This obligatory truncation is perhaps what allows anticausatives to be LA’s passives. The passives of unaccusative form I verbs cannot be constructed from form I, but rather from their causative form II verb (cf. footnote 5). Exploring this phenomenon should contribute to a better understanding of the behavior of causatives in Lebanese Arabic, especially in relation to middle constructions/inchoative verbs being of a ‘CiCiC’ pattern.

5. Conclusion

5.1 Conclusion

The second binyan of Arabic languages and dialects is traditionally assigned many functions. Among those, the most important ones are the denominative, causative and intensive functions. The estimative is also widely cited as one of form II's functions. This study proposed that form II in Lebanese Arabic is exclusively causative, and aimed to provide data and analysis to check the validity of this proposal. It was verified in the course of analyzing the various contexts in which 'CaCCaC' –not necessarily as form II (i.e. causative)– appears. It was shown that each traditionally presumed function of form II was, with the exception of the causative, a function of form I. Every 'CaCCaC' pattern which is not causative was argued to be an allomorph of form I and an allophone of form II.

Estimatives of the form 'CaCCaC' were categorized with denominatives, and the true estimatives were assigned form X. Thus, denominatives and estimatives (of the form 'CaCCaC') were argued to be one class. Intensives, augmentatives, repetitive, and pluractional verbs were also classified together as one group. Distinguishing denominative 'CaCCaC' verbs from form II causatives was simple, as the former does not participate in the binyan system as a whole, but rather confined to its denominative domain, while lacking an underlying trilateral root.

Intensives, on the other hand, exhibited features similar to that of form II causatives, which made them more difficult to characterize. Intensives do participate in the binyan system and have a discernible trilateral root, and sometimes have both a 'CaCaC' and 'CiCiC' patterns in form I. This made the 'CaCCaC' pattern prone to misinterpretation as intensive, rather than causative and vice versa. Tests were devised and carried out to actively distinguish between intensification and

causation in Lebanese Arabic. These included periphrastic causation as a test of causativity in ‘CaCCaC’, and a profound analysis of form I ‘CaCaC’ and ‘CiCiC’ alternations.

Periphrastic causatives were shown to be different from form II causatives. Periphrastic causation also served as a reliable test to whether a ‘CaCCaC’ verb is a causative form II or not. Only form II causatives exhibited double causation when the periphrastic causation auxiliary was added.

On the issue of discerning a ‘CaCCaC’ pattern’s meaning, what exactly licenses causation was discussed side by side with reflexivity. Reflexive marking in form I, i.e. the ‘i-i’ pattern in ‘CiCiC’ was linked, along with control, to causativity. Verbs that do not exhibit reflexivity in form I do not causativize using form II, that is, verbs without a ‘CiCiC’ form one cannot be causatives in form II, and their ‘CaCCaC’ patterns are thus intensives of form I. Verbs that have both a ‘CaCaC’ and a ‘CiCiC’ pattern causativize qua form II if the reflexivity is present in both patterns, i.e. their ‘CaCaC’ and ‘CiCiC’ forms have the same meaning. Otherwise, verbs with a difference in meaning between their ‘CaCaC’ and ‘CiCiC’ patterns cannot causativize as form II and are intensive when found as ‘CaCCaC’.

Form IV was lightly touched upon and argued to be a defunct binyan, reinterpreted as a form I (Iq) for quadriliteral roots.

Finally, participles were also discussed in light of control and reflexivity, contributing to a fuller picture of causation and causativity in Lebanese Arabic. A split in active participles of form I verbs in Lebanese Arabic showed that control dynamics are involved in creating two classes of these participles. Participles were not discussed in full length, as they are out of the scope of this thesis, but points relevant to control were presented and analyzed. Without venturing into out-of-

scope territory, the analysis serves as a base for future research about the nature and function of participles.

The thesis, thus, inquired into form II, simultaneously exploring many of form I's aspects. The fact that form II needed such a deep analysis and therefore a meticulous 'clean up' suggests that this might be the case for other binyanim as well. Traditional grammars fall short of a comprehensive, thorough description of Lebanese Arabic's binyan system. Then, it is necessary to conduct studies analyzing each binyan in its own right, and therefore compiling a 'real' grammar based on the findings of these studies. Indeed, this thesis intended to serve as a step in that direction, to raise awareness regarding the discrepancies between traditional grammar descriptions and what is found in Lebanese Arabic specifically, but is telling of a greater want in describing modern spoken varieties of Arabic in general. The coming section draws on these findings and spells out a list of recommendations for future research.

5.2 Suggestions for future research

This study revealed a great deal about some aspects of the morphosyntactic system of Lebanese Arabic. On the other hand, the areas which this study does not delve deep into, e.g. passives. These would be insightful for future research. Hence, recommendations are laid out in ascending order of generality:

A. Examine closely the active and passive participles of forms I & II. Establish the rules that govern licensing one or both participles. After laying out the rules, connections to control, and thus causativity, should be made to advance our understanding of Lebanese Arabic causatives.

B. Pursue a study of passives (anticausatives) to reveal the interplay between causativity, anticausativity, reflexivity and passives, and control. Special focus on control and reflexivity should be revealing in terms of licensing form II causatives.

C. Investigate the Lebanese Arabic binyan system, verbal (forms I to XI) and nominal. Scrutinizing and reanalyzing each binyan on its own would be helpful for that purpose, as it was in the case of this study of form II. This also suggests a possible update to the whole unit: An overhaul of the entire system to rebuild a plausible grammar of Lebanese Arabic, showing more precision in its description of the forms than that of traditional grammars.

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