English loan verbs in Jordanian Arabic: morphological integration and speaker acceptability judgments

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Abstract

Purpose – The present study examines how Jordanian Arabic (JA) speakers perceive the borrowing of English verbs in JA. These borrowings occur by two main strategies: morphological integration into the JA verb forms by direct insertion or pairing of loan words with a light verb such as *ʕamal* "do" to facilitate the borrowing, e.g. *ʕamal diliit* "delete" (literally "do a delete").

Design/methodology/approach – Speaker perceptions were gathered through interviews with native JA-speaking university students. Each interview consisted of two parts. First, speakers rated the acceptability of integrated verbs, in both their base form and their reflexive alternate. Second, after being presented with proposed integrated forms of verbs most used in the light verb construction (LVC), speakers answered questions about the potential integrability of these unintegrated verbs and the factors that affect it.

Findings – Results of the interviews show that JA speakers prefer integrated loan verbs in their base forms over their reflexive alternates. Most speakers were unwilling to accept proposed integrated forms of the verbs they use in the LVC, citing concerns such as infrequency of use in the community and perceived phonological clashes between the English words and JA.

Originality/value – The integration of loan verbs in Arabic has received limited attention. This study aims to expand our understanding of how loan verbs are integrated in JA and adds a new angle by exploring how speakers perceive the integration process.

Keywords Jordanian Arabic, Loan verbs, Borrowings, Non-concatenative, Perception

Paper type Research paper

Introduction

The long contact between Jordanian Arabic (JA) and English, which has been intensified by the growth of technology and social media use in Jordan over the last two decades, has led to the use of many borrowings from English in JA (Al Btoush, 2014). Borrowing, as defined by Thomason and Kaufman (1988), is "the incorporation of foreign features into a group's native language by speakers of that language." This process is a natural result of contact between languages. As languages borrow from each other, they use different strategies to integrate the new words. When verbs from English are borrowed into JA, the JA verb forms must be taken into consideration because of the key role they play in shaping the language.

Like most varieties of Arabic, JA has ten basic verb forms, i.e. prosodic templates that are applied to discontinuous, usually triliteral, consonantal roots to derive words, although only nine are commonly used (see McCarthy, 1981; Kaye, 2007 for an overview of the non-concatenative systems of Arabic; Mashaqba (2015) for more on JA verb forms). Some verb forms are more productive than others; for example, I have excluded form IX from Table 1, which is used almost exclusively for verbs indicating color change or physical defects. The most common forms are given below in Table 1 in their typical citation form, the 3SG.PERF.

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Table 1. JA verb forms

Form	Pattern	Example	Gloss
I	CaCaC	šaġal	"occupy"
II	$C_1aC_2C_2aC_3$	ġayyar	"change"
III	Ca:CaC	na:qaš	"discuss"
IV	ʔaCCaC	ʔarsal	"send"
V	$tC_1aC_2C_2aC_3$	tġayyar	"be changed"
VI	$tC_1a:C_2C_2aC_3$	tna:qaš	"discuss with"
VII	inCaCaC	inšaġal	"be occupied"
VIII	iCtaCaC	ištaġal	"work"
X	istaCCaC	istaxdam	"use"
Q1	$C_1aC_2C_3aC_4$	zalzal	"shake"
Q2	$tC_1aC_2C_3aC_4$	tzalzal	"quake"

Source(s): Author's own work

I have also included two quadriliteral verb forms, which are less common in JA but are used for the integration of foreign verbs with more than three consonant phonemes and will prove relevant in this discussion of loan verbs.

The only formal difference between forms II and Q1 is the number of different consonants in the root. In the triliteral form II, the second root letter is geminated to fit the CaCCaC pattern, whereas a verb in form Q1 consists of four different root consonants arranged in the same CaCCaC pattern. Due to the syllabic parallelism of these forms, Laks (2018) treats them as one. This study will explore whether, for loan verbs, there is a significant difference in the acceptability of verbs in form II over those in form Q1. In most varieties of Arabic, including JA, these two forms serve as the target verb forms for forming new verbs and integrating borrowings (Ryding, 2005; Matras, 2009; Salem, 2015; Laks, 2018; Al-Athwary, 2023; Brustad, 2024).

Accordingly, the formal and semantic relationships between forms II and V and forms Q1 and Q2 will be of most significance to this study. Most form II verbs are causative, and their reflexive counterparts are realized in form V (Laks *et al.*, 2022; Brustad, 2024). For example, the root ġ-y-r in form II, *ġayyar,* means "to change (something)," whereas in form V, *tġayyar,* it means "to become changed" (see Table 1). These forms typically co-occur for a given root, meaning that if a given root in form II is productive, it likely is in form V as well (Laks *et al.*, 2022). Form Q1 has a similar relationship with form Q2. For example, the root z-l-z-l in form Q1, *zalzal* means "to shake (something)," whereas in Q2, *tzalzal*, it means "to quake" (see Table 1). The causative-reflexive relationships of form II-V and Q1-Q2 remain true of borrowings. Among the aims of this study is to determine how speakers compare the acceptability of integrated loan verbs and their derived reflexive counterparts.

Some borrowings in JA do not get integrated into any verb form. Instead, nominal borrowings are paired with a native JA verb such as *ʃamal* "do/make," which functions as a light verb. Light verbs are verbs used in complex constructions that rely on the nouns that follow for their semantic content, as in *take a walk* or *make an offer* (Kearns, 2002). When borrowed English nouns are paired with the JA light verb *ʃamal,* new verb constructions are formed. For example, rather than integrating the English verb *to scan* into form II, even though it has three available consonants, JA speakers pair *scan* with *ʃamal,* producing *ʃamal skaan* "scan" (literally "make a scan") (Salem, 2015). This verb is likely used with the light verb because s-k-n is a highly productive, high-frequency pre-existing root meaning "reside." Other reasons verbs are used in tandem with *ʃamal* rather than in the verb forms will be addressed in the discussion of the results of this study.

In light of these two available options: using a light verb such as *ʃamal* or integrating the loan verb into form II or Q1, this study examines how JA speakers think and feel about the relationship between foreign verbs and their own native verb forms by seeking to answer the following questions:

(1) Is there a significant difference in how JA speakers perceive loan verbs in forms II and Q1, despite their parallel structures?

(2) How do JA speakers rate the acceptability of English loan verbs integrated in forms II and Q1 as compared to their reflexive counterparts in forms V and Q2?

(3) What are JA speakers' intuitions about the integrability of unintegrated loan verbs that are borrowed using a light verb? To what influencing factors do JA speakers attribute the distinction between integrated and unintegrated loan verbs?

Loan verb integration strategies

Few studies have paid particular attention to the behavior of loan verbs in Arabic, and only Salem (2015) addresses, albeit briefly, the integration of loan verbs in JA. The remaining studies of loan verbs in Arabic (Versteegh, 2009; Al-Athwary, 2023; Al-Jarf, 2024) rely heavily on Wichmann and Wohlgemuth's (2008) work on verb borrowing strategies cross-linguistically, which establishes that there are four strategies languages use to borrow verbs: the light verb construction (LVC), indirect insertion, direct insertion and paradigm transfer. Wichmann and Wohlgemuth (2008) present the first three strategies as a spectrum of increasing integration, with paradigm transfer being a rarer phenomenon they consider separately.

The first strategy on this spectrum, reflecting the lowest degree of integration, is the LVC, which couples a verb native to the receiving language meaning "do" or "make" with the loan verb to facilitate the borrowing. This is one of the strategies employed by JA and most varieties of Arabic to borrow verbs (Versteegh, 2009; Salem, 2015; Al-Athwary, 2023). Versteegh (2009), whose examples primarily come from Classical Arabic and Arabic spoken in migrant communities, e.g. Moroccan Arabic speakers in the Netherlands, uses the example in (1) to illustrate the LVC. In (1), the Moroccan Arabic light verb *dar* "do" is paired with the Dutch verb *ontmoeten* "to meet," which functions as the object of *dar*. When paired, "*dar ontmoeten*" together form the borrowed verb "meet" in Moroccan Arabic.'

(1) *ana-ya* *dert-l-u* *ontmoeten*
I-EMPH do.1S-to-him meet.INF
"I met him" (Boumans, 1998, p. 229, as cited in Versteegh, 2009).

Al-Athwary (2023) adds that in Yemeni Arabic, the LVC is the most frequently occurring method of English loan verb integration. Both Versteegh (2009) and Al-Athwary (2023) note that the most common light verb of choice in the varieties of Arabic they studied is *ʕamal*, "do." Salem (2015) confirms that this is also true in JA and does not mention the use of any other light verbs.

Indirect insertion, the next highest degree of integration in the proposed hierarchy, is the use of a specific affix for borrowed verbs. This strategy is employed in Polish, in which the verbalizing affix *– ować* is added to English verbs as in *sponsorować* "sponsor," *parkować* "park," and *trenować* "train" (see Zabawa, 2012). Some scholars, such as Matras (2009) and Salem (2015), have classified the integration of loan words into the nonconcatenative Arabic verb forms as indirect insertion; however, other studies classify the strategy employed by Arabic as direct insertion. This will be further discussed below.

Direct insertion is the strategy by which the borrowed verb is integrated directly into the morphology of the receiving language "with no morphological or syntactic accommodation" (Wichmann and Wohlgemuth, 2008). In addition to the LVC, this is another common strategy used in most varieties of Arabic to integrate loan verbs, in which they are directly adapted into the non-concatenative verb forms of Arabic, such as those detailed in Table 1 (Versteegh, 2009; Al-Athwary, 2023; Al-Jarf, 2024). One example from Al-Athwary's (2023) study on

English loan verbs in Yemeni Arabic is the verb *manšan* "mention somebody on a social media site." This borrowing of the English verb *mention* was phonologically reduced to the quadriliteral root m-n-š-n and directly inserted into the form Q1 template, $C_1aC_2C_3aC_4$ (see Table 1).

As mentioned above, Matras (2009) and Salem (2015) differ from other studies on loan verbs in Arabic, including Versteegh (2009), Al-Athwary (2023) and Al-Jarf (2024), by calling the strategy used for integrating English verbs into the JA verb forms indirect insertion, rather than direct insertion. This is because in order for direct insertion to work in Arabic and other Semitic languages with non-concatenative verbal templates, the loan verb must first be phonologically reduced to a root consisting of two to five consonants that can then be directly inserted into the target verb form (Wohlgemuth, 2009; Al-Athwary, 2023). Wohlgemuth (2009) recognizes that if this reduction is a morphological adaptation applied after the lexeme is borrowed, this more closely resembles indirect insertion than direct insertion.

This is what Matras (2009) and Salem (2015) propose. They argue that, in addition to what they view as the morphological adaptation of the original English verb, the application of a specific reserved template used for the intensification of actions, in this case the Arabic verb form II, warrants that this process be classified as indirect insertion. They feel that for languages like Arabic with non-concatenative morphologies, this specific, reserved template takes the place of the reserved affix. Wichmann and Wohlgemuth (2008) include it in their definition of indirect insertion. However, Salem's (2015) data on JA includes examples of verbs in form Q1, which is not used for the intensification of actions. He acknowledges this but does not explain how this use of a separate verb form can still be considered indirect insertion. Furthermore, Wohlgemuth (2009) concludes that the reduction-to-root process and modification of vowels in the original verb from the donor language is strictly phonological, rather than morphological, and happens synchronously with the borrowing. Thus, the loan verb comes in directly as a root, and "a formal noun-to-verb or undefined-to-verb derivation does not take place," making such instances of loan verb integration direct insertion (Wohlgemuth, 2009). I will continue to follow Wohlgemuth's (2009) terminology by referring to the integration strategy employed in JA as direct insertion, as do most of the studies on loan verb integration in Arabic (Versteegh, 2009; Al-Athwary, 2023; Al-Jarf, 2024).

The fourth and final loan verb integration method attested by Wichmann and Wohlgemuth (2008) is paradigm transfer – a rare strategy independent of the spectrum on which the others lie wherein the receiving language adopts the verb without any adaptations at all, allowing it to maintain its native morphology as is. They explain that this strategy is exclusive to intensive contact situations and cite the example of Cypriot Greek verbs in Kormatiki, an Arabic dialect of Cyprus. The Cypriot Greek verbs borrowed into Kormatiki are conjugated exactly how they would be conjugated when they naturally occur in Cypriot Greek, rather than taking on any Kormatiki conjugation patterns (Newton, 1964; as cited in Wichmann and Wohlgemuth, 2008).

Other studies on English borrowings in JA have been conducted, but they have largely focused on the social functions thereof (Al Btoush, 2014; Salem, 2015), the phonological adaptations that loan nouns undergo when JA morphemes are added (Zibin, 2019), the general distribution and frequency of borrowings (Salem, 2015; Vanyushina and Hazaymeh, 2021), and plural forms of borrowed nouns in JA in the framework of theories such as optimality theory, Moraic theory and the dual mechanism model (Mashaqba *et al.*, 2023a, b). They provide an important foundation for the examination of English borrowings in JA but do not deal directly with the integration of loan verbs. Thus, Salem's (2015) brief analysis of the behavior of loan verbs from English in JA provides the best starting point, showing that in his corpus of JA, loan verbs are used either in the LVC or integrated into forms II and Q1 – the same forms and strategies employed by Yemeni Arabic (Al-Athwary, 2023). This study aims to shed greater light on speaker perception of the integration of English loan verbs in JA, something that has received little attention in previous work.

Methodology

In order to answer the above-stated research questions, I interviewed 21 native JA-speaking students at the University of Jordan. In the first portion of these interviews, I conducted a verbal questionnaire, during which participants were asked to rate the acceptability of eight integrated loan verbs in forms II and Q1 on a four-point Likert scale. They then ranked the same eight verbs in their respective form V or Q2 reflexive form. The eight integrated verbs selected for analysis in this study were chosen from Salem's (2015) list of borrowings in JA after being verified as being normal, commonly used JA words by a native speaker with a Ph.D. in Quranic and Linguistic Studies and extensive training in Arabic. Each integrated verb from Salem (2015) that this informant confirmed as attested in JA was included in this study and can be found in Table 2. The verbs' derived reflexive counterparts in forms V and Q2 were not confirmed by the native speaker as being attested in JA; rather, they have been included to illustrate the relationship between the forms and were used in the interviews with participants to determine the availability and acceptability of these pairs for loan verbs, which are commonly co-occurring in native JA verbs (see Mashaqba *et al.*, 2020 for more on the relationship between these forms).

Following the questionnaire, I conducted a semi-structured interview in which participants were asked open-ended questions designed to elicit their intuitions about the possibility of integration for unintegrated loan verbs. Using borrowings that employ the LVC by accompanying the borrowed word with the light verb *ʕamal*, also chosen from Salem's (2015) list with the help of a native speaker, participants were given an integrated form of said verb. For example, I reduced the English verb *delete*, which is attested in Salem's (2015) JA corpus in the LVC as *ʕamal diliit* "to delete," to the hypothetical derived root d-l-t and presented it to participants in form II as *dallat*. They were then asked to make and justify their judgments as to whether this was acceptable or even understandable as "to delete." Other questions asked were intended to determine what factors, by their intuition, determine which verbs get chosen for integration by direct insertion and which remain in the LVC.

Findings and discussion

Acceptability ratings of integrated verbs

Using a four-point Likert scale, with 1 being the least acceptable and 4 being the most, speakers rated the acceptability of the 16 integrated loan verbs shown in Table 2. Due to their formal and semantic similarities, the first question to be examined is whether the speakers rated the acceptability of the integrated verbs in the two base target forms for borrowings, i.e. form II for the triliteral borrowed roots and Q1 for the borrowed quadriliteral roots, differently. Figure 1 shows the distribution of speaker ratings for the verbs in these two forms.

Table 2. Integrated loan verbs

Form II	Form V
sayyaf "save"	tsayyaf "be saved"
šayyak "check"	tšayyak "be chic"
šayyar "share"	tšayyar "be shared"
fannaš "fire"	tfannaš "be fired"
ballak "block (on social media)"	tballak "be blocked (on social media)"
Form Q1	**Form Q2**
fabrak "fabricate"	tfabrak "be fabricated"
halwas "hallucinate"	thalwas "be hallucinated"
kansal "cancel"	tkansal "be canceled"

Source(s): Author's own work

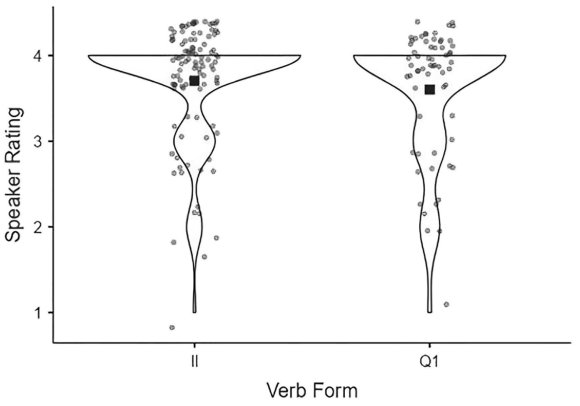

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Figure 1. Speaker acceptability ratings of integrated verbs in form II and Q1, based on a four-point Likert scale, with 1 being the least acceptable, and 4 being the most

There was no statistically significant difference between the speaker ratings of the integrated verbs in these two forms according to an independent samples student's *t*-test (t (166) = 0.962, p = 0.338). This evidence suggests that speakers do not prefer one of these forms over the other as a "default" target form for new borrowings and that form II and Q1 verbs each represent an alternative, equally acceptable starting point for the integrated loans, depending on the number of consonants available for the root in the original English word. For example, the English verb *finish* contains three consonant phonemes f-n-š. After reducing the verb to these three consonants, which form a suitable triliteral root, the borrowing *fannaš* was produced in form II. On the other hand, the reduction-to-root process for the English verb *cancel* produced a quadriliteral root that fits in the form Q1 template to produce the borrowed verb *kansal*. Based on these results and the forms' structural similarities, for the discussion of the remainder of the results, I will group these two forms together, just as Laks (2018) does. I will also continue to group the form V and Q2 verbs together as the reflexive counterparts of forms II and Q1.

In Figure 2 below, I compare the speakers' ratings for all the integrated verbs in these two groups to see whether there is a significant difference in speakers' perceptions of the borrowed verbs and their derived reflexive forms.

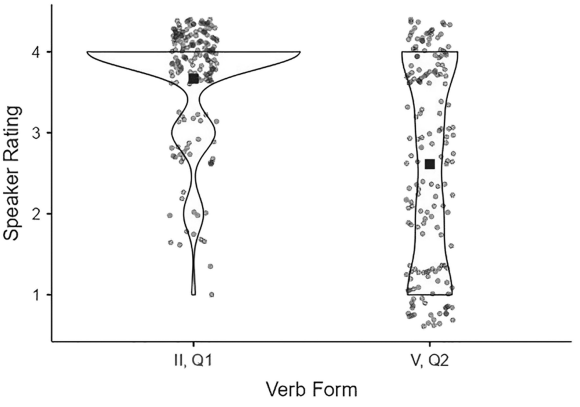

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Figure 2. Acceptability ratings of all integrated loan verbs and their reflexive forms

According to an independent samples Welch's *t*-test (t (254) = 9.64, $p < 0.001$), the speaker ratings of the form II and Q1 verbs and their form V and Q2 counterparts were significantly different. As Figure 2 shows, speakers favored the integrated verbs in forms II and Q1 over the reflexives in forms V and Q2. The overall mean for all form II/Q1 verbs was 3.67. However, the overall mean for all the form V/Q2 verbs was 2.61. The density curves in Figure 2 illustrate that most of the speakers rated the form II and Q1 verbs as 4, completely acceptable, with a few exceptions. For the form V/Q2 verbs, however, ratings for each individual verb were as varied for each individual word as they were for the grand sum of all the verbs, showing that the variation visible in the data points in Figure 2 was not skewed by one or two less acceptable verbs. This will be shown in more detail in Figure 4.

Figure 3 confirms that most of the speakers rated each of the form II and Q1 verbs very high, with two notable exceptions. One of the two verbs with the lowest mean rating (3.19) was the form Q1 verb *fabrak*, "fabricate." Many participants remarked that they were unaware that *fabrak* and *halwas* "hallucinate" were not native Arabic verbs in the first place. This is likely because these two loan verbs have been fully integrated as borrowings in both JA and Modern Standard Arabic (MSA). They are the only two verbs in this study to be attested in MSA, and

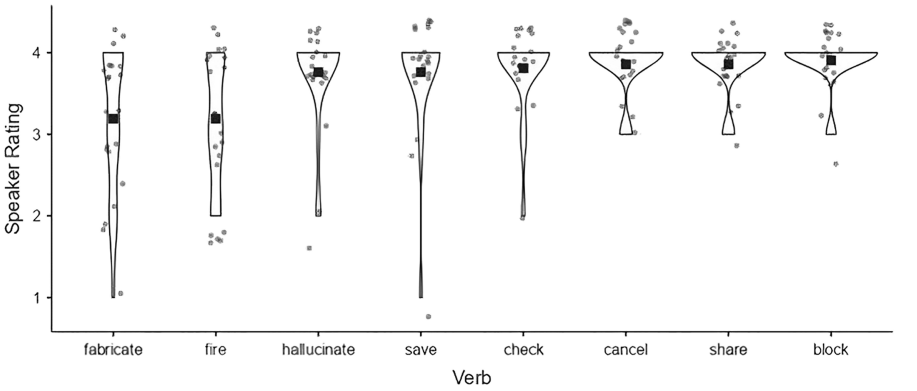

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Figure 3. Acceptability ratings of integrated verbs in forms II and Q1

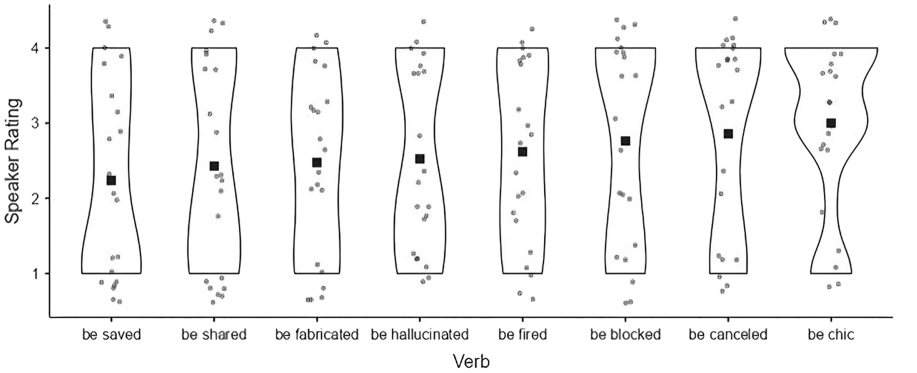

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Figure 4. Acceptability ratings of integrated verbs in forms V and Q2

both predate the advent of social media in Jordan, which prompted the need for many of the other loans addressed in this study. Accordingly, I expected them to have higher mean acceptability ratings, assuming that speakers would have had more exposure to them and would thus be more comfortable hearing them. However, they were both among the lowest-rated verbs (see Figure 3). This indicates that a borrowing's relative age is not a reliable predictor for higher acceptance by JA speakers or is its presence in MSA. It may be the case that speakers perceived these verbs as being distinct in register from the rest and, as such, out of place among the other strictly JA verbs. More loan verbs attested in both JA and MSA would need to be included to better understand how these verbs' presence in MSA affects their acceptability in JA.

The other verb with a mean rating of 3.19 was the form II verb *fannaš*, which was borrowed from the English verb *finish.* However, at some point in the borrowing process, it underwent a semantic change in JA and now means "fire (from a job)." Although this may be initially perceived as a sign of full integration into the JA lexicon, it did not have a higher acceptability rating than other verbs that did not undergo any semantic changes.

The density curves in Figure 4 show that the distribution of form V and Q2 ratings in Figure 2 were not skewed by a few low-rated verbs among high-rated ones or vice versa. Although the verbs in these forms can still be sorted in a spectrum of increasing average acceptability, they all show a similar degree of variability in speaker responses.

Like their form II and Q1 correlates, the form Q2 verbs *tfabrak* "be fabricated" and *thalwas* "be hallucinated" were in the lower half of the average acceptability ratings. The verb with the highest mean acceptability rating in Figure 4 is the form V *tšayyak*, meaning "to be chic." This loan verb represents an exception to the form II-V semantic relationship that is true for the rest of the verbs. At the onset of my interviews with participants, I was acting under the assumption that this verb meant "be checked," as the form II loan verb with the same root, *šayyak*, means "check." However, as I interacted with participants, it soon became clear that *tšayyak* in fact means "be chic." In terms of JA phonemes, the English adjective *chic*, from which the root for this verb is derived, can only be phonologically reduced to the same root that the English verb "check" is also reduced to. Thus, in both cases, the root *š-y-k* is derived and integrated into the verb forms. Further investigation would be necessary to determine whether a homonym of form II *šayyak* exists in JA that means "to make something chic." However, participants made it clear that there is no form V *tšayyak* meaning "to be checked" to accompany the form II *šayyak* that means "to check." This verb was the only exception to the co-occurrence of the form II-V pairs in this study, and there were no exceptions in the form Q1–Q2 verbs. Although these forms typically co-occur with the semantic relationship discussed previously, such exceptions are not entirely uncommon in native JA verbs.

In summary, speakers' acceptance ratings of these borrowings revealed that there is no significant difference in the acceptability of the integrated borrowings in form II and Q1. Based on the limited number of verbs in this study, the primary factor that determines in which of those two forms a borrowing enters the system is simply the number of consonant phonemes the English verb contains that represent appropriate root letters. However, speakers found verbs in these two forms more acceptable on average than the same borrowed verbal roots in the derived reflexive forms V and Q2. Even if a verb is integrated enough to be highly acceptable in forms II and Q1, it is not a given that its reflexive will also be acceptable to speakers. Furthermore, these results show that a borrowing's relative age, presence in MSA, and any semantic changes a verb undergoes in the borrowing process do not suggest increased acceptability to JA speakers.

Speaker perception of loan verbs in the light verb construction

After rating the integrated forms, the speakers were asked open-ended questions about non-integrated verbs, i.e. verbs borrowed using the LVC. As described above, I presented each speaker with a hypothetical integrated loan verb after deriving a possible root from the English term. For

example, JA speakers commonly use *ʕamal dawnlod*, literally "do a download," meaning "download." From this word, I derived the quadriliteral root d-n-l-d and applied the CaCCaC pattern of Q1 (see Table 1) to produce *danlad*. More examples are shown in Table 3. Of the 21 participants interviewed, only three said that some people might use these proposed integrated verbs but that it would be "weird." No participants said that they themselves would use them.

Those participants who said that the integrated forms of those LVC loan verbs were unacceptable were then asked for their intuitions regarding what differentiated these words from words like *sayyaf* "save" or *šayyak* "check" that do get integrated. There were two recurring themes in participants' answers: usage in the community and pronunciation.

Of the 18 participants who did not accept any of the hypothetical integrated forms with which they were presented, 11 of them said that the main thing separating these verbs from the ones in Table 2 that do get integrated is simply how people use them. They suggested that were they to start hearing enough people use the integrated forms, they would similarly adopt them, but that in the meantime they will continue to use them in the LVC.

Many participants were also concerned with the pronunciation of these words and even had difficulty reproducing the hypothetical integrated form after I said it, despite the familiarity of the CaCCaC pattern. Some of the words they used in describing this pronunciation problem were that the proposed verbs were "not easy for the tongue," "hard to pronounce because of the letters" or that they did not "fit into any Arabic patterns." In comparison, some participants said that the integrated loan verbs (see Table 2) "are easier," simply "come into the dialect" and represent "the easiest way to pronounce things." Three participants suggested that the integrated loan verbs they use regularly might have been "weird in the beginning," but that they, together with the JA-speaking community at large, got used to them with time. Interestingly however, none of those three participants were among those who believed that the proposed integrated forms could eventually become the accepted form of those loan verbs.

It is clear from these responses that there is a firm distinction between which verbs speakers are comfortable integrating into the JA verb forms using direct insertion and for which they prefer to employ the LVC. The root cause of this distinction is less clear. Although speakers overwhelmingly felt that proposed verbs like *dallat* "delete" (see Table 3) sounded strange and foreign, they all contained three (or four) viable root consonants (see Mustafawi, 2017, for a summary of the phonotactic constraints on possible Arabic roots, none of which are violated by any of the derived roots in Table 3). However, three of the attested verbs in Table 2 that speakers rated as highly acceptable were derived from English verbs that contain only two consonant phonemes each. As a result, during the direct insertion process, vowels in the English verbs *share*, *save* and *check* were extracted and reduced to the Arabic semi-vowel *y*, forming, for example, *sayyaf*, "save." The transformation of these vowels into a viable consonant for direct insertion seems a more significant adaptation than deriving d-l-t from the English *delete*, and yet speakers said verbs like *sayyaf* "save" come easier and more naturally. Due to these seemingly contradictory preferences and the complex factors shown to be at play in the acceptability of the integrated verbs discussed previously, a larger selection of attested loan verbs will be necessary to adequately analyze which of the factors proposed here are the most influential in determining which loan verbs will employ which borrowing strategy, direct insertion or the LVC.

Table 3. Proposed integrated forms of LVC borrowings

	Loan verb in the LVC	Derived root	Proposed integrated form (direct insertion)
"delete"	*ʕamal diliit*	d-l-t	*dallat*
"search"	*ʕamal siirš*	s-r-š	*sarraš*
"download"	*ʕamal dawnlod*	d-n-l-d	*danlad*
"connect"	*ʕamal kuunakt*	k-n-k-t	*kankat*

Source(s): Author's own work

At least one of the verbs integrated by direct insertion that I asked speakers to rate, *ballak*, "block (on social media)," is also widely used in the LVC, according to the native speaker informant who helped solidify the list of integrated verbs to use in the interviews. Participants confirmed that *ballak* and *ʕamal bloak* are both frequently used to mean "block (on social media)," but every participant said that they preferred and more regularly used the integrated form *ballak*, despite it also being available in the LVC. This is reflected in their ratings of *ballak*, which was the integrated verb with the highest average acceptability rating of all the form II and Q1 verbs (see Figure 3). A few participants offered explanations for preferring the integrated form to the LVC. Two participants said that the integrated form is "faster," and another noted that it is "more direct." More verbs available in both strategies would need to be identified to confirm this, but this preference seems to indicate that once a verb has been integrated using direct insertion, that is the form that speakers prefer, regardless of whether it is also used in the LVC.

One of the final speakers interviewed added that in addition to *ʕamal*, they also use *saawaa* as a light verb with borrowings. This verb, like *ʕamal*, means "do," but whereas *ʕamal* is available in both MSA and JA, *saawaa* only means "do" in JA. It is possible either that this is a new development or that it is merely a feature unique to this speaker. I did not ask other speakers whether they use any other light verbs. However, this merits mentioning because it has not been observed in other studies, including in Salem's (2015) JA corpus, and seems an entirely plausible alternate light verb due to the synonymity shared between *ʕamal* and *saawaa*.

Conclusion

This study seeks to explore how JA speakers perceive loan verbs borrowed from English by two main strategies: integration into the JA verb forms by direct insertion and pairing with a light verb (*ʕamal* "do/make") in the LVC by collecting native speaker acceptability judgments of a small sample of borrowed verbs and their derived reflexive alternates and analyzing speakers' intuitions about the possible integrability of attested verbs borrowed using the LVC.

The acceptability ratings of the integrated verbs given by JA speakers show that loan verbs in form II and form Q1 can be grouped together as the base forms for loan verbs. Additionally, they illustrate that JA speakers preferred the form II and Q1 loan verbs over their form V and Q2 counterparts, with the latter forms showing a lower average mean rating in addition to greater variation in speaker rating. Qualitative data collected regarding JA speakers' intuitions about unintegrated loan verbs in the LVC show that speakers clearly differentiate between verbs that can be integrated and verbs that cannot, except in the case of *ballak* "block (on social media)." Even with this exception being well attested and accepted in both direct insertion and the LVC, speakers strongly favored it in its direct insertion form. Some of the proposed factors influencing the distinction shown with all other verbs include general frequency of use among JA speakers and perceived phonological constraints. Further investigation of these perceived constraints with a larger selection of attested borrowings is necessary to determine the extent to which they truly influence the integration of loan verbs. Additional pursuit of this and other related questions in JA and other varieties of Arabic will shed greater light on how speakers perceive the processes at play as their language borrows from others. Furthermore, the integration of loan verbs in JA warrants a more comprehensive exploration in a theoretical framework, which exploration would provide greater insight into the integration process itself.

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