



The Emotive Non-lexical Expressions In Hijazi Arabic: A Phono-semiotic Study

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By

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Dedication

This work is dedicated to those who are dearest to my heart:

To the mother who embraces me with warmth and safety, who supports me financially and morally,
who provides me with a chance to achieve my ambitions,

To my homeland kingdom of Saudi Arabia.

To the ones who have always held my hands tightly in my strength and weakness, who irrigate me
with their passion and love, to the pure souls that embrace me with their warmth

To my heaven, my mother Samirah Al-raddadi

&

my idol, my father Mohammed-Ali Assaadi

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do, whatever I say, no expression of gratitude can convey my feelings.

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“All the praises and thanks be to Allah, the Lord of all that exists”

(Holy Qur’an, Al-fatiḥa Chapter, Verse 2)

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Abstract

This study investigates the non-arbitrary relationship between emotive Hijazi non-lexical expressions (NLEs) and their emotional meanings by considering them as semiotic signs. Saussure (1963) states that signs are arbitrary; their meaning is not predictable from their form. However, he allows for some exceptions, such as interjections. I illustrate that Hijazi NLEs are similar to interjections, as both of them are spontaneous expressions of reality caused by natural forces (Saussure 1963: 69). I argue that the emotive Hijazi NLEs are ‘noise-like’ non-words that constitute complete utterances and realise the speaker’s internal emotional states in specific situational contexts.

I mapped the NLEs onto Shaver, Schwartz, Kirson, and O’Connor’s (2001) emotions classification schema. This provides over a hundred emotions grouped under six basic headings: love, joy, surprise, anger, sadness, and fear. My argument is that these non-verbal expressions are motivated by basic emotions and that this plays an important role in determining the meanings in the use of the emotive Hijazi NLEs.

I argue that the emotive Hijazi NLEs are semiotic signs that have an interactional relationship between two orders of abstraction: the content plane (i.e. meaning) and the expression plane (i.e. phonological form) (see Halliday and Matthiessen’s (2014), Halliday’s (1978) and Hjelmslev’s (1963) theory of stratification). I show that there is a non-arbitrary interactional relationship between these orders of abstraction as their meanings are intimately associated with vocal gestures and mimicry. Furthermore, I argue that the indexical and iconic components which correspond with the mimicking of some vocal actions suggests that content and expression exist in a very tight meta-redundancy relation. The meaning of the emotive Hijazi NLEs predicts the sound expression, and the sound expression predicts their emotional meanings in specific situational contexts.

In order to check that the recognition of Hijazi NLEs was stable across Hijazi society, I designed an open questionnaire to collect the meanings of these linguistic items as they occur in the Hijazi community by respondents of all ages and both genders. This showed that while there were some minor differences in recognition between genders, the meanings of the NLEs were stable across Hijazi society and the form/meaning relationship was non-arbitrary. The NLEs, in other words, functioned as semiotic resources available to the Hijazi speech community.

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Abbreviations

NLE	Non-lexical expression
TH	Tribal Hijazi
UH	Urban Hijazi
ILE	Intermediate school level
Sec.	Secondary school level
BA	Bachelor's degree
MA	Master's degree
PhD	Doctoral degree
(T)	Tertiary emotion
(S)	Secondary emotion
(B)	Basic emotion
(SO)	Superordinate emotion

Typographical Conventions

<i>italics</i>	Representative examples of the Hijazi NLEs
<i>Italics!</i>	Non-Hijazi NLEs
<i>/italics/</i>	IPA transcription of the participants' responses in Arabic A word-for-word translation is provided beneath this transcription.
<u>underlining</u>	Figurative translation of the participants' responses
[]	IPA phonetic transcriptions of the Hijazi NLEs
//	Phonemes
>	'a type of'

Chapter 1

Introduction

“The emission of Sounds. —With many kinds of animals, man included, the vocal organs are efficient in the highest degree as a means of expression” (Darwin, 1872: 83).

1.1 Definition

As human beings, our everyday speech is sprinkled with interesting linguistic items such as the Hijazi Arabic *Off!*, *Ah!*, *Wah!*, etc. These items are known as non-lexical expressions (NLEs). They are defined as short tokens (‘noisy non-words’) that can independently constitute utterances and stand by themselves to signify feelings or mental states depending on the specific communicative situation in a particular socio-semiotic context. They are variously described by linguists as conversational grunts (Ward 2000a, 2000b, 2006), discourse particles (Fischer 2000; Schourup 1999), discourse markers (Fischer 2014; Schiffrin 1987; Fraser 1999), affect bursts (Scherer 1994) and primary interjections (Stang 2016; Goddard 2014; Poggi 2009; Wierzbicka 1992; Ameka 2006; Wharton 2003). Fischer (2000: 13) claims that:

It is notorious in the literature on discourse particles, discourse markers, interjections, hedges, connectors, segmentation markers, modal particles, feedback signals, cue phrases, filled pauses, etc. that the scope of every investigation has to be defined anew (cf. also Fraser 1999). The great number of different descriptive terms for this heterogeneous group indicates that firstly there is no single accepted word class definition, and that secondly the terms chosen depend very much on the perspective under which discourse particles are studied.

She suggests a classification or taxonomy of discourse marker descriptive terms, as shown in Figure 1.1.

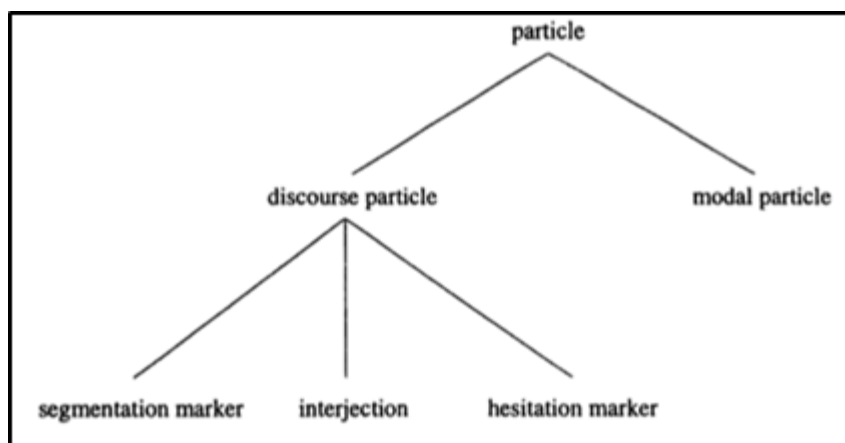


Figure 1.1: Taxonomy of Descriptive Terms (Fischer 2000: 15)

Although these kinds of tokens constitute a homogeneous group and share some features, they also have some heterogeneous characteristics, which result in their varying descriptive labels. Fischer (2000: 14) describes all these kinds of linguistic items as a homogeneous class that have the same pragmatic function, but vary according to their syntactic, semantic, pragmatic, and semiotic content, depending on cognitive processes in a specific communicative situation. There are specific criteria that form every sub-class of the discourse particles (Fischer 2000: 23-26). For instance, the class of interjections has specific criteria that distinguishes it from the other sub-classes of discourse particles, namely:

- They are sentential: interjections constitute complete utterances;
- They bear no clear grammatical relationship to other elements in the sentence;
- They are not inflectable;
- They may be stressed;
- They may be phonologically ill-formed. (Fischer 2000: 23)

Poggi (2009: 171) goes further and states that an interjection is defined as a “*holophrastic signal*”. It realises the information of a whole sentence and a whole speech act, that is, a communicative act including the meaning of both a performative and an underlying emotional content (Poggi 2009: 171). The following points show the seven qualities or characteristics that NLEs share with primary interjections:

- First, primary interjections/NLEs are phonologically ill-formed, as they consist of unusual sound sequences or are formed from the usual phonological system employed in forming the lexical items of a specific language, and even outside the normal phonology of this language as well (Jovanović 2004). An example of this is the use of clicks in Hijazi NLEs even though Hijazi Arabic has no clicks in its phonetic

inventory. NLEs and primary interjections also have a limited phonetic inventory that excludes most of the phonemes present in the lexical items in a specific language or dialect (Ward 2000: 3).

- Second, primary interjections/NLEs are linguistic items that form an independent class of non-words, i.e. they are not verbs, nouns, adverbs, or adjectives, etc. (Robins 1979: 58; Schachter 1985: 60; Ameka 1992: 102). Also, they are not inflectable, as they do not change their forms to express a particular grammatical function including tense, number, or gender (Fischer 2000: 23).
- Third, they are syntactically independent, as they do not have a clear grammatical relationship to other elements in the sentence (Fischer 2000: 23; Ameka 1992b: 108). Therefore, in the usage of primary interjections/NLEs, when they are related to another utterance, they must be stressed (Fischer 2000: 23-25; Ameka 1992b: 105). In this case, the NLEs could be used as co-utterances with other units, and we can emphasise their function by stressing them.
- Fourth, primary interjections/NLEs always realise meanings that are dependent on the communicative or situational context in which they occur (Ameka 2006: 743; Ward 2003: 4). “[T]hey are all produced in reaction to a linguistic or extra-linguistic context, and can only be interpreted relative to the context in which they are produced” (Ameka 1992b: 107).
- Fifth, primary interjections/NLEs can constitute utterances and stand by themselves to express the speaker’s emotions, feelings, mental states, and reactions (Ameka 1992, 2006; Wierzbicka 1992; Wharton 2003).
- Sixth, primary interjections/NLEs have identical functional properties that support the basic construction of such linguistic items and provide an orientation concerning their formulation and content. Stang (2016: 8) claims that these types of tokens have communicative functions, as they realise what is taking place in the speaker’s mind, including their expectations, appraisal of a situation, and psychological states, in relation to the situational context they are in. Thus, the different primary interjections, or NLEs, realise different meanings, and hence fulfil different functions (Stang 2016: 6). In this case, interjections have three basic functional classifications with respect to their semantic meaning, which are: expressive, conative (volitive), and phatic interjections (Stang 2016: 9-13; Ameka 2006: 744). The expressive interjections are those that express the feelings or mental states of the speaker, such as the English *Ouch!*, which means ‘I feel pain’ (Stang 2016: 9-13; Ameka 2006: 744). The conative

(volitive) interjections are those that direct someone to do something, such as the English *Shh!*, which means ‘Be quiet’ (Stang 2016: 11-13; Ameka 2006: 744). The phatic interjections are those that express the speaker’s current mental attitude towards an ongoing conversation, such as the English *mhm* and *uh-huh*, which are used for backchanneling or as feedback-signaling vocalisations (Stang 2016: 12-13; Ameka 2006: 745). There will be a detailed explanation of the categorisation of primary interjections/NLEs in Section 1.2.

- Seventh, primary interjections/NLEs may be accompanied by bodily and facial gestures. Eastman (1992) defines these kinds of utterances as “communicative expressions” and “extra-to-usual talk”. They are closely associated with routinised non-vocal gestures to express the conception of a specific socio-cultural system. There is no doubt that there is a close relationship between NLEs and non-verbal gestures in general (cf. Ameka 1992: 112). In terms of mental processes, NLEs often co-occur with specific nonverbal gestures, and these usually go together (Ward 2006: 35; Goddard 2014: 3). They are accompanied by nonverbal expressions of affect in both face and voice (Goddard 2014: 3), for example *Huh!*, which is accompanied by laughter and is relatively universal (cf. Goddard 2014; Dingemanse, Torareira, and Enfield, 2013; Sauter & Eimer, 2010; Sauter et al., 2010), and also the English *Yuck!* and German *Igitt!*, which may be accompanied by a bodily or physical reaction of retching. Thus, bodily and facial gestures, contextual meaning, socio-cultural meanings and the overall situation are important factors that play an essential role in structuring and composing the meaning of these linguistic items (cf. Nikolaeva 2013). These kinds of nonverbal gestures are therefore redundant, as they are derived from or predicted by what has gone before (Ward 2006: 18). In other words, they are redundant because people sometimes indicate these nonverbal gestures that accompany the NLEs when they are expressing something that is somehow covering old ground, or to indicate that they think that other people are doing something while they are producing a specific NLE (cf. Ward 2006: 18). Therefore, these nonverbal gestures that accompany the NLEs stand as parts that construct, support, facilitate, and help to ground to its context and its meaning, but they are not the basic elements that contribute to its composition. The boundary between the nonvocal gestures and NLEs is sometimes hard to draw, and it is not the aim of the current thesis to analyse this. Further work is required to examine this important issue.

In this way, the previous seven points show the qualities or characteristics that NLEs share with primary interjections. To be more precise, I suggest that NLEs can be classed as types of interjections, as they are identical to primary interjections,¹ as both of them describe non-words that signal the spontaneous expression of a mental state or emotional reaction, such as English *Wow!*, *Oh!* and *Ah!* (Wierzbicka 1992; Ameka 1992, Wharton 2003; Fischer 2000: 14). Thus, according to Fischer (2000), Ameka (1992b) and Poggi (2009) interjections are a special hyperonym or sub-type of discourse particles, and hence NLEs are hyperonyms of interjections. Therefore, in Fischer's (2000) taxonomy of descriptive terms for discourse markers, NLEs would be placed below interjections, as shown in figure 1.2:

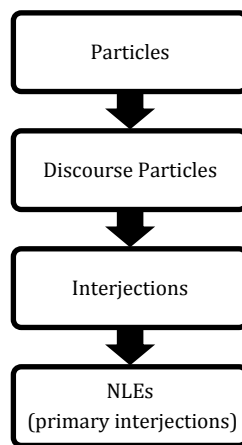


Figure 1.2: NLEs in the Taxonomy of Descriptive Terms

As I suggested that the subject of the current study (NLEs) is identical to primary interjections, it will follow how they were categorised. Thus, the following section will discuss the categorisation of the NLEs.

1.1.1 Categorisation of the Hijazi NLEs

In the previous section, I suggested that NLEs are identical to primary interjections as they share the same characteristics and qualities. Both NLEs and primary interjections communicate and realise the speaker's emotional and mental states in specific situational

¹ According to various literatures, interjections are divided into two classes: primary and secondary. Short-form interjections (Jovanović 2004) or primary interjections are non-words, which are not normally used in constructions with other word classes. These include the English *Wow!*, *Yuk!*, *Aha!*, *Ouch!*, *Oops!*, *Brrr!*, *Shh!*, etc. (Ameka 1992: 105; 2006: 744). In contrast, word-like interjections (Jovanović 2004) or secondary interjections are words which have an independent semantic value and can be used as independent utterances. Examples include English *Help!*, *Damn!*, *Well!*, *Goodness!*, etc. (Ameka 1992: 111; 2006: 744).

contexts. In other words, NLEs realise different meanings and fulfil different speech functions depending on the situational context in which they are used. For example, the Hijazi NLE [w|w|w] is associated with the emotional meaning of anger in situations where people are expressing their feelings by saying “I am angry”. Also, it fulfils the speech function of command in situations where someone is *commanding another person not to do bad things*. These different speech functions stand as parameters for the categorisation of these tokens (Stang 2016; Wierzbicka 2009, 1992; Ameka 2006, 1992a, 1992b). There have been several attempts at categorising primary interjections based on their functions. This section will review these categorisations.

Wierzbicka (2009, 1992) suggests that these types of tokens can be categorised by their functions as emotive, cognitive, and volitive. The emotive ones are “those which have in their meaning the component ‘I feel something’”. The cognitive ones are “those which have in their meaning the component ‘I think something’ or ‘I know something’”, such as the English *Aha!*, which means ‘I understand’. The volitive ones are “those which have in their meaning the component ‘I want something’”, such as the English *Shh!*, which means ‘Be quiet’.

Ameka (2006, 1992b) and Ameka and Wilkins (2006) suggest that, alongside these emotive, cognitive, and conative (i.e. volitive) types of tokens, there are some phatic ones that express the speaker’s current mental attitude towards an ongoing conversation, such as English *mhm*, *uh-huh*, and *yeah*. Moreover, Ameka (2006, 1992) categorises these four functions – emotive, cognitive, conative (i.e. volitive), and phatic – under three main categories: expressive, conative, and phatic. I have designed Figure 1.3 to elucidate Ameka’s (2006, 1992) categorisation of primary interjections based on their functions.

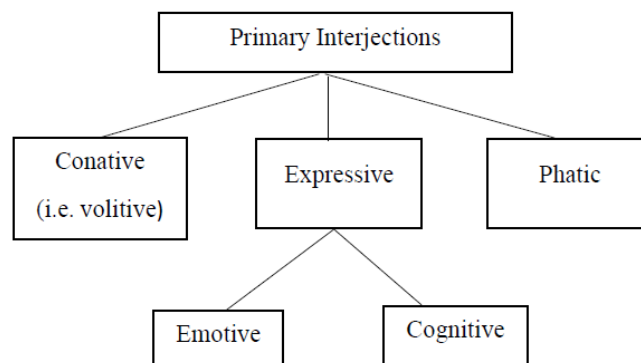


Figure 1.3: Ameka’s (2006) Categorisation of the Primary Interjections

Figure 1.3 shows that, for Ameka (2006), expressive interjections can be subdivided into expressive emotive interjections and expressive cognitive interjections. The former are like Wierzbicka’s (2009, 1992) emotive interjections that are associated with speakers’ emotional states, while the latter are like Wierzbicka’s (2009, 1992) cognitive interjections that realise speakers’ mental states. In addition, for Ameka (2006), the conative interjections, or NLEs in the current study, are like Wierzbicka’s (2009, 1992) definition of volitive interjections, which are associated with speakers’ instructions or commands to attract someone’s attention or to demand a response from someone. Finally, phatic interjections are used for establishing and maintaining communicative contact.

Stang (2016) goes further and produces a more detailed taxonomy of the interjections as in Figure 1.4 below:

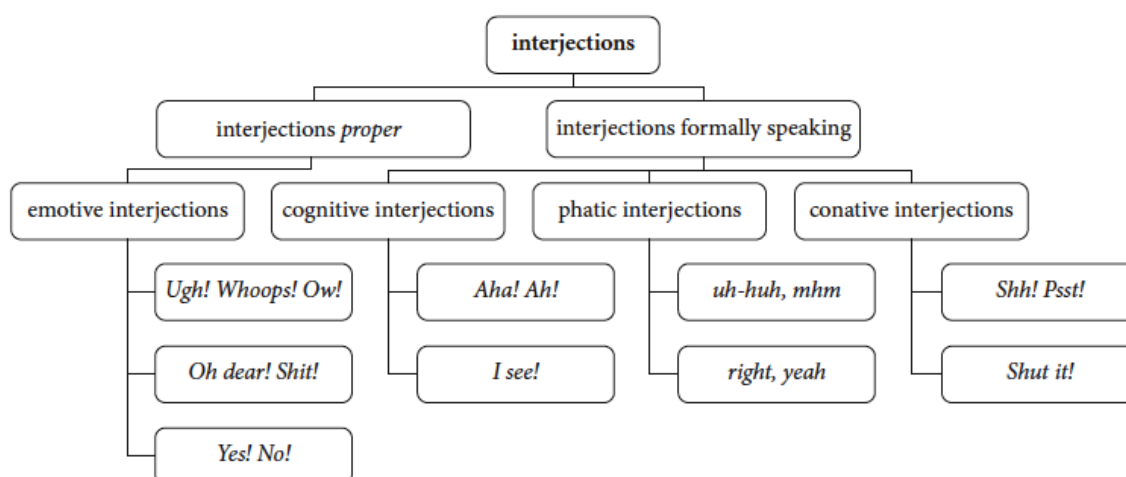


Figure 1.4: Stang’s (2016) Categorisation of the Primary Interjections

Stang (2016) suggests that the interjections are divided into “interjections proper” and “interjections formally speaking”. Interjections proper are semi-automatic utterances, as they “function as immediate verbal reactions to a certain event or stimulus, and their production is supposed to require less planning than that of ‘well-formed’ or normal utterances” (Stang 2016: 20). For Stang (2016), interjections proper are emotive interjections that realise the speaker’s current emotional state in a specific situational context (Stang 2016: 18). They are a reflex-like reaction to a specific situation (Stang 2016: 18). They are semi-automatic, as they are produced without the speaker’s full intention (Stang 2016: 18).

On the other hand, interjections formally speaking “do not serve primarily to express emotions, feelings or attitudes and reflect a certain degree of intentionality in production” (Stang 2016: 19). These types of interjections correspond with the cognitive, phatic, and conative interjections. Stang (2016: 11) claims that both cognitive and phatic interjections refer to those utterances that only express knowledge or thoughts, such as the cognitive interjection *Ah!* (‘I know this’), *Aha!* (‘I understand this’), or the phatic interjection *Uh-huh*. However, the difference between phatic and cognitive interjections is that a phatic interjection is specifically used to express the ongoing cognitive process in the minds of the speaker and the listener, while a cognitive interjection expresses the cognitive condition of the speaker without strict functional boundaries (Stang 2016: 12). Cognitive and phatic interjections are not reflex-like and do not express emotions (Stang 2016: 19). They provide an insight into speakers’ mental states but focus on mental processes rather than emotions. However, they fulfil structural criteria in which their sound pattern is accompanied by some non-segmental sounds, i.e. intonation and prosodic information, to realise their meanings in specific situational contexts (Stang 2016: 19; 204). There is also a certain degree of intentionality in their production (Stang 2016: 19). For example, the English *Eh?* could be produced with rising tone to realise the question of “what did you say?” (Poggie 2009: 176).

Furthermore, Stang (2016) suggests that conative interjections are the third type of interjection formally speaking. They refer to those utterances that direct someone to do something, such as the English *Shh!*, which means ‘Be quiet’ (Stang 2016: 9-13). They reflect a certain degree of intentionality, as they constitute directive speech functions to demand an action or response to a speaker’s wants (Stang 2016: 9-13; Ameka 1992b: 113). They depend on other structural criteria in their production to realise their meanings. For instance, their sound patterns could include paralinguistic sounds, such as some vocal aspects, including prosodic and acoustic features. Such sounds’ functional properties usually accompany the conative interjections to show their usage in specific contexts (Stang 2016: 13). In other words, the conative interjections constitute directive speech functions to demand an action or response from someone (Stang 2016: 13), and these therefore constitute the directive speech functions of commanding, questioning, and offering.

Stang (2016:13) goes further and argues that although conative interjections depend mainly on their speech functions to realise their meanings in specific contexts, some of them may also contain an emotive component. For example, English *Shh!* may express annoyance

at the noise level, but the predominant element is that the speaker expects the addressee to react in a certain way, i.e. to stop the noise (Stang 2016: 13).

In this study, I will highlight the emotive Hijazi NLEs that express the speaker's emotional states by fulfilling different speech functions, including expressive speech functions and directive speech functions such as commanding, questioning and offering.

1.2 Scope and Context

1.2.1 The Selected Hijazi NLEs

In order to study the relationship between the most common Hijazi NLEs² and their meanings in the Hijazi community, I carried out a survey to collect the meanings of 34 Hijazi NLEs for a number of reasons. First, Arabic dictionaries in general and Hijazi Arabic dictionaries in particular do not include meanings of these Hijazi NLEs. Second, as a native speaker, I “know” the meanings of those Hijazi NLEs. However, this does not mean that I know all their meanings. Thus, I decided to collect the meanings of these emotive NLEs as recognised across the Hijazi community by randomly selected Hijazi speakers who have different social variables to capture the range of meaning(s) of these linguistic items. The survey outcomes confirmed my previous knowledge..

Thus, in the first stage, I designed an open questionnaire to collect the meanings of 34 Hijazi NLEs, which were: [bʌs], [ʔəħəmə], [kix:], [jɛʕ], [afə], [ɔf], [ɔffu:], [uf:], [m:], [ɪf:], [ɔbba:], [ɔb], [ju:], [bɪs], [ʃw:], [ʔa:], [ɔs], [aħ:], [ax:], [ah:], [wej], [wah:], [ɪffi:], [ɪxxi:], [ɪxxəh] [wal], [həh], [aj], [!], [‡], [O‡], [O‡], [w], [w|w|w] and [|||]. However, due to the limitations of time and space, I chose to analyse and discuss the emotive Hijazi NLEs that are associated with a speaker's emotional states by fulfilling different speech functions, including statement speech functions and directive speech functions, such as commanding, questioning, and offering. Thus, I chose to include the expressive emotive Hijazi NLEs because, as Stang (2016: 10) claims, emotive NLEs, or primary interjections, are prototypical examples of these types of tokens.

This means that this study will not investigate the cognitive Hijazi NLEs that realise mental states such as understanding, thinking, desiring, believing, etc., nor will it include an

² I collected the most common 34 Hijazi NLEs by observation, as I am a native Hijazi speaker who lives in Al-Hijaz region. I will discuss this in detail in Chapter 4.

investigation of the conative Hijazi NLEs that realise the speaker's mental attitude resulting from different mental states, and which fulfil different directive speech functions such as commanding, questioning, and offering. The phatic Hijazi NLEs will also be excluded. The aim of the survey was to collect only the meanings of the 27 expressive emotive Hijazi NLEs. Thus, I excluded the Hijazi NLEs [bʌs], [ʔəħəm], [bɪs], [ʔɪxxəh], [ʔa:], [!], and [‡], which are associated with different cognitive, non-emotive, and mental states such as understanding, demanding attention, thinking, forgetting, etc.

In addition to excluding the cognitive Hijazi NLEs that are not related to the speaker's emotional state, I also excluded the cognitive meanings that can be realised by some Hijazi NLEs that also realise emotional meanings. In other words, according to the participants' responses, some Hijazi NLEs realise more than one meaning; i.e. the same Hijazi NLE can realise cognitive and emotive meanings according to the situational context. For example, the Hijazi NLE [m:] can be associated with three expressive meanings: the emotional states of joy and love and the mental state of thinking. The Hijazi NLE [!] can be associated with two expressive meanings: the emotional state of anger and the mental state of rejection.

In this way, I only included 27 Hijazi NLEs, which are the expressive emotive ones. Out of these 27 emotive Hijazi NLEs, there are 25 which are associated with emotional meanings and fulfil the speech function of a statement. These are [kɪx:], [jeʔ], [afə], [ɔf], [uf:], [m:], [ɪf:], [ɔbba:], [ɔb], [ju:], [aħ:], [ax:], [ah:], [wej], [wah:], [ɪffi:], [ɪxxi:], [wal], [ɔffu:], [həh], [aj], [O‡], [Oʔ], [w], [w|w|w] and [|||]. A statement is the means by which the speaker gives information (Halliday and Matthiessen 2014: 136). This information could be emotional, as the speaker is stating that they are experiencing a particular emotion. For example, speakers could direct expression or emotion towards what they are talking about, as in the phrases 'I am happy', 'I am scared', 'I am angry', etc. In this way, the statement speech function constitutes an expressive or emotive speech function.

On the other hand, there are eight Hijazi NLEs out of the 27 which have the potential to realise more than one function based on the situational context. For instance, [aħ:], [ɔffu:], [kɪx:], [ɔb], and [w|w|w] are associated with emotional meanings and fulfil the speech functions of statement or command, as well as the Hijazi NLE [ɔbba:] which is associated with emotional meanings and fulfils the speech functions of statement or offering. At the same time, [fʷ:] and [ɔs] are associated with emotional meanings and fulfil the speech function of command, but they do not fulfil the speech function of statement. I will discuss this in more detail in Chapter 7.

A command is a directive speech function in which the speaker demands information, goods, or services from the addressee (Halliday and Matthiessen 2014). An offer is a directive speech function in which the speaker gives goods or services to the addressee (Halliday and Matthiessen 2014).

These NLEs are used by the speaker to demand a response to something or some action from another person (cf. Ameka 1992: 113). Thus, these types of emotive Hijazi NLEs are associated with emotional meanings and fulfil directive speech functions which realise the speaker's expectation that the addressee will react in a certain way, such as the use of the NLE *Shh!* to stop a noise, based on the speaker's emotional state of annoyance. These eight Hijazi NLEs are [ʃ^w:], [ʕs], [aħ:], [ʕffu:], [kɪx:], [ʕbba:], [ʕb], and [l^w|w|w^w].

To summarise, the current study includes an analysis of those emotive Hijazi NLEs that are related to the speaker's emotional state and fulfil different speech functions.

1.2.2 Context

The present case study explores the meanings of 27 Hijazi NLEs, selected according to their emotional categories. It explores the meanings of the emotive Hijazi NLEs as they are mapped onto Shaver, Schwartz, Kirson and O'Connor's (2001) emotions classification, which includes six basic emotions: love, joy, surprise, anger, sadness, and fear. This will be discussed in detail in chapter 2 (2.2). It also explores the function of the emotive Hijazi NLEs as they are mapped onto Halliday and Matthiessen's (2014) speech functions, including stating, commanding, offering, and questioning.

In the current study, I assume that, depending on the context, these emotive Hijazi NLEs are sound sequences that give a voice to our emotional states. They are forms of independent inner expressive speech with unusual vocalisations (i.e. they are phonologically ill-formed), as they may consist of unusual sound sequences or segments that are not usually employed in forming the lexical items of a specific language, and they may mimic vocal actions arising from our emotional states in specific situational and socio-cultural contexts. This will be discussed in detail in chapter 3 (3.2) and chapter 8. Based on a semiotic framework, I argue that the relationship between the Hijazi NLEs and their meanings is indexical and/or iconic. Their vocalisation shows iconic representation, which in itself is an index for a specific emotion.

Ultimately, there are a multitude of potential approaches that are used to support this model. In Chapter 2, I will briefly review the literature on semiotic theory with regards to the relationship between Hijazi NLEs and their meanings. Based on some major concepts in semiotic theory, such as those put forward by Halliday (1978) and Hjelmslev (1963), I will discuss emotive Hijazi NLEs as spoken semiotic signs that have an internal dynamic system of stratification. Emotive Hijazi NLEs demonstrate an interactional relation between two orders of abstraction: a content plane and an expression plane. I will also discuss how the iconism and indexicality behind the mimicking of some vocal actions suggest that the content and expression exist in a very tight meta-redundancy relation. This meta-redundancy lies behind the stratification, and it shows the natural and dynamic realisational relations between the stratification of the expression and content of the semiotic sign (Lemke 2015, 2005; Halliday and Matthiessen 2014).

In Chapter 2, I will describe the structure of the emotional meanings of the Hijazi NLEs. I will highlight the conceptual motivation of meaning achieved through embodiment (cf. Lakoff 1987; Fusaroli et al. 2012; Violi 2003, 2008, 2012; Zlatev 2018, 2015, 2009; Zlatev et al. 2008). I will also discuss how the human mind prototypically categorises things and concepts as we interact with them. Thus, based on the categorisation and prototype theories put forward by Lakoff (1987) and Rosch (1999, 1973, 1977, 1978), I will argue that the minds of Hijazi speakers prototypically categorise NLEs with some embodied emotional states and therefore prototypically categorise them with specific vocal actions.

1.3 Research Gaps

Most existing research in this area has involved investigating the semantics and pragmatics of these types of tokens: see Ward (2000, 2006); Scherer (1994); Stang (2016); Goddard (2014); Poggi (2009); Wierzbicka (1992); Ameka (2006); and Wharton (2003), to name only a few. These previous studies illustrate that the NLEs as semiotic signs require further investigation. Some researchers mention this point in passing. For example, Saussure (1959) claims that signs, such as primary interjections (i.e. NLEs in this research) are non-arbitrary, as they are “spontaneous expressions of reality dictated [...] by natural forces” (Saussure 1959: 69). Also, Stang (2009: 47) claims that primary interjections (i.e. NLEs in this research) are non-arbitrary, as they are a “rendering of body reflexes like shivering or retracting (e.g. *Brrr!* *Ugh!*)”. Wierzbicka (1992: 176) also claims that some primary interjections (i.e. NLEs in this research) “appear to be linked with certain physical gestures and that this may well be the

reason why they can be perceived as ‘natural’ (that is, non-arbitrary)”. Goddard (2014: 59) asserts that the unusual articulation of the emotive primary interjections (i.e. NLEs in this research) includes “iconic-imitative components”, describing this as one of the most interesting concepts in need of further research.

In this way, Stang 2016, Goddard 2014, Wierzbicka 1992, and Saussure 1959 provided me with the starting point for the idea of the current research, as I will examine the non-arbitrary (iconic and indexical) relationship between the Hijazi NLEs and their emotional meaning in the Hijazi Arabic dialect.

1.4 Brief Overview of the Hijazi Arabic Dialect

Hijazi Arabic is a dialect spoken on the western and north-western side of Saudi Arabia, as shown in the map below. This study examines in particular the modern version of Hijazi Arabic that is spoken in the centre of the region, including Madinah, Mecca, Taif, and Jeddah along the Red Sea. It is considered to be one of the local Saudi varieties of Arabic, used informally in everyday life in daily conversation with family, friends, and work colleagues (Aljahdali 2007: 10). Modern Hijazi is considered to be one of the most commonly understood dialects on the Arabian Peninsula (Aljahdali 2007; Omar 1975).



Figure 1.5: Area in which Hijazi Arabic is Spoken in Saudi Arabia

Modern Hijazi Arabic (MHA) has two primary sub-dialects: Tribal and Urban. Tribal Hijazi Arabic refers to the group of nomadic Arabic dialects that belonged to their own tribes. Every tribe has its own dialect. Al-Hijaz as a region includes a large number of Arabic Urban

and Bedouin tribes, such as Huthail, Kinanah, Quraish, Khuza'ah, Thaqeef, Banu Saleem, Harb, Mutair, Otaibah, Juhainah, Zahran, Ghamid, etc. However, despite the diversity of Hijazi tribes and their dialects, these dialects can be considered to be very close to each other, apart from some variables which occur in relation to some phonemic and lexical features that distinguish them from each other. All of them are considered to be more conservative varieties, and their speakers continue to use a large number of forms and features from Classical Arabic, which is retained as the foundation of other Arabic dialects (Versteegh 2014: 185). Classical Arabic is “the language of Qur'an, the holy book of Islam [...] [which] has served as the chief vehicle of this religion. It is the unifying force in the Arabic world” (Zughoul 1980: 203). Thus, it could be said that Tribal Hijazi dialects are similar to other tribal dialects in the Arab world, which could be identified as the ideal types of Arabic, and they are known as ‘kalam Al-arab’, *the language of Arabs*, since they preserve the purity of pre-Islamic Arabic or Classical Arabic (Versteegh 2014).

Urban Hijazi differs somewhat from Tribal Hijazi, since it is not a ‘pure’ Saudi Arabic dialect, as it contains recent linguistic borrowings from surrounding languages and dialects (Omar 1975). The Urban Hijazi dialect could therefore be defined as the less conservative dialect that differs according to language or dialect contact and mixture (Versteegh 2014: 186; Cadora 1992: 5). This lack of conservatism is a result of historical, cultural, religious, and economic factors (Omar 1975; Versteegh 2014; Cadora 1992).

First, according to Kjeilen’s *Encyclopaedia of the Orient*, Al-Hijaz was historically part of a larger empire: in 1258, it was under Egyptian rule; in 1517, it came under the Ottoman Empire; in 1916, it became an independent kingdom named Al-Hijaz; in 1926, it then came under the dominance of the neighbouring Kingdom of Najd; and in 1932, it became a part of Saudi Arabia. The history of Al-Hijaz has greatly influenced the Hijazi dialect, since, as the historical sequence above shows, Al-Hijazi was ruled by other cultures, including Arabic (Egyptian) and the non-Arabic Ottoman Empire (Turkish). In this case, the Egyptian dialect and Turkish language have had a significant impact on the Hijazi dialect.

Second, the Hijazi region occupies a prestigious religious and spiritual position, since it is considered to be the home of Islam. It embraces the holiest cities in the Islamic world: Mecca and Medina, which are significant places for all Muslims across the world. Thus, from the beginning of the Islamic era until now, the population of Hijazi has been infused by descendants of Muslims with different nationalities, languages, and cultures, who originally came on a pilgrimage to Mecca or to visit religious landmarks, such as the Grand Mosque in

Mecca, or the Prophet Mosque and Quba Mosque in Al-Medinah. Some of these pilgrims settled in the area permanently before the formation of the Saudi state while others came after its founding. The sedentary or Urban Hijazi dialect, which is spoken by the majority of the inhabitants in the centre of the Al-Hijaz region, probably arose as a result of later immigration (Versteegh 2014: 148). This dialect derived its linguistic system from Classical Arabic and other nearby Arabic dialects, such as Egyptian, Sudanese, Levantine, and Yemeni (Ingham 1971: 273). It would also have been influenced by the languages of other immigrants or visiting Muslims from Africa, Indonesia, Malaysia, India, Pakistan, etc.

Third, both the pilgrimage season and the geographical location of the Hijaz are of great importance to the rise of the Hijazi economy. From the pre-Islamic era to the present day, traders from different countries and cultures have come to Al-Hijaz by land or sea through the port of Jeddah to take part in commercial exchange in the region. Furthermore, nowadays Al-Hijaz includes two of the most commercially and industrially attractive cities, namely Jeddah and Yanbu, which appeal to those who are interested in business and career opportunities. Jeddah is the crossing gate to Mecca and Medinah and is the second largest city in Saudi Arabia after the capital Al-Riyadh. It is the largest and most important commercial seaport on the Red Sea. Yanbu is an important industrial city in the region that has contributed to the prosperity of Al-Hijaz economically, since many petrochemical installations and oil companies are located there. It is home to three oil refineries and three major terminals for petroleum shipping, which transport oil across the desert from the oilfields on the eastern side of Saudi Arabia to Yanbu on the western side by the Red Sea.

For all the reasons outlined above, Modern Hijazi Arabic became a site for historical, religious, cultural, social, and economic contact. The occurrence of historical events caused human migrations and movements into Al-Hijaz. These human migrations into Al-Hijaz resulted in the blending of cultures, customs, traditions, and ideas. This therefore had a great impact on the formulation of a heterogenous but cohesive Hijazi community, despite the various ethnicities of the different groups. These ethnic and cultural differences in the Hijazi region have influenced the composition of the Modern Hijazi dialect in general, including not only the Urban variety, but also the Tribal variety. For instance, most Tribal speakers, especially those who live in the cities, code-switch between the two varieties depending on the social situation (Aljahdali 2007: 71).

Therefore, although the diversity between the two dialects is obvious, the data of the current study shows that Modern Hijazi dialect in general is used broadly here to encompass

both varieties, as well as the recently formed mixed dialect version of Modern Hijazi dialect. This study does not aim to explore the linguistic differences between these Hijazi sub-dialects. The data was collected from Hijazi informants who speak Tribal, Urban and a mixed Modern Hijazi dialect.

1.5 Aim, Objectives, Questions, and Hypotheses of the Present Study

This study focuses on NLEs in modern Hijazi Arabic from a phono-semiotic perspective. The semiotic approach examines the relationship between the phonological form of the Hijazi NLEs and their emotional content, based on Hjelmslev's (1963), Halliday and Matthiessen's (2014), Peirce's (1931-33), and Shaver et al's (2001) frameworks. Thus, the objectives related to achieving the main aim of the present study are:

1. Investigating the non-arbitrary relationship between the phonological form of the emotive Hijazi NLEs and their meaning. It is my claim that such items spontaneously reveal how speakers feel in individual situations.
2. Discovering how a group of emotive Hijazi NLEs that are associated with similar emotions share some common vocalisations. My claim is that the Hijazi NLEs are produced with mimicking actions which correspond through their vocalisations with specific emotions. Such mimicking actions index the specific emotions enabling us to predict the emotion from the gesture.

To achieve these objectives, this study attempts to answer the following questions:

1. How can these emotive Hijazi NLEs be classified by their functions?
2. What do these emotive Hijazi NLEs communicate in Hijazi Arabic?
3. Based on the results of the questionnaire, are these emotive NLEs perceived and understood across the Hijazi community?
4. How do these emotive Hijazi NLEs associate with their emotional meanings? How do these emotive Hijazi NLEs show a non-arbitrary relationship with their emotional meanings?

The present case study explores the collected meanings of 27 Hijazi emotive NLEs (expressing love, joy, surprise, anger, sadness, and fear) from adult Hijazi speakers with different social variables. I use a questionnaire as a method of data collection. This will prove beneficial to gain further insight into how different participants – with different social variables – recognised similar meanings which they provided for the Hijazi emotive NLEs. In

this way, the qualitative analysis is the obvious method of choice for exploring how speakers define every emotive NLE. A quantitative approach was taken to determine the frequencies of the meanings and to double check that there were no significant differences based on social variables.

In order to fulfil the aim and objectives, and to answer the research questions based on semiotic theory, the following hypotheses will be tested:

Hypothesis 1: As semiotic signs, Hijazi NLEs contain an internal dynamic system of stratification relating to Halliday and Matthiessen's (2014), Halliday's (1978) and Hjelmslev's (1963) concept of stratification. The current hypothesis examines the interactional relationship between two orders of the Hijazi NLEs' abstraction: the content plane and expression plane of the Hijazi NLEs. This study investigates the non-arbitrary relationship between the content and expression of the emotive Hijazi NLEs, as it shows strong and compelling evidence to hypothesise that emotive Hijazi NLE are motivated. They represent body reflexes, which are related to the speaker's current emotional states, through a mimicking of the vocal actions that correspond with their phonological forms (i.e. the sequence of sounds that make the NLEs) in specific situational contexts. In this way, the phonological vocalisations of the emotive Hijazi NLEs show the indexical and/or iconic relationship between the Hijazi NLEs and their meanings.

Hypothesis 2: The iconic and indexical components that correspond with the phonological forms of the emotive Hijazi NLEs in specific situational contexts relate and mediate between the emotive Hijazi NLEs' expression and content. Thus, the vocalisation of the emotive Hijazi NLEs stands as an icon, which in itself stands as an index for specific emotions.

Hypothesis 3: Emotive Hijazi NLEs are sensory-motor productions. The speaker's body works as an essential resource for their meaning-making. Speakers use their body elements as a vehicle for determining emotional aspects to embody meaningful experiences for structuring the meaning and the phonological vocalisations of the emotive NLEs. The mental, psychological, and physical elements in the human body are interrelated to produce the emotive NLEs. The minds of the speakers prototypically categorise the emotive Hijazi NLEs with some embodied emotional aspects, and hence they prototypically categorise them with

some specific mimicking vocal actions and motor movements that correspond with the phonological form of those emotive NLEs.

Hypothesis 4: The indexicality and iconicity behind the mimicking of the vocalisation of the Hijazi NLEs suggest that the content and expression of the Hijazi NLEs exist in a very tight meta-redundant relationship that depends on context. Meta-redundancy focuses on the fact that specific patterns of Hijazi vocal expressions are more likely to be found in specific situations, but there are always other patterns of Hijazi vocal expressions that might be found in the same situation. In this way, the meanings of these tokens are predictable based on their forms.

1.6 The Structure of the Thesis

In addition to the current chapter, which constitutes an introduction to this study, the thesis consists of the following seven chapters.

Chapter 2 focuses on the structure of the phonological forms of the Hijazi emotive NLEs, as well as the content of their emotional meanings. I will discuss the emotive Hijazi NLEs as they embody the speaker's internal emotional states. This chapter maps the emotive Hijazi NLEs onto Shaver et al.'s (2001) emotions classification, which enables us to see the function of these NLEs. Shaver et al.'s (2001) emotions classification provides over a hundred emotions grouped under six basic headings: love, joy, surprise, anger, sadness, and fear. The emotive Hijazi NLEs are mapped onto these basic emotions. Moreover, Shaver et al. (2001) also suggest a superordinate classification of the basic emotions: positive, neutral, and negative. The basic emotions of love and joy are classified as positive emotions; anger, sadness, and fear are classified as negative emotions; and surprise is classified as a mixed emotion. Surprise can be neutral (i.e. neither negative nor positive) or it can convey a positive or negative emotion. I used these superordinate categories of positive, neutral, and negative emotions to divide the analysis of the current data into three chapters: Chapters 5, 6, and 7.

Furthermore, **Chapter 2** will also explain the structures of the phonetic and phonological forms of the emotive Hijazi NLEs. It will include detailed phonological descriptions of the different articulations of every emotive Hijazi NLE. I provide figures which illustrate the parametric vocalisation of every emotive Hijazi NLE to allow us to

examine the similarities and differences of the forms of the emotive Hijazi NLEs that share similar vocalisations and similar emotional meanings.

In this manner, **Chapter 2** details the emotive Hijazi NLEs as they are “noise-like” non-words that are associated with emotional states. It details how the speaker’s body, including the psychological and biological elements, articulates the structure of emotive Hijazi NLEs’ forms and meanings by realising the meaningful emotional states that embody meaningful emotional experiences. Therefore, I mapped the emotional meanings of these Hijazi NLEs in terms of Shaver et al.’s (2001) emotions classification schema, as the speaker’s emotional states are embodied and expressed by NLEs in specific situational contexts. Such general words of emotions provide a powerful language-internal tool for understanding emotive NLEs (c.f. Kockelmen 2010: 188).

Additionally, in structuring the emotive Hijazi NLEs, **Chapter 2** will highlight the theory of categorisation, which indicates that the speakers identify and group similar emotional aspects, which correspond to similar motor movements that represent a particular emotional Hijazi NLE category. In other words, Chapter 2 details the concept of categorisation as a mediator between embodied gestures and emotional states.

The vocalisations of the Hijazi NLEs mimic the expresser’s emotional states in specific situational contexts. Therefore **Chapter 2** will also set out the role that mimicry plays in presenting the representation of the emotional state through the emotive NLEs. The phonological forms of the emotive NLEs partly mimic particular vocal actions tied to their emotional meanings (cf. Goddard 2014; Wierzbicka 1992; Darwin 1872). Mimicry functions as an icon between the sign and its meaning (Maran 2017: 55).

In **Chapter 3**, I will review the literature of semiotic theory regarding the non-arbitrary relationship between the emotive Hijazi NLEs and their emotional meanings. In semiotics, a sign is anything that signifies or stands for something and a vehicle for communicating meanings (Chandler 2001). Emotive Hijazi NLEs signal emotional states and hence are signs. Usually, the relationship between the signs and their meanings is arbitrary, as meaning is not predictable from form (cf. Saussure 1959:69). However, there are some exceptions such as the primary interjections/NLEs, as their meanings are predictable from their forms (Saussure 1959: 69).

Besides, in order to discuss the non-arbitrary relationship between the emotive Hijazi NLEs and their emotional meanings, **Chapter 3** will investigate those NLEs as semiotic signs

that contain an internal stratified dynamic abstract system (Halliday and Matthiessen's (2014), Halliday's (1978) and Hjelmslev's (1963)). I will discuss the emotive Hijazi NLEs to show the interactional relationship between two orders of abstraction: the content plane and expression plane. Furthermore, I will illustrate that the non-arbitrary interactional relationship between these orders of abstraction arises as their meanings are intimately associated with vocal gestures and mimicry.

In order to understand the non-arbitrary (i.e. indexical and/or iconic) relationship between Hijazi NLEs and their emotive meanings, I will discuss Peirce's (1931-33) framework³ of firstness, secondness, and thirdness. I argue that emotive Hijazi NLEs represent the firstness (i.e. the vague, blank, thought-less feeling) of secondness (i.e. the real idea in the experiential universe) through thirdness (i.e. the mediator, or intellectual experience). In this way, I will be able to go further and to discuss the concept of continuity in which the indexical and iconic elements accompanying the Hijazi NLEs stand as mediators relating NLE tokens to their meanings.

Chapter 3 will show that, in relation to *Continuity*, firstness does not have any secondness or thirdness; secondness does not have any thirdness, but it should have firstness; and thirdness should have both firstness and secondness (CP⁴ 1.530). Although, in terms of the relationship between the sign and its meaning, the iconic relationship is considered to be firstness, the indexical relationship is considered to be a secondness, and the symbolic relationship is considered to be a thirdness, continuity is applicable here (CP 7.565, 7.570, 7.571). This is because "as much as a sign may be characterized as an index or icon, it will always maintain the characteristics of symbolicity, that is, a sign to subsist as such requires the mediation of an interpretant and it must have recourse to a convention" (Peirce, cited in Copley 2005: 277). So, based on *Continuity*, every symbol needs to have indexical elements, and every index need to have iconic elements. However, the icon does not need to have indexical or symbolic elements, and the index does not need to have symbolic elements. Consequently, based on *Continuity*, the thirdness is the symbolic mode that requires indexical

³ *The Collected Papers of Charles Sanders Peirce* (1931–1935 & 1985), edited by Charles Hartshorne and Paul Weiss, vols. I–VI, provides an account of the most fundamental aspects of Peirce's sign trichotomies that are related to his theories of logic, realism, pragmatism, categories, and metaphysics. He calls the elements of the triadic model of the semiotic sign "firstness", "secondness" and "thirdness".

⁴ In reference to the *Collected Papers of Charles Sanders Peirce* (1931–1935 & 1985), I will give volume and paragraph number as follows: (CP Vol.xyz), such as (CP 1.530).

and iconic elements which can mediate the relationship between the emotive Hijazi NLEs and their emotional meanings.

Furthermore, **Chapter 3** will detail the indexical and iconic components that correspond with the mimicking of some vocal actions, which suggests that content and expression exist in a very tight meta-redundancy relation. The choice of a specific vocal gestural expression of the NLEs realises the choice of performing Hijazi NLEs which has a redundancy relationship with the choice of a specific emotional state.

Chapter 3 reviews the semiotic approaches of Halliday and Matthiessen (2014), Halliday (1978) especially in relation to stratification, Peirce's framework of firstness, secondness, thirdness and icon, index, symbol, Peirce's concept of continuity, and Lemke's (2005; 2015) and Halliday and Matthiessen's (2014) metaredundancy to investigate the non-arbitrary relationship between Hijazi NLEs and their meanings, by considering them as semiotic signs.

In **Chapter 4**, the research methodology will be introduced, and the main objectives and hypotheses of this current work will be formulated. This chapter details the procedures used to analyse the data presented in Chapters 5, 6 and 7. It will explain how I collected the data of the current study. As a native speaker of Hijazi Arabic, I used my own observations to identify 34 Hijazi NLEs. I then designed an open questionnaire to collect their meanings for a reason referred to earlier on page 17. I decided to collect the meanings of these emotive Hijazi NLEs as they are provided by the Hijazi speakers with different social variables to ensure the accurate meanings of these linguistic items. It should be noted that, although the meanings of the 34 Hijazi NLEs were collected and examined, due to space restrictions I will only be able to discuss 27 of them, which are the emotive ones that are associated with emotional meanings.

Chapter 5 presents the first part of the data analysis. This chapter will analyse the three emotive Hijazi NLEs that are associated with the positive meanings of love and joy. Based on the participants' answers, this chapter will analyse the meanings of the emotive Hijazi NLEs [m:] and [Oʔ] that are associated with the meanings of love and joy. Also, after analysing the participants' responses that detail the use of the positive emotive Hijazi NLEs, I will provide an overview that discusses the differences and preferences for recognising these emotive Hijazi NLEs that are associated with positive emotive meanings in the Hijazi community.

Chapter 6 presents the second part of the data analysis. Based on the participants' answers, this chapter will analyse the meanings of the nine emotive Hijazi NLEs that are associated with surprise, which are [wej], [wah:], [wal], [afə], [ɔf], [ɔb], [ɔbba:], [ju:] and [ʷ|ʷ|ʷ]. Moreover, after analysing the participants' responses that show the use of the emotive Hijazi NLEs that are associated with different meanings of surprise, I will provide an overview that discusses the differences and preferences in how these nine emotive Hijazi NLEs are recognised by the Hijazi community.

Chapter 7 presents the third part of the data analysis. Based on the participants' answers, this chapter will analyse the meanings of the 15 emotive Hijazi NLEs that are associated with anger, which are [ju:], [ɪf:], [uf:], [ɪffi:], [ɔffu:], [ɪxxi:], [jɛʕ], [kɪx:], [həh], [ʃʷ:], [ɔs], [Oʃ], [ʷ], [ʷ|ʷ|ʷ] and [||||]; the meanings of the seven emotive Hijazi NLEs that are associated with sadness, which are [ah:], [ax:], [ah:], [aj], [afə], [Oʃ], and [||||]; and the meanings of the three emotive Hijazi NLEs that are associated with fear, which are [ɔb], [ɔbba:], and [ju:]. After analysing the answers, I will provide an overview that discusses the differences and preferences in recognising Hijazi NLEs that are associated with anger, sadness and fear in Hijazi community.

In **Chapter 8**, I will illustrate the non-arbitrary relationship between emotive Hijazi NLEs and their emotive meanings, based on a semiotic approach to the data analysis of the participants' answers. I will also show that emotive Hijazi NLEs that share similar vocalisations are associated with similar emotional meanings. From the meaning of the emotive Hijazi NLEs that share similar vocalisations, we can predict their forms in specific situational contexts. Also, from the forms of the emotive Hijazi NLEs that share similar vocalisations, we can predict their emotional meanings in specific situational contexts. For a detailed explanation, I provide Table 8.5 at the end of Chapter 8 that summarises how the vocalisations of the emotive Hijazi NLEs that are associated with similar forms are also associated with similar emotional meanings.

In **Chapter 9**, the research findings, the limitations of this research, and recommendations for further studies will be presented. This chapter will provide a summary of what I have done and the results of this study.

Chapter 2

The Form and Meaning Structures of the Emotive Hijazi NLEs

2.1 Introduction

Primary interjections, which I described as NLEs, are “noise-like” non-words that are associated with emotions and mental states (Goddard 2014: 54). In this chapter, I will map their meanings in terms of Shaver et al.’s (2001) emotions classification schema, along with other speech functions; see Chapter 3 (3.3). Emotive Hijazi NLEs express emotional concepts shaped by specific situational and socio-cultural contexts.

This chapter details why emotive Hijazi NLEs are considered to be sensory-motor productions. In structuring the emotive Hijazi NLEs, the body is a crucial resource for meaning-making. The use of the body as a meaning-making resource is known as embodiment, where the psychological and biological elements of the body become vehicles through which meaning is realised (Fusaroli et al., 2012:1; Violi, 2012). An individual’s body interacts with, observes, and predicts actions and behaviours performed by actors in the external world; this is known as intersubjectivity (Violi 2003, 2008, 2012; Zlatev 2018, 2015, 2009; Zlatev et al. 2008). The intersubjective aspect of embodiment (i.e. the intersubjective embodiment) encompasses the interaction between the body, the mind, and the socio-cultural context. The socio-cultural context refers to the concept that language is not isolated, but is shaped by the social and cultural environment in which it is used.

This chapter shows how the human body plays an essential role in presenting meaningful emotional states that embody meaningful experiences that structure the meaning of the emotive NLEs. The body also plays an essential role in determining meaningful phonological vocalisations of the emotive NLEs through mimicry of gestures, movements, and action patterns (Maran 2017: 8). Mimicry is an iconic sign whose qualities resemble other objects (Maran 2017: 55). Like icons, mimicry shows similarities between the sign and its object. The emotive NLEs’ phonological forms partly mimic certain vocal actions tied to emotional aspects (Goddard 2014; Wierzbicka 1992; Darwin 1872). These nonverbal behaviours consist of emotional expressions and body movements (Hess and Fischer 2017: 151). Mimicry incorporates vocal reactions that reflect or provide information about the expresser’s emotional states in specific events. Thus, there is a strong relationship between

the concept of embodiment and the mimicry of emotional concepts (Hess and Fischer 2017; Winkielman et al. 2016). Mimicking is how the body creates actions, reactions, and behaviours such as vocal, facial, and gestural expressions, based on emotional states.

Furthermore, in structuring the emotive NLEs, the conceptual embodiment of emotional and mental aspects as meanings of the NLEs leads to conceptual categorisation. Categorisation, in itself, reflects the bodily nature of the speakers who do the categorisation, as it depends on Gestalt perception⁵ and motor movements (Lakoff 1987: 28-39). The emotional categories of the Hijazi NLEs depend on the nature of the human body, as they are characterised by human bodily experience, including the psychological and biological body. The emotional and mental aspects of the Hijazi NLEs are embodied when their contents are motivated by bodily experience in the physical and social environment. This allows the speakers access through Gestalt perception, as a way to identify and group similar emotional and mental aspects, which correspond to similar motor movements that represent the entire emotional or mental Hijazi NLE category. Thus, the conceptual embodiment leads to the notion of conceptual categorisation (Lakoff 1987). The properties of a specific category result from the nature of the human body that is functioning in a physical and socio-cultural context (Lakoff 1987: 12, 154). The minds of Hijazi speakers conceptually categorise the embodied mental and emotional aspects to the NLEs as communicable expressions.

Thus, this chapter sheds light on the concept of categorisation in relation to the structure of the emotive Hijazi NLEs, which emphasises how the speakers' minds categorise the Hijazi NLEs' embodied emotional objects and how they categorise them with specific vocal gestures. Furthermore, this chapter discusses another mode of categorisation, namely prototype theory (Rosch 1999, 1973, 1977). This refers to how the human mind prototypically categorises things and concepts as it interacts with them. This chapter will show how the minds of Hijazi speakers prototypically categorise the emotive Hijazi NLEs with some embodied emotional aspects and, hence, how Hijazi speakers prototypically associate them with specific vocal gestures. This also enables us to identify prototypical or more central members of the Hijazi NLEs in specific categories.

⁵ Gestalt perception is the process by which human minds create an overall structure of some concepts by putting together similar elements, recognising patterns, simplifying complex images, and building general rules (Lakoff 1987: xiv).

These vocal gestures, or vocal actions, correspond with the phonological vocalisations of the NLEs. This chapter deals with the structures of the phonetic and phonological forms of the Hijazi NLEs. It provides a detailed phonological description encompassing different articulatory parameters of the Hijazi NLEs showing how vocal organs work and are dependent upon one another.

To describe the articulation of the Hijazi NLEs, this chapter describes the articulation of the emotive Hijazi NLEs and shows how they are articulated by phones which are not necessarily part of the the Arabic phonemic system. This is done because within and across languages, NLEs are formed from phones, which themselves are not part of the phonemic system of the language (Ward 2000). For example, despite the fact that Hijazi Arabic does not have clicks in its phonemic system, Hijazi speakers use some clicks, such as [ʔ], [ʈ], and [ʀ], in the articulation of some NLEs. Thus, this chapter provides the representations of the articulation of 27 emotive Hijazi NLEs which are formed from (i) pulmonic sounds and (ii) non-pulmonic sounds (i.e. click consonants).

To summarise, this chapter concentrates on the structure of the emotive Hijazi NLEs' embodied emotional meanings, as well as the structure of their phonological forms. Understanding the structures of the expression and content of the Hijazi NLEs explains how these emotive Hijazi NLEs are associated with their emotional meanings, and how these emotive Hijazi NLEs show a non-arbitrary relationship with their emotional meanings.

2.2 The Meaning of the Emotive Hijazi NLEs

This section focuses on the kinds of meanings that can be mapped onto the emotive Hijazi NLEs. Since the emotive NLEs are associated with the speaker's different emotions states, they will be mapped according to emotional concepts and categorised according to function. Since, as mentioned in Chapter 1, NLEs are similar to primary interjections, it is argued here that Hijazi NLEs can be classified as NLEs proper and NLEs formally speaking. Based on Stang (2016: 18), interjections proper refer to the emotive interjections that are semi-automatically associated with the speaker's emotional states. Interjections formally speaking refer to the cognitive, conative, and phatic interjections that are non-automatically associated with the speaker's mental states or attitudes with a certain degree of intentionality (Stang 2016: 18). For more explanation, see Section 1.1. I therefore adopted Stang's (2016) classification of interjections to classify the Hijazi NLEs, as illustrated in Figure 2.1 below.

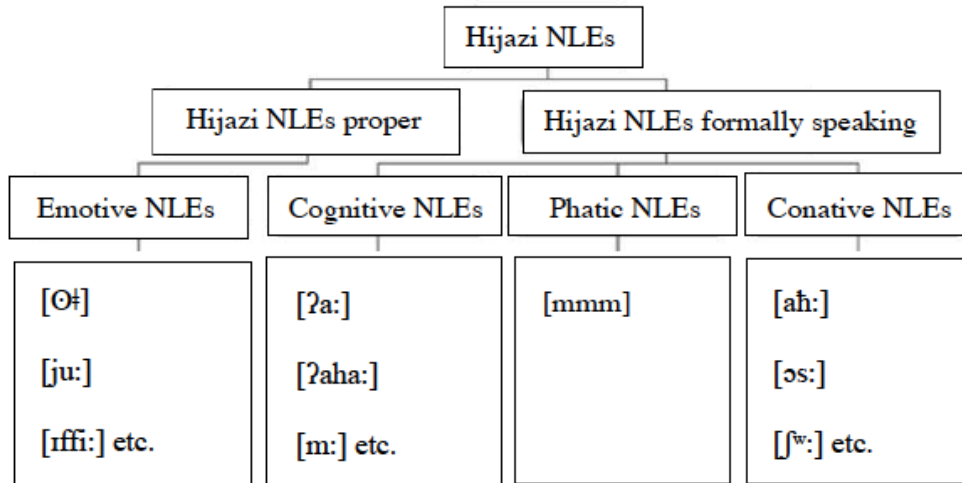


Figure 2.1: The Categorisation of the Hijazi NLEs

The current study focuses on the emotive Hijazi NLEs that refer to the vocal gestures which are associated with the speaker’s state of emotions and sensations, such as the emotive Hijazi NLEs [ju:] (i.e. ‘I am surprised’) and [iffi:] (i.e. ‘I am disgusted’). It also focuses on the emotive Hijazi NLEs that fulfil directive speech functions in which the speakers use the NLEs as directions or commands to attract someone’s attention or to demand a response from someone, such as [kix:] (i.e. ‘I do not want the child to touch the disgusting thing’).

The emotive Hijazi NLEs will be mapped onto Shaver et al.’s (2001) classification of emotions. This classification of emotions provides a tool with which the Hijazi NLEs can be mapped onto their emotional meanings. As the emotive Hijazi NLEs also fulfil different expressive and directive speech functions, the meanings of the emotive Hijazi NLEs will be mapped onto Halliday and Matthiessen’s (2014: 135) speech functions: statement, question, command, and offer. This will be discussed in detail in Chapter 3 (3.3).

These types of tokens are “a part of speech signifying an emotion by means of an unformed word” (Padley 1976: 266, cited in Kockelman 2010: 186 and Ameka 1992: 102). Emotive NLEs are therefore considered to be a “semiotic artefact of our natural origins, and the most transparent index of our emotions” (Kockelman 2010: 187). In other words, both emotions and emotive NLEs seem to have similar properties, as both of them are “natural, irruptive, uncontrollable, feeling-mediated reactions to the immediate context” (Kockelman 2010: 187).

Emotional states are embodied and expressed by NLEs in specific situational contexts. Thus, to define such types of tokens in terms of the words of emotions that they refer to, we may use inalienable general words of emotional states that are known as complement-taking predicates (Kockelman 2010: 191-193). For Kockelman (2010), complement-taking predicates refer to general words of the emotional states, which are perfectly chosen to map or encode such linguistic items (i.e. the NLEs) because they are cross-linguistically available resources, and, universally, they can often be integrated into speech functions to make our emotional and mental state unambiguous (Kockelman 2010: 7). In other words, the NLEs could be mapped onto the words that refer to the emotional states that have some specific formal and functional characteristics that provide a rich internal resource for language to enable speakers to think about the motives of others and the meaning of speech (cf. Kockelman 2010: 51-66; 188). Thus, the emotive NLEs could be mapped onto complement-taking predicates, such as fear, anger, sadness, etc. (Kockelman 2010: 188). Such general words of emotions provide a powerful language-internal tool for understanding NLEs (Kockelman 2010: 188). “In this way, linguists, philosophers, and lay-folk never have to leave language in order to engage in psychology” (Kockelman 2010: 188).

In this way, I mapped the meanings of the Hijazi NLEs onto inalienable general words of emotional states using Shaver et al.’s (2001) classification of emotions. The reasons why the Anglophone emotions classification schema and Shaver et al.’s (2001) emotions classification were chosen are as follows. As no published works exist that classify emotions expressed in Arabic, I had no option but to use a non-Arabic emotions classification as a tool for the form-meaning mapping of the emotive Hijazi NLEs. Although this study is based on Arabic, an Anglophone emotions classification can still be used to map the form-meaning of the NLEs, as these tokens are less conventional than the other lexicalised expressions of emotion, and their emotive meanings are less language-specific (cf. Wierzbicka 1992: 166). While there has yet not been detailed classification of how emotions are realised in Arabic, El-asri (2018) successfully imported Shaver et al.’s (2001) emotions classification in his study, *Emotion Categorization in Moroccan Arabic and English: A Prototype Approach*. He stated that it is one of the most popular emotions frameworks used in linguistic studies. He explored emotion categorisation in Moroccan Arabic and compared it to American English. He found that cross-linguistic research on emotion shows that there are similarities and differences in the conceptualisation of emotions in different cultures. The basic emotions show similarity, while the more delicate emotions (i.e. the secondary and tertiary ones) may

show some differences across cultures (El-asri 2018: 51). Therefore, I followed El-asri's (2018) and chose Shaver et al.'s (2001) emotions classification, as I did not find any difficulty in the process of mapping the emotional meanings of the emotive Hijazi NLEs onto Shaver et al.'s (2001) emotions classification.

Emotions are universal mental processes that are likely to work in the same way, regardless of the content they operate with and the societies they appear in (Gut and Wilczewski 2015: 500; Kockelman 2010). Emotions are mentalistic phenomena: innate, unconscious processes, passive reactions, intra-personal, and psychologically universal (Lemke 2015: 291). Human emotional experiences, at least the basic, primary, or fundamental ones, are claimed to be universal because they exist in all human cultures (Shaver et al. 2001; Ortony and Turner 1990; Ekman 1992; Sauter 2010; Ekman et al. 1969; Ekman and Cordaro 2011; Russell et al. 2011; El-asri 2018; Lemke 2015: 20). The basic emotions are those that human beings share with other higher mammals (Lemke 2015: 20). They are fundamental, innate, and a universal phenomenon (Izard 1980:201). They are biologically based and should be the same regardless of culture (Shaver et al. 2001: 51-52). They are components of humans' motivation system. They have the most direct significance for survival (Lemke 2015: 20). They are highly prototypical (Shaver et al. 2001). They are universal as they "occur in psychological, cognitive, phenomenal, and behavioural complexes" (Ortony and Turner 1990: 329). They have similar action tendencies, similar mental and abstract antecedents, and similar social and interpersonal functions across cultures (Shaver et al. 2001: 43). They are considered to be components of humans' cognition, mental states, perceptions, and basic classes of appraisals that are associated with specific response patterns (Shaver et al. 2001: 47-49). They are bodily feelings that point towards specific actions or the targets of those specific actions (Lemke 2015: 20). Basic emotions such as happiness, distress, anger, disgust, surprise, and fear show innateness and universality (Izard 1980: 201).

Table 2.1: Emotions Classifications by Different Psychologists

The Psychologists	The Emotional Classifications
Arnold (1960)	Anger, desire, despair, fear, hate, hope, love, and sadness
Izard (1971)	Anger, contempt, disgust, distress, fear, guilt, interest, joy, shame, surprise

The Psychologists	The Emotional Classifications
Ekman, Friesen, and Ellsworth (1982)	Anger, disgust, fear, joy, sadness, surprise
Lazarus (in Lazarus and Lazarus, 1994)	Anger, guilt, fear, sadness, happiness, hope
Frijda (1986)	Desire, happiness, interest, surprise, wonder, sorrow
McDougall (1926)	Anger, disgust, elation, fear, tender-emotion, wonder.
Johnson-Laird (1987)	Anger, disgust, anxiety, happiness, sadness
Plutchik (1980)	Acceptance, anger, anticipation, disgust, joy, fear, sadness, surprise
Tomkins (1995)	Interest, enjoyment, surprise, distress, fear, anger, disgust, contempt, shame

The concept of basic emotions does not refer to a single model or a set of basic emotions classification. Many researchers have tried to outline lists of emotions that show some agreement, and this has resulted in various theories that extend Darwin's (1872) theory of how emotions evolved (Al-Talabani 2015: 15; Lemke 2015).

Table 2.1 shows different sets of basic emotions classifications. There are many such lists of basic emotions that aim to be cross-culturally and universally valid (Lemke 2015: 607). Though such basic emotion sets are not identical, they show a high level of agreement and of overlap. Kowalska and Wróbel (2017: 4-5) argue that several similar characteristics must be identified in the classification of universal basic emotions. They claim that there is agreement on the fact that the number of basic emotions is limited and that they include happiness, sadness, anger, and fear (Kowalska and Wróbel 2017: 4-5). There is also agreement on the criteria of basic emotions, including the universality of non-verbal expressions motivated by basic emotions, the unique biological correlates, and the role played by subjective experience (Kowalska and Wróbel 2017: 4-5).

Although there are several basic emotion sets, Shaver et al.'s (2001) emotions classification was chosen as a basis of this study as it is one of the most popular emotions frameworks used in linguistic studies (El-asri 2018). Furthermore, Shaver et al. (2001: 32-33)

provide over a hundred emotions grouped under six basic emotions: love, joy, surprise, anger, sadness, and fear. This therefore provides a wider scope for mapping the different emotional meanings to the Hijazi NLEs. Shaver et al. (2001) also provide a nuanced emotions' classification presented as a hierarchical tree structure, which makes the mapping of the NLEs easier and more accurate (see Table 2.2 below).

Table 2.2: Shaver et al.'s (2001) Emotions Classification Presented in Table Format

Superordinate	Basic emotion	Secondary emotion (generic subcategory)	Tertiary emotion (additional subcategory)
Positive	Love	Affection	Adoration, fondness, liking, attractiveness, caring, tenderness, compassion, sentimentality
		Lust	Arousal, desire, passion, infatuation
		Longing	Longing
Positive	Joy	Cheerfulness	Amusement, bliss, gaiety, glee, jolliness, joviality, joy, delight, enjoyment, gladness, happiness, jubilation, elation, satisfaction, ecstasy, euphoria
Positive	Joy	Zest	Enthusiasm, zeal, excitement, thrill, exhilaration
		Contentment	Pleasure
		Pride	Triumph
		Optimism	Eagerness, hope
		Enthrallment	Enthrallment, rapture
		Relief	Relief
Positive, Negative, or Neutral	Surprise	Surprise	Amazement, astonishment
Negative	Anger	Irritability	Aggravation, agitation, annoyance, grouchiness, grumpiness
		Exasperation	Frustration
		Rage	Anger, outrage, fury, wrath, hostility, ferocity, bitterness, hatred, scorn, spite, vengefulness, dislike, resentment
		Disgust	Revulsion, contempt, loathing
		Envy	Jealousy

Superordinate	Basic emotion	Secondary emotion (generic subcategory)	Tertiary emotion (additional subcategory)
Negative	Sadness	Suffering	Agony, anguish, hurt
		Sadness	Depression, despair, gloom, glumness, unhappiness, grief, sorrow, woe, misery, melancholy
		Disappointment	Dismay, displeasure
		Shame	Guilt, regret, remorse
		Neglect	Alienation, defeatism, dejection, embarrassment, homesickness, humiliation, insecurity, isolation, loneliness, rejection
		Sympathy	Pity, sympathy
Negative	Fear	Horror	Alarm, shock, fear, fright, horror, terror, panic, hysteria, mortification
		Nervousness	Anxiety, suspense, uneasiness, apprehension (fear), worry, distress, dread

Table 2.2 shows that Shaver et al. (2001) classify 135 emotions into four categories: superordinate, basic, secondary emotion (generic subcategory), and tertiary emotion (additional subcategory). The superordinate refers to the broader and higher-level emotional category that consists of a number of basic emotions. It consists of abstract terms such as positive, negative, and neutral emotions. In contrast, the basic emotions suggest some tentative generalisations about the emotion's cognitive representation, and they are implicated in the antecedents that promote a general sense of well-being (Shaver et al. 2001: 47-48). In other words, every basic emotion has some prototypical features, including antecedents, expressions, physiological reactions, and behaviours. For Shaver et al. (2001), there are six basic emotions, which are love, joy, surprise, anger, sadness, and fear. Each basic category consists of a core or a generic subcategory of emotions (Shaver et al. 2001: 36). They are the secondary emotions that are non-specialised forms of the emotion. For example, the basic emotion of fear contains subordinate emotions of horror and nervousness. Finally, the last level is the additional subcategory that refers to the tertiary emotions, which are more nuanced than secondary emotions. This additional subcategory of emotions requires additional cognitive work to identify the specific type of basic or generic emotion felt by another person (Shaver et al. 2001: 48; 51). For example, initially, one is likely to notice that a person is angry about something. It is only with additional cognitive work that one can

work out that the other person is actually irritated or annoyed (Shaver et al. 2001: 51). It is expected that while the basic level of the emotion hierarchy is more or less the same across cultures, the subordinate levels are rather different (Shaver et al. 2001: 51). Shaver et al. (2001: 51) claim that that basic-level emotions should be the same everywhere because they are biologically based, while the subordinate-level emotions could differ across cultures because they seem designed to designate intensity levels and fairly specific situational antecedents.

Furthermore, since basic emotions offer only tentative generalisations, Shaver et al. (2001) have created specialised meanings, which they claim are cross-culturally valid. Thus, Shaver et al. (2001) provide meanings for every basic emotion, as demonstrated in Table 2.3 below:

Table 2.3: Shaver et al. 's (2001) Definitions of the Six Basic Emotions: Love, Joy, Surprise, Sadness, Anger, and Fear

Basic emotion	Definition
Love	This is a positive emotion that refers to the interpretation of positive feelings of wanting, needing, or liking someone or something. It leads to a sense of joy because one enjoys obtaining something one wants, needs, or likes. Usually, the emotion of love is accompanied by vocal expressions such as smiling (Shaver et al. 2001: 47). There are some prototypical emotion features that are frequently related to love, such as: “person finds other attractive”, “exceptionally good communication”, “other inspires openness, trust, etc.”, “wanting the best for others, etc.”, “expressing positive feelings towards others,” “feeling excited, full of energy, etc.”, “feeling happy, joyful, exuberant, etc.”, “smiling,” etc. (Shaver et al. 2001: 47).
Joy	This is a positive emotion that refers to the interpretation of positive and desirable outcomes. Usually, the emotion of joy is accompanied by vocal expressions such as smiling and laughing (Shaver et al. 2001: 46). There are some prototypical emotion features that frequently relate to joy, such as: “task success, achievement”, “desirable outcome; getting what was wanted”, “receiving esteem, respect, praise”, “getting something strived for, etc.”, “reality exceeding expectations”, “experiencing pleasurable stimuli, etc.”, “receiving love, liking, affection”, “communicating good feelings”, “positive outlook; seeing the bright side”, “giggling, laughing”, “feeling excited”, “feeling/acting self-confident, etc.”, “physically energetic, active”, ‘hyper’”, “voice is enthusiastic, excited”, “smiling”, etc. (Shaver et al. 2001: 46).

Basic emotion	Definition
Surprise	This refers to the feeling of being astonished or amazed by a positive, negative, or neutral event or situation. There are some prototypical emotion features that frequently relate to surprise, such as: “feeling sad or angry because of an undesirable outcome and negative surprise, or enjoying the receiving of a wonderful surprise” (Shaver et al. 2001: 36-39).
Anger	This is a negative emotion that refers to the interpretation of frustration, an interruption, a power reversal, or the harm of a damaged situation or event. Usually, the emotion of anger is accompanied by vocal expressions such as talking in a loud ferocious voice, yelling, and shouting (Shaver et al. 2001: 45-46). There are some prototypical emotional features that frequently relate to anger, such as: “reversal or loss of power, status”, “violation of expectation”, “frustration/interruption of activity”, “real or threatened pain”, “loud voice, yelling, screaming”, “complaining, bitching, etc.”, “aggressive, threatening gestures”, “frowning, not smiling, etc.”, “gritting teeth, showing teeth, etc.”, “crying”, “nervous tension, anxiety, discomfort”, etc. (Shaver et al. 2001: 41-42). Furthermore, based on cross-cultural studies of the antecedents of emotion, emotional expressions, and physical reactions, the emotion of disgust, including revulsion and contempt, can be transformed into a type of anger (Shaver et al. 2001: 45-46).
Sadness	This is a negative emotion that is the interpretation of a negative, undesirable outcome of a situation in which one is powerless or helpless, as the threat has already been realised (Shaver et al. 2001: 44). Usually, the emotion of sadness is accompanied by vocal expressions such as crying and whimpering (Shaver et al. 2001: 44-45). There are some prototypical emotional features that are frequently related to sadness, such as: “death of a loved one”, “loss of relationship; separation”, “rejection, exclusion, disapproval”, “not getting what was wanted, etc.”, “reality falling short of expectations”, “empathy with someone who is sad, hurt”, “tired, run-down, low in energy”, “low, quiet, slow, monotonous voice”, “frowning, not smiling”, “crying, tears, whimpering”, physical pain etc. (Shaver et al. 2001: 44-45).
Fear	This is a negative emotion that is the interpretation of dangerous or threatening events. Usually, the emotion of fear is accompanied by vocal expressions such as screaming, yelling, crying, or pleading for help (Shaver et al. 2001:43-44). There are prototypical features of the emotion that frequently relate to fear, such as: “possibility of loss, failure”, “threat of harm or death”, “feeling nervous, jittery, jumpy”, “nervous, fearful talk”, “shaky, trembling voice”, “crying, whimpering”, “screaming, yelling”, “talking less, being speechless”, etc. (Shaver et al. 2001: 43-44).

All six basic emotions have the same prototypical meanings across cultures, since they are tentative generalisations or initial encodings of the cognitive representation of prototypical emotions. Prototypical emotions are basic emotions that most people consider to be the most distinct (Shaver et al. 2001: 47-48). However, prototypical basic emotions have fuzzy boundaries and gradual transitions and may share some features with other emotions (Shaver et al. 2001). An example of this concept of fuzzy boundaries is in the emotion of surprise, which Shaver et al. (2001: 29; 36-39) show is a complicated basic emotion because of its small size and poor showing in earlier studies. They claim that surprise can be associated with negative, positive, or neutral emotions. There are pleasant surprises and unpleasant surprises; for example, one could be positively surprised about winning a huge prize, negatively surprised about the failure of one's brand new car to start in the morning, and neutrally surprised that all the members of a committee share a birthday (Ortony and Turner 1990: 317).

The concept of fuzzy boundaries is not solely associated with the negative and positive emotion of surprise. It is also associated with other basic emotions. The negative emotions (anger, sadness, fear, and negative surprise) have fuzzy boundaries, as they have something in common. The positive emotions (love, joy, and positive surprise) also have fuzzy boundaries, as they overlap. For example, love and joy overlap as people experience joy when they love something or someone (Shaver et al. 2001: 46-47) (See Table 2.3.).

The prototypical basic emotions and their meanings are useful in determining how some emotions, which are related to specific features, are processed universally in several real-life situations. They are innate, unconscious, and psychologically universal, and they have similar actions and body expressions across cultures (Kockelman 2010; Shaver et al. 2001). In this way, basic emotions are useful in determining how the emotional meanings of the emotive Hijazi NLEs are processed in real-life situations. Thus, the meanings of the emotive Hijazi NLEs are mapped onto the speaker's emotional states as they result from emotional experiences through emotional expressions.

The meanings of the Hijazi NLEs are stimulated by emotional aspects, as they result from emotional experiences such as love, joy, surprise, sadness, anger, and fear. The emotions themselves are unconscious, automatic, and unintentional (Cudney 2018: 14). Speakers unconsciously feel something. As soon as they become aware of their feelings, they express their feelings directly via expressive language. Emotive NLEs are holophrastic expressive utterances that can realise a complex emotional phrase such as 'I am happy', 'I am sad', 'I am

angry', etc. The NLEs are a representation of our emotions. They are expressive language that the speakers use to express their emotions semi-automatically and consciously, as they have a sense of intentionality (cf. Cudney 2018; Griffiths 2008: 21-30; Agosta 2010: 107). For example, the speaker feels his/her emotion disgust, which is a type of anger, and he/she can express this emotion directly by uttering the Hijazi NLE [kɪx:]. Also, in other situational contexts, when the speaker feels his/her emotion of anger, he/ she could utter [kɪx:] as a form of command that arises from the feeling of anger. In this case, [kɪx:] is the equivalent of saying, 'I am commanding you to move away from the disgusting things that are making me angry'.

Thus, the meanings of the emotive Hijazi NLEs are stimulated by emotional aspects, and one of these emotional aspects is emotional prosody. While prosody is not central to the goals of the thesis, I will discuss this aspect briefly as a component of the wider experience of NLEs.

2.3 Toward Emotional Prosody in Emotive Hijazi NLEs

The emotive NLEs are highly expressive linguistic items. In the articulation of these NLEs, people may use a lot of bodily gestures that help to express their emotions. Yet, while such gestures help to convey emotional meaning, it is also true that NLEs are produced in contexts where such gestures cannot be seen, such as telephone calls. Therefore, in this thesis, I focus only on vocal expressions, which means I am focusing on the mouth area and the vocal gestures that the speakers use to express these NLEs in Hijazi Arabic. In other words, in this thesis, I examine how the particular phonological structure of the NLEs can be understood as an icon of motivated oral gestures that facilitate the understanding of their meanings. For example, with respect to facial gestures, across languages and cultures, the verbal action behind the articulation of disgust includes gestures which mimic spitting or blowing something out with either protruded or contracted downward lips (cf. Darwin 1872: 258; Wierzbicka 1992: 178). Spitting or blowing out of the mouth produces labial sounds such as /p/ in English pooh or /f/ in phew, (Wierzbicka 1992: 177). Also, disgust can be verbalised by the production of guttural sounds which mimic vomiting, such as producing /k/ in English Yuk or [x] in Ugh (Darwin 1872: 92; Wierzbicka 1992: 178; Goddard 2009: 14).

The current study used a questionnaire, which contains open questions, as a method to collect the meanings of emotive NLEs across the Hijazi community. This online

questionnaire contained embedded videos for each of the NLEs. I will describe the questions in detail in chapter 4. Here, though, I will describe what the presenter did to produce the NLEs as this is important for the phonetic descriptions which follow. I asked the presenter to present the NLEs in the most neutral way possible with as limited facial and bodily expressions as possible. Of course, he could not control all his expressions, but he could control some gestures like the eyes, the eyebrows, the shoulders, etc. For example, the eyes are opened and the eyebrows are pulled down together in expressing anger; the eyes are opened and the eyebrows are raised apart in expressing surprise; the eyes are opened and the eyebrows are pulled together and raised as high as they can go in expressing fear; the eyes are narrow and the eyebrows are pulled down as the skin below the eyebrows is pulling up the skin below the eye in expressing joy (Ekman 2003: 151; 168; 178; 223). Had the presenter used such facial expressions, this would have meant that it would have restricted the possible meanings associated with these NLEs. This would have been against the aim of the questionnaire, which aims to investigate whether the forms and the variable meanings of the emotive Hijazi NLEs are recognised across the Hijazi community or not.

This was important because, as a native speaker of Hijazi Arabic, I know that some emotive Hijazi NLEs can express more than one emotional meaning. For example, the emotive Hijazi NLEs [ɔb], [ɔbba:], [ju:] may express either surprise or fear. They express shock from something or someone's behaviour or the fear and anxiety of something (examples were confirmed by questionnaire, see chapter 6 and 7). According to Shaver et al.'s (2001) emotions classification, shock, fear and panic are tertiary emotions (T), which are types of the secondary emotion (S) of horror, which is a type of the basic emotion (B) of fear. Shock also is related to negative surprise, when surprise has fuzzy boundaries with the negative emotion of fear, as has been discussed in section 2.2

Also, the NLEs [uf:] may express annoyance or disgust at a bad smell (examples were confirmed by the questionnaire, see chapter 7 (7.2.5)). Based on Shaver et al. (2001), annoyance is a tertiary emotion (T), which is a type of the secondary emotion (S) of irritation, which is a type of the basic emotion (B) of anger. Disgust is a secondary emotion (S), which is a type of the basic emotion (B) of anger.

Moreover, [l^w|w^w|w] and/or [l | l | l] may express surprise or anger. [l^w|w^w|w] expresses unexpected bad news; see Chapter 6 (6.2.9). It may also express annoyance due to disruption, bad weather, someone's behaviour etc.; see Chapter 7 (7.2.9). Based on Shaver et al. (2001), annoyance is a type of anger, and bad surprise refers to surprise that has fuzzy boundaries

with the negative emotions of fear, anger, or sadness (see section 2.2). On the other hand, [l | l |] expresses contempt for a person who has done unacceptable things; see Chapter 7 (7.2.11). Contempt is a tertiary emotion (T), which is a type of the secondary emotion (S) of disgust, which is a type of the basic emotion (B) of anger, according to Shaver et al. (2001).

The NLEs [O‡] and [O‡] were the most challenging ones, as they can express positive emotional meanings like love or joy and negative emotional meanings like anger or sadness. Regarding positive emotions, it expresses self-admiration, admiring someone, the joy of self-pride and confidence, and the joy of finishing something successfully; see Chapter 5 (5.2.1.1 and 5.2.2.2). Based on Shaver et al.'s (2001) classifications, admiration and liking is a tertiary emotion (T), which is a type of the secondary emotion (S) of affection, which is a type of the basic emotion (B) of love. Besides, pride and triumph are types of the basic emotion (B) of joy.

Regarding negative emotions, it expresses anger and dislike; see Chapter 7 (7.2.12). It also expresses sorrow; see Chapter 7 (7.3.5). Based on Shaver et al. (2001), dislike is a tertiary emotion (T), which is a type of the secondary emotion (S) of rage, which is a type of the basic emotion (B) of anger. Besides, sorrow is a type of sadness.

Scholars such as Wierzbicka (1992) and Ameka (1992) state that bodily gestures help hearers understand the specific meaning of an NLE in cases where an NLE has a range of meanings. These emotive utterances express the speaker's emotional states, and hence convey emotions. As has been discussed in this Chapter in section 2.2, emotions are innate, unconscious processes, passive reactions, intra-personal, and psychologically universal (Gut and Wilczewski 2015: 500; Lemke 2015: 291; Kockelman 2010). Emotions, at least the basic ones, are universal (Shaver et al. 2001; Ortony and Turner 1990; Ekman 1992; Sauter 2010; Ekman et al. 1969; Ekman and Cordaro 2011; Russell et al. 2011; El-asri 2018; Lemke 2015: 20). They have similar actions and body expressions (Shaver et al. 2001: 43).

After I recorded the videos, I asked five professional Hijazi linguists to validate them, to make sure that the presenter presented the Hijazi NLEs in the most neutral way possible. It is important to note that among the 27 emotive Hijazi NLEs, the NLE [O‡] was the most challenging one, as it can express positive and negative emotional meanings that correspond with different vocal expressions. Thus, I asked the presenter to produce it in two different ways in two different videos. The NLE [O‡] that expresses positive emotional meanings is produced with lips that mimic their position when smiling, and [O‡] expresses negative

emotional meanings is with lips that mimic their position when unsmiling.

In the videos embedded in the questionnaire, I did not ask the presenter to produce the NLEs with a specific tone. He is a native speaker of Hijazi Arabic, and he produced them as he normally does without exaggeration. As noted above, his performance was validated by the five Hijazi professional linguists, see Chapter 4 (4.4.4).

All pulmonic NLEs with voiced segments must be accompanied by intonation, which no doubt contributes to the interpretation of their meaning. There has been as yet no investigation of the prosody of Saudi Arabic, let alone Hijazi intonation, and so the interplay of prosody with the NLEs needs much investigation and is beyond the scope of the current thesis, as I would need to examine the contextualised use of these NLEs. Also, the exploratory nature of the present thesis will not argue for the treatment of prosodic features in the meaning of the NLEs; rather, I wish at this stage to offer them only for the reader's consideration.

Biassoni, Balzarotti, Giamporcaro, and Ciceri (2016), Banziger and Scherer (2005), Johnstone (2001), Johnstone and Scherer (2000) claim that basic emotion correlates with two levels of emotional arousal namely:

- 1) Hot emotions: those emotions that are experienced with a hot state that is related to a high level of arousal, as well as high levels of interest, emotion, or activity. For example, we could have hot anger like rage or fury, hot sadness like despair, hot fear like panic or terror, a hot surprise like shock, hot joy like elation, enthusiasm, and excitement.
- 2) Cold emotions: those emotions that are experienced with a cold state that is related to a low level of arousal that is usually related to calmness, boredom, and lethargy. For example, we could experience cold anger like boredom and irritation, cold sadness like depression or pensiveness, cold fear like concern, anxiety or worry, cold surprise like curiosity, cold joy like contentment or satisfaction.

Emotional high and low arousals that are related to hot and cold emotions are known to substantially influence vocal expressions (Banziger and Scherer 2005). They affect physiology and hence affect speech. For example, with hot emotions involving high arousal, the heart rate and blood pressure increase. They have consistently been described as being expressed with a louder voice, faster speech rate, and higher pitch than the cold emotions involving low arousal (Banziger and Scherer 2005). This information is suggestive and needs

more investigation beyond the scope of the current study, as I am not investigating the relation between the prosodic features and the meaning of the emotive NLEs.

However, as a preliminary finding, I noted that high arousal emotions (i.e. hot emotions) are conveyed by Hijazi NLEs with a rising intonation, while low arousal emotions (i.e. cold emotions) are conveyed by Hijazi NLEs with a falling intonation. For example, the emotive Hijazi NLEs [ah:], [ax:], [uf:], [ɔf], [ɪf:], [ɔs:], [ɔb], and [həh] are articulated with rising tone. All these eight NLEs express different hot emotions, namely [ah:] and [ax:] express hot sadness, [uf:], [ɪf:], and [ɔs:] express hot anger, [ɔf] and [ɔb] express hot surprise, [ɔb] also expresses hot fear, and [həh] expresses hot joy as well as hot anger. On the other hand, the emotive Hijazi NLEs [ah:], [aj:], [afə], [ɔffu:], [ɪffi:], [ɪxxi:], [kɪx:], [ɔbba:], and [ju:] are articulated with a falling intonation. All these nine NLEs express different emotional meanings; namely [ah:], [aj:], and [afə] express cold sadness, [ɔffu:], [ɪffi:], [ɪxxi:] [kɪx:], and [jɛʕ] express cold anger, [ɔbba:] and [ju:] express negative cold surprise and cold fear.

Finally, the emotive Hijazi NLEs [wah:], [wal:], [wej], and [m:] are articulated with peaking intonation i.e. rise-fall tone. Peaking intonation is a tone with a downtrend shape i.e. an early rising in the peak followed by a progressive decrease until the final fall. It refers to a combination of a rise and fall tone. The rise reinforces the meaning conveyed by the following fall (Behera 2020:61).

Banziger and Scherer (2005) go further and argue that this type of rise-fall tone could be related to the hot or cold emotions depending on the type of the emotions. For example, rise-fall tone was observed for expressions of some cold emotions such as depression, which is a type of cold sadness, and happiness which is a type of cold emotion (Banziger and Scherer 2005: 252). Besides, sometimes, the final fall itself might be affected by the emotions; for example, the emotions such as hot anger or elation, which is a type of hot joy, might result in steeper final falls (Banziger and Scherer 2005: 252).

As a result, based on Banziger and Scherer`s (2005) argument, I suggested that the emotion of negative surprise, which shows fuzzy boundaries between the emotion of surprise and the negative emotions of anger and fear, could be related to hot anger and fear. The rise-fall tone conveyed by [wah:], [wal], and [wej] expresses negative surprise and expresses hot surprise that is related to hot anger and fear. Moreover, the rise-fall tone that conveyed the NLE [m:] could express the emotion of elation, which is a type of hot joy, or happiness, which is a type of cold joy depending on the context.

Ultimately, the temperature dimension (hot and cold) of the basic emotions allows us to examine how the prosodic features of the NLEs can be understood as indexical, non-arbitrary, motivated vocal gestures that facilitate the understanding of their meanings. However, as Stang (2016) suggested, it would be very beneficial to look into the whole range of functions of the NLEs and their relative distribution in terms of prosody. She goes further and suggests that to perform an effective piece of this type of prosodic research, the data needs to be different. For example, she claims that it would have been ideal to also have videotapes at hand to have more contextual information.

This Section 2.3, besides the previous Section 2.2, has identified stimulated meanings that are associated with the emotive Hijazi NLEs. I established that there are some emotional aspects that are associated with the meaning of emotive Hijazi NLEs. The following section will show how this is done. One of the main conceptual frameworks that is used to explain this process is embodiment. Embodiment illustrates the processing of the emotional meaning based on human sensory and motor experiences (Winkielman et al. 2016: 151-154).

2.4 Towards the Embodiment of the Emotive Hijazi NLEs

Embodiment is the use of the body to process different kinds of information about tools, senses, prosodies, abstract emotions, motivational concepts, emotional gestures, and social morals, which is influenced and informed by, and related to, perceptual, somatosensory, and motor resources (Winkielman et al. 2016: 151). It is related to the use of the body as a meaning-making resource (Zlatev 2018; Violi 2003, 2008, 2012; Zlatev 2018, 2015, 2009; Zlatev et al. 2008). It is often presented as an adequate interpretation of all kinds of mental or cognitive functions, which are mostly articulated as human sensorimotor skills (Fusaroli et al. 2012: 1; Violi 2012: 58).

This section discusses the meaning of emotive NLEs as embodied vocalisations while shifting the view to the phonetic substance which expresses the NLE. The meaning of the emotive Hijazi NLEs is essentially realised by the speaker's sensorimotor skills that are produced through bodily experiences. The vocalisations of the emotive NLEs are accompanied by the mimicking of some emotional actions, which refer to vocal expressions that are associated with basic emotions, such as smiling with love and joy, which accompanies the production of the Hijazi NLE [m:]; moaning with pain, which accompanies the production of the Hijazi NLE [ah:]; and blowing or spitting with disgust, which

accompanies the production of the Hijazi NLE [rf:]. Thus, this section argues that the use of the body is a way of constructing the meanings of the emotive Hijazi NLEs.

The human body is not an isolated entity, but rather it interacts with the environment and with others. People use their bodies to interact, and hence to make meanings. This concept is known as intersubjectivity or intersubjective embodiment (Fusaroli et al. 2012: 1; Violi 2012). Intersubjective embodiment refers to how humans interact with one another by understanding and predicting one another's behaviours in order to co-construct and share meanings in a specific socio-cultural context (Violi 2003, 2008, 2012; Zlatev 2018, 2015, 2009; Zlatev et al. 2008; Fusaroli et al. 2012). Intersubjective embodiment understands the body as containing two integrated sides: 1) the psychological-physical side; and 2) the "lived-experiential structures" (Varela, Thompson, Rosch 2016: xvi). In other words, the body has both outer and inner aspects, or aspects that are biological and phenomenological (Varela, Thompson, Rosch 2016). This makes it possible to understand mind-body and language-body connections by recognising how people dynamically interact with their external physical environment, which is represented by their socio-cultural context (Gibbs 2006: 10). In this way, intersubjective embodiment plays an important role in understanding how the meanings of the emotive Hijazi NLEs are structured by the interaction between the states and behaviours of the human body and the physical environment in a specific situational context.

The concept of intersubjective embodiment is related to the theory of mind. Both are essentially concerned with how people understand others' minds through interaction with others (Meltzoff and Prinz 2002: 33-34). Theory of mind is defined as the ability of the human mind to attribute emotional and mental states to itself and others, and to recognise that others may have different emotions, mental aspects, beliefs, desires, intentions, and perspectives (Fenici 2012; Gerrans 2009; Meltzoff and Prinz 2002). The theories of intersubjective embodiment and theory of mind both focus on the interaction of communicating human minds and claim that people recognize that others share similar mental capabilities but may have different intentions and experiences. Hence communicators who recognize that their hearers have similar minds are able to anticipate the other party's behaviours. In this way, the theory of mind illustrates the embodied mental aspects as cognitive processes which motivate the initial manifestations of interactional cognitive abilities (Fenici 2012). The theory of mind explains that people's minds and interactions with others can embody different mental and emotional states, desires, intentions, and beliefs which are used in specific situational and socio-cultural contexts. It can also explain how

people relate embodied mental meanings to non-verbal actions and behaviours (i.e. vocal expressions), such as NLEs.

Our bodies play a fundamental role in determining the different emotional and mental concepts of meaningful experiences that are realised by vocal expressions such as the NLEs. The phonological vocalisations of the NLEs partially mimic vocal actions that are related to emotional and mental aspects (Goddard 2014: 87). For example, the English disgust NLEs *Yuck!* and *Ugh!* are produced by mimicking physical actions such as retching (Goddard 2014: 87). Also, the English disgust NLEs *Phew!* or *Pooh!* are produced by mimicking physical actions such as blowing and spitting something out of the mouth (cf. Wierzbicka 1992; Darwin 1872: 258; Goddard 2014: 89). The vocalisations of the emotive NLEs are thus accompanied by mimicking emotional actions, reactions, and behaviours. The mimicking of emotional actions leads to vocal expressions that are associated with basic emotions, such as smiling with love and joy, screaming with fear and anger, and laughing with joy. For more explanation about the vocal expressions that accompany every basic emotion, see Table 2.3. Such mimicry features that are related to vocal expressions of the basic emotions are universal, though the phonological structures of the NLEs are culture-specific. For example, some emotive NLEs that are associated with the feeling of disgust mimic the action of blowing something out of the mouth, but have different phonological structures, such as: the Arabic *uf* (Al-Zabidy 1994 Vol XII: 84); the English *Phew!*, *Pooh!*; the German *Pfui!* (Wierzbicka 1992: 177); the Polish *Fu!*, and *Tfu!*; the Turkish *Püfl!*, *Püh!* and *Äœf be!*; (Glosbe – the Multilingual Online Dictionary); the Spanish *Puff!*; Haweji *Puhi!*; Scottish *Fuff!*; Zulu *Vuta!* or *Futa!* (Wedgood 1866: 85); and the Hijazi Arabic [ɪf:], [ɔf], [ɔffu:], and [ɪffi:]. All are associated in part with lip rounding, lip closing, and lip opening, and are accompanied by an outbreath which mimics the action of exhaling a noxious substance.

Mimicry refers to the imitation of and correspondence between actions, movements, gestures, and vocal expressions (Winkielman et al. 2016: 164-165). It relates to the contribution of the body to the creation of imitations of or correspondences with actions or behaviours, including vocal and gestural expressions, which are grounded in specific emotional and mental states. Mimicry is a type of imitation, as both share the idea of copying and replicating an action, behaviour, vocal behaviours, speech, etc. However, there are some differences between mimicry and imitation. Imitation is the copying and replicating of actions or behaviours, but it is not as literal as mimicking (Donald 1991: 186). For example, a child copies their parents' particular behaviours by imitating them, but they do not mimic the way

their parents are enacting their behaviour (Donald 1991: 186). On the other hand, mimicry is the literal copying or replicating of actions or behaviours, that is, the exact production of facial expressions or vocal actions (Donald 1991: 186). Mimicry is dynamic and comprises resemblance of gestures, motor movements, and action patterns (Maran 2017: 8).

In this way, during the production of emotive NLEs, the speaker mimics vocal and gestural actions or behaviours that are integrated and co-occur with particular NLEs to support and facilitate the understanding of those NLEs (Goddard 2014; Wierzbicka 1992). The mimicking actions mirror our internal emotional states. Furthermore, mimicking actions play an important role in facilitating the understanding of some emotional expressions (Hess and Fischer 2017). The idea of the mimicking of the NLEs is related to the theory of mind, because people are able to recognise that others may have different perspectives. Thus, people are inclined to pay close attention to others and this fosters copying and mimicking of each others' behaviours. Therefore, in emotional contexts, people mimic specific facial movements that comprise discrete emotional expressions. Our minds can perform specific body acts that reflect specific emotional states in specific situations and socio-cultural contexts. People in a specific culture register this systematic relationship between their underlying mental aspects and their bodily actions and behaviours (Fenici 2012; Gerrans 2009; Meltzoff and Prinz 2002).

To summarise, in embodiment theory, the body is fundamental to the structuring of the emotive Hijazi NLEs and their meanings, and indeed to structuring any meaning generally. Firstly, the body structures the conceptual embodiment of the emotional experiences that give meaning to the Hijazi NLEs. Secondly, the body can construct the vocal, gestural mimicry of actions and behaviours that facilitate and support the understanding of the meaning of the emotive Hijazi NLEs. This means that the body is a crucial source of meaning construction alongside the socio-cultural and situational context of freestanding expressions such as the emotive Hijazi NLEs, which allow speakers to show how they feel without talking about their feelings. The embodiment of specific emotional states is thus achieved through the use of the emotive NLEs in specific situational and socio-cultural contexts. Thus, the body conceptualises abstract thoughts in linguistic form (Brenzinger and Kraska-Szlenk 2014: 1).

This conceptual embodiment leads to the notion of conceptual categorisation (Lakoff 1987). The structure of the categorisation reflects the bodily nature of the speakers engaged

in categorisation, as this depends on Gestalt perception and motor movements (Lakoff 1987: 28-39). The emotional Hijazi NLEs are a consequence of linked vocalisation and body reflexes in an interaction with the physical and social environment (Stang 2016:34). This allows the speakers, through Gestalt perception, to categorise emotional aspects that correspond to similar motor movements in specific categories of emotive Hijazi NLEs. Thus, the speakers conceptually categorise the embodied emotional aspects as communicable expressions, as they shift from the proprioceptive realm of internal experience to the intersubjective realm of the cultural semantic system (Viloli 2012: 66). Thus, categorisation is another part of the theory of the mind that will be discussed in the following section in relation to the construction of the Hijazi NLEs. The categorisation will focus on how the mind categorises the Hijazi NLEs' as embodied emotional objects or ideas.

2.5 The Categorisation of the Hijazi NLEs

The classical perspective of categorisation is based on the concept of sharing common properties (Lakoff 1987: 5). People normally categorise their thoughts, perceptions, actions, and speech (Lakoff 1987: 5). Categorisation is the labelling of something as a kind of thing (Lakoff 1987: 5). It is grounded in discrete features that distinguish the members from non-members in a specific category (Lakoff 1987: 5). For example, a chair is a kind of furniture; a horse is a kind of animal; anger is a kind of basic emotion. To be more specific, categorisation is grouping things that have something in common (Lakoff 1987; Rosch 1999, 1973, 1977). This idea of classical categorisation corresponds with the discussion in Chapter 1, where the Hijazi NLEs were categorised on the basis of their functions: emotive, conative, and phatic Hijazi NLEs were identified, based on Ameka's (2006) categorisation; see Figure 1.3. These tokens were categorised as NLEs proper and NLEs formally speaking according to Stang's (2016) categorisation of primary interjections; see Figures 1.4 and 2.1. The Hijazi NLEs proper refer to the emotive NLEs, whereas Hijazi NLEs formally speaking are the cognitive, phatic, and conative NLEs. In this study, the focus is on the emotive Hijazi NLEs that fulfil different speech functions. This means I will not investigate the phatic and cognitive Hijazi NLEs because this would require additional research beyond the scope of this thesis. The meanings of the emotive Hijazi NLEs were mapped according to Shaver et al.'s (2001) emotions classification: superordinate, basic, secondary, and tertiary emotions (see Section 2.2).

However, the categorisation being proposed here is conceptual categorisation, which refers to the idea of categorising things and experiences by understanding the world. It is this categorisation that is important for the functioning of the human body in our physical, social, and intellectual world. It is this categorisation that helps us to understand how we think and function, and hence to understand what makes us human beings (Lakoff 1987: 5). Lakoff (1987) argues that this type of conceptual categorisation refers to the role of embodiment in determining the significant properties of human categories, as it depends on Gestalt perception and motor movements (Lakoff 1987: 12-14, 28-39). In other words, the conceptual categorisation depends on the nature of the human body and its interaction with the physical world. The idea of conceptual categorisation refers to how people can create different categories whenever people produce or recognise any utterance of any reasonable thought.

People normally categorise both concrete and abstract thoughts. They categorise actions, events, mental concepts, gestures, colours, emotions, relationships, illnesses, scientific entities such as electrons, and even sentences, speech sounds, words, expressions, phrases, clauses, and meanings. For example, the actions that people make while they are writing, hammering, or ironing belong to the category of motor actions (Lakoff 1987: 6). The same happens with the categorisation of the NLEs, which speakers conceptually categorise according to embodied mental and emotional aspects. They categorise them with some motor movements or vocal gestures by mimicking, which is defined by Maran (2017: 8) as a resemblance of gestures, movements, and action patterns.

Rosch (1999, 1973, 1977) proposed a view of categorisation known as prototype theory. Prototype theory refers to the prototypical concepts in human minds, where people usually categorise things and concepts as they interact with the external world. These categorisations are therefore culturally specific. For example, a prototypical concept of a bird in the bird category would be associated more closely with the type of bird that flies, e.g. a robin. The primary goal of prototype theory is the grading of the categorisation as, in a specific category, some members are considered to be more central than others (Rosch 1999, 1973, 1977). In other words, the members of any category are prototypically shaped based on overlapping common features. Also, prototype theory suggests that it is not necessary that all the members in a specific category share a complete set of features. However, each member in a specific category should share at least one feature with some other members in the same category. If a member shares more features than others, this member is considered to be more

central and prototypical than the others. The central or typical members can be identified more easily than the non-typical members because the categories do not have clear-cut boundaries, and non-typical members of the category can be categorised into another category. The prototypical members of a category differ in people's minds based on the socio-cultural context, which relates to the fact that language is not isolated but is associated with the society and the culture in which it is used. For example, the emotions schema earlier in Section 2.2.

Rosch (1999, 1973, 1977) claims that the primary concern of the prototype principle is the explanation of the formation of the categories that are coded by specific language users in a specific culture. She believes that our external physical world provides structured information that is far from arbitrary or unpredictable (Rosch 1999: 252). As is the case with any cultural and linguistic category, prototype theory can identify the central meanings of the NLEs as a linguistic category based on the speaker's experience in a specific socio-cultural context (c.f. Rosch 1999: 252). Every language or culture has different primary interjections that are commonly used among the speakers of that language (Ameka, 2006, 1992a, 1992b; Wierzbicka, 1992; Goddard, 2011, 2014a, 2014b; Ameka and Wilkins 2006; Poggie 2009; Wharton 2003; Wiggins 2010). Every language or culture prototypically categorises the functions and meanings of the NLEs differently. The meanings and functions of the NLEs are determined by the speakers' external physical world, biology, mind, and cultural considerations. For example, based on the prototypical basic emotions classification proposed by Shaver et al. (2001), the Hijazi NLE [wah:] is prototypically mapped onto negative surprise to associate with its emotive meanings. As previously mentioned (see Section 2.2), the prototypical basic emotions have fuzzy boundaries, as they share some common features relating to their negativity and positivity. For Shaver et al. (2001), the concept of fuzzy boundaries is associated with the basic emotions. The negative emotions (anger, sadness, fear, and negative surprise) have fuzzy boundaries, as they have something in common. The positive emotions (love, joy, and positive surprise) also have fuzzy boundaries, as they have something in common. Thus, the Hijazi NLE [wah:] is associated with negative surprise, which has common features with other prototypical basic emotions, such as fear, sadness, and anger. To illustrate, the Hijazi NLE [wah:] has the following features:

- It is used to express negative surprise. For example, one might feel really surprised and sad when one receives bad news, such as the death of someone. Also, one might

feel really surprised, scared and angry at the same time when one receives bad news, such as that someone has had a car accident.

To summarise, Hijazi speakers use [wah:] to associate the basic emotion of surprise. Shaver et al. (2001) describe it as a complex basic emotion that can be negative, positive, or neutral (i.e. neither negative nor positive). This Hijazi NLE associates the basic emotion of surprise with the projection of negativity. I will discuss this in detail in Chapter 6 (6.3.5).

Moreover, as speakers' minds prototypically categorise the emotive Hijazi NLEs with the basic emotions, they also associate them with motor movements or vocal gestures by mimicking emotional actions, reactions, and behaviours in a specific situational and socio-cultural context, as every basic emotion prototypically corresponds to certain vocal gestures, movements, and action patterns (Shaver et al. 2001: 42-47; see also Section 2.2, Table 2.3). The speakers' minds categorise such motor movements into the place and manner of articulation that correspond to the vocal gestures that accompany the mimicking emotional actions in a specific situational and socio-cultural contexts. In addition, the emotive NLEs as vocal gestural expressions are prototypically associated with vocal gestures that provide clues for the decodification of speakers' emotional states and communicative intentions (Mocerino 2016: 79-80; see also Section 2.2). For instance, as previously discussed in the examples given (see Section 2.2, p. X), the prototypical mimicry of some of the physical actions of retching that English speakers use when producing the disgust NLEs *Yuck!* and *Ugh!* are produced using guttural sounds, which mimic the action of clearing the throat, vomiting, or retching (Wierzbicka 1992; Darwin 1872: 258; Goddard 2014: 14). Employing the same concept of mimicking, the Hijazi NLE [wah:] of surprise prototypically mimics the physical actions of speechlessness, i.e. opening the mouth wide, which enables the speaker to draw deep and rapid breaths, as people across cultures do when producing surprise NLEs (c.f. Kryk-Kastovsky 1997: 158).

Thus, prototypical categorisation offers a theoretical framework of how the speakers of a specific culture deal conceptually with the NLEs, according to how the speakers relate their internal conceptual system with either "the external world" or "their construal of the external world". It is similar to categorisation, but is more specific, in that prototype theory claims that the minds of speakers prototypically categorise things and emotions/attitudes. I claim that the speaker's mind prototypically categorises NLEs with some embodied emotional aspects and with specific motor movements or vocal gestures through mimicry.

As a result, this kind of conceptual categorisation is related to the theory of mind. Categorisation allows us to categorise every emotive NLE with specific emotional meanings, which in turn are realised by specific vocal gestures. The theory of mind allows us to understand that other speakers behave like us. Therefore, their gestures are likely to be related to categorisations in the same way ours are. For more explanation, as mentioned earlier (see Section 2.3), the theory of mind is defined synonymously as reading-minds (Gerrans 2009: 905). The main competitor for this theory is the simulation approach of the reading of minds (Gerrans 2009: 905). In this approach, people simulate or imitate others by pretending to be them or by imagining being in their situation (Gerrans 2009: 905). Simulating allows us to attribute and predict each other's thoughts, feelings, mental states, desires, and intentions by pretending to have these thoughts, feelings, mental states, desires and intentions. It therefore allows our minds to categorise the incoming input by creating an overall structure of concepts which are similar to those of our interlocutors.

Thus, simulating allows for the direct capture of the emotional aspects embodied in some behaviours rather than the inference of the attribution of mental aspects underlying the causes of some behaviours (Gerrans 2009: 905). It refers to the ability of human minds to use mental processes to predict and make sense of others' intentions, behaviours, actions, and expressions of emotions or motor mimicry and, hence, produces similar actions or expressions.

The expectation of the others' intentions is important for simulation and for communication (Mocerino 2016; Meltzoff and Prinz 2002). One cannot know what others' intentions are directly. However, one can infer and understand such intentions through relevant signs that have previously been experienced in specific socio-cultural contexts (Mocerino 2016; Meltzoff and Prinz 2002). For example, one can predict others' intentions through vocal, facial, and bodily gestures that have previously been experienced in specific socio-cultural contexts (Mocerino 2016; Meltzoff and Prinz 2002). Mocerino (2016: 79-80) goes further and argues that primary interjections (i.e. NLEs) are associated with some vocal gestures that provide clues for the decodification of the speaker's emotional state and communicative intentions in specific socio-cultural contexts.

In this way, the whole structure of the emotive NLEs, including: 1) their unusual vocalisations, as they are formed from phones which themselves may not be part of the phonemic system of the language; 2) their meanings associated with the speaker's current

emotional state; 3) the fact that they are specific to the situation; and, 4) their socio-cultural contexts enable a person to read others' minds based on a capacity of previous relevant experiences, and hence understand their intention for simulation.

Consequently, during simulation, human brains activate neural pathways in order to filter incoming sensory input, behaviours, actions, motor mimicry, and emotional expressions (Barrett 2017: 7). The brain uses past experiences as a guide to prepare different simulations of emotional aspects and categorise the similar aspects with some actions, behaviours, and motor mimicry (Barrett 2017: 7).

Human minds build different perceptual categories through interacting with their environment (Barrett 2017: 75-88). While humans interact with the environment, their minds go through some neural activity to build concepts and categories (Barrett 2017: 75-88). Other people within the same environment or socio-cultural context are assumed to understand those concepts and categories, as they are part of a shared environment. Not only are they assumed to understand the concepts and categories, they also help to build them (Barrett 2017: 75-88). For example, the categories that refer to different emotional aspects accompanied by certain expressions compose the conceptual category for the emotive NLEs in a specific socio-cultural context.

Simulation of another's actions, behaviours, and expressions is fundamental to intersubjectivity (Plant 2018). Mimicry is a result of the process underlying this simulation (Plant 2018). In the production of NLEs, people automatically and non-consciously mimic certain vocal expressions. They then simulate and communicate the behavioural mimicry that accompanies the emotive NLEs. In other words, emotional expressions such as the emotive Hijazi NLEs suggest that the mimicry of vocal expressions allows for an inner simulation of the active state associated with an expression due to affective senso-motory representations.

In this way, during simulation, the categorisation of the emotive NLEs is achieved in four steps. First, the concept itself makes the agent aware of how they realise their emotional states in specific situations using specific emotive NLEs. Second, through the interaction of the agent with others and the environment, they simulate others' behaviours and actions. During simulation, the agent communicates how they realise their emotional states in specific situations through the use of specific emotive NLEs to the other agents' information. Third, during interaction and simulation, the agent's brain activates neural pathways which filter and categorise the incoming input of the emotional aspects of some behaviours, actions,

emotional expressions, or motor mimicry in order to conceptualise different emotive NLEs. Fourth, the brain uses present and past experiences as a guide to categorise similar emotive NLEs under similar emotion categories.

In structuring the emotive NLEs, motor mimicry and gestural movements that the brain categorises with emotional aspects during simulation structure the phonological form of the emotive NLEs. This will be discussed in detail below.

2.6 The Articulation of the Emotive Hijazi NLEs

As previously mentioned, the main purpose of this study is to map the relationships between the form and meanings of the emotive Hijazi NLEs and taxonomy of emotions. In the previous part of this chapter, I described the meaning structure of the emotive Hijazi NLEs while in this part I will describe their articulation. The articulatory gestures underpinning speech production are complex bodily gestures where vocal organs work together and depend on one another in any utterance (Dobrovolsky and Katamba 1997: 48). O’Grady (2013: 105) assumes that:

Transcriptions of connected speech may give the erroneous impression that speech is formed out of the chain of distinct targets [...] Nothing is further from the truth! While speaking, our tongue never returns to the place of rest. Sometimes it never reaches the desired target before it begins to move in pursuit of the following desired target. Following sounds influence the articulation of earlier sounds and vice versa.

This study does not take into account how the sounds that structure the emotive Hijazi NLEs can influence one another; its focus is on how the NLEs are categorised from the speech signal by the hearer. In other words, this study does not focus on the sequential production of phones in emotive Hijazi NLEs, but on how the sounds within the emotive Hijazi NLEs are categorised by the hearer. It does not focus on the phonological form of the emotive Hijazi NLEs, but on the phonological form of emotive Hijazi NLEs that are categorised by the hearer. The articulatory description of every sound that structures every emotive Hijazi NLE helps to identify whether there is any similarity of articulation between the NLEs that share similar emotional meanings. This will also help to establish whether there are any prototypical categorisations of the articulatory production of the emotive Hijazi

NLEs with certain embodied emotional aspects and, therefore, with certain specific vocal gestures.

To reach a complete description of articulations of the emotive Hijazi NLEs, it is important to explain that the Hijazi NLEs are formed from phones which in themselves are not always part of the phonemic system of Hijazi Arabic. This is unsurprising, as within and across languages, NLEs are formed from phones which in themselves are not always part of the phonemic system of the language (Ward 2000). For example, Hijazi Arabic NLEs use clicks such as [ʕ], [ʔ], and [l], which are not found in Hijazi Arabic, or Arabic in general. On the other hand, the phones that form the Hijazi NLEs exclude most of the phonemes that structure the lexical forms. For example, Hijazi NLEs are formed only from the following sets of consonants: 1) labial /b/, /m/, /f/; the non-emphatics: denti-alveolar /s/, /z/; palato-alveolar /ʃ/; the palatal /j/, the velar /k/, labio-velar /w/; the uvular /x/, /ɣ/; the pharyngeal /ħ/ and /ʕ/; and the glottal /ʔ/, /h/. They are not formed from the non-emphatics dental /θ/, /ð/; the denti-alveolar /t/, /d/, /n/, /r/; the palato-alveolar /ʒ/, /dʒ/; the velar /g/; and all the other emphatic consonants /ðˤ/, /tˤ/, /dˤ/, /sˤ/, /zˤ/, /ʕˤ/.

Modern linguists use the term “pharyngealisation” or “emphasis”. It is a secondary articulation of the sound by which the back or root of the tongue approaches the soft palate or the back of the throat, and hence the pharynx or epiglottis is constricted during the articulation (Watson 2007: 39-42; 268-270). Emphatic sounds are traditionally known in Arabic as the sounds *ʔal-ʔa sˤwaat ʔal-mufaxxamah*, which are thick or heavy sounds (Swanson 2019: 24; Watson 2007: 39-42; 268-270). The most important feature of these emphatic consonants is their secondary articulation. They are articulated by two places of the tongue (Swanson 2019: 24). This double articulation makes emphatic consonants differ from their non-emphatic counterparts. For example, /ðˤ/ is a voiced and pharyngealised fricative; /tˤ/ is a voiceless, pharyngealised plosive, /sˤ/ is a voiceless, pharyngealised, fricative (Watson 2007: 39-42; 268-270).

I will discuss the phonemic system of Hijazi Arabic. As has been previously mentioned (see Chapter 1 (1.5)), Hijazi Arabic has two main sub-dialects, Urban and Tribal, and there are also mixed dialect speakers who code-switch between the two varieties. Although the aim of this study is not to discover the linguistic differences between the varieties, the data was collected from informants who speak all varieties, and the dialects do not show any significant differences in phonemic inventory. Normally, Tribal (i.e. Bedouin)

and Urban Hijazi have phonetic differences. People who speak different Hijazi varieties pronounce the words in different ways. Based on the consonants of Urban Hijazi (Abdo 2010; Jarrah 1993; Mousa 1994; Bakalla, 1981) and Bedouin (Tribal) Hijazi (Al-Mozainy 1981; Almihmadi 2011: 68), Table 2.4 illustrates the different consonants of Hijazi Arabic.

Table 2.4: The Consonants of Hijazi Arabic

	Bi-labial	Labio-dental	Dental		Denti-alveolar		Palato-alveolar	Palatal	Velar	Uvular	Pharyngeal	Glottal
			Non-emphatic	Emphatic	Non-emphatic	Emphatic						
Plosive	b				t d	tʰ dʰ			k g			ʔ
Nasal	m				n							
Fricative		f	θ* ð*	ðʰ*	s z	sʰ (zʰ)*	ʃ (ʒ)	j		x χ	ħ ʕ	h
Affricate							dʒ*					
Approximant	<u>w</u>				l	ɭ*			<u>w</u>			
Trill							r					

Note: The * shows the sounds that are used exclusively by Tribal Hijazi speakers, and the () shows the sounds that are used exclusively by Urban Hijazi speakers. The speakers of both Hijazi sub-dialects share the other sounds.

w is voiced labialised velar, for this reason it appears in the labial and velar column.

Table 2.4 provides brief descriptions of the Hijazi Urban and Tribal phonemic systems. It shows that tribal Hijazi Arabic, as one of the Bedouin dialects of the Arabian Peninsula, is more conservative than Urban Hijazi (Versteegh 2014: 193; also see Chapter 1 (1.4) in this study). Tribal or Bedouin Hijazi is conservative as it does not feature the phonological reduction or levelling that is found outside the Arabian Peninsula (Versteegh 2014: 193). However, the emotive Hijazi NLEs are similarly formed for all Hijazi Arabic speakers, including Urban, Tribal, and mixed dialect speakers.

Furthermore, Hijazi Arabic, including the Tribal and Urban varieties, has ten vowel phonemes: three short (/a/, /u/ and /i/), five long (/a:/, /u:/, /o:/, /i:/ and /e:/), and two

diphthongs (/aw/ and /aj/) (Abdo 2010; Jarrah 1993; Banjar 2000). Emotive Hijazi NLEs are produced using the vowels /i/, /i:/, /u/, /u:/, /a/, and /a:/, which belong to the Hijazi phonemic inventory. They are also formed by the near-high front unrounded vowel /ɪ/, the schwa /ə/, and /ɔ/, which are not part of the Hijazi Arabic sound system. In Chapter 8, I will show how the articulatory gestures that realise the vowels create a non-arbitrary (iconic and indexical) relationship by determining the shape of the lips that mimic gestures produced by the related emotions.

Consequently, to describe the articulation of the Emotive Hijazi NLEs, it is important to know the three essential elements related to the phonemic system of the Hijazi NLEs: 1) the place of articulation; 2) the manner of articulation; and, 3) the airstream mechanism.

The place of articulation is identified as the place where the production of the consonants occurs by either closing or narrowing the vocal tract at different places (Ladefoged 2001b: 99). The term vocal tract refers to the anatomical elements of the human body that produce speech, known as the articulators. The manner of articulation refers to the various configurations of the different positions of the vocal organs including lips, tongue, velum, and glottis that cause some obstruction while producing the different consonants (Cruttenden 2014: 30). The air stream mechanism refers to the process by which airflow is produced in the vocal tract. All the sounds of speech are produced through movement of the airstream in the vocal tracts and every such movement is initiated by a specific organ, be it the lungs (pulmonic mechanisms), the glottis (glottalic mechanisms) or the tongue (velaric mechanisms) (Davenport and Hannahs 2013: 8). Whatever its source, the air flows either outward (known as egressive), or inward (known as ingressive) (Davenport and Hannahs 2013: 8). Human language is not usually produced on an ingressive airstream, but the possibility is not excluded (Anyanwu 2008: 73). For example, people can speak with an ingressive airstream when they produce clicks.

The next section describes the articulation of 27 emotive Hijazi NLEs. These are divided into two groups based on their phonological forms, which are described in turn, namely: (i) the emotive Hijazi NLEs that are formed by pulmonic sounds, and (ii) the emotive Hijazi NLEs that are formed by non-pulmonic sounds. The pulmonic egressive airstream mechanism refers to the process whereby the air is pushed out of the lungs by the ribs and diaphragm. The non-pulmonic ingressive airstream mechanism refers to the process whereby the air is pushed inside the oral cavity.

In the following section I will describe the method I used to transcribe the emotive Hijazi NLEs.

2.6.1 Emotive Hijazi NLEs Transcription

In this thesis, I used the International Phonetic Alphabet to transcribe the emotive Hijazi NLEs. In the first step of the transcription, I transcribed all the collected 27 emotive Hijazi NLEs. I listened repeatedly to the videos, which were recorded for every Hijazi NLE and included in the questionnaire, and hence I transcribed those NLEs. I also used Praat for precise transcriptions. In the second step of the transcription, I asked for assistance from my supervisor Professor Gerard O’Grady. I extracted the audio and sent him the wav sound files in order to validate my transcriptions. The audio files were then sent to two further experts in the field of phonetics and phonology, Dr. Paul Tench and Dr. Melody Pattison, for further checking. Both Professor O’Grady and Dr Pattison employed Praat to assist with their transcriptions.

All four perspectives in the transcriptions show a high level of agreement and overlap. Here, the following Table 2.5, presents all the four transcriptions for every emotive Hijazi NLEs.

Table 2.5: Different Perspectives in Transcribing the Emotive Hijazi NLEs

The winning candidate NLE	Prof. O’Grady	Dr. Pattison	Dr. Tench	The researcher
[kɪx:]	[kɪx:]	[kɪʔx:]	[kɪx]	[kɪx:]
[jɛʔ]	[jɛʔ]	[jɛʔ]	[jɛʔ]	[jɛʔ]
[ju:]	[ju:]	[ju:]	[ju:]	[ju:]
[həh]	[həh]	[həh]	[hʌh]	[həh] or [hʌh]
[wəh:]	[wəh:]	[wəh]	[wəhʔ]	[wəh:]
[wej:]	[wej:]	[wej]	[wei]	[wəj:]
[wəl]	[wəl]	[weɫ]	[wəl]	[wəl:]
[ɪxxi:]	[ɪxxi:]	[ɪxxi:]	[ɪxxi:]	[ɪxxi:]
[ɪffi:]	[ɪffi:]	[ɪffi:]	[ɪfi:]	[ɪffi:]
[ɪf:]	[ɪf:]	[ɪf:]	[ʔɪf]	[ɪf:]

The winning candidate NLE	Prof. O’Grady	Dr. Pattison	Dr. Tench	The researcher
[uf:]	[uf:]	[ɔf:]	[ʔuf]	[uf:]
[ɔf]	[ɔf]	[ɔf]	[ʔœf]	[ɔf]
[ɔffu:]	[ɔffu:]	[ɔffu:]	[ʔɔffu:]	[ɔffu:]
[afə]	[afə]	[afə]	[ʔafa]	[afə]
[ɔb]	[ɔb]	[ɔb]	[aip]	[ɔb]
[ɔbba:]	[ɔbba:]	[ɔbba:]	[appa:]	[ɔbba:]
[ah:]	[ah:]	[ah:]	[ʔah]	[ah:]
[aj:]	[aj:]	[aj:]	[ʔai]	[aj:]
[ax:]	[ax:]	[ax:]	[ʔax:]	[ax:]
[aħ:]	[aħ:]	[aħ:]	[ʔah]	[aħ:]
[m:]	[m:]	[m]	[mmm]	[m:]
[ʃ ^w :]	[ʃ ^w :]	[ʃ]	[ʃʃʃ]	[ʃ ^w :]
[ɔs:]	[ɔs:]	[ɔs:]	[ʔœs:]	[ɔs:]
[O‡]	[O‡]	-	-	[O‡]
[l]	[l]	-	-	[l]

Table 4.1 above shows that all of the four transcribers agree with the basic classifications of all the 27 emotive Hijazi NLEs, though with some minor differences. In these cases, I chose the version chosen by the majority but relistened with Professor O’Grady to ensure that my choices resulted in a reasonable transcription. Here, I will provide the emotive Hijazi NLEs that show some differences in the transcriptions, namely [jɛʕ], [həh], [wal], [ɔbba:], [ɔb], [ɔf], [ɔs:], and [afə].

Some transcriptions show differences in transcribing tense and lax vowels which have the same height, frontness, backness, and rounding/un-rounding. In transcribing the NLEs [jɛʕ], O’Grady, Pattison, and Tench transcribed it with the mid-front unrounded lax vowel /ɛ/, while I transcribed it with the mid-front unrounded tense /e/. Besides, sometimes, the transcribers show differences transcribing the specific frontness or backness of the vowels; i.e. the vowel could be near-front or near-back rather than just front or back. For example, O’Grady, Tench, and I transcribed [uf:] with the back high vowel /u/, while Pattison

transcribed it with near-back high vowel /ɒ/. Another example is the transcription of [həh] with the mid-central vowel /ə/ or with open-mid back unrounded vowel /ʌ/.

Three perspectives agree with the transcription of [wal], but Pattison transcribed it as [weɫ]. Though she described it differently, there is still agreement in the actual properties of the sounds. For example, both /e/ and /a/ are front unrounded vowels. The only difference between them is that, while /e/ is a close-mid vowel, /a/ is an open vowel. Also, both /l/ and /ʎ/ are voiceless denti-alveolar lateral approximants. However, /l/ is non-emphatic, while /ʎ/ is emphatic. For more explanation about emphatic and non-emphatic Arabic consonants, see Chapter 2 (2.5).

In the case of [ɔbba:], O'Grady, Pattison, and I agree with the transcription of the voiced bilabial plosive geminate consonants /bb/. However, Tench has another perspective, when he transcribed them as voiceless bilabial plosive geminate consonants /pp/. Figure 2.14, in Chapter 2, shows the voicing evidence of these bilabial plosive geminate consonants. Thus, /bb/ has been chosen for the transcription rather than /pp/. All of the perspectives agree with transcribing the final long vowel /a:/ within the NLE [ɔbba:], but they show differences in the first vowel. For example, O'Grady and Pattison transcribed it as open-mid back rounded vowel /ɔ/. Tench transcribed it as open front unrounded vowel /a/, while I transcribed it as close-mid rounded vowel /o/.

Moreover, the NLE [ɔb] shows different transcriptions. Tench also transcribed the voiceless bilabial consonant /b/ as voiceless /p/. Figure 2.14, in Chapter 2, also shows the voicing evidence of this bilabial plosive. Thus, /b/ has been chosen for the transcription rather than /p/. Furthermore, the vowel within [ɔb] also exhibited different transcriptions. O'Grady and Pattison transcribed it as open-mid back rounded vowel /ɔ/. Tench transcribed it as diphthong /ai/, while I transcribed it as close-mid rounded vowel /o/.

The transcribers differed in their transcriptions of the nucleus of [ɔf] and [ɔs:]. O'Grady and Pattison transcribed it as open-mid back rounded vowel /ɔ/. Tench transcribed it as open-mid front rounded vowel /œ/, while I transcribed it as close-mid rounded vowel /o/. All the transcribers agreed with the transcription of the initial sounds /a/ and /f/ that are contained within the NLE [afə]. However, the final vowel was transcribed differently. O'Grady, Pattison, and I transcribed it as a schwa, while Tench transcribed it as open front unrounded vowel /a/.

Furthermore, some NLEs such as [ɪf:], [uf:], [ɔf], [ɔs:], [ɔffu:], [afə], [ah:], [aj:], [ax:] and [aħ:] are transcribed by O’Grady, Pattison, and me without initial an glottal stop. However, they are transcribed by Tench with an initial glottal stop. He also transcribed [wah:] with a final glottal stop. Besides, Pattison transcribed [kɪx:] with a glottal stop as [kɪʔx:].

The previous paragraphs show that some Hijazi NLEs were transcribed slightly differently. Transcribing the vowels within these NLEs shows more variance than with the consonants. The only differences in transcribing consonants are in the voicing of the sounds, such as the voiced /b/ and the voiceless /p/, or in the emphaticness of the sounds, such as the non-emphatic /l/ and the emphatic /l/. On the other hand, regarding the vowels, the more important issues in this thesis are not to do with the actual vowel transcribed but rather with its quality (i.e. high/low, front/back, and round/unrounded); all the perspectives agreed on the vowel qualities.

So, the different phonetic transcriptions of the NLEs are not a significant issue if they agree with basic classifications such as the quality of the vowel (i.e. height and rounding) and the quality of the consonant presented by their manner of articulation. In this way, different transcriptions only represent the transitions of the articulators moving from state to state.

As it has been mentioned in Section 2.5 that the speakers’ minds categorise the emotive Hijazi NLEs with the basic emotions, they also associate them with motor movements or vocal gestures by mimicking emotional actions, reactions, and behaviours in specific situational and socio-cultural contexts. Besides, they categorise the motor movements into place and manner of articulation that correspond to the vocal gestures that accompany the mimicking emotional actions in a specific situational and socio-cultural context. The description below details the movements of specific articulators of the sounds that structure the emotive Hijazi NLEs, specifically, the vocal folds, the soft palate, the jaw, the lips, and the tongue with its different parts including the tip, the blade, the back, and the root. Every emotive Hijazi NLE is accompanied by a diagram to show the articulatory gestures underlying the particular NLE.

This phonetic description of the parametric articulation of the emotive Hijazi NLEs will enable us to see the similarities and differences between the forms of the Hijazi NLEs. This in turn will make it possible to categorise the similar forms of the Hijazi NLEs, which

share some phonetic characteristics, under similar meanings. This will then allow us to map the emotive Hijazi NLEs onto their meanings.

2.6.2 Hijazi NLEs Structured by a Combination of Consonants and Vowels

Most of the emotive Hijazi NLEs are monosyllabic utterances that are structured as:

- CVC e. g. [kɪx:], [jɛʕ], [wej], [wah:], [wal], [həh];
- VC e.g [uf:], [ɪf:], [ɔf], [ɔb], [ɔs:], [aħ:], [ax:], [ah:], [aj:];
- CV like [ju:].

Some of them are disyllabic and are structured as:

- VCV like [afə];
- VCCV e.g. [ɔbba:], [ɪffi:], [ɪxxi:], [ɔffu:].

Others are non-syllabic, such as the clicks [ʔ], [ʔ̤], [lʷ], [lʷ|w|w] and [l | l | l] or pulmonic consonants that show iteration like [ʃʷ:] and [m:].

It should be noted that the punctuation symbol [:] that is accompanied by some consonants and vowels within some NLEs presents the length of the sound in the transcription, such as [f:] in [uf:], [x:] in [kɪx:], [u:] in [ju:] or [ɔffu:], and so on. On the other hand, the doubled letters within some NLEs, such as [ff] in [ɪffi:] or [ɔffu:], present the geminate consonant. Gemination refers to the long consonants that are regarded as identical clusters (Al-Ani 1970:77).

Based on the Hijazi NLEs, the gemination is simply extending the duration of the corresponding simple consonant, and it is purely a phonetic property which has nothing to do with meaning. The duration of the geminate sound is specified to be double that of the short one; it could not be longer. Geminate consonants appear at the middle of the NLEs, followed and preceded by vowels. In gemination, every consonant cluster has a close transition; i.e. the first member of the cluster, which occurs in the coda of the first syllable, is not released and becomes the second member, which occurs in the onset of the second syllable, and is uttered (Al-Ani 1970:77).

Ibrahim (2007) discussed that consonantal gemination can be characterised in terms of “true” geminates and “apparent” geminates based on Goldsmith (1990:80). The true

geminate refer to the multiply associated consonants, while the apparent geminate refer to separately associated consonants acting as a consonant cluster (Ibrahim 2007:16). “What is important here is that these two structures cannot be distinguished phonetically; the distinction is phonological on the assumption that all geminate that are internal to a single morpheme are true geminate... and that all geminate formed across a morpheme boundary are only apparent geminate, at least underlyingly” (Ibrahim 2007:16). In this way, on the basis of syllabification, the true geminate consonants occur in the same syllable, and the apparent geminate consonants should be split into two components: the first one to the first syllable and the second one to other second syllable (cf. Ibrahim 2007).

Regarding the description of the parametric articulation of the NLEs, I suggested that the length of the consonants and vowels that are presented by the colon [:] is related to paralinguistic phenomena, whereas the longer durations of the sound may strengthen the perceived meaning (Ward 2006: 34). The longer the sound, the more the speakers express their feelings. Such long consonants or vowels appear at the coda of the monosyllabic and some non-syllabic NLEs such as [f^w:] and [m:].

The following part goes over the detailed phonetic description of every sound within every NLE. It describes consonants' place of articulation that are contained within every NLEs, including labials, coronals, dorsals, and gutturals. Besides, there is a description of the manner of articulation of these consonants. There is a description of the height, rounding, frontness, and backness of the vowels that are contained within every NLE. As well, the following section covers the description of the intonation of every NLE that is related to high and low arousal (i.e. hot and cold emotions), as I discussed in the previous section 2.3. Table 2.6 below summarises this, although I will discuss everything in the table in detail throughout the following section.

Table 2.6 below uses + and - signs to indicate the features of the sounds that are contained within every NLE. Plus (+) means that the sound within the Hijazi NLE is characterised by specific features including consonants' place and manner, vowels' height, rounding, backness and frontness, intonation falling or rising, and high or low arousal. Minus (-) means that the sound is not characterised by these features. In this way, Table 2.6 helps to describe the sounds that share more than one place or manner of articulation. For example, the sound /w/ in [wah:], [wal], and [wej], is described as labial and dorsal at the same time.

Starting with vowels, Figure 2.2 below shows that the emotive Hijazi NLEs are produced with four types of vowels. There are seven emotive Hijazi NLEs that are formed with back rounded vowels: the close back /u/ and the open-mid back /ɔ/. Besides them, there are 13 emotive Hijazi NLEs that contain the front unrounded vowel: the close front vowels /i/, the near close /ɪ/, the close mid /e/, the open mid /ɛ/, and the open /a/. Finally, there are two emotive Hijazi NLE that contain the mid-central vowel /ə/, [afə] and [həh].

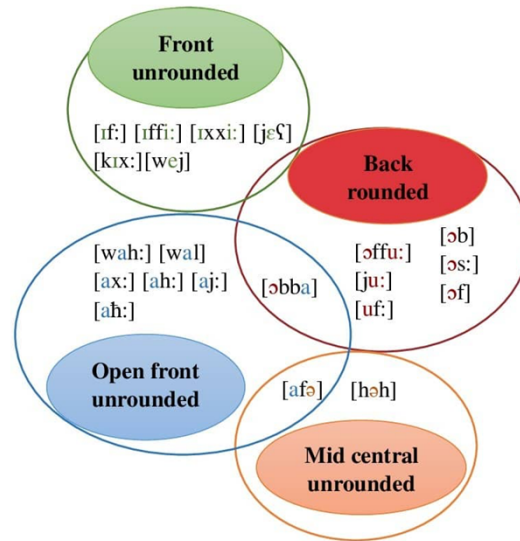


Figure 2.2: The Mapping of the Vowel Articulations of the Emotive Hijazi NLEs

Moving on to the consonants within these emotive NLEs, they are produced in two places in the front area of the oral cavity, labial and coronal, and in two places in the back area of the oral cavity, dorsal and guttural. Labial refers to sounds produced by constriction of the lips such as bilabials /b/ and /m/ and labiodentals /f/ (Watson 2007: 28; 31-32). Coronal refers to sounds produced by the tip and blade of the tongue such as dentals /θ/, /ð/, /t/, /d/, /tʰ/, /dʰ/, /s/, /z/, /sʰ/, /zʰ/, /l/, /ʎ/, alveolars /n/, /z/, /r/, and palato-alveolars /ʃ/, /ʒ/, /dʒ/, (Watson 2002:28; 39-42). Dorsal refers to sounds produced by the body of the tongue and may involve pharyngeal expansion as a non-primary feature (Watson 2002: 28; 35-36). Dorsal sounds in Arabic are the palatal /j/, velars /k/, /g/, /w/, the uvulars /x/, /χ/, and the pharyngeals /ħ/, /ʕ/. Gutturals are known as “throat consonants”, as they are produced at the back of the throat (i.e. laryngeals), the middle region of the throat (i.e. pharyngeals), and in the part of the throat nearest the mouth which extends from the end of the oral cavity (i.e. the uvular) (Al-Solami 2013; Watson 2002:28; 37-38; McCarthy 1994: 192).

	Consonants									Vowels						Prosodic Features				
	Place of articulation				Manner of articulation					Rounded/ Frontness & Backness			Height			Intonation		Arousal/emotions		
	Labial	Coronal	Dorsal	Guttural	Plosive	Nasal	Fricative	Affricate	Approximant	Rounded/Back	Unrounded/Front	Unrounded/Central	Close	Mid	Open	Rise	Fall	Rise-fall	High/Hot	Low/Cold
[ah:]	-	-	+	+	-	-	+	-	-	-	+	-	-	-	+	+	-	-	+	-
[ax:]	-	-	+	+	-	-	+	-	-	-	+	-	-	-	+	+	-	-	+	-
[ah:]	-	-	-	+	-	-	+	-	-	-	+	-	-	-	+	-	+	-	-	+
[aj:]	-	-	+	-	-	-	-	+	-	-	+	-	+	+	-	+	-	-	-	+
[afə]	-	-	-	-	-	-	+	-	-	-	+a	+ə	-	+ə	+a	-	+	-	-	+
[uf:]	-	-	-	-	-	-	+	-	-	+	-	-	+	-	-	+	-	-	+	-
[ɔf]	-	-	-	-	-	-	+	-	-	+	-	-	+	+	+	-	-	-	+	-
[ɔffu:]	-	-	-	-	-	-	+	-	-	+ɔ/u	-	-	+u	+ɔ	+ɔ	-	+	-	-	+
[ɪf:]	-	-	-	-	-	-	+	-	-	-	+	-	+	-	-	+	-	-	+	-
[ɪffi:]	-	-	-	-	-	-	+	-	-	-	+	-	+	-	-	-	+	-	-	+
[ɪxxi:]	-	-	-	+	-	-	+	-	-	-	+ɪ/i	-	+ɪ/i	-	-	-	+	-	-	+
[kɪx:]	-	-	+k/x	+x	-	-	+k/x	-	-	+	-	-	+	-	-	-	+	-	-	+
[ɔs:]	-	+	-	-	-	-	+	-	-	-	-	-	-	-	-	+	-	-	+	-
[ʃʷ:]	-	+	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
[m:]	+	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	+	+	+
[ɔb]	+	-	-	-	+	-	-	-	-	+	-	-	-	+	+	+	-	-	+	-
[ɔbba:]	+	-	-	-	+	-	-	-	-	+ɔ	+a	-	-	+ɔ	+ɔ/a	-	+	-	-	+
[həh]	-	-	-	+	-	-	+	-	-	-	-	+	-	+	-	+	-	-	+	-
[wəh:]	+w	-	+w	+h	-	-	+	-	+	-	+	-	-	-	+	-	-	+	+	-
[wal]	+w	+l	+w	-	-	-	-	-	+	-	+	-	-	-	+	-	-	+	+	-
[wej]	+w	-	+w/j	-	-	-	-	-	+	-	+	-	+	+	-	-	-	+	+	-
[jɛʕ]	-	-	+j/ʕ	+ʕ	-	-	+	-	+	-	+	-	+	+	-	+	-	-	-	+
[ju:]	-	-	+	-	-	-	-	-	+	+	-	-	+	-	-	-	+	-	-	+
[Oʔ] or [Oʔ]	+O	+ʔ	-	-	+ʔ	-	-	-	+O	-	-	-	-	-	-	-	-	-	-	-
[w]	+	+	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
[w w w]	+	+	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
[]	-	+	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-

Table 2.6: The Phonetic composition of Emotive Hijazi NLEs

* I wrote the sounds beside the + if there is more than one consonant or vowel within the NLE.

In this way, guttural characterises a zone of articulation rather than a specific articulator (Watson 2007:28; 37-38; McCarthy 1994: 192). For example, laryngeals are produced with a “glottal” articulator, pharyngeals are produced with the tongue root against the pharynx, and uvulars are produced by retracting the back of the tongue (the dorsum) to the posterior wall of the upper pharynx (uvula). For that reason, Watson (2002) considers some dorsals which include pharyngeal expansion such as /x/, /ɣ/, /ħ/, /ʕ/ in Arabic to be gutturals.

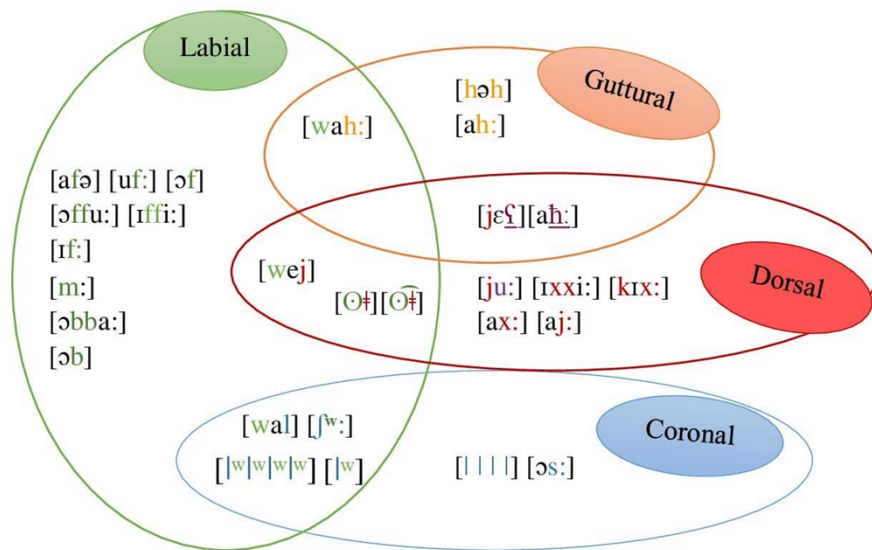


Figure 2.3: The Mapping of the Emotive Hijazi NLEs’ Consonant Depending on the Place of Articulation

In Figure 2.3, we can see that there are 10 emotive Hijazi NLEs that contain labial sounds, including the bilabial click [ɔ], the bilabial nasal /m/, the bilabial plosive /b/, and the labiodental fricative /f/. These labials within the Hijazi NLEs are preceded by a vowel like [ɪf:], [uf:], [ɔf], and [ɔb], preceded and followed by vowels like [ɔbba:] [ɔffu:], [ɪffi:], and [afə], or neither preceded nor followed by vowels, like [m:] and [ɔ].

Figure 2.3 also shows that four emotive Hijazi NLEs contain coronal sounds, including the dental click [l], the palato-alveolar click /ʃ/, the alveolar approximate /l/, the palato-alveolar fricative /f/ in the NLE [fʷ:], and the alveolar fricative /s/. These coronals are preceded by a vowel-like [ɔs:] and [wal], or they could be neither preceded nor followed by vowels like [fʷ:], [ɔ], [ɔ], [w], [w|w|w|w] and [l | l | l].

Furthermore, some emotive Hijazi NLEs are articulated with sounds that are produced at the back of the oral cavity. There are three emotive Hijazi NLEs that contain the guttural glottal fricative /h/, which is usually preceded or followed by vowels in the Hijazi NLEs such

as [həh], [wah:], and [ah:]. Besides, there are eight emotive Hijazi NLEs that are produced with dorsal sounds, such as the palatal approximant /j/, the labio-velar approximant /w/, the pharyngeal fricatives /ʕ/ and /ħ/, the velar fricative /x/, and the velar stop /k/. Figure 2.3 shows that some of these sounds, such as /ħ/, /x/, and /k/, are underlined and included in a middle categorisation between dorsal and gutturals. These sounds are, as Watson (2002) described, dorsals that involve pharyngeal expansion. The dorsals and dorsals/gutturals are preceded and/or followed by vowels such [wej], [jeʕ], [ju:], [aj:], [wah:], [ah:], [ax:], [kɪx:] and [ɪxxi:].

For a further issue, the description of the phonological forms of the Hijazi emotive NLEs in the current study depends on the manner of articulation. Thus, the following part will cover the description of the manner of the articulation of the sounds that are contained in the Hijazi NLEs.

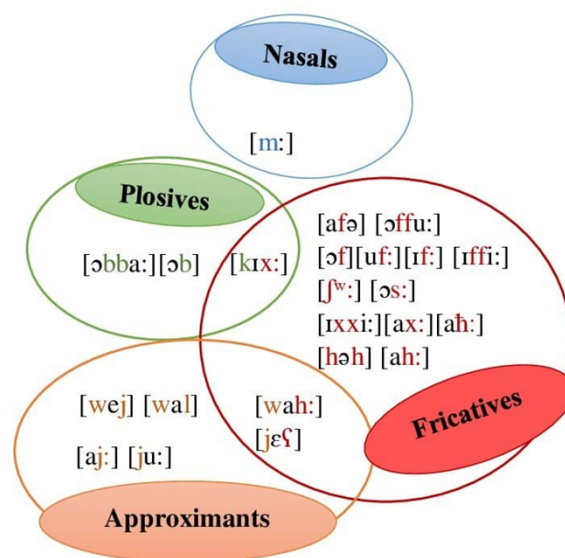


Figure 2.4: The Mapping of the Emotive Hijazi NLEs' Consonant Depending on the Manner of Articulation

Figure 2.4 shows that the emotive Hijazi NLEs are produced with four manners of articulation, namely nasals, plosives, fricatives, and approximants. Out of the 27 NLEs, there are 16 emotive Hijazi NLEs that contain at least one fricative. Seven fricatives are used to form these 16 emotive Hijazi NLEs. These are namely (i) the voiceless labio-dental fricative /f/, (ii) the voiceless dental fricative /s/, (iii) the voiceless palato-alveolar fricative /ʃ/, (iv) the voiceless velar fricative /x/, (v) the voiceless pharyngeal fricative /ħ/, (vi) the voiced pharyngeal fricative /ʕ/, and (vii) the voiceless glottal fricative /h/. These 16 emotive Hijazi

NLEs are [ɪf:], [ɪffɪ:], [uf:], [ɔf], [ɔffu:] and [afə], [ɔs:], [ʃw:], [kɪx:], [ɪxxɪ:], [jɛʕ], [aħ:], [ax:], [ah:], [həh], [wah:]. These fricatives are preceded by a vowel, preceded and followed by a vowel or vowels, or neither preceded nor followed by vowels.

There are 13 emotive Hijazi NLEs that do not contain fricatives. Out of these 13, there are five NLEs which contain approximants, [ju:], [aj:], [wej], [wah:] and [wal], which are preceded or followed by vowels. These approximants are the voiced palatal approximant /j/, the voiced labio-velar approximant /w/, and the voiced dental lateral approximant /l/. Besides, three NLEs contain oral plosives /k/ or /b/. These NLEs are [kɪx:], [ɔb], and [ɔbba:]. These plosives are preceded and/or followed by vowels. There is one Hijazi NLE that contains voiced the bilabial nasal plosive /m/ in the NLE [m:], which is neither preceded nor followed by vowels.

Finally, there are five Hijazi NLEs that contain clicks. These NLEs are the dental click [!] that is produced in three ways to form three Hijazi NLEs; one is the slow repeated [! | |], one is the fast repeated [!w|w|w] and the other is isolated which is produced without slow or fast repetition [!w]. The later two NLEs have secondary labial articulation. Also, there are [!ɔʔ] and [!ɔʔ] that contain the bilabial click [!ɔ] and the palato alveolar click [!ʔ].

Miller (2010) and Ladefoged and Maddieson (1996) claim that the essential component in producing all clicks is the rarefaction of air enclosed between two articulators in the oral cavity. In this way, a loud transient sound is produced when the more forward closure is released. The airstream mechanism is always ingressive, (Ladefoged and Maddieson 1996: 249).

Miller (2010) and Ladefoged and Maddieson (1996) also claim that clicks are stop-like (abrupt) or affricate-like (noisy) depending on their place of articulation. The lips in producing the bilabial click, and the tongue in producing the dental and lateral clicks move more slowly when the closure is released and create some noise. This makes the alveolar [!] and palatal [!ʔ] clicks more like the stops /t/ and /k/, while the noisy bilabial [!ɔ], dental [!], and lateral [!l] clicks are more like the affricates [pʃ], [ts], and [kx] (Ladefoged and Maddieson 1996: 279-280). I am not describing the clicks as NLEs, but rather describing them as sounds.

In the following part, I will describe the parametric articulation of the emotive Hijazi NLEs including their airstream mechanism and state of the glottis, as well as tongue and lip position. I will start by describing the NLEs that are pulmonic sounds. Then, I will describe the NLEs that are formed by non-pulmonic consonants (i.e. clicks). I have followed the

descriptive style employed by Cruttenden (2014) when describing the articulation of English consonants. The description of every Hijazi NLE is accompanied by, or followed by, a figure. Every figure has two parts. The first part includes the parametric articulations that show the position of the soft palate, tongue, jaw, and lips. The second part includes a spectrogram that shows the frequency, intensity, and voicing of the phones within every NLE. I used Praat, which is a computer software package for speech analysis in phonetics, to draw the spectrograms (Boersma and Weenink 2017). The intensity of the sounds is presented by a yellow line, while the voicing is presented by a blue line in the spectrogram.

The Pulmonic Emotive Hijazi NLEs:

I will start with the description of the parametric articulation of the NLEs that contain fricatives because they are the majority of the emotive Hijazi NLEs. As I mentioned earlier in this section, out of the 27, there are 16 Hijazi NLEs which contain at least one fricative. Some of these 16 NLEs have counterparts, which contain non-fricative consonants. For example, there are Hijazi NLEs that contain approximants, which are similar to NLEs that contain fricatives, as both of them contain similar vowels and/or non-fricative consonants. For instance, [aj:] contains the same vowel as the NLEs [aħ:], [ax:], and [ah:]; also, the NLEs [wal], [wej], and [wah:] share the same initial consonant /w/. Also, the NLEs [ɔb] and [ɔbba:], which contain the plosive /b/, also contain the back open mid rounded vowel /ɔ/, which appears in [ɔf], [ɔs:], and [ɔffu:] that themselves contain fricatives. Because of the similarity in phonetic composition among some NLEs, as exemplified above, I will describe the parametric articulation of NLEs that contain non-fricative sounds after their counterparts that contain fricatives. For example, I will describe the parametric articulation of [ɔb] and [ɔbba:] after [ɔf] and [ɔffu:], as well as [wej] and [wal:] after [wah:], and so on.

Fricatives usually occur in the coda of a monosyllabic emotive Hijazi NLEs such as [kix:], [jɛʕ], [ɪf:], [aħ:], [ax:], [ah:], [uf:] [ɔf], [ɔs:], [wah:], [həh]. They can occur in the onset of the second syllable of a disyllabic emotive Hijazi NLE such as [afə].⁶ Finally, they can

⁶ /f/ could be the onset of the second syllable, as well as the coda of the first syllable. It would be a marked pattern, but it seems possible. I suggested that it is more suitable to be the onset of the second syllable because as a native speaker I examined my own pronunciation of the NLE, as well as by observing the pronunciation of the presenter in the video recording which I used in the questionnaire.

occur in the coda of the first syllable and the onset of the second syllable in a disyllabic emotive Hijazi NLE such as [ɪffi:], [ɪxxi:], [ɔffu:].

First, there is a group of monosyllabic emotive Hijazi NLEs that contain the vowel /a/ followed by a fricative. For instance, the emotive Hijazi NLEs [aħ:], [ax:], and [ah:] are similar, as they not only contain guttural fricatives at their coda but they also contain the same nucleus /a/. During the articulation of these NLEs, the lips are wide open throughout the whole production of the NLEs [aħ:], [ah:], and [ax:]. The vocal folds move closer together, resulting in vibration for the vowel [a]. Then, they move apart during the production of the voiceless fricative [ħ:], [h:], and [x:].

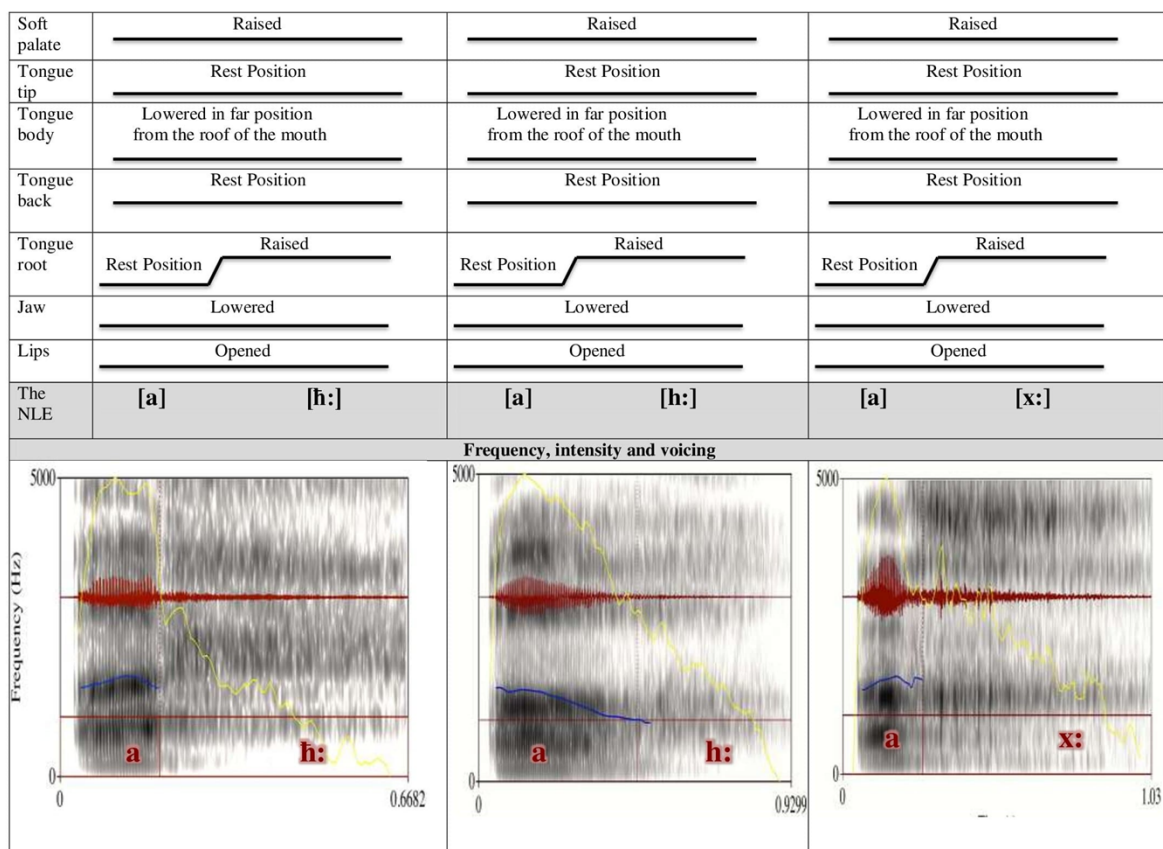


Figure 2.5: The Parametric Production of the Hijazi NLE [aħ:], [ah:], and [ax:]

Regarding the position of the tongue, it is fronted and in a low position far from the roof of the mouth to produce the vowel [a]. Its following position depends on the next sound. For example, in the case of [ħ:], the tongue root lightly touches the pharynx, and the air leaks through a narrow groove in the pharynx, causing friction or turbulence.

On the other hand, in the case of [h:], the tongue maintains its position, while the air is pushed from the lungs through the vocal cords with considerable pressure, which causes friction or turbulence. In the case of [x:], the back of the tongue lightly approaches the soft palate. The air continues to escape over the narrow groove in the velum.

Figure 2.5 shows that the NLEs [aḥ:] and [ax:] are articulated with a rising intonation, while [ah:] is articulated with a falling intonation. In this way, based on the preliminary finding of the relationship between the hot/cold emotions and the intonation in section 2.3, [aḥ:] and [ax:] express high arousal emotions (i.e. hot emotions) as they are conveyed by rising intonation, while [ah:] express low arousal emotions (i.e. cold emotions) as they are conveyed by falling intonation.

In addition, though the Hijazi emotive NLE [aj:] contains the voiced approximant /j/ instead of a fricative, it contains an initial front vowel /a/ as *do* the NLEs [aḥ:], [ah:], and [ax:]. All of these NLEs share the articulation of the nucleus /a/ and the length of coda consonant irrespective of whether it is a fricative or an approximant. The difference in articulation occurs in the glottis and the position of the lips and tongue. For more explanation; during the production of [aj:], the vocal folds are kept close together resulting in vibration for the vowel [a] and continuing until the end of the NLE for the voiced palatal approximant /j/. The middle and the back part of the tongue lightly approaches the hard palate, without producing a turbulent airstream. The lips are loosely opened in a neutral or spread position to produce the approximant [j:], after being wide open during the production of the vowel [a]. Also, Figure 2.6 shows that the NLE [aj:] was produced with a falling intonation, which means that it expresses low arousal emotions (i.e. cold emotions).

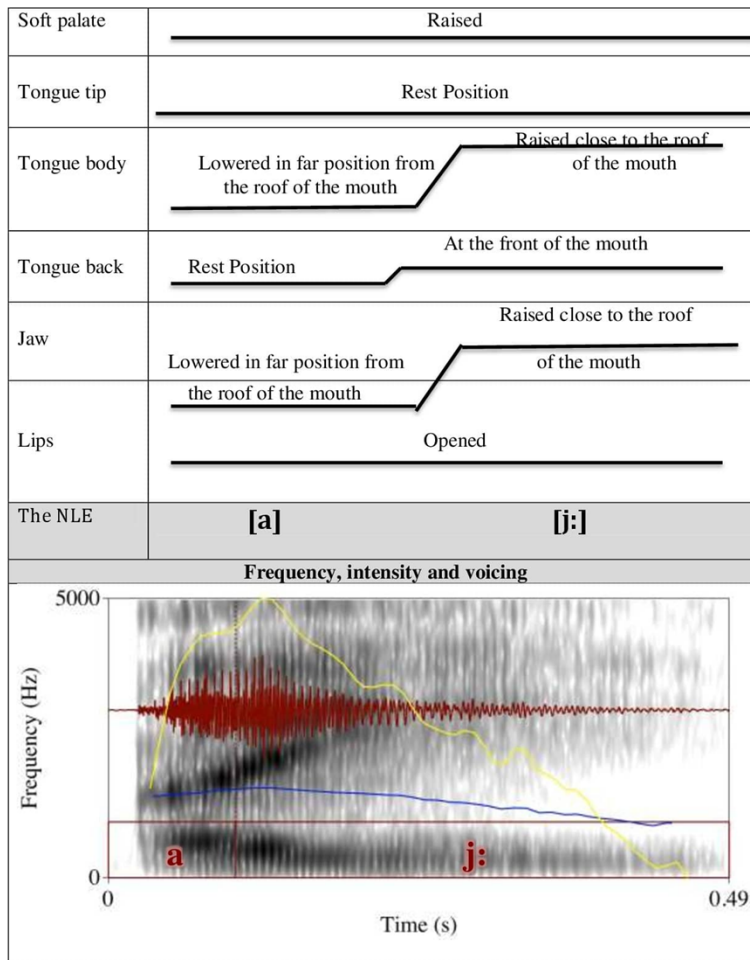


Figure 2.6: The Parametric Production of the Hijazi NLE [aj:]

Moreover, like [aħ:], [ah:], and [ax:], the Hijazi NLE [afə] contains the unrounded open front vowel /a/ and a fricative phone. However, there are two main differences between [afə] and the other three NLEs. First, while [aħ:], [ah:], and [ax:] are monosyllabic NLEs, [afə] is a disyllabic NLE. Second, while [aħ:], [ah:], and [ax:] are formed by guttural fricatives, [afə] contains a labio-dental fricative.

The vowel articulation of /a/ in [afə] is as described above in the description of [aħ:], [ah:], and [ax:]. Then, after the production of the vowel /a/, the vocal folds move apart due to the production of the voiceless [f]. Then, they approach each other again, causing vibration to produce the vowel [ə].

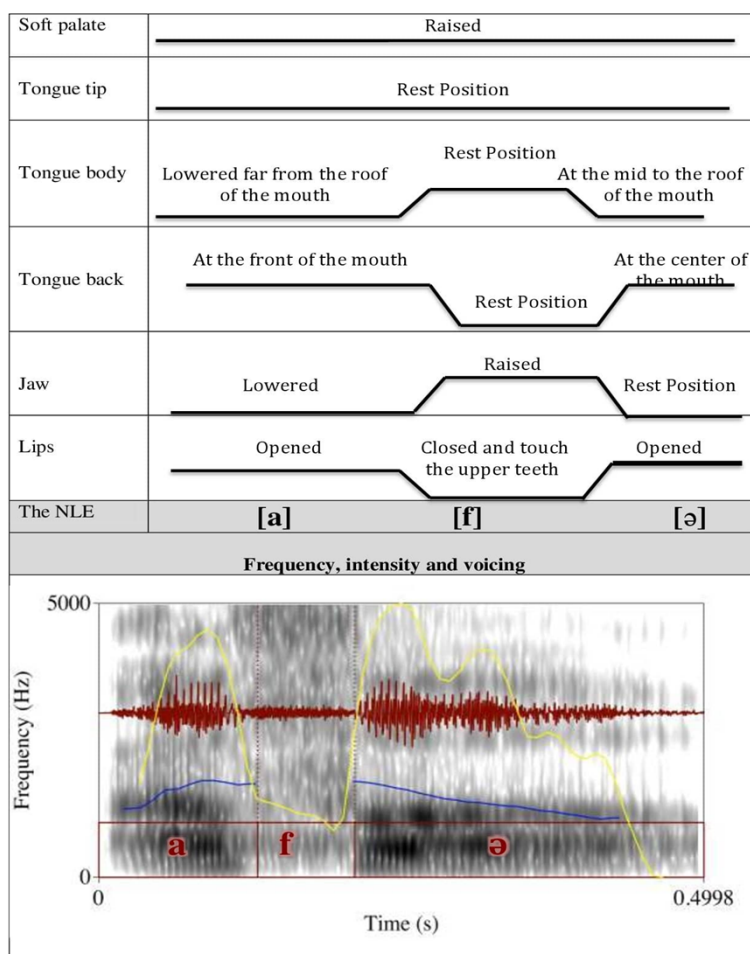


Figure 2.7: The Parametric Production of the Hijazi NLE [afə]

The tongue approaches the alveolar ridge while the lower lip is in contact with the upper teeth, and the side rims make firm contact with the roof of the mouth. The front and the middle of the tongue is depressed, and air continues to escape over the front and middle of the tongue. Finally, the lower lip moves close to and comes into contact with the upper teeth for the production of the [f]. The lips were wide open during the production of the vowel [a]. Then, the lips are opened again during the production of the vowel [ə]. Also, Figure 2.7 shows that the NLE [afə] is associated with a falling intonation, which means it expresses cold emotions.

The NLE [afə] is not the only NLE that contains the voiceless labiodental fricative /f/. There are five more emotive Hijazi NLEs that contain the fricative /f/. These are [uf:], [ɔf], [ɔffu:], [ɪf:], and [ɪffɪ:]. All these NLEs contain only one type of consonant, which is the fricative /f/, while they are produced with different vowels. These vowels play an important role in changing the position of the tongue and lips during the articulation of these five NLEs.

As with the articulation of the NLEs [uf:], [ɔf], and [ɔffu:], the lips are open in a rounded position during the production of the vowel /u/ or in a medium rounding position due to the vowel /ɔ/. Then, the lower lip approaches the upper teeth for the production of the [f]. During the production of [uf:] and [ɔffu:], the lips maintain their position through the production of the geminated /f/. Then, in the case of [ɔffu:], the lips return to their rounded position for the production of the vowel [u].

The position of the tongue in the production of the fricative /f/ is the same in all these five NLEs. The sides of the tongue make slight contact with the upper molars. The airstream flows through a narrow gap between the tongue and the roof of the mouth. However, in the nucleus of the monosyllabic [uf:] and the nucleus of the second syllable of [ɔffu:], the tongue is raised and is close to the soft palate, owing to the production of the close back rounded vowel /u/. On the other hand, in the nucleus of the monosyllabic [ɔf] and the nucleus of the first syllable of [ɔffu:], the tongue is located between the open and mid position at the back of the mouth due to the mid-open back rounded vowel /ɔ/.

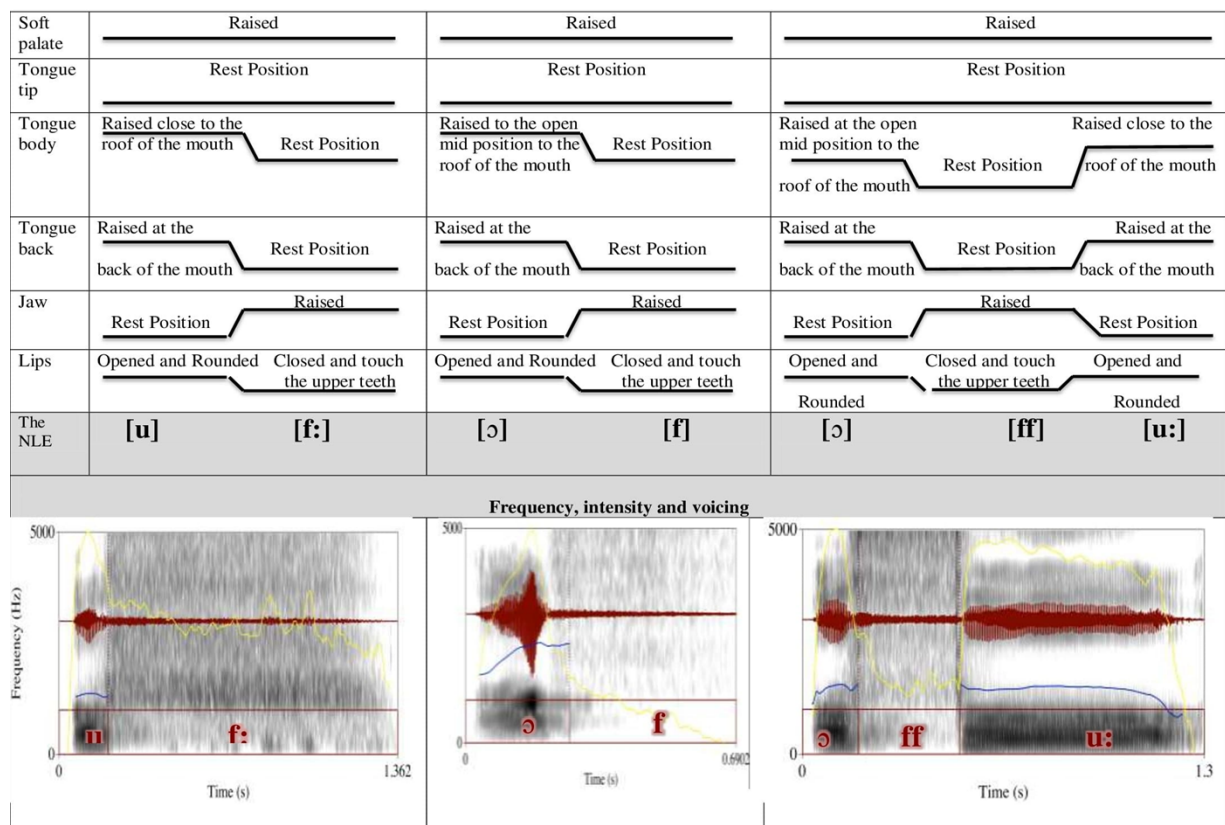


Figure 2.8: The Parametric Production of the Hijazi NLEs [uf:], [ɔf], and [ɔffu:]

Figure 2.8 also shows that the NLE [ɔf] was articulated by a rising intonation, while [ɔffu:] and [uf:] are articulated by a falling intonation. These intonation patterns suggested that [ɔf] expresses hot emotions, while [uf:] and [ɔffu:] expresses cold emotions.

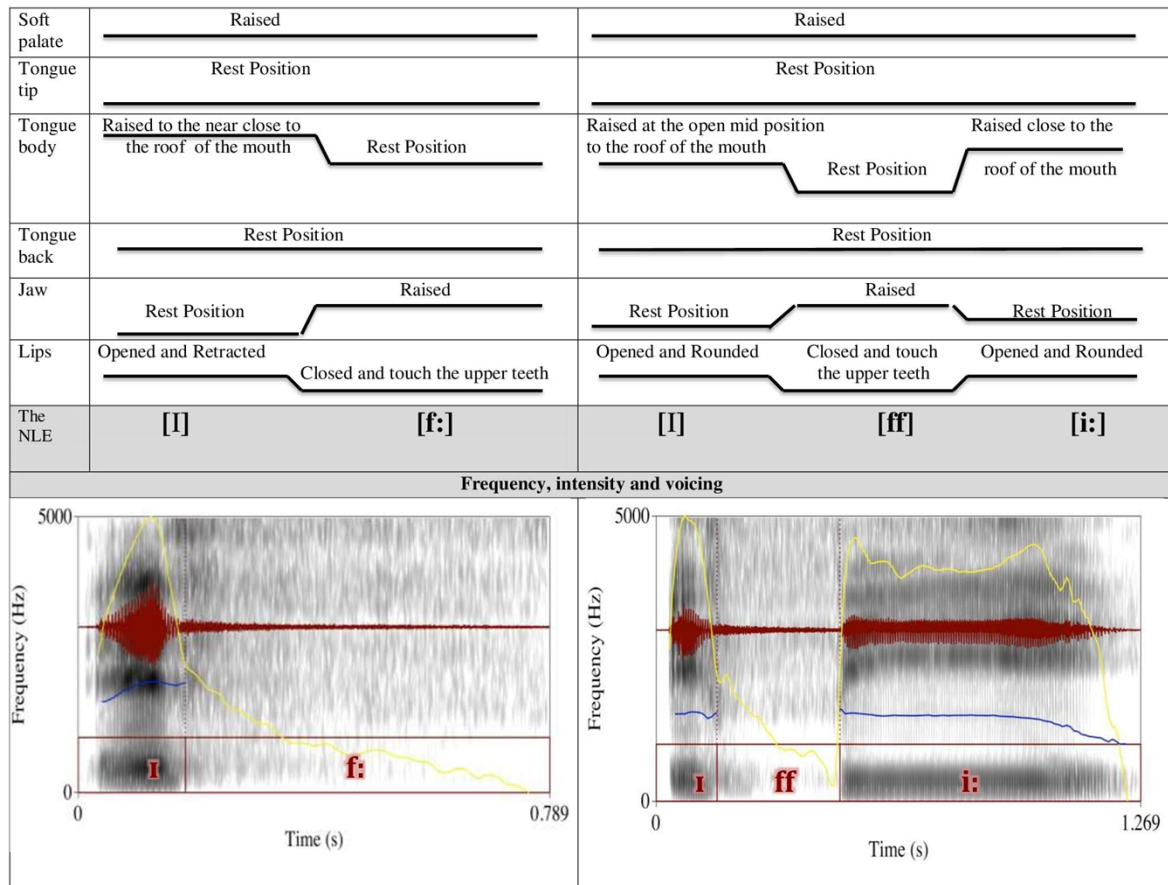


Figure 2.9: The Parametric Production of the Hijazi NLEs [ɪf:] and [ɪffi:]

During the articulation of the NLEs [ɪf:] and [ɪffi:], the tongue is initially fronted and raised above to the close mid position to the roof of the mouth to produce the near close front unrounded vowel /ɪ/. Then, in the case of the nucleus of the second syllable of [ɪffi:], the tongue approaches the close position without making firm contact with the alveolar ridge. In this way, the lips are open in a retracted spread position due to the production of the front vowels [ɪ] and [i].

Besides, Figure 2.9 above shows that the NLE [ɪf:] is associated with a rising intonation that expresses high arousal hot emotions, while [ɪffi:] is associated with a falling intonation that expresses low arousal cold emotions.

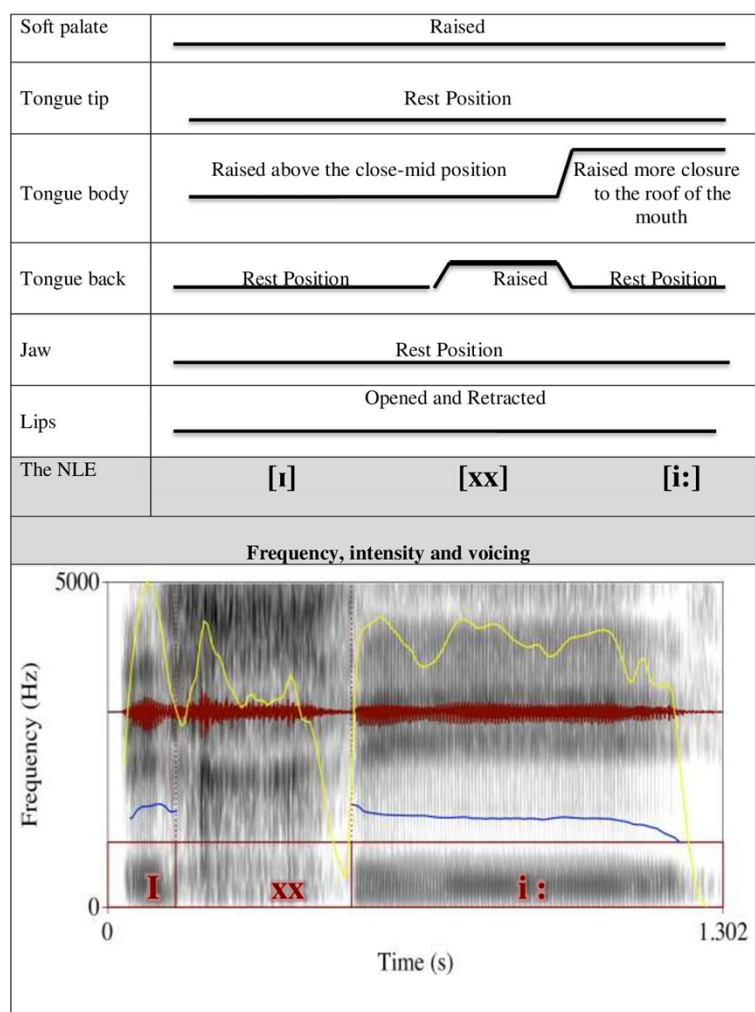


Figure 2.10: The Parametric Production of the Hijazi NLE [ixxi:]

Similarly, like [ɪffi:], [ixxi:] contains a fricative consonant and unrounded front high vowels /ɪ/ and /i/. The difference between them is only in the place of the articulation of the consonant. While [ɪffi:] is produced with the voiceless labiodental fricative /f/, [ixxi:] is produced with the voiceless uvular fricative /x/. In this way, during the production of the sound /x/, the back of the tongue approaches the soft palate. The air continues to escape over the narrow groove between the tongue and the velum. The lips are open in a loosely spread position throughout the entire articulation of the NLE [ixxi:] because of the production of the vowels [ɪ] and [i:]. Besides, the NLE [ixxi:] shows similar prosodic features to [ɪffi:]. Both of them are articulated with a falling intonation, which expresses cold emotions.

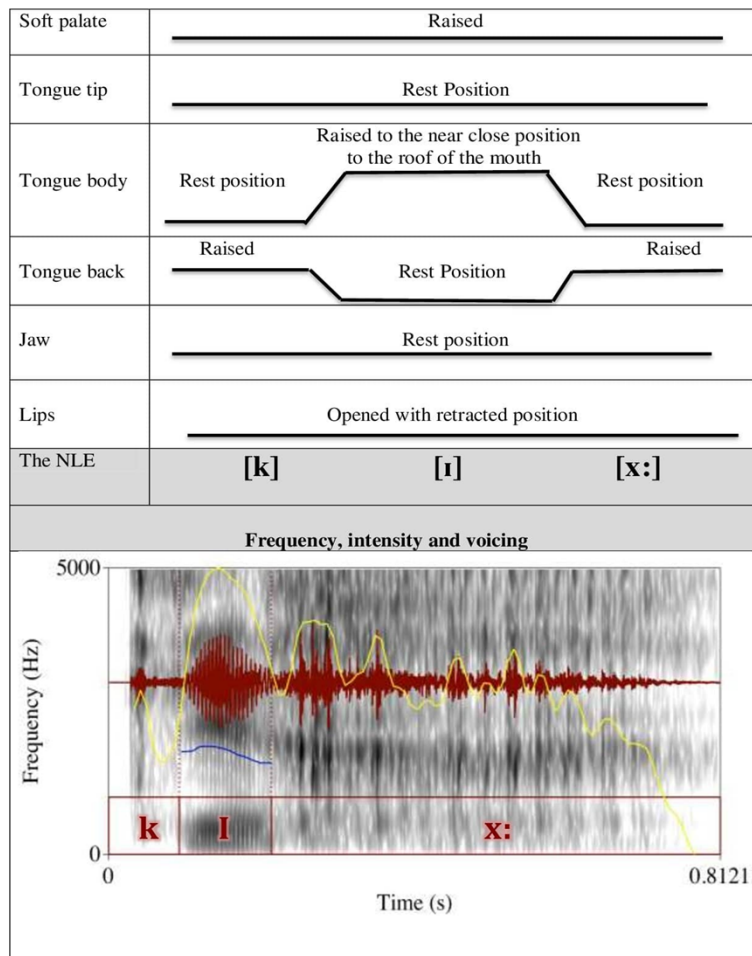


Figure 2.11: The Parametric Production of the Hijazi NLE [kɪx:]

Like [ɪxxi:], the emotive Hijazi NLEs [kɪx:] also contains the unrounded high front vowel [ɪ] and the voiceless uvular fricative [x:]. However, there are two differences between the NLEs. First, while [ɪxxi:] is a disyllabic NLE, [kɪx:] is monosyllabic. Second, while [ɪxxi:] contains geminate consonants [xx], [kɪx:] contains two different consonants; the onset voiceless velar stop /k/ and in the coda the long voiceless uvular fricative [x:].

In this way, during the articulation of [kɪx:], the back of the tongue is initially raised to touch the front of the soft palate, and the vocal folds are apart resulting in the voiceless [k]. The tongue moves to the close-mid position, which is nearer to the centre than to the front of the mouth, and the vocal folds are brought together, resulting in vibration during the articulation of the vowel [ɪ]. Then, the back of the tongue lightly approaches the soft palate. The air continues to escape over the narrow groove between the tongue and the velum. The vocal folds move apart again during the production of the voiceless [x:]. The lips are open in a loosely spread position anticipating the production of the vowel [ɪ]. Besides, Figure 2.11

shows that the NLE [kix:] is articulated with falling intonation, which expresses the cold emotions.

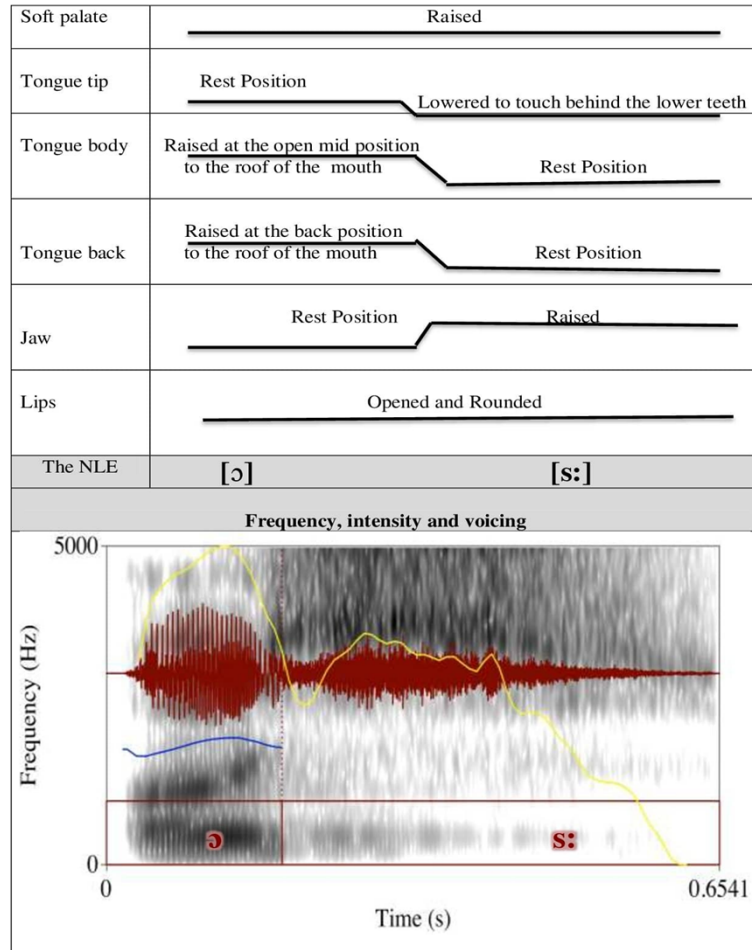


Figure 2.12: The Parametric Production of the Hijazi NLE [ɔs:]

Similar to [ɔf], the NLEs [ɔs:], [ɔb], and [ɔbba:] contain the open-mid back rounded vowel [ɔ]. Furthermore, like [ɔf], the NLE [ɔs:] contains a fricative consonant. The sole difference in articulation between these two NLEs is that while [ɔf] contains the voiceless labiodental fricative /f/, the NLE [ɔs:] contains the long voiceless dental fricative [s:]. In this way, during the production of /s/, the tongue approaches the alveolar ridge, and the tip and side rims make firm contact with the roof of the mouth. The middle of the tongue is depressed, and air continues to escape over the middle of the tongue through the small opening between the teeth, causing turbulent friction. The lips are open in a medium rounding position during the entire production of the NLE [ɔs:]. Furthermore, Figure 2.12 shows that the NLE [ɔs:] is articulated with a rising intonation, which expresses hot emotions.

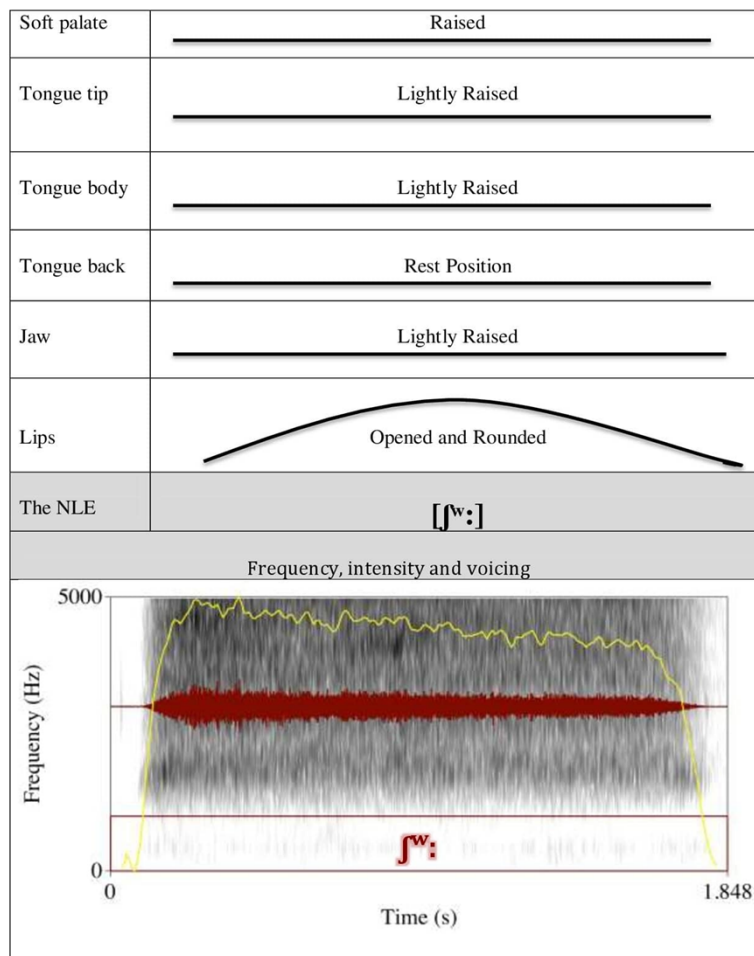


Figure 2.13: The Parametric Production of the Hijazi NLE [f^w:]

Before I start the description of [ɔb] and [ɔbba:], which have similar articulation to [ɔf] and [ɔffu:], I have to go over the description of the NLE [f^w:], which shows a similar consonant articulation as the NLE [ɔs:]. For the reason that /f/ in [f^w:] and /s/ in [ɔs:] are fricatives and produced with a close place of articulation; while /s/ is produced as a dental, /f/ is produced as a palato-alveolar articulation. During the articulation of [f^w:], the tip and the blade of the tongue lightly touch the alveolar ridge. At the same time, the front of the tongue makes contact with the hard palate. The sides of the tongue are in contact with the upper teeth at the sides of the mouth. The airstream flows out over the centre of a tongue, causing high-frequency turbulence or friction that occurs between a more extensive area of the tongue and the roof of the mouth.

[f^w:] is a non-syllabic NLE that shows the iteration of the voiceless alveolar fricative /f/. The symbol ^w above the sound /f/ indicates that this sound is produced with rounded lips.

In this way, [ʃ^w:] is articulated by uttering the rounded /ʃ/ solely as a long and intense phoneme through the entire duration of the NLE. The length of this NLE is not just like a normal phonetic phenomenon such as the other long consonant like [x:] in [kɪx:], [ax:], etc. The length, in this case, is related to paralinguistic phenomena, as the longer duration of the sound may strengthen the perceived meaning (Ward 2006: 34). The longer the sound, the more the speakers express the strength of their feeling.

Returning to the NLEs [ɔb] and [ɔbba:], which show similar articulation to [ɔf] and [ɔffu:], see Figure 2.14 below. These NLEs are produced with an initial open mid-back rounded vowel and a labial sound. Also, both [ɔb] and [ɔf] are monosyllabic NLEs, while [ɔbba:] and [ɔffu:] are disyllabic NLEs. However, the difference between them is that while [ɔffu:] contains a final close back rounded vowel /u/, [ɔbba:] contains a final open front unrounded vowel /a/. Moreover, while [ɔf] and [ɔffu:] contain the voiceless labio-dental fricative /f/, the NLEs [ɔb] and [ɔbba:] contain the voiced bilabial plosive /b/.

In the case of the glottis, the vocal folds move closer together, resulting in vibration during the entire production of the NLEs [ɔb] and [ɔbba:]. With both NLEs, the tongue is initially located between the open-mid position and at the back of the mouth due to the close back rounded vowel /ɔ/. While the tongue remains in position and the lips are closed, the air is blocked in the mouth due to the articulation of /b/. The air then continues to leak out into the mouth with the soft palate raised when the lip closure is released. The articulation is stopped here for the NLE [ɔb].

However, during the articulation of [ɔbba:], the articulation continues for the second syllable [ba:]. In this case, the lips should maintain their position through the production of the geminate [bb], which is produced as longer than [b] in [ɔb]. Finally, the tongue is in a low position and at the front of the mouth, while the lips are wide open during the production of the vowel [a].

Moreover, Figure 2.14 below shows that the NLE [ɔb] is articulated with a rising intonation that expresses hot emotions, while [ɔbba:] is articulated with a falling intonation that expresses cold emotions.

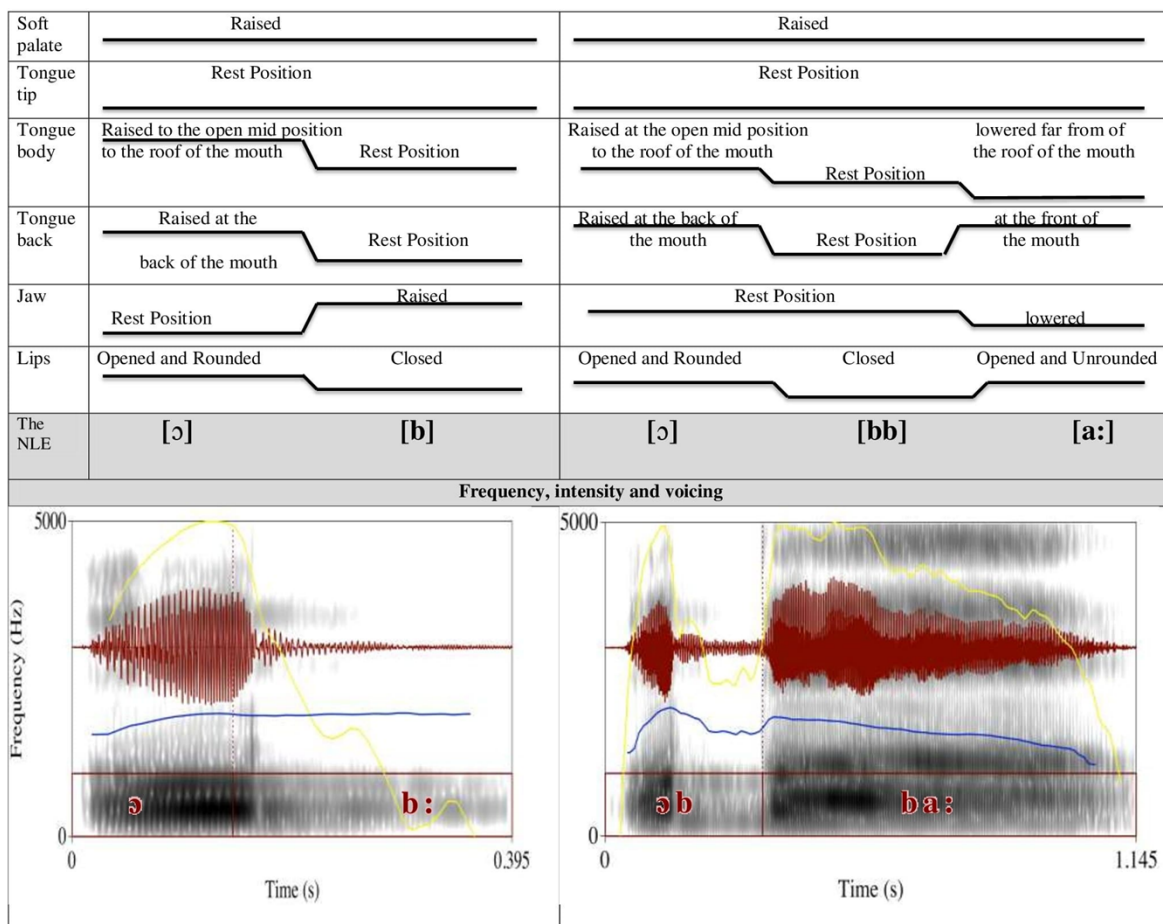


Figure 2.14: The Parametric Production of the Hijazi NLEs [ɔb] and [ɔbba:]

At this point, I have finished the description of the articulation of the emotive Hijazi NLEs that contain the voiceless labiodental fricatives /f/, which are [uf:], [ɪf:], [ɔf], [ɪf:i], and [ɔffu:]. I have also described the NLEs that share vocal gestures with these five NLEs, such as [ɔb] and [ɔs:] which are similar to [ɔf] and [ɪx:i], [kɪx:] which is similar to [ɪf:i], and [ɔbba:] which is similar to [ɔffu:]. In the following part, I will describe the NLEs [həh] and [wəh:] which contain the voiceless glottal fricative [h].

The emotive Hijazi NLE [həh] contains the voiceless glottal fricative /h/ in its onset and coda. The vocal folds are held apart, resulting in the voiceless [h], before vibrating for the vowel [ə]. Then, they move apart again during the production of the voiceless [h] in the coda. The tongue is at rest in the middle of the mouth throughout the entire production of the NLE [həh]. The air is pushed from the lungs through the vocal cords with considerable pressure, which causes friction or turbulence to produce the glottal fricative /h/.

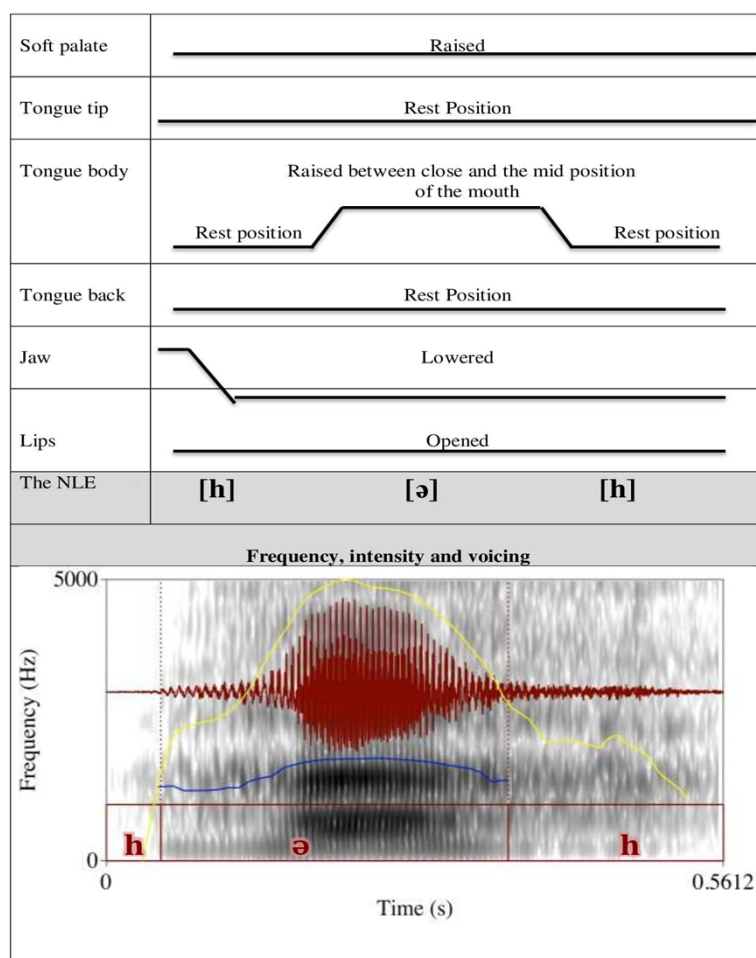


Figure 2.15: The Parametric Production of the Hijazi NLE [həh]

The lips are wide open during the whole production of the NLE [həh] as if mimicking laughter. This NLE is produced in two ways depending on whether it conveys a negative or positive emotion. Laughter may *be associated with* a positive emotion, such as joy and happiness, or *with* a negative emotion, such as contempt, irony, and sarcasm (cf. Poyatos 2002: 73). Laughter could be associated with positive emotions, as it is produced with the lips in a smiling position; the corners of the lips are drawn backward, and a little upwards, and the upper lip is slightly raised (Darwin 1872: 196-210). On the other hand, it could be associated with negative emotions, as it is produced with an open mouth and low-pitched mid-vowel. Poyatos (2002) claims that the laughing of mockery, derision, ridicule, and contempt is portrayed by actors in stereotypical forms; it is displayed aggressively aloud with an open mouth and a mid-vowel (p. 73).

Besides, Figure 2.15, shows that the NLE [həh] is associated with a rising intonation, which expresses the high arousal that is related to hot emotions.

The emotive Hijazi NLE [wah:] is similar to [həh]. Both of them are monosyllabic NLEs that contain an onset, nucleus, and coda. They both contain the voiceless glottal fricative /h/ in coda position. However, they contain different onsets and nuclei.

During the articulation of [wah:], the vocal folds vibrate until the onset of [h:], where they move apart, resulting in the loss of voicing. The tongue initially is raised and approaches the soft palate. This contact is not very narrow, as a turbulent airstream is not produced. The tongue then moves forward and remains in a low position far from the roof of the mouth. Then, while the tongue maintains its position, the air is pushed from the lungs through the vocal cords with considerable pressure, causing friction or turbulence and produces the glottal fricative /h/. The lips are initially open in a rounded position. Then, they gradually open into a wider position to produce the vowel [a] and the consonant [h].

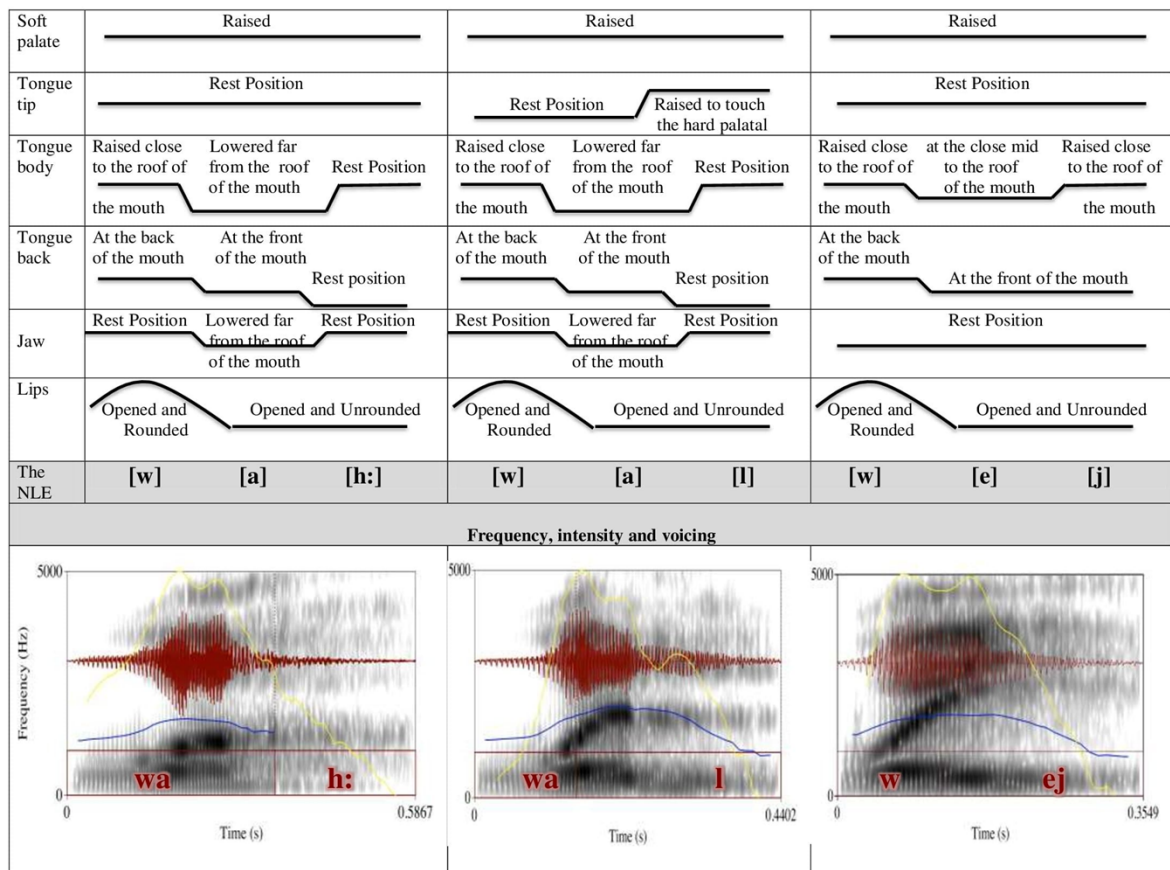


Figure 2.16: The Parametric Production of the Hijazi NLEs [wah:], [wal:], and [wej]

[wal:] has the same onset and nucleus as [wah:] but contains the voiced dental approximant /l:/ in coda position. The vocal folds are close together, resulting in the voiced sounds /w/, /a/, and /l/. After the production of the initial /w/ onset and /a/ vowel, the tip of

the tongue is raised so that it makes contact with the alveolar ridge behind the upper teeth. The airstream flows over the sides of the tongue. The lips are open in a rounded position. Then, they gradually open into a wide position to produce the vowel [a] and the consonant [l].

The NLE [wej] contains voiced approximant consonants in their onset and coda but is produced with a close-mid front vowel. In this way, after producing the /w/ the tongue is moved forward to the front of the hard palate. The sides of the tongue make slight contact with the upper molars. The middle and the back part of the tongue lightly contact the hard palate, without producing a turbulent airstream. The lips initially are open in a rounded position. Then, they gradually open into a wider position until the semivowel [j] is produced, whereupon they return to rest. Besides, Figure 2.16 shows that the NLEs [wah:], [wal:], and [wej] all are associated with a rise-falling intonation, whereas the initial rise reinforces the meaning conveyed by the following fall (cf. Behera 2020:61). In this case of [wah:], [wal:], and [wej], the rise tone reinforces the meaning of cold emotion of surprise, as the falling tone is always related to the low arousal (i.e. cold emotions).

Furthermore, there are two more Hijazi NLEs that contain glides, semivowels, or approximants. There are [jɛʕ] and [ju:], which contain the voiced palatal approximant /j/ in their onset. The NLE [jɛʕ] contains the voiced pharyngeal fricative /ʕ/ in the coda. The NLE [ju:] is coda-less. Both NLEs are produced with vocal folds that are close together throughout their articulations, resulting in the voiced palatal approximant /j/ plus the open-mid front unrounded vowel /ɛ/ and the voiced pharyngeal fricative /ʕ/ in [jɛʕ]; or the close back long rounded vowel /u:/ in [ju:].

During the production of the voiced palatal approximant /j/ in [ju:] and [jɛʕ], the tongue is initially raised above the close-mid position and is nearer to the centre than to the front. The middle and the back part of the tongue approach the hard palate, though not close enough to produce a turbulent airstream.

In the articulation of [ju:] and [jɛʕ], the tongue is raised close to the roof of the mouth to produce the onset. The sides of the tongue come slightly into contact with the upper molars for [ju:]. During the production of [jɛʕ], the tongue is raised close to the roof of the mouth. The tongue is then moved forward to the front of the mouth to the hard palate. The root of the tongue makes light contact with the pharynx. In this way, the airstream leaks into the pharyngeal cavity, causing turbulent friction.

When uttering the NLE [ju:], the lips are open in a round position, in anticipation of the following vowel [u:]. Conversely, they are open in a spread position to produce the NLEs [jεϕ], due to the presence of the semivowel /j/ and the vowel [ε].

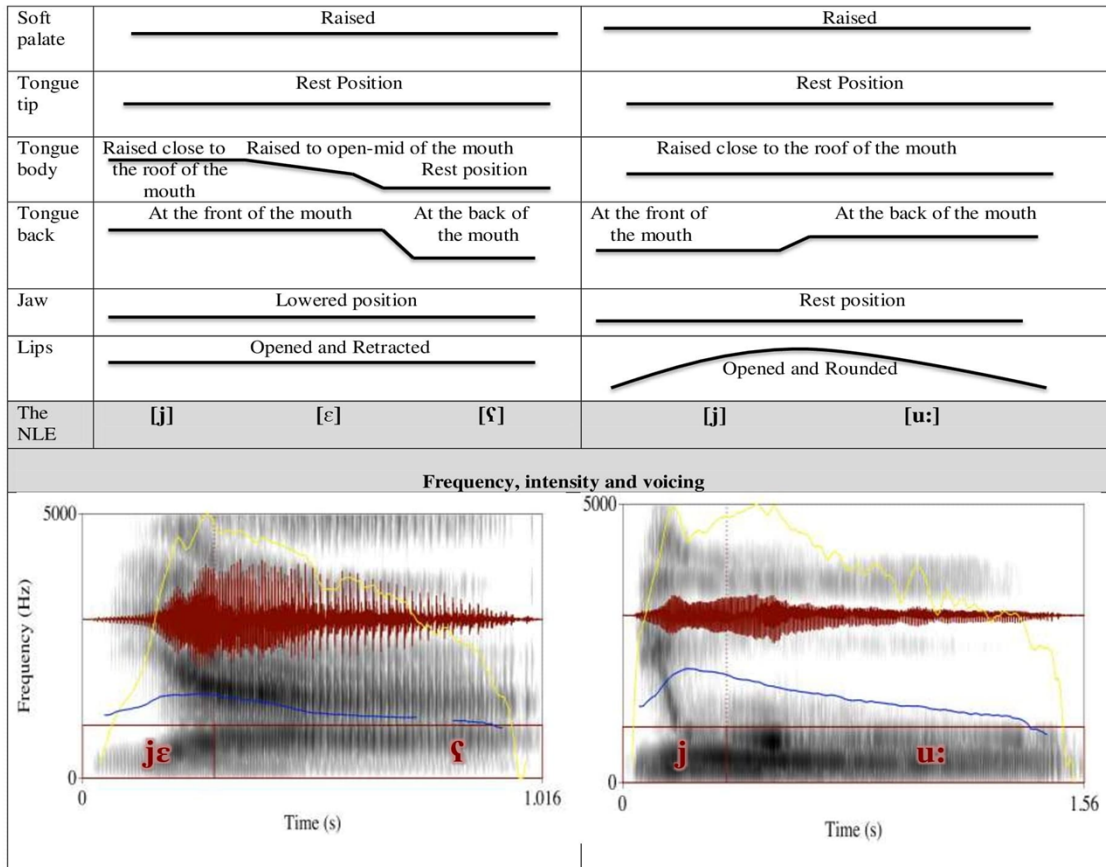


Figure 2.17: The Parametric Production of the Hijazi NLEs [jεϕ] and [ju:]

Besides, Figure 2.17 shows that the NLEs [jεϕ] and [ju:] are associated with a fall intonation, which expresses the low arousal that is related to cold emotions.

The NLE [m:] is the final emotive pulmonic Hijazi NLE to be described in this study. It is a non-syllabic NLE (i.e. in the sense that there is no vowel) that is produced by the iteration of the voiced bilabial nasal [m]. The vocal folds are narrowed and vibrating. As /m/ is a bilabial sound, where air does not flow over the tongue during the articulation of the sound, so the use of the tongue is not relevant. Thus, the tongue is at the rest position with the soft palate open allowing the air to escape out of the nasal cavity. The lips are closed throughout the production of the NLE [m:].

Figure 2.18 below shows that the NLE [m:] is associated *with* a rise-fall intonation, which expresses cold emotions. Rise-fall intonation is known as peaking intonation that refers to a combination of rise and fall tone. The rise reinforces the meaning conveyed by the following fall (Behera 2020:61). In this case, the rise tone reinforces the meaning of joy, or the cold emotion of joy that is represented by the final fall. Also, the length of the sound /m/ in the NLE [m:] is just like the length in the NLE [f^w:], which I discussed earlier in this section. It is related to the paralinguistic meanings, whereas longer durations of the sound may strengthen the perceived meaning (Ward 2006: 34). In other words, the extended and repeated [m] in the NLE [m:] can emphasise the meaning alongside other prosodic features such as rise-fall intonation (Wiggins 2002).

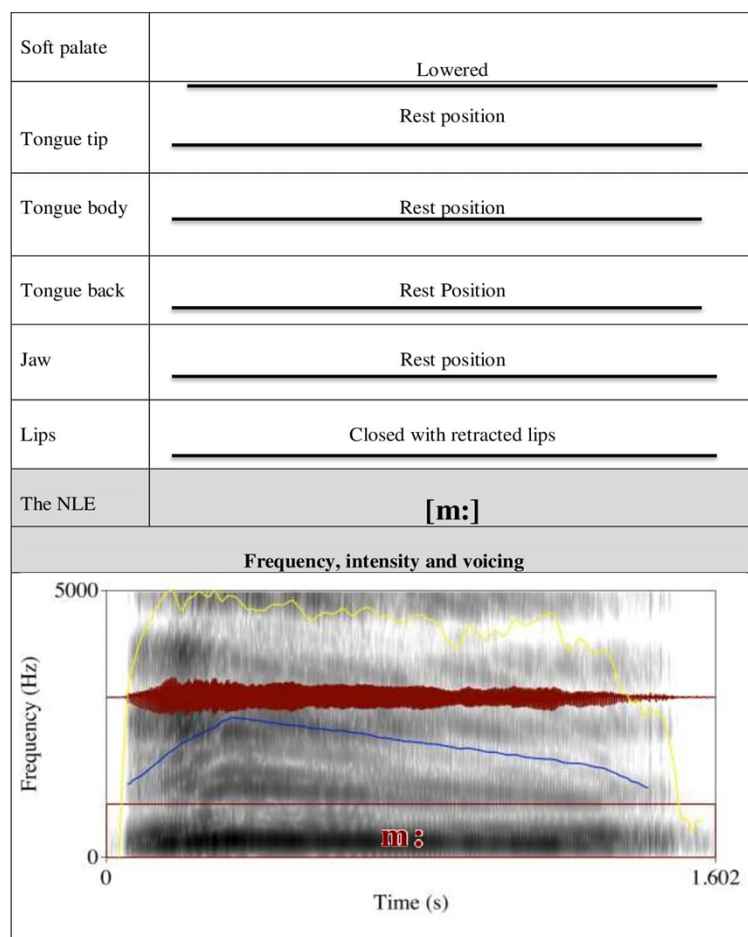


Figure 2.18: The Parametric Production of the Hijazi NLE [m:]

At this point, I have described all the 23 collected emotive Hijazi pulmonic NLEs. In the following section, I will describe the parametric articulation of the 4 emotive Hijazi NLEs that are powered by non-pulmonic click sounds.

The Non-Pulmonic Emotive Hijazi NLEs:

Clicks are non-pulmonic velaric ingressive consonants, in which air is pushed into the mouth (Gil: 2013). Hijazi Arabic has four emotive NLEs that are articulated by voiceless clicks: the labio-palatal click [ʘʘ], [lʷ], [lʷ|w|ʷ|w], and [l | l | l]. All of the following articulatory descriptions of the motor gestures that are used to produce the clicks are based on Ladefoged (2001), Ladefoged and Maddieson (1996), Miller (2010), and Ashby (2005) who have described the articulation of click phones.

The emotive Hijazi NLE [ʘʘ] is a sequence of two clicks – the labial click and the palato-alveolar click – which are overlapped. The tip and blade of the tongue touch the teeth and alveolar ridge. The blade of the tongue moves further back and the middle of the tongue is pulled down while the air is sucked out which creates a vacuum. The Hijazi NLE [ʘʘ] is released; the turbulent airstream rushes into the mouth by a sucking action through one side of lips, left or right. This click sounds something like kissing or a smack of the lips.

The lips are compressed and not rounded. The Hijazi NLE [ʘʘ] is produced in two ways to express different meanings, as will be analysed in detail in Chapter 8. The different productions are based on the shape of the compressed lips while the NLE is being articulated. The NLE can be produced with lips that mimic smiling or an unsmiling position depending on whether it conveys pleasant or unpleasant emotions.

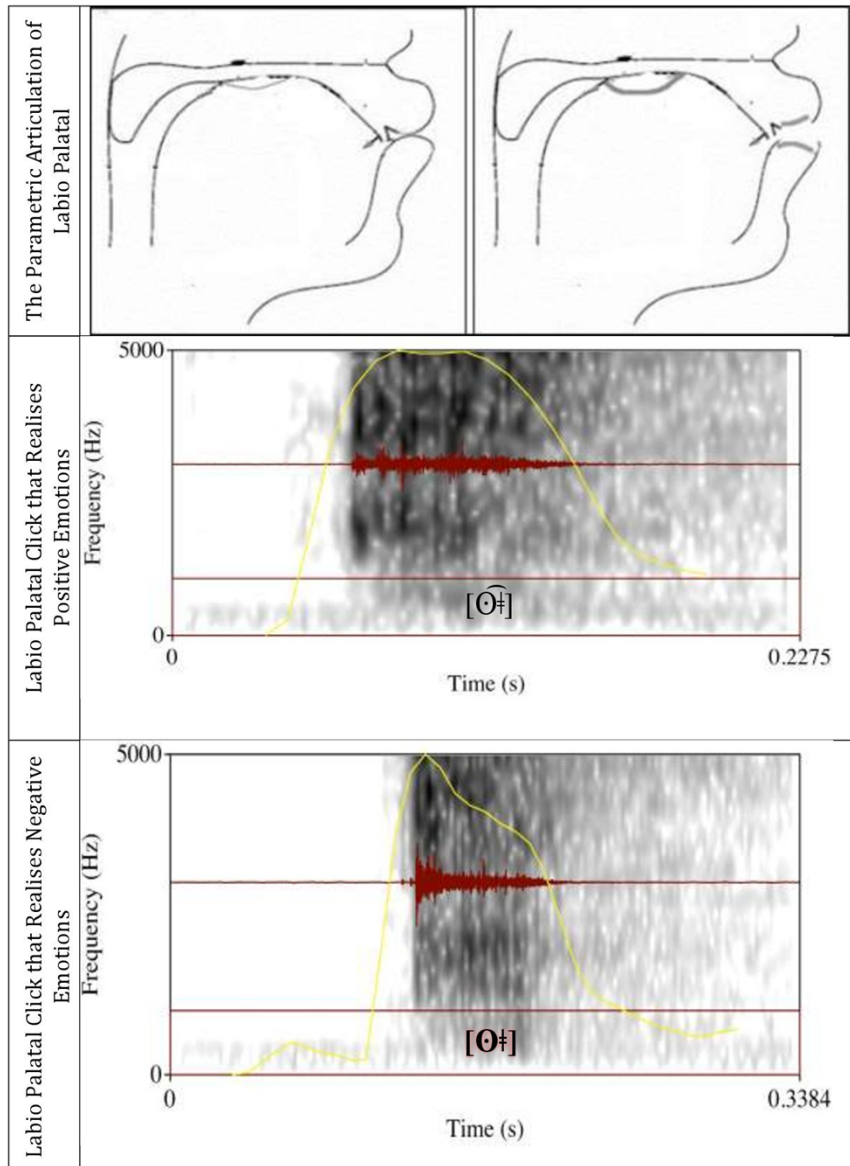


Figure 2.19: The Production of the Labio-palatal Click.

In the upper part of Figure 2.19, I present a combination of the two clicks: labial and palatal (based on the descriptions in Ladefoged and Maddieson 1996: 250). The left-hand side shows the position of the vocal organs at the onset of the click closure, while the right-hand side shows the position of the vocal organs before the release of the click. The middle and lower part of Figure 2.19 shows the spectrogram of the production of the labio palatal click that is associated with negative emotions like anger and sadness, as well as positive emotions like love and joy.

In the questionnaire, I included two separate stimuli for these two types of the labio-palatal click. In Figure 2.19, it is clear that both are produced by the same vocal organs, and

both result in similar acoustic spectrograms. Both show similar types of frequency, intensity, and voicing. Both are produced with high intensity that rapidly drops. The difference between these two types of labio palatal click is the vocal gestures that accompany their production. As I mentioned on page 85, during the production of this NLE the lips are compressed with or without a smile, depending on the negative or positive emotion that the speaker wishes to convey. I will discuss this point that is related to the paralinguistic features in detail in Chapter 8.

The non-pulmonic dental click is also found. Hijazi speakers produce the dental click as an NLE in three different ways to express different meanings, as will be analysed in detail in Chapters 6 and 7: the NLEs [l^w], [l^w|^w|^w] and [l | l | l].

The tip or the blade of the tongue approaches the back of the upper teeth near the alveolar ridge. For more explanation see Figure 2.20 below. The lips can be rounded or retracted depending on the emotional meanings conveyed. This is discussed in detail in Chapter 8.

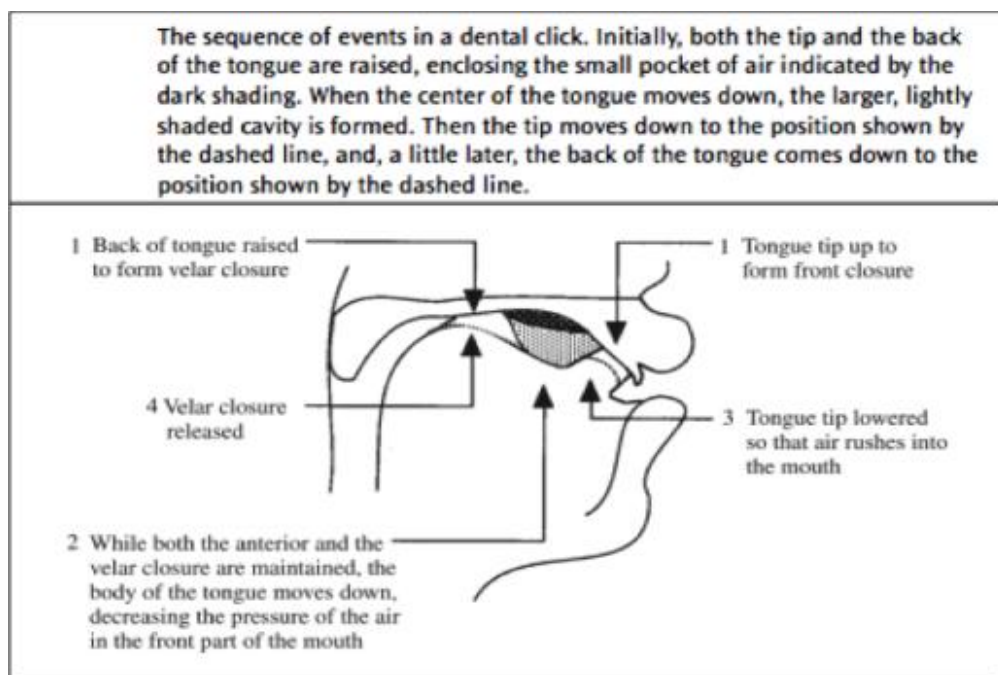


Figure 2.20: The Production of the Dental Click (Ladefoged 2001: 120).

In the following, Figure 2.21 shows that, although the NLEs that are formed by the dental click are produced with the same articulators, they are produced at a different rate depending on how frequently the dental click is repeated within the duration of the NLE.

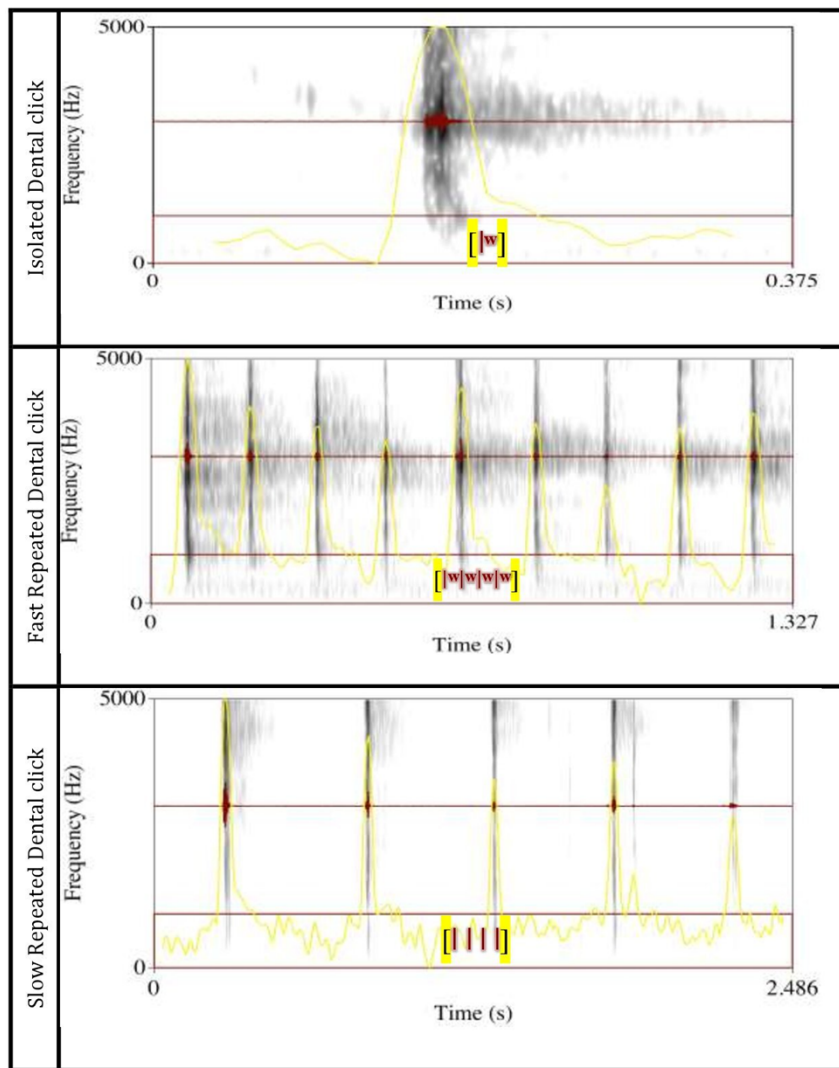


Figure 2.21: Comparing the Production of the Articulations of the three NLEs [w^ww^ww], [l^ll^ll], and [l^w],

The three dental clicks can be described in terms of duration, tempo, and intensity. For more explanation, the upper side of Figure 2.21 shows the spectrogram of the articulation of [w]. The duration of the sound is less than a second (0.375 milliseconds). The duration of the highly intense part of the sound is (0.0216 millisecond). Besides, the middle part Figure 2.21 shows the spectrogram of the articulation of [w^ww^ww], while the lower part shows the spectrogram of the articulation of [l^ll^ll]. The regular pulses in the middle part show that the dental click repeats 9 times in 1.327 seconds at a rate of 7 clicks per second. On the other hand, the regular pulses in the lower part show that the dental click is repeated 5 times in

2.486 seconds at a rate of 2 times per second. Thus, the fast click is approximately 3 times faster than the slow click. The time between the pulses in fast repeated dental clicks ranges from 0.085 to 0.11 milliseconds between the 9 clicks. On the other hand, the time between the pulses in slow repeated dental clicks ranges from 0.48 to 0.34 milliseconds between the 5 pulses. Also, as the yellow line presents the intensity of the sound, the pulses in the single and the repeated dental clicks show the high intensity that rapidly drops.

Ultimately, the previous part provides a phonetic description of the parametric articulation of all the 27 emotive Hijazi NLEs, which shows the position of the soft palatal tongue, jaw, and lips. Also, it shows information about the intonation, as well as the voicing of every sound within every NLE. This phonetic description illustrates the similarities and differences between the phonological forms of the Hijazi NLEs, and hence it will help to categorise the Hijazi NLEs that share some phonological characteristics, under similar meanings. This will then allow us to map the emotive Hijazi NLEs onto their emotional meanings.

2.7 Summary

This chapter answers the research question “What do these emotive Hijazi NLEs communicate in Hijazi Arabic?” It has attempted to cover the description of the structure of the emotive Hijazi NLEs’ emotional meanings, as well as the structure of their phonological forms. The first part of the chapter concentrated on the structure of the meaning of the emotive Hijazi NLEs with regard to embodiment, categorisation, and prototypical categorisation. Here I show how the human body plays an essential role in determining meaningful emotional aspects to embody meaningful experiences for structuring the meaning of the emotive Hijazi NLEs. It also plays an important role in determining meaningful phonological vocalisations of the NLEs by mimicry, which is known as a resemblance of gestures, movements, and action patterns (Maran 2017: 8), as I will discuss in detail in the next chapter.

This chapter also illustrated the role of the human body and its interaction with the physical environment in the categorisation structure, as this depends on Gestalt perception and motor movements (Lakoff 1987: 28-39). Gestalt perception is how human minds create an overall structure for some concepts by putting together similar elements, recognising patterns, and simplifying complex images by building general rules (Lakoff 1987: xiv). In

this way, I claim that speakers create an overall structure for emotive NLEs by putting together similar emotive NLEs that are associated with similar emotional aspects with specific vocal gestures.

In addition, this chapter discussed prototype theory, which is another mode of categorisation (Rosch 1999, 1973, 1977) that refers to how humans prototypically categorise things and concepts as they interact with them. The chapter discussed the theory of categorisation as I suggested that Hijazi speakers' minds prototypically categorise the emotive NLEs with some embodied emotional aspects. Also, I suggested that they prototypically categorise them with some specific motor movements or vocal gestures by mimicking emotional actions and reactions in specific situational and socio-cultural contexts, as every basic emotion prototypically corresponds to certain vocal gestures, movements, and action patterns (Shaver et al. 2001: 42-47).

In addition, I suggested that speakers' minds categorise the motor movements into place and manner of articulation that correspond with the vocal gestures accompanying the mimicking emotional actions in specific situational and socio-cultural contexts. In this way, the last part of this chapter examined the structures of the phonetic and phonological forms of the emotive Hijazi NLEs and highlighted vocal gestures or motor movements. It included detailed phonological descriptions with different articulations of every emotive Hijazi NLE. These articulatory descriptions show how the vocal organs work and depend on one another in the production of every emotive Hijazi NLE. The description of the articulation of every sound within every emotive Hijazi NLE helps to determine the similar articulations between the Hijazi NLEs that share similar emotional meanings. This will help to evaluate whether there is any natural or non-arbitrary relationship between the emotive Hijazi NLE articulations and some embodied emotional aspects. The next chapter will discuss whether Hijazi NLEs have a natural and non-arbitrary relationship with their embodied emotional meanings, by considering NLEs to be semiotic signs.

Chapter 3

Literature Review: Emotive Hijazi NLEs as Semiotic Signs

3.1 Introduction

The previous chapter examined the structure and function of the embodied emotional meanings of Hijazi NLEs, as well as the structure of their phonological forms. In this chapter, I will investigate the relationship between emotive Hijazi NLEs and their meanings by considering them to be semiotic signs. In semiotics, a sign is a thing that realises knowledge of something else (Peirce 1895; EP 2: 13). Signs communicate meanings. NLEs signal emotional states and hence are signs.

Saussure (1959) states that signs are arbitrary: their meaning is not predictable from their form. However, he allows for some exceptions such as primary interjections, which have a natural non-arbitrary relationship with their meanings. I argue that NLEs are similar to interjections, as both of them are “spontaneous expressions of reality dictated [...] by natural forces” (Saussure 1959: 69). In Chapters 1 and 2, I argue that the concept of NLEs is similar to primary interjections, since both are independent utterances that are produced using unusual vocalisations, as they are formed from phones which themselves are not always part of the phonemic system of the language. In addition, their phonological vocalisations are a mimicking of vocal actions that are related to emotional and mental states. Also, they both realise the speaker’s current emotional and mental state in specific situational and socio-cultural contexts. Furthermore, they are not ordinary lexical items in that they are not marked for tense, plurality, gender, etc., but at the same time they are part of the lexicogrammar in that they represent wording which realises emotional thoughts.

Based on Halliday’s (1978) and Hjelmslev’s (1963) argument that a semiotic sign is stratified and contains content and expression planes, I argue that emotive Hijazi NLEs are semiotic signs that contain an internal dynamic system of stratification. They contain an interactional relationship between two orders of abstraction: the content plane (i.e. meaning) and expression plane (i.e. phonological form). However, NLEs do not show a normal interactional relationship between these orders of abstraction, as other linguistic items do. Those tokens are intimately associated with vocal gestures and mimicry. In evolutionary biology, mimicry is the visual and acoustic resemblance between an organism and another

object (King, Stansfield, and Mulligan, 2006). In this way, these types of tokens open up a way for an ontogenetic and phylogenetic approach to the development of language, as they are instinctive and abrupt expressions of sudden sensations (Stang 2009: 22).

Emotive NLEs are motivated. They represent bodily reflexes through the mimicking of vocal actions that correspond with their phonological forms in specific situational and socio-cultural contexts. They are the reaction of the body in response to an interaction with the external world. For instance, the Hijazi NLE [kix:] for disgust mimics vomiting or retching, the Hijazi NLE [if:] for disgust mimics blowing and spitting something out of the mouth, the Hijazi NLE [ah:] for pain mimics screaming or moaning, and so on. These mimicking actions are claimed to have iconic and indexical relationships with their emotional meanings, as mimicry is an iconic sign that has an equivalence in the natural world that is meaningful and functional (Maran 2017: 55). In other words, the vocal gestures and the shape of the vocal organs during the articulation of emotive NLEs show indexical and/or iconic relationships that mediate between Hijazi NLEs and their meanings.

I therefore suggest that this biological mimicry of the NLEs stands as the third element that explains the non-arbitrary relationship between two orders of abstraction of the NLEs: content plane (i.e. meaning) and expression plane (i.e. phonological form). The third element refers to the natural, non-arbitrary (i.e. iconic/indexical) components, which are symbolically accompanied by a mimicking of the vocal gestures that correspond with the phonological forms associated with emotional states. Moreover, I suggest that all emotive Hijazi NLEs, which share the similar vocalisations and associate specific emotions, show iconic representations which in themselves are indexes for that specific emotion.

In order to understand the non-arbitrary (i.e. indexical and/or iconic) relationship between Hijazi NLEs and their emotive meanings, I will now review some major works in semiotic theory. Based on Peirce's (1931-33) framework,⁷ I argue that Hijazi NLEs represent the firstness (i.e. the vague, blank, thought-less feeling) of secondness (i.e. the real idea in the experiential universe) through thirdness (i.e. the mediator, or intellectual experience). I will also go further and discuss how the indexical and iconic elements accompanying the emotive

⁷ The *Collected Papers of Charles Sanders Peirce* (1931-33), edited by Charles Hartshorne and Paul Weiss, vols. 1-6, provides an account of the most fundamental aspects of Peirce's sign trichotomies that are related to his theories of logic, realism, pragmatism, categories, and metaphysics. He calls the elements of the triadic model of the semiotic sign "firstness", "secondness", and "thirdness".

Hijazi NLEs stand as mediators to relate these tokens with their meanings.

To summarise, this chapter concentrates on investigating the non-arbitrary relationship between emotive Hijazi NLEs and their emotional meanings, by considering them as semiotic signs.

3.2 Emotive Hijazi NLEs as Non-arbitrary Semiotic Signs

Signs refer to sounds, words, sentences, gestures, facial expressions, gaze, behaviours, environmental features, temperature, pain, colour, texture, shape, size, and so on (Chandler 2002: 2; Kockelman 2005: 240). Saussure (1959) defines a semiotic sign as being composed of a two-sided psychological unit: a ‘signifier’ *signifiant* (sound-pattern or sound-image) and a ‘signified’ *signifié* (concept) (Saussure 1959: 66-67). The relationship between the signifier and the signified is known as ‘signification’ (Saussure 1959: 114-115). Normally the relationship between the signifier and the signified is arbitrary (Saussure 1959: 66). The signified (i.e. the concept or the meaning) cannot be predicted by the signifier (i.e. the sound-pattern or the form) (ibid.). Saussure (1959: 66-67) exemplifies this as follows:

The idea of “sister” is not linked by any inner relationship to the succession of sounds *s-ø-r* which serves as its signifier in French; that it could be represented equally by just any other sequence is proved by differences among languages and by the very existence of different languages: the signified “ox” has as its signifier *b-ô-f* on one side of the border and *o-k-s* (Ochs) on the other.

However, he allows for some exceptions such as primary interjections, which are defined as “spontaneous expressions of reality dictated, so to speak, by natural forces” (Saussure 1959: 69). Saussure (1959) briefly discusses the natural non-arbitrary form-meaning relationship of primary interjections (i.e. NLEs). He treats the form of the natural non-arbitrary primary interjections as a signifier (sound-pattern) and the natural meaning of those interjections as a signified. Then, he assumes that the signification or the signifier-signified relation of those natural non-arbitrary primary interjections is a spontaneous expression of natural forces.

Likewise, I argue that NLEs are similar to primary interjections, as both are natural expressions. Researchers who study primary interjections, such as Wilkins (1992), Kockelman (2003), Wharton (2009), Poggie (2009), Wierzbicka (1992), and Goddard (2014), believe in their naturalness (non-arbitrariness), because these tokens are instinctive, reflex-

like, and predictable, and do not have to be learnt. In this way, NLEs support the validity of an ontogenetic approach to the development of language (Stang 2009: 22).

For instance, NLEs, which are similar to primary interjections, have imitational sources of emotions. They are a kind of emotional language that results from imitations of natural cries including crying, screaming, laughing, etc. (Davis and Nicholls 2019: 91; Mufwene 2013: 25-26). According to Müller (1875), emotional language is used by both humans and animals. Natural cries including crying, screaming, laughing, etc. are experienced by both humans and animals. However, NLEs are a type of language. They can be described as the initial roots of languages, as they appear at the early stages of true language, with everything else developing later (Mufwene 2013: 25-26). NLEs therefore have an element of rationality, as they are part of rational language.

For more clarification, NLEs occupy the space between emotional language and rational language. “[L]anguage begins where interjections end” (Müller 1875: 367). They are partially rational. This corresponds to Müller’s (1875) pooh-pooh theory, which suggests that language originally consisted of natural emotional interjections, resulting from automatic vocal responses to different emotions (Stang 2016: 22; Mufwene 2013: 33). However, many animals make these kinds of vocal responses as well, and they do not end up with language (Mufwene 2013: 33). Because of this, these vocal responses are partially rational, as they are close to the emotional language that is used by both humans and animals. According to Müller, rational language is only used by humans, as only human beings have the capacity for rational language and for abstract concepts (Davis and Nicholls 2019: 91; Mufwene 2013: 25-26). Based on the genetic differences and biological variation between different animals, including humans, human minds have a capacity for language, which enables them to develop language or learn whatever is spoken and signed in their socio-cultural environment (Davis and Nicholls 2019: 91; Mufwene 2013: 26-27).

In this way, based on the biological evolution of language, as NLEs become part of rational language, they become part of the humans’ capacity for language. They become more conventionalised and more language-like, as they gradually become entirely separate from their origins as natural cries (Harris and Pyle 1996: 288). The very first imitations in human speech are the natural sounds by means of an articulated language, such as onomatopoeia, exclamations, and primary interjections, as well as the production of vowels (Levelt 2012: 34; 97; 110; 180, also see 2.5 in this study). According to this way of thinking, the very first

linguistic productions were imitations, such as the NLEs.

NLEs are close to natural cries or affect bursts (cf. Gorlee 2015: 38; Poggie 2009: 174; Scherer 1994: 170). They are beyond the ordinary language, as they are reactionary signs that arise between words and noise (Gorlee 2015 :38). Primary interjections or natural interjections, such as NLEs, are spontaneous and simple semiotic signs that may arise in the external expression of cries uttering the speaker’s internal symptoms of emotions (Gorlee 2015: 38-39). For example, the Hijazi NLE [jeʕ] is another way of saying the sentence ‘I feel disgusted’. It is associated with an emotional state, that of disgust.

Furthermore, Peirce (1885) argues that the semiotic sign contains a triadic relation between the representamen (i.e. the form of the sign), object, and interpretant. The sign relates to its object in consequence of a cognitive, mental, emotional, practical, logical, and intellectual association (i.e. interpretant) (Peirce 1885, 3.360: 210). Figure 3.1 below shows what the representamen (i.e. the form of the sign), object, and interpretant stand for using the English NLE *Ouch!* as an example.

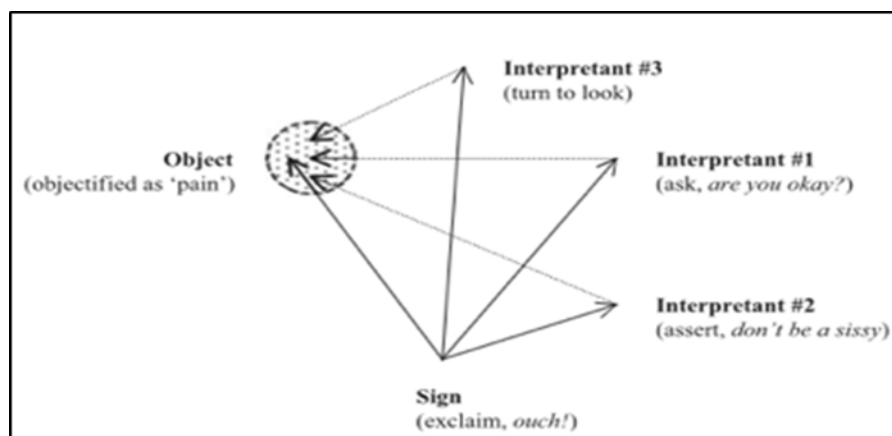


Figure 3.1: Kockelman’s (2005) Explanation of The Semiotic Sign’s Object and Interpretant

For Peirce, the “sign is a representamen of which some interpretant is cognition of a mind” (CP 2.242). The representamen is the sign itself. The representamen is the English primary interjection, or NLE, based on Kockelman’s (2005) Figure 3.1. On the other hand, the object is what the sign refers to, i.e. the referent of the sign (CP 2.242). “The object (of a sign) is that to which all (appropriate and effective) interpretants (of that sign) correspondingly relate” (Kockelman 2005: 242). The object is the meaning of the sign. The object of the English *Ouch!* is the emotion of pain in Kockelman’s (2005) Figure 3.1 above.

Finally, the interpretant is the idea or the sense that is made of the sign by a human mind. It refers to a set of behaviours or functions, which are created by individuals in a particular socio-cultural context depending on a specific situation, to show how a specific sign stands for an object (CP 3.360). Every semiotic sign has one object, but it could have multiple interpretants that correspondingly relate to this object in particular situational and socio-cultural contexts. For example, Kockelman (2005) assumes that the English NLE *Ouch!* is a semiotic sign that objectifies the expressive meaning of pain through different interpretants, which would appear as actions ('turn to look'), assertions ('do not be a sissy'), questions ('are you ok?'), or thoughts ('do not sit on a hot radiator again'). All of the interpretants of the English *Ouch!* should be correspondingly related to the object of pain.

Thus, for Peirce, the semiotic sign is an integration of what is signified (the object), how it is signified (the representamen), and how it is interpreted (the interpretant) (Chandler 2002: 29). All three components are essential to qualify the sign (Chandler 2002: 29). In addition, all these triadic components that form the semiotic sign should be developed through three logical categories – firstness, secondness, and thirdness – which serve as a framework in which the signs function (CP 2.228). According to Peirce, these three logical categories stand as a typology of signs. He believes that human experiences progress from the firstness of thought-less concepts or states to the secondness of a complete practical experience through the thirdness of a mediation that brings forth the firstness and secondness (Peirce 1993: 293). He relates representamen, object, and interpretant to the trichotomy of firstness, secondness, and thirdness, which describe the level or the degree of mediation and reflexivity (CP 2.233-71). The reflexivity here refers to the manifestation of the signs regarding the relationships between the experience and the reaction, or the cause and the effect. In this way, firstness, secondness, and thirdness stand as modes for the sign.

First of all, firstness represents the mode of being a thought-less concept without reference to anything else (Peirce 1903: 122; CP 1.356-357). It refers to something which is completely independent (Langford 2013: 34). Firstness is the logical category of independency, freedom, unreflected feeling, potential, and immediacy (CP 1.302-303, 1.328, 1.531; cited in Noth 1995: 41). It is an undescribed idea. It has the condition of being unmediated with unreflexive access (Sáenz-Ludlow and Kadunz 2016: 4). It is "experience without reaction, cause without effect" (ibid.). Firstness is the vague, blank, thought-less Hijazi NLEs. It is the concept of giving expression to emotive Hijazi NLEs such as [wah:],

[kix], etc. without any action, reflexive, or effect. In this way, firstness is the representamen or the form of the sign itself.

In contrast, secondness refers to our direct, current, and real experience of actual knowledge and action-reaction in our experiential world (Peirce 1903: 88; CP 1.324; CP 1.532). It is the physical action or the “brute actions” of the subject (CP 5.469). It refers to the concept of how something can be distinguished from something else (Langford 2013: 34). It is the logical category that refers to the action, reality, actuality, and experience in specific time and space (Noth 1995: 41). It is the meaning or the object that makes reality and the existence of the sign in the experiential universe. Thus, the object can be considered to be a phenomenon of secondness, as they both function at the level of consciousness of the experience in the individual’s life. The secondness that we are dealing with is the consciousness and actuality of the experience of human life in specific time and space. As Peirce states, “Secondness is involved whenever we make an effort, a decision, or a discovery; when we orientate ourselves in time and space; or when we discover a surprise” (CP: 5.52–5.58; cited in Gorlée 2009: 211). Secondness is therefore the discovery of the reaction, the response to the stimulus, or the emotional motivation in specific time and space. For instance, Hijazi NLEs such as [wah:] are associated with secondness by mediating discrete meanings such as surprise rather than other emotions. Secondness is the condition of mediation, but it is not yet a reflexive access (Sáenz-Ludlow and Kadunz 2016: 4). Secondness provokes the experience, reaction, cause, and effect of the Hijazi NLEs, but it does not provoke a reflection on the reaction or effect (Sáenz-Ludlow and Kadunz 2016: 4).

Finally, thirdness is the medium, translation, transaction, transfusion, or mediation between firstness and secondness (CP 2.86-89). Therefore, thirdness is a phenomenon of the interpretant, since both of these logically mediate the relation between the sign and its object (Peirce 1955: 277). They both show a condition of mediation and reflexive access (cf. Sáenz-Ludlow and Kadunz 2016: 4). It is the actualisation of a potential. It is a concept that shows how the behaviours and the functions (i.e. interpretants) of Hijazi NLEs mediate the firstness (i.e. thought-less sign) of Hijazi NLEs and their actual experience (i.e. object). For example, the Hijazi NLE [kix:] associates the object of the emotion of disgust through different interpretants based on the situational context. [kix:] is associated with the emotion of disgust resulting from a bad smell, or to command a child to move away from something

disgusting. Both of these interpretants stand as thirdness because they mediate the relationship between the sign and its object by showing that the Hijazi [kix:] associates itself with disgust in different ways using speech functions.⁸

Furthermore, in a sense, thirdness or the mediator could stand for other functions and behaviours that are related to the sign's representative conditions, rather than the interpretants that are related to the speech functions. The sign's representative condition consists of another triad of the sign: icon, index, and symbol. I suggest that the iconic and indexical components that accompany the production of emotive Hijazi NLEs are the symbolic mode of the thirdness that mediates and relates Hijazi NLEs (the sign/firstness) with their meaning (the object/secondness). Thus, both thirdness and the interpretant provide the experience, the reaction, the reflection, the cause, and the effect. Thirdness is not just mediation, understanding, necessity, but it is also symbolism (Kockelman 2005: 246, 297). Thirdness is a symbolic mode that may contain indexical and/or iconic processes to mediate the firstness and secondness of Hijazi NLEs, because "thirdness regulates continuity" (cf. CP 7.565, 7.570, 7.571, cited in Copley 2005: 277).

3.2.1 Thirdness Regulates Continuity

In order to understand how indexical and/or iconic elements stand as a symbolic mode or process that mediates the firstness and secondness of emotive Hijazi NLEs, it is important to understand the concept of thirdness as it regulates continuity. Consequently, in order to understand the concept of the continuity of thirdness as a symbolic process, it is important to examine the three members of another trichotomy posited by Peirce: *icon* (firstness), *index* (secondness), and *symbol* (thirdness).

Peirce (CP 2.247) describes an icon as a sign that signifies by its own quality. For example, traffic lights indicate iconic meanings, since red means stop while green means go. Also, an icon can show any conventional or analogous relation between the sign and its object in discourse (CP 5:243), for example, onomatopoeia, metaphors, sound effects in radio drama, a dubbed film soundtrack, imitative gestures (Chandler 2002: 37). Peirce considers the icon as firstness because it refers to a sign whose significant virtue results from its quality (CP 2.92). In other words, "an *Icon* is a Representamen whose Representative Quality is a

⁸ There will be a detailed discussion of the NLEs as speech functions in Section 3.3.

Firstness of it as a First. That is, a quality that it has *qua* thing renders it fit to be a Representamen” (CP 2.276).

In contrast, the index refers to the dynamic spatio-temporal sign-object relation (Peirce 2.305: 170; Kockelman 2005: 245). For example, some signs have indexical relations to their objects, such as smoke indicating a fire or thunder indicating rain, medical symptoms, or ailments. Another example is that the English NLE *Ouch!* indicates symptoms such as a fever (Kockelman 2005: 245). Thus, the indexical sign stands for its objects by a relation of contiguity, rather than by similarity (one condition of icons) (Kockelman 2010: 169). The most necessary components for building an index are the sign and its object, so the interpretant could be stripped away (Kockelman 2005: 245). Thus, the secondness and the index share the concept of the importance of the object, or the meaning. Both of them are related to consciousness, actuality and reality of the experience of the sign in the experiential world in specific time and space.

Finally, symbols refer to the arbitrary sign-object relation. The symbol does not show what it is talking about, and it needs to be associated with its object by conventional use (CP 4.53-56). Every sign has informative symbolic reference to its object. The symbol denotes any ordinary sign that is “*applicable to whatever may be found to realize the idea connected with the word; it does not in itself identify those things [...] however, [it] supposes that we can imagine those things, and have associated the words to them*” (CP 2.298). For example, symbols represent traffic lights, alphabets, numbers, words, sentences, books, etc. (CP 2.292). In other words, the symbol is like thirdness, as both of them mediate the symbolic representation of any kind of signs including the icon and index. So, both symbolic representation and thirdness regulate continuity.

Continuity suggests that firstness does not have any secondness or thirdness; secondness does not have any thirdness, but it should have firstness; and thirdness should have both firstness and secondness (CP 1.530). Although in terms of the ground, which means the relationship between the sign and its meaning, the iconic ground is considered to be firstness, the indexical ground is considered to be a secondness, and the symbolic ground is considered to be a thirdness, continuity is applicable here (CP 7.565, 7.570, 7.571). This is because “as much as a sign may be characterized as an index or icon, it will always maintain the characteristics of symbolicity, that is, a sign to

subsist as such requires the mediation of an interpretant and recourse to a convention” (Peirce, cited in Cobley 2005: 277). Table 3.1 visualises the relationship between icon, index, and symbol as kinds of firstness, secondness, and thirdness:

Table 3.1: The Continuity of The Iconic, Indexical, and Symbolic Relation of The Sign and Its Object (Based on Peirce 7.565, 7.570, 7.571):

	Firstness	Secondness	Thirdness
The sign itself (firstness)	Iconic	Iconic	Iconic
The relation of the sign to its object (secondness)		Indexical	Indexical
The relation of the sign to its interpretant (thirdness)			Symbolic

The icon and/or index stand as a symbolic mode for the thirdness that mediates the NLEs given that “thirdness regulates continuity” (CP 7.565, 7.570, 7.571, cited in Cobley 2005: 277). The essential concept of continuity is that between any two members, a third can always be found (CP 6.120-123). For Peirce, continuity shows the unity of harmonious continuum performance of symbol-index-icon, which “is fitted for playing an extraordinary part in this system of representation” (CP 4.448).

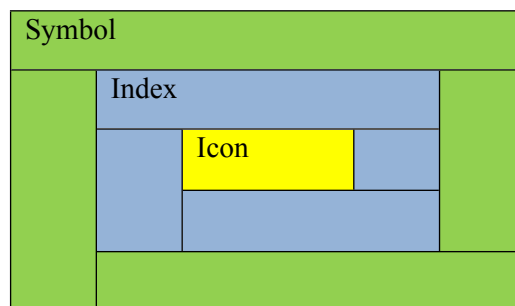


Figure 3.2: Relative Inclusion of Icon, Index and Symbol

Kockelman (2005) describes the continuity of the thirdness as a type of relative inclusion. All icons are indexes, which are themselves symbols, but not all symbols are indexes and not all indexes are icons. As much as a sign is icon, it needs to have indexical characteristics. It directs the interpreter’s attention to something when the iconic sign that has indexical characteristics has symbolic characteristics as well to

indicate the object, and the latter to express information about that object. In this sense, the continuity of thirdness considers the basis of the triple references – index, icon, symbol – to be a symbolic representation. For more explanation, in Figure 3.2, all squares represent a symbol. The yellow square represents an icon e.g. a photograph of a fire which is also an index and a symbol. The blue squares represent indexes e.g. *image of smoke* which is also a symbol but not an icon. The green squares represent symbols e.g. the orthographic word *fire* which is neither indexical nor iconic.

In other words, thirdness as mediator contains a symbolic, cognitive, mental, and logical representation by using a triadic system of elements including symbols, index, and icon. In this way, thirdness concentrates on the icon and index as elements of a symbolic or natural sign-object relation, rather than looking at the symbols, icons, and indices as separate elements. The icon and index stand as a symbolic ground, rather than to talk about icons, indexes, and symbols as types of signs (Chandler 2002: 41-45).

Thus, thirdness can mediate the experience and the reaction of speakers in specific situational and socio-cultural contexts (CP 1.530, 7.565, 7.570, 7.571; see also Kockelman 2003, 2010; Sáenz-Ludlow and Kadunz 2016). For example, with thirdness, we consider the icon and index as elements of the symbolic cognitive process that examine the natural non-arbitrary sign-object relation of emotive Hijazi NLEs. Chapter 2 discussed the fact that the phonological vocalisations of NLEs mimic vocal actions that are related to emotional states. For example, the English disgust NLEs *Phew!* or *Pooh!* are produced by mimicking physical actions such as blowing and spitting something out of the mouth (Wierzbicka 1992; Darwin 1872: 258; Goddard 2014: 89). These mimicking vocal gestural movements correspond to the phonological forms of the emotive NLEs that are discussed in Sections 3.2 and 3.3.1. I therefore suggest that the unusual vocalisation of emotive Hijazi NLEs, which are formed by accompanying their phonological articulations with some mimicking vocal actions, may show iconic and indexical relations with their emotive and mental meanings. In other words, the vocal gestures and the shape of the vocal organs during the articulation of emotive NLEs show indexical and/or iconic relations that mediate between emotive Hijazi NLEs and their meanings.

Kozintsev (2018) and Vehkavaara and Sharov (2017) claim that in analysing semiotic signs such as NLEs, we have to consider Peirce's interpretants that refer to the

expressive indexical or iconic non-verbal phenomena that accompany the different mental states to mediate the meanings of the signs. By producing emotive NLEs, people express different emotional states using a combination of linguistic and non-verbal phenomena that are presented through indexical and iconic elements. The indexical elements can signal the emotional states that are associated with those NLEs, while the iconic elements are the expressive vocal gestures that accompany the production of the meaning of the emotional states of the NLEs (Kozintsev 2018: 12). Speakers produce those indexical and iconic elements of the NLEs, symbolically, using the interpretants (ibid.). Thus, NLEs are defined as natural non-arbitrary (i.e. iconic/indexical) semiotic signs that symbolically accompany the visual non-verbal communication of emotional states. In the following section, I suggest that all emotive Hijazi NLEs that share similar vocalisations and associate specific emotions show iconic representations, which in themselves are indexes for that specific emotion. The reason for this is that all the Hijazi NLEs indexically draw attention to the speaker's emotional state, by signalling iconic vocal gestural production that corresponds to the speaker's emotional state. Thus, in the next section, I will discuss first how emotive NLEs can be indexes, and then how they can be icons. I will review the NLEs as ordered indexes before icons because every iconic sign contains indexical components. Based on continuity or relative inclusion (Peirce 7.565, 7.570, 7.571; Kockelman 2005), every icon needs to have indexical elements, but the index does not need to have iconic elements.

3.2.2 Emotive Hijazi NLEs as Indexes

The main idea of the index is that it is associated with its object to show the actuality of the experience of the sign in the experiential world in a contextually bounded temporal space. This is exactly how NLEs are defined. Like other NLEs, Hijazi NLEs stand for their objects, depending on spatio-temporality or contiguity (cf. Kockelman 2003: 471). In other words, the index is when the sign is in contact with its object in a specific spatio-temporal context. For instance, if speakers utter the English *Ouch!*, they index themselves as expressing pain in a specific time and situation.

The interpretation of NLEs is a complex process that involves contextualisation and emotional experience (Ameka and Wilkins 2006; Kockelman 2003). They can index the symptoms of the speakers including what they feel or think about in a

particular spatio-temporal context. For example, the Hijazi NLE [ah:] is an index of our feeling of pain.

For instance, if someone says the English NLE *Yippee!*, which is an index of the feeling of happiness, the speaker is indexing him- or herself and the thing that is making him or her feel excited and happy, here and now, in this particular situation (Wilkins 1992: 132). In the same way, with the Hijazi NLE [kix:], the speaker is indexing him- or herself and the thing that is making him or her feel disgusted, here and now, in this particular situation. Alternatively, [kix:] can be used to tell a child to move away from something disgusting. In this way, the speaker indexes the thing that is making him or her feel disgusted and the child who is touching the disgusting things, here and now, in this particular situation. So, the underlying meanings of the Hijazi NLE [kix:] are: 1) it is time for someone to understand that I am feeling disgust here and now; or 2) it is time for someone to move away from something disgusting here and now. Thus, the someone can be the speaker, the hearer, or both in specific situational and socio-cultural contexts (Ameka and Wilkins 2006: 3).

The emotive expressive Hijazi NLE [kix:] can focus on the speaker's (i.e. the proximal) recognition and the hearer's (i.e. the distal) reception of the information, if the underlying meaning of the Hijazi NLE [kix:] that fulfils the speech function of command is 'it is time for someone to move away from the disgusting thing here and now'. So, [kix:] here is guiding someone to do something. In this way, the Hijazi NLE [kix:] has a relation of contiguity (i.e. being in contact with something) with the sign that denotes the object or event rather than having contiguity with the actual object or event (cf. Kockelman 2003: 471). For this reason, the emotive Hijazi NLEs that fulfil directive speech functions (e.g. commands and offers), such as the Hijazi NLE [kix:], are not only indexical signs that signal feelings, such as disgust, but they are also signs that refer to or predicate qualities of the objects of that feeling.

Kockelman (2003) goes further and argues that if NLEs as semiotic signs predicate qualities of their objects, then we have an iconic relation (cf. Kockelman 2003: 471, 476, 486; see also Peirce 1955: 104-105, 115). For example, the Q'eqchi' Maya NLE [tʃix] associates to an emotion of disgust. It is a sign that shares a quality with its object (i.e. the feeling of disgust), and, at the same time, there is a relation of contiguity (Kockelman 2003: 471). In a similar way, Wharton (2003, 2009, 2015)

suggests that some natural or primary interjections signify a case of communication, i.e. more than showing and less than saying, in which showing is natural behaviour and saying is linguistic. He explains:

Showing is relatively natural behaviour, in which spontaneous, instinctive reactions are recruited to serve a communicative purpose. A smile is a good example: Jack gives Lily a gift and Lily allows Jack to see her natural, spontaneous reaction, a smile. From this Jack can infer that Lily likes the gift and feels happy. *Saying*, by contrast, is properly linguistic: Jack gives Lily a gift and Lily responds by uttering “it’s beautiful”. Jack decodes the linguistic form of the utterance and develops it inferentially to derive the basic explicator or proposition expressed – what Lily *says*; among the things her utterance might implicate is the fact that she likes the gift and feels happy.

When Lily receives her gift, she might utter *wow*. She communicates delight with a degree of procedural encoding which, by activating certain attitudinal concepts, points him in the direction of the appropriate conceptual representation: this takes it beyond mere showing. To a certain extent, however, her reaction is natural, spontaneous and instinctive: it therefore falls short of saying. (Wharton 2003: 201-202)

In the second paragraph, *wow* is “uttered” but it is not linguistic saying. So it falls short of linguistic communication but it is still communicative and way more communicative than mere showing. Therefore what is important is that despite the absence of linguistic communication the speaker is still able to convey communicative information – in this case the expression of delight. But there is an absence of propositional information.

Thus, *Wow* doesn’t really carry conventional meaning but it certainly creates a fixed meaning. Similarly, emotive NLEs seem to show and almost say at the same time. They express different emotional states by showing natural behaviours through indexical and/or iconic elements (cf. Wharton 2003, 2009, 2015). For example, English *Ouch!* is an index of symptoms such as pain, and the vocal expression of opening the mouth which accompanies the production of this NLE is the iconic element of the feeling of pain (cf. Wharton 2003: 182; 2009: 79; Kockelman 2005: 245, 247). Also, the Hijazi NLE [ah:] is an index of pain, and the vocal expression of opening the mouth, which accompanies the production of this NLE, is the iconic element of the feeling of pain.

This concept reminds us of the earlier argument of the continuity or the relative inclusion of the symbolic sign-object relation (CP 7.565, 7.570, 7.571; Kockelman 2005: 244). Every index needs to have iconic elements, “thereby providing information

about its object; or, trivially, its sign embodies a quality” (ibid.). The next section reviews how emotive NLEs can constitute icons.

3.2.3 Emotive Hijazi NLEs as Icons

Hijazi NLEs are like primary interjections, as both seem to associate with extra elements (i.e. vocal gestures) of showing natural behaviour, while being utterances (cf. Wharton 2009, 2015). The idea that emotive NLEs show natural behaviours means that they may show iconic elements (cf. Wharton 2003, 2009, 2015). They are likely to resemble their objects (Kockelman 2003: 486; Wharton 2003). Wierzbicka (1992: 178) goes further and argues that NLEs are reflexive expressive vocal signals produced with iconic vocal gestures, i.e. verbal and non-verbal vocalisations. She claims that this iconic relation is the reason NLEs can be perceived as “natural” (i.e. non-arbitrary) (cf. Wierzbicka 1992: 176). NLEs are iconic expressions because “they imitate the sounds produced by certain action or behaviour” (Tsai and Huang 2003: 177, 179).

Kockelman (2005: 247) asserts that while the English *Ouch!* is an index of symptoms such as pain, the vocal gestural expression of opening the mouth which accompanies the production of this NLE is an iconic sign of the feeling of pain. This is because the opening of the mouth, which accompanies the phonological articulation of this NLE, is a mimicry of crying, screaming or weeping, and therefore this is an iconic element evoked by the feeling of pain (Kockelman 2005: 247). This brings us back to the concept of imitation, whereby the phonological vocalisations of the emotive NLEs mimic certain vocal actions, reactions, and behaviours, which are related to certain emotional states; see Sections 3.2 and 3.3.1. These mimicking emotional actions refer to some non-verbal or vocal expressions that are motivated by basic emotions; see Table 2.3, Chapter 2 (2.2). Thus, *Ouch!* indexes the emotion of pain under the basic category of sadness, which is accompanied by vocal expressions that involve opening the mouth as if pretending to cry or moan (cf. Shaver et al 2001: 44-45). Consequently, this opening of the mouth as if pretending to cry or moan while articulating such NLEs stands as an icon that resembles its object.

There is another example that shows the iconicity of NLEs, which is presented by Wierzbicka (1992). She asserts that the English NLEs *Phew!* or *Pooh!* are formed with a labial voiceless fricative or/and a bilabial plosive followed by a close vowel (cf.

Wierzbicka 1992: 178). This particular method of vocalisation is an icon that corresponds to the reaction of disgust by blowing away the unpleasant smell or unsavoury stuff from the mouth (Wierzbicka 1992: 178; Darwin 1872: 92). The iconicity of German *Pfui!* or English *Phew!* or *Pooh!* lies in the way in which the speaker pretends to blow something out of the mouth with a protruded mouth that is narrowly open (Wierzbicka 1992: 178; Darwin 1872: 92). Usually, the production of some sounds, such as the labial sounds /f/, /b/, and /p/, corresponds to the vocal gestures of blowing out of the mouth (cf. Darwin 1872: 92; Wierzbicka 1992: 178). Tsai and Huang (2003) present the same argument, using Chinese NLEs as examples. The Chinese NLE *Pei* (i.e. *Bah*) is formed by sounds made by mimicking the action of spitting. The spitting signifies the action that expresses disgust, contempt, disdain, and scorn (Tsai and Huang 2003: 179). “Thus, the imitation of the sound of spitting symbolizes the action of spitting and show the disgust and scorn” (ibid.).

Both the indexical and the iconic relationships are the reason why NLEs can be perceived as natural and non-arbitrary signs (cf. Goddard 2014; Wierzbicka 1992; Kryk-kastovsky 1997: 158; Kockelman 2003; Darwin 1879). Consequently, their naturalness may be evidence that they are universal, or near-universal,⁹ signs that do not have to be learnt (Goddard 2014; Wierzbicka 1992; Kryk-kastovsky 1997: 158; Kockelman 2003; Darwin 1879). They are motivated signs, as they appear in the earlier stages of language. Then, through diachronic changes, the emotive NLEs as motivated signs are gradually conventionalised and become more language-like; see Section 3.2.

Emotive Hijazi NLEs are natural, near-universal signs that are represented by a symbolic, cognitive, mental, and logical representation of indexical and iconic elements that stand as thirdness, interpretants, or mediators between the sign (the forms of emotive Hijazi NLEs) and secondness (the meaning or the object of emotive Hijazi NLEs) in specific situational and socio-cultural contexts. In the following section, I will discuss the structure of emotive Hijazi NLEs by making a link between the sign’s stratified emergence in Peirce’s trichotomy of firstness, secondness, and thirdness and the stratification of the sign proposed by Hjelmslev (1963) and Halliday and Matthiessen (2014). This is because the stratification structure suggested by Hjelmslev

⁹ ‘Near-universal’ refers to those types of tokens that have some characteristic peculiarities based on different cultures (Goddard 2014; Wierzbicka 1992; Kryk-kastovsky 1997: 158; Kockelman 2003; Darwin 1879).

(1963) and Halliday and Matthiessen (2014) enables Hijazi NLEs to be analysed as natural semiotic signs with relations and interrelations of their semantic, phonological, phonetic, and cognitive structure under the social semiotic domain.

3.3 Emotive Hijazi NLEs as Stratified Semiotic Signs

Signs exist as part of a dynamic abstract system and are themselves stratified, containing content and expression planes (cf. Halliday 1978: 39-40; Hjelmslev 1961, 1958: 4-5). Hjelmslev (1963) defines stratification as a semiotic hierarchy, “any of whose components admits of further analysis into classes defined by mutual relation” (Hjelmslev 1963:106). Similar to Saussure’s dyadic sign, Hjelmslev (1961) assumes that the sign is an entity that is produced by the connection between two planes: 1) expression (i.e. speech or sound), and 2) content (i.e. the thought or the concept) (cf. Hjelmslev 1963: 47). Every plane contains triadic strata: purport, substance, and form. The content plane involves 1) content-purport, 2) content-substance, and 3) content-form, while the expression plane involves 1) expression-purport, 2) expression-substance, and 3) expression-form.

In the following, I suggest that emotive Hijazi NLEs are stratified semiotic signs, which are made by an interactional relation between two orders of abstraction: conceptual (i.e. content plane) and phonic (i.e. expression plane). I also suggest that the underlying triadic strata proposed by Hjelmslev (1963) matches Peirce’s concept of firstness, secondness, and thirdness. However, Hjelmslev’s (1963) concept is more detailed because it shows the dynamic interrelation of the non-linguistic entities which enables linguistic items such as the emotive Hijazi NLEs to be analysed (cf. Hjelmslev 1963: 79-80). Perhaps the difference between Hjelmslev’s triad and that of Peirce is that Hjelmslev looks at it from the point of view of the language system, while Peirce looks at it from the point of view of the language user.

Taverniers (2008) summarises Hjelmslev’s semiotic characterisation of the content and expression planes with their triadic entities, form-substance-purport, in the Table 3.2 below:

Table 3.2: The Significance of Form-Substance-Purport Within the Expression And Content Planes

	Form	Substance	Purport
Content plane	Content-form: Aspects of content defined in relation to other elements of content within one language, and in relation to an expression plane	Content-substance: The 'meaning' of a sign in a particular context (<i>Semantics</i>)	Content-purport: Amorphous, unformed thought mass
Expression plane	Expression-form: <i>Phonology</i> Phonemes: sound-expressions defined in relation to other sound-expressions within one language, and in relation to a content plane	Expression-substance: <i>Phonetics</i> The pronunciation of a sound sequence by a particular person, hic et nunc	Expression-purport: Amorphous, unformed sound sequence

First, purport refers to amorphous thought-less concepts of both expression and content. There is the amorphous mass and an unanalysed thought of the meaning, which is known as content-purport. Thus, the content-purport of emotive NLEs refers to the amorphous mass and an unanalysed thought of the different emotional states across languages and cultures. For example, there are numerous emotions, including love, joy, surprise, anger, sadness, fear, etc. On the other hand, there is the amorphous thought-less sound mass of the expression plane known as expression-purport (cf. Hjelmslev 1963: 55-57). It refers to the amorphous “vocalic continuum” of the sequence of sounds across languages (cf. *ibid.*). The expression purport is like Halliday’s somatic environment, i.e. humanity’s biological potential for sounding (O’Grady 2020). In this way, expression-purport refers to the amorphousness of the sequence of sounds that are related to all the forms or expressions of NLEs across languages and cultures including emotive Hijazi NLEs.

In this way, the idea of amorphousness matches Peirce’s firstness, which refers to the vague, blank, thought-less components. This is because both content-purport and firstness agree on the point of the condition of the sign components with unmediated and unreflexive access (cf. Sáenz-Ludlow and Kadunz 2016: 4). Thus, purport and firstness refer to the sign as an undescribed concept.

Substance relates to how the speaker of a particular language carves up the thought-less purport and moves away from amorphousness (Taverniers 2008: 15). The concept of substance refers to the sign in forming process; it is neither more fixed nor more rigid. The substance is the cognitively spatio-temporal sign (Brandt 2014: 5). Thus, the expression-substance refers to the possible emotive NLEs that are picked, formed, and pronounced by Hijazi speakers here and now, and it only exists by virtue of its relationship with the

expression-form (cf. Taverniers 2008: 17-18; Hjelmslev 1963: 58). On the other hand, the content-substance is an area of purport that appears as the result of the specific way in which a particular language or dialect carves up or formulates the purport in particular situational contexts (Taverniers 2008: 16). Thus, the content-substance is the cognitive spatio-temporal meaning of the sign (Brandt 2014: 5). For instance, Hjelmslev (1963: 53) illustrates this by asserting that the content-substance refers to the colour “green” in the area of the entire colour spectrum, and this could be shaped differently based on different languages. For example, Welsh “glas” refers to another shade of what is known as green in English since Welsh “glas” is shaded in English as green, blue, or grey (ibid.). The content-substance of emotive Hijazi NLEs refers to the specific emotional state in the area of the entire emotions that could be shaped differently based on specific languages in specific spatio-temporal contexts. The expression-substance and content-substance are interconnected, as Hjelmslev (1963: 58) asserts that the “sign is a two-sided entity, with a Janus-like perspective in two directions, and with effect in two respects: ‘outward’ toward expression-substance and ‘inward’ toward the content-substance”. In this way, the substance is similar to Peirce’s secondness, as both of them give emotive Hijazi NLEs some sense of reality and existence in the experiential universe in specific spatio-temporal contexts. This is because they both agree on the point of the condition of the sign components with a mediated, but not yet reflexive, access (cf. Sáenz-Ludlow and Kadunz 2016: 4).

On the other hand, Hjelmslev’s (1963) form of the sign is the final formation of a function between two forms, namely the form-expression and form-content. It is the interrelation between the expression and the content that are parts of language itself. Only the form, not the substance or purport, pertains to language itself (Brandt 2014: 2). The form-expression refers to the rules of what is allowed to be an expression-form of signs as a specific language selects and interprets them from all the possible expression-forms in the whole world (cf. Hjelmslev 1963: 58-59). These expression-forms in specific languages are in turn determined by their being linked to a content of the sign (cf. Taverniers 2008: 18). In other words, the expression-form can only be characterised in relation to the sign function, which refers to the connection of the expression-form and content-form to constitute a sign. In the content plane, while the content-substance refers to the referential meaning (i.e. the thing) of the signs, the content-form refers to the signified meaning (i.e. the concept) (Brandt 2014: 5). In other words, “the signified content is the form [...] of the referential content. The articulation of form and substance in content is epistemic” (ibid.). The content-form refers to

the meaning that is expressed and defined in terms of the formation principles of a specific language; it is also characterised only in relation to the sign function (Hjelmslev 1961: 54). The content is a representational concept and cognitively spatio-temporal (*ibid.*). For example, the content-form of the meaning of disgust can be only characterised in relation to the expression-form of the sign in specific space and time, such as the emotive Hijazi NLEs [kix:], [jɛʕ], [uf:], [if:], etc. The form-expression of these Hijazi NLEs refers to their phonological form, in relation to the vocal actions that are motivated by the feeling of disgust.

Hjelmslev's (1963) form is similar to Peirce's thirdness, as both of them interrelate the sign with its meaning. Both of them are characterised only in relation to the sign function that indicates the connection between the sign and the meaning to constitute a sign. Both of them agree on the point of the condition of the sign components with mediation and reflexive access. Both of them deal with specific content (i.e. the content-form) among the other elements of content in relation to a specific sound expression (i.e. the expression-form) among the other sound expressions within one language or dialect. Both of them are related to the concept that shows how the meanings of emotive Hijazi NLEs interpret their actual expressions in specific situational and socio-cultural contexts. For example, Hijazi NLEs [ixxi:], [kix:], and [jɛʕ] are associated with disgust with a sound expression produced with contracted downwards lips because of the vowels /i/ and /ɪ/ (cf. Darwin 1872: 92, 258; Wierzbicka 1992: 178). Also, the expression-form of the Hijazi NLEs [ixxi:], [kix:], and [jɛʕ] contains guttural consonant phones, such as /k/, /x/, and /ʕ/. These guttural phones are produced using sound expressions simulating clearing the throat, vomiting or retching (cf. Wierzbicka 1992; Darwin 1872:258; Goddard 2014:14). The shape of the lips and the mimicking actions that correspond with the vocal expression of the Hijazi NLEs stand as icons, see Chapter 2 (2.3.2). Furthermore, the Hijazi NLEs [if:], [iffi:], [uf:], and [ɔffu:] are associated with the emotion of disgust using sound expressions produced with contracted downwards lips because of the /ɪ/ and /i/, or rounded lips because of the /u/ and /ɔ/. In addition, the expression-form of the Hijazi NLE [if:], [iffi:], [uf:], and [ɔffu:] contains the labial consonant /f/. This labial consonant is produced using vocal gestures that stand as icons that correspond to the action of spitting or blowing out of the mouth (cf. Darwin 1872: 92, 258; Wierzbicka 1992: 178). Those shapes of lips and mimicking actions that correspond with the vocal expression of the emotive Hijazi NLEs stand as icons.

Furthermore, the form, which indicates the relationship between the expression and the content of the sign in a particular language, indicates the connotative semiotic in Hjelmlev's (1963) model. Connotative semiotics "is a system in which the expression plane is a language, a linguistic sign, or a particular linguistic usage [...], and in which the content plane consists of aspects pertaining to different types of styles, tones, or varieties of language" (Taverniers 2011: 14).

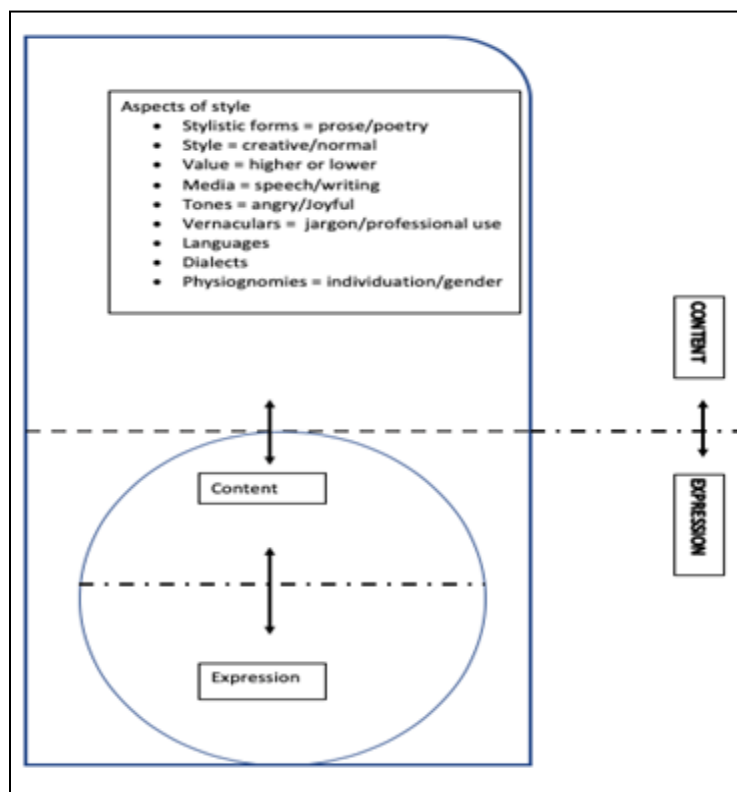


Figure 3.3: Hjelmlev's Connotative Semiotic (O'Grady 2020)

O'Grady (2020) claims that the first order semiotic sign in Hjelmlev's model is the expression plane for a connotative semiotic. In Figure 3.2, he illustrates the expression plane in Hjelmlev's connotative semiotic as consisting of another layer of expression and content. The small rectangles on the right show the connotative semiotics' planes of content and expression. The lower part of Figure 3.2, which indicates the expression plane, also consists of another content and expression. The upper part of Figure 3.2 shows that the content plane of the semiotic sign is characterised in relation to the variable aspects of style, which are connoted by language and they are related to the expression of the sign. Those aspects of

styles are the connotative aspects of signs, such as when using different tones (e.g. angry or joyful) for exactly the same text. Also, in the current study, the indexical and iconic components of the emotive Hijazi NLEs that correspond with the mimicking of some vocal actions based on different emotional states are the aspects of style that explain the connotative semiotic of the Hijazi NLEs as semiotic signs.

Hjelmslev's connotative semiotic is described as the higher-level system of interpretation, in which aspects of Hjelmslev's connotative semiotic interpret the relation between content and expression (Taverniers 2011). In addition, in this higher-level system, the theme of stratification plays a central role in the further development of the design of the interpretation of the sign. To explain further, in this higher-level system of interpretation of the semiotic sign, the stratification is already interpreted, more abstractly, in terms of realisation or meta-redundancy (Taverniers 2011: 30). Meta-redundancy indicates "the relationship through one element on one level redounding with, co-occurring with, another element on a different level" (Taverniers 2011: 56). It lies behind the stratification, or "the notion of hierarchy relationships, relations of relations of relations" (Lemke 2015: 120; see also Lemke 2005). It refers to the dynamic realisation relations among the stratification (cf. Halliday 1992: 24-25). It means that there is a dynamic relationship between the strata within every plane, and there is also a dynamic relationship between the forms of the two planes, i.e. the content-form and the expression-form. It revolves around the fact that "there is emergent complexity above and beyond the redundancy we find at a single level of abstraction" (Martin 2015: 48). Also, meta-redundancy refers to the contextualising relations, in which the interpretation of the stratification is more abstractly based on dynamic semiotic systems according to socio-cultural and situational context (Martin 2015: 48; Taverniers 2011; cf. Halliday 1994). For example, in the current study, the idea of the indexical and iconic components of the emotive Hijazi NLEs that correspond with the mimicking of some vocal actions suggests that the content-form and the expression-form in specific situational contexts exist in a very tight meta-redundancy relation; see examples on page 114.

Emotive Hijazi NLEs show a meta-redundant relationship by which speakers link their eco-social environment to non-random expressions (cf. Halliday and Matthiessen 2014: 25). The meta-redundancy of emotive Hijazi NLEs is to understand the natural relationship between their expression-form and their content-form (i.e. meanings), by mapping the content of internal experience onto vocal gestural expressions in specific socio-cultural and situational contexts. In this case, we relate the meaning of our emotional or mental states not

only with a sound sequence with a specific phonological structure, but also with the vocal motors of producing this specific phonological structure in a specific context (cf. Halliday and Matthiessen 2014: 25). Thus, the relationship between the indexical and/or iconic emotive NLEs and their meanings is not a one-way relationship (i.e. redundant), but rather it is a multi-way relationship (i.e. meta-redundant). Also, in specific contexts, the realisational relationship between the content and expression of the emotive Hijazi NLEs, more specifically between content-form and expression-form, is predicative not determinative. For example, in specific contexts, the content of disgust, which is a type of the emotion of anger; see Shaver et. al.'s (2001) emotions classification Chapter 2, Table 2.2), is 'associated' with expressions of the Hijazi NLEs [ixxi:], [kix:], [jɛɕ], [if:], [iffi:], [uf:], and [ɔffu:]. This means that there is a meta-redundant relation between them. In specific contexts, if there is a meaning of disgust (S) > anger (B), we can predict the realisation of the Hijazi NLEs [ixxi:], [kix:], [jɛɕ] [if:], [iffi:], [uf:] or [ɔffu:]. Furthermore, in the same or a similar context, if any of these Hijazi NLEs are produced, we can predict the meaning of the disgust (S) > anger (B). "This relationship is symmetrical; 'redounds with' is equivalent both to 'realizes' and to 'is realized by'" (Halliday 2002: 356). In other words, there seems to be a strong probabilistic relationship between expression and self or other in specific situational contexts of anger.

The speaker increases information such as the integration of iconic and indexical signs to the emotive NLEs. In other words, we interpret the vocal expressions of the speakers as redounding (i.e. contextually integrating) with the internal emotional states and intentions (cf. Thibault 2004:171). The contextual redundancies are constructed between the emotional experiences, such as love, joy, anger, sadness, and fear, and clusters of body expressions such as the vocalisations that correspond to the mimicking actions (cf. Thibault 2004:171). So, the information is grounded in the speaker's mind in intrinsic awareness of the sign and provides models for possible actions in the world (Thibault 2004:171).

Halliday redefined his concept of realisation to align it with Lemke's (2015, 2005) meta-redundancy (cf. Halliday and Matthiessen 2014: 27). There is a dynamic meta-redundancy or a realisational relationship between the strata of the content and the expression planes (cf. Halliday 1992: 24-25). Halliday also assumes that the spoken sign is an interface between sound and meaning (Bache 2010: 25-65; cf. Halliday 2003; Halliday and Matthiessen 2014: 24). Like Hjelmslev (1963), Halliday divides the sign into two strata that are characterised in relation to the sign function of a connection between the stratum of content (i.e. the meaning) and the stratum of expression (i.e. the sign) (Halliday and

Matthiessen 2014: 24-26). The content plane expands into two strata: lexicogrammar (the wording) and semantics (the meaning). The expression plane also expands into two strata: phonetics (the speech sounds) and phonology (the structure of the speech sounds).

In the human mind, these strata are interrelated in terms of realisation (Halliday and Matthiessen 2014: 25). Halliday presents a model of realisation among the strata from the perspective of the speaker. See Table 3.3 below.

Table 3.3: From Eco-social Environment to Soundwaves: Speaker Perspective (Halliday and Matthiessen 2014: 26)

[from environment to] meaning:	interfacing, via receptors	semantics
[from meaning to] wording:	internal organisation	lexicogrammar
[from wording to] composing:	internal organisation	phonology
[from composing to] sounding:	interfacing, via motors	phonetics

Halliday assumes that the speaker begins the sign’s meaning-making on the content stratum, which is divided into semantics and lexicogrammar (Halliday and Matthiessen 2014: 25). He claims that, in step one, the speaker realises their internal experience into meaning, and this is the stratum of semantics, for example, how Hijazi speakers feel towards something in specific situational and socio-cultural contexts.

In the second step, after realising the internal experience on the semantic stratum, speakers realise the meaning through wording, and this is the stratum of lexicogrammar. Halliday (2003: 194) claims that lexicogrammar is the crucial part of the language, and it is the abstract level of coding. Lexicogrammar refers to the underlying component of the meaning-making system of a language. It is structured by the expressive and communicative functions (Halliday 2003: 194). So, at the most delicate end of the system of lexicogrammar we can find expressions including fixed forms such as the NLEs, and it is the expression of an individual NLE that has meaning in specific situational and socio-cultural contexts. An example of this is how the NLE [kix:], which is associated with the emotion of disgust, functions to command a child to move away from something disgusting. In this way, emotive Hijazi NLEs do not just include the meaning of the speaker’s current internal emotions and state of mind, but they also include speech functions to express, ask, request, and command through an emotional content (i.e. ‘I feel something’).

Halliday claims that, in real-life situations, there are four primary speech functions: offer, command, statement, and question. These four speech functions correspond with two fundamental types of speech role: (i) giving and (ii) demanding, which are related to the nature of two commodity exchanges: (a) goods and services or (b) information (cf. Halliday and Matthiessen 2014: 135). This is explained further in Table 3.4:

Table 3.4: Halliday's Speech Functions System (Halliday and Matthiessen 2014: 136)

	Commodity exchanged	
Role in exchange	(a) goods-&-service	(b) information
(i) giving	'offer' would you like this teapot	'statement' he's giving her the teapot
(ii) demanding	'command' give me that teapot!	'question' what is he giving her?

I suggest that emotive Hijazi NLEs function to express offers, commands, statements and questions (cf. Halliday and Matthiessen 2014: 135; Poggie 2009). Thus, the emotive Hijazi NLEs signal emotional states that are realised as speech functions. For example, the dental click Hijazi NLE [l^w|w^w|w^w] is associated with the emotional state of 'I am annoyed or angry'. It can fulfill two types of speech functions. First, it can fulfill the informative speech function of the statement, which provides information about the speaker's current emotion or mental state (i.e. 'I am annoyed', 'I feel angry'). Second, it can fulfil the directive speech function of commanding, in which the speaker demands a service from another person that relates to the speaker's current emotion or mental state. It is the equivalent of saying 'Stop the action which angers me'.

Halliday assumes that lexicogrammar is the process of wording which is expressed and performed from the point of view of the speaker (Halliday and Matthiessen 2014: 25). I therefore argue that emotive NLEs are holophrastic signs whose underlying emotional contents are codified in performative contents as whole speech functions all by themselves (cf. Poggie 2009: 172). Emotive Hijazi NLEs are considered to be speech functions because they realise performative and communicative purposes. For example, the Hijazi NLEs [aj], [aħ:], [ax:], and [ah:] realise the semantic stratum of an underlying emotional content of the

speaker's condition of feeling pain and performative content of the speech function of statement, which refers to offering information.

In this way, Halliday's semantic stratum is like Hjemslev's content-substance, as both of them refer to the psychological established mental or cognitive processes underlying the sign in specific situational and socio-cultural contexts. In other words, Halliday claims that substance is inside language (Martin 2013: 217). On the other hand, Halliday's lexicogrammatical stratum is like Hjemslev's content-form, as both of them refer to the performative and communicative content of the sign in specific situational and socio-cultural contexts.

Halliday and Matthiessen (2014) assume that after these two steps relating to content, speakers will continue with another two steps to structure and articulate the expression of the spoken semiotic signs. These other two steps occur in the expression stratum of the spoken signs, which is divided into phonology and phonetics. The expression stratum of the spoken sign interfaces with the environment and the human body (Halliday and Matthiessen 2014: 25). The human body represents "the biological resource with which sounding (or signing) is carried out" (ibid.; see Chapter 2 of the present thesis on biological embodiment). It is similar to Hjemslev's expression-purport that resembles Halliday's somatic environment, which indicates humanity's biological potential for sounding. Thus, in the first step of structuring the expression of the spoken sign, speakers articulate the spoken sign from wording to composing, or from lexicogrammar to phonology (ibid.). Phonology refers to the internal organisation of speech sound into the formal structures and systems of a specific language or dialect (ibid.). The phonology stratum is the composing of Hijazi NLEs by using the internal phonological organisation of the emotive NLE in Hijazi Arabic. For more information about phonetic and phonological structure, see Chapter 2 of the present thesis on the biological embodiment of emotive Hijazi NLEs.

In the second step of the spoken sign's structure, the speaker realises the sign from phonological composing to phonetic sounding, which interface via the biological resource of speech or phonetic motors (ibid.). Thus, the speaker takes the internal organisation of the sounds as a base and interfaces them with the vocal gestures as resources for sounding in a specific language or dialect (ibid.). This is the phonetic stratum. In this way, the phonetic stratum realises how Hijazi speakers articulate NLEs using specific vocal gestures and suprasegmental components that facilitate the understanding of the natural relation between

the NLEs and their meanings (cf. Wierzbicka 1992: 178). The phonological forms of those emotive NLEs that are accompanied by the mimicking of some vocal actions, and which are related to some emotional states, stand in an iconic relation between the emotive NLEs and their meanings (cf. Wierzbicka 1992: 178). For the examples of the Hijazi NLEs for disgust, [if:] and [kix:], see Chapter 7 (7.2.5 and 7.2.2), and for examples of the Hijazi NLEs for pain, [aj], [aħ:], [ax:], and [ah:], see Chapter 7 (7.3).

In this way, Halliday and Matthiessen's (2014) phonetic stratum is similar to Peirce's thirdness and Hjelmslev's (1963) expression-form. This is because all three of these – the phonetic stratum, the thirdness and expression-form – mediate between the semiotic signs and their meaning, or more specifically, between Hijazi NLEs and their meaning. All of them show how emotive Hijazi NLEs interpret their actual expressions.

This brings us back to the concept of meta-redundancy, or realisation as Halliday describes it. Halliday assumes that the realisational relation between the two strata of content (i.e. semantics and lexicogrammar) is natural because the “patterns of wording reflect patterns of meaning” (Halliday and Matthiessen 2014: 27). Moreover, he assumes that the realisational relation between the two strata of expression (i.e. phonology and phonetics) is also natural. In contrast, he assumes that the realisational relation between content and expression is largely conventional or arbitrary (Halliday and Matthiessen 2014: 27). However, he allows for some exceptions relating to spoken signs, such as phonaesthesia, onomatopoeia, and primary interjections. He claims that people use primary interjections to express their internal feelings and mental states via phonetics interacting with the human vocal gestures of the sounds' production (Halliday and Matthiessen 2014: 24-26, 474).

The realisational relation between the expression and content of emotive Hijazi NLEs is natural. The choice of specific vocal gestural expressions of NLEs (phonology and phonetics) realises the choice of performing them (wording), which realises the choice of the underlying content of a specific emotional state (meaning/semantics). To summarise, “what can be done is realized by what can be meant, and what can be meant is realized by what can be said” (Yang and Wang 2016: 58).

3.5 Summary

In this chapter, I have discussed the literature of semiotic theory with regards to the natural non-arbitrary relationship between Hijazi NLEs and their emotive and conative meaning. I

show that strong and compelling evidence exists allowing us to hypothesise that emotive Hijazi NLEs are motivated. They are signified by body reflexes through the mimicking of the vocal actions that correspond with their phonological forms, which show the iconic and indexical relations with their emotional meanings in specific situational and socio-cultural contexts. These indexical and iconic elements mediate between the emotive Hijazi NLEs and their meaning and also show that natural non-arbitrary Hijazi NLEs are symbolically accompanied by the mimicking vocal gestures that correspond with the phonological forms associated with emotional states.

With reference to some major concepts in semiotic theory, I discuss the concept of the natural and non-arbitrary indexical and/or iconic relationship between emotive Hijazi NLEs and their emotional meanings. For instance, based on Peirce's (1931-58) framework, I argue that emotive Hijazi NLEs represent the firstness (i.e. the vague, blank, thought-less feeling) of the secondness (i.e. the real idea in the experiential universe) through thirdness (i.e. the mediator, or intellectual experience). In this way, the indexical and iconic elements of emotive Hijazi NLEs work as mediators (thirdness) that relate those tokens with their meanings. On the other hand, based on Halliday and Matthiessen (2014), Halliday (1978), and Hjelmslev (1963), who define the semiotic sign as a part of stratified dynamic abstract system and is itself stratified, I argue that emotive Hijazi NLEs are stratified semiotic signs. There is an interactional relation between two orders of abstraction: the content plane (i.e. meaning) and expression plane (i.e. phonological form). Furthermore, the indexical and iconic components that correspond with the mimicking of some vocal actions suggest that content and expression exist in a very tight meta-redundancy relation. Meta-redundancy lies behind the relation between strata. It allows for the natural and dynamic realisational relations between the stratification of the expression and content of emotive Hijazi NLEs. The choice of specific vocal gestural expression of the NLEs has a meta-redundancy or realisation of the choice of performing emotive Hijazi NLEs (wording), which also has a meta-redundancy or realisation of the choice of the content of a specific emotional state (meaning/semantics).

Chapter 4

Research Methodology

4.1 Introduction

This study investigates the non-arbitrary relationship between emotive Hijazi NLEs and their emotional meanings based on a semiotic framework. As discussed in Chapter 3, emotive Hijazi NLEs are semiotic signs that are signified by body reflexes through the mimicking of the vocal actions that correspond with their phonological forms. This shows the non-arbitrary (i.e. iconic and indexical) relationship between emotive Hijazi NLEs and their emotional meanings in specific situational and socio-cultural contexts.

To examine this aim, I require knowledge of the form of the emotive Hijazi NLEs as well as their meanings. As a native speaker of Hijazi Arabic, I used my own observations to collect 34 Hijazi NLEs. I then designed an open questionnaire to collect the meanings of these linguistic items to examine their non-arbitrariness. This method was used because the Hijazi NLEs do not appear in Arabic dictionaries in general and in Hijazi Arabic dictionaries in particular. Also, because though I personally know some of the meanings of those Hijazi NLEs as a native speaker, this does not mean that I know all their meanings and uses. Thus, I decided to collect the meanings of these NLEs as they are recognised by Hijazi speakers with different social variables in the Hijazi community to ensure that I captured an accurate account of these linguistic items. In this way, the open questionnaire provides the meaning(s) of every Hijazi NLE as they are used by a sample of Hijazi participants in their everyday life.

This open questionnaire was used in two pilot studies, as will be explained in detail in this chapter (see Section 4.4). It should be noted that, although I examined all 34 of these Hijazi NLEs, due to space restrictions, I will only be able to discuss 27 of them, which are the ones that are associated with emotional meanings.

Before presenting the pilot studies, I will detail the methods of collecting the data for the current study. I will also provide information about the target sample of this study, which was selected according to different social variables, including gender, age, dialect, and educational background. In addition, I will discuss the validation of the content, the translation process, and ethical issues.

4.2 Research Methods

This study used an open question as a qualitative method to collect the meanings and usage of NLEs in the Hijazi community. The questionnaire is one of the most popular data collection methods in linguistics and social sciences, as the researcher can find answers to questions in a systematic manner (Dewaele 2018: 269; Dörnyei and Taguchi 2009: 1). It is a research tool for measurement purposes to collect valid and reliable data (Dewaele 2018: 269; Dörnyei and Taguchi 2009: 3).

In this study, the main questionnaire was available to answer between the 7th of October, 2016 and the 28th of February, 2017. It was designed and posted online through applications such as Twitter and Instagram. I also sent a link to the survey by e-mail and WhatsApp to my family, friends, and colleagues, and asked them to send it to any Hijazi speakers they knew. Online questionnaires are commonly used in linguistics and applied linguistics, as they have many advantages, which outweigh the disadvantages (Dewaele 2018). Advantages of online questionnaires include the potential access to much larger numbers of people and the fact that the questionnaire can be completed anywhere and at any time (Dewaele 2018: 72; Dörnyei 2007: 121).

Another advantage is anonymity, as there is no interaction between the researcher and the participants (Dewaele 2018: 72; Dörnyei 2007). There is therefore no pressure to participate, and this enhances the level of honesty in the responses (Dewaele 2018: 72; Dörnyei 2007). Because the questionnaire is anonymous, it is also ethically sound (Dewaele 2018). This anonymity protects participants' rights, as no one, even the researcher, should recognise themselves or somebody they know in the research (Dewaele 2018). I used SurveyGizmo to design the survey, as each participant is given a number which allows them to remain anonymous. In the present study, the participants are identified as P-1, P-2, P-3, etc.

On the other hand, Dewaele (2018: 72) highlights a major limitation of questionnaires, particularly online questionnaires, which is “the inevitable self-selection bias”. This means that “potential participants can decline to fill out the questionnaire or participate without much enthusiasm and leave some questions unanswered or start to answer at random” (Dewaele 2018: 72). I faced this disadvantage in relation to the questionnaire for the present study, as I received responses from 637 participants, but only 321 answered the survey in its entirety. The others left some questions unanswered. The responses of those

participants who did not complete the survey were not included in the data. I decided to remove the incomplete responses for two reasons. The first of which was that they could skew the statistical results. The second and more important reason was that incomplete responses may indicate, as Dewaele (2018) notes, limited engagement with the survey. This is not to deny that even partial responses could be informative, but luckily I had a sufficiently high number of responses for present purposes.

4.3 Participants

The target sample of this study was any adult Hijazi speaker over the age of 18. This section will present a sample of the Hijazi speakers that were selected according to the following social variables:

4.3.1 Gender

The target group for the current study was all adult Hijazi speakers. This meant that both females and males were included.

4.3.2 Age

This study was concerned with adults and not children, and included participants in five age ranges:

- Group A (18-25)
- Group B (26-35)
- Group C (36-45)
- Group D (46-55)
- Group E (56 and older).

4.3.3 Hijazi Sub-dialect

As discussed in Chapter 1, Hijazi Arabic has three main varieties: Urban, Tribal, and the mixed dialect Urban and Tribal Hijazi. In the survey, I asked the participants to choose which speak community they belong to, though of course this does not tell us which form or forms they use in their daily communication. This was to ensure that the meanings collected would encompass potentially different points of view, experiences and opinions.

4.3.4 Educational Level

Here, I will present some statistical information about the educational background of the participants. The questionnaire took place between October 2016 and February 2017, and figures provided by the General Authority of Statistics in the Kingdom of Saudi Arabia (GaStat) show that, at that time, more than half of the Saudi population aged 25 years or above had completed secondary or higher education. The percentage of Saudi males who had a university degree or higher was 28.1%, while the percentage of Saudi females with a university degree or higher was 25.5%.

Figures released by GaStat also show that there were equal number of males and females in primary and intermediate education. However, males were more prevalent in secondary education than females. Enrolment in secondary education reached 92 female students per 100 male students. The opposite was the case in higher education, where enrolment reached 107 female students per 100 male students.

GaStat also provides statistical information about the number of people in the Saudi population who were enrolled in school in 2017, according to age and school level: see Table 4.1 below.

They also provide information about the educational levels of adult Saudis (25 years and over) in 2017, according to gender, as shown in Figure 4.1 below.

The survey asked the participants to choose their educational background based on the system of education in Saudi Arabia, which includes preliminary, primary, intermediate, secondary, bachelor, masters, and PhD. Figure 4.1 shows that the highest percentages are of females and males with a bachelor's degree and at secondary school level, and females at preliminary school level. Thus, in this study, all 321 participants were classified according to four social variables, which are: age, gender, education, and dialect.

As discussed earlier, although the participants who completed the questionnaire had different social variables, the aim of this study was not to measure the frequency of the meanings and uses of the NLEs among the speakers with different variables, but to illustrate the non-arbitrary relationship between the emotive Hijazi NLEs and their meanings. Thus, the main aim of this questionnaire was to collect the meaning of the selected 34 NLEs as they are used in the Hijazi community. However, as I clarified earlier that due to space restrictions, I will only be able to discuss 27 of these, which are the emotive NLEs that are associated with

emotional meanings.

Table 4.1: Saudi Population Enrolled in School, by Age and School Level

Age	إجمالي السكان Total population	Enrolled by school level المتعلمون حسب المرحلة الدراسية											العمر	
		جدة المتعلمين Total enrolled	متوسطة Ph. D.	ماجستير Master	بكالوريوس Higher Diploma	الجامعة Bachelors	بكالوريوس نون الجامعة Pre-Univ. Diploma	الثانوية Secondary	بكالوريوس الثانوي Pre-Secondary Diploma	المتوسطة Intermediate	الابتدائية Primary	صينية اريضة preliminary		
3	509133	15038	0	0	0	0	0	0	0	0	0	0	15038	3
4	460517	47354	0	0	0	0	0	0	0	0	0	0	47354	4
5	537106	196385	0	0	0	0	0	0	0	0	10919	185466	5	
6	397212	380330	0	0	0	0	0	0	0	0	363452	16878	6	
7	365573	361788	0	0	0	0	0	0	0	0	361788	0	7	
8	405887	402929	0	0	0	0	0	0	0	0	402929	0	8	
9	417956	417314	0	0	0	0	0	0	0	0	417314	0	9	
10	417252	416428	0	0	0	0	0	0	0	0	416428	0	10	
11	398059	397813	0	0	0	0	0	0	0	17709	380104	0	11	
12	380811	372769	0	0	0	0	0	0	0	333440	39329	0	12	
13	373303	360526	0	0	0	0	0	0	0	353774	6752	0	13	
14	331039	322791	0	0	0	0	0	6243	0	313657	2891	0	14	
15	379930	367803	0	0	0	0	0	279441	1342	82635	4185	0	15	
16	382455	367593	0	0	0	0	0	332577	2490	30421	2105	0	16	
17	306225	282427	0	0	0	1093	1433	268016	1043	9902	1040	0	17	
18	369483	299770	0	0	0	112404	9773	161218	2249	14126	0	0	18	
19	352802	259881	0	0	0	178587	15293	59022	1083	5896	0	0	19	
20	428897	300842	0	0	0	250101	20172	26610	931	3028	0	0	20	
21	394435	245109	0	324	0	200585	19412	21366	911	2511	0	0	21	
22	435626	206358	0	0	0	185263	11396	8765	0	934	0	0	22	
23	375213	136002	0	430	1518	118617	8623	6166	648	0	0	0	23	
24	385297	69927	0	1708	562	60931	4299	2427	0	0	0	0	24	
25	412212	41469	449	1077	442	31197	3823	4481	0	0	0	0	25	
26	375706	25156	73	1657	0	18068	2997	1601	780	0	0	0	26	
27	424917	20723	406	1610	109	17017	783	449	349	0	0	0	27	
28	379599	15069	502	2357	0	8898	1050	2262	0	0	0	0	28	
29	345896	11490	460	1002	561	6836	1029	1602	0	0	0	0	29	
30+	8479341	71244	2206	7924	382	47331	3635	9766	0	0	0	0	+30	
Total	19221882	6412128	4096	18089	3574	1236928	103718	1192012	11806	1167933	2409236	264736	الجملة	

Source: Education and Training Survey 2017 _General Authority for Statistics

المصدر: مسح التعليم والتدريب 2017 _الهيئة العامة للإحصاء

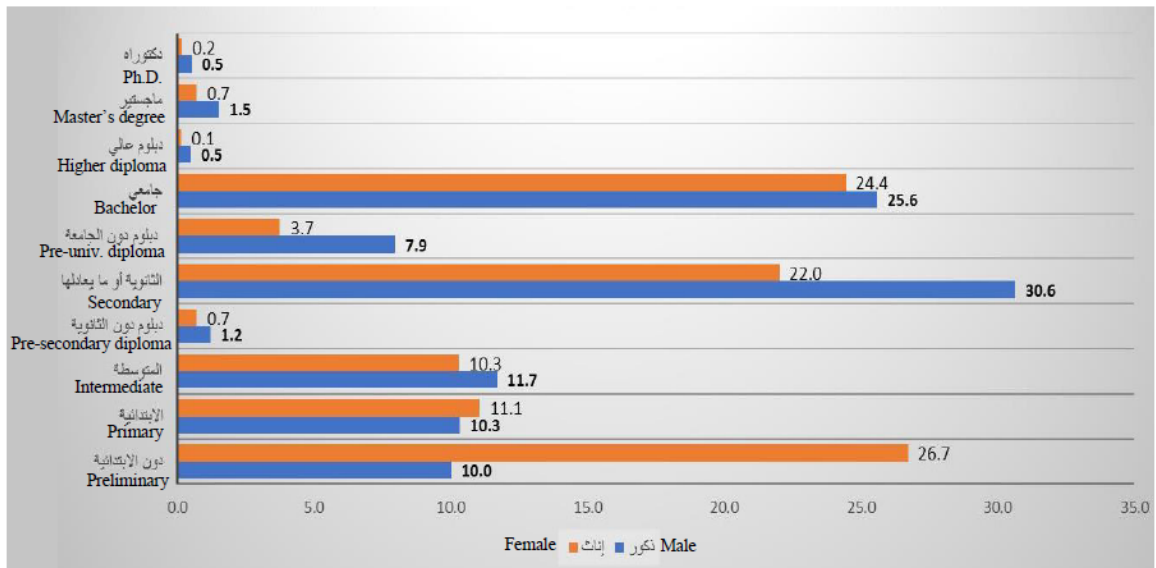


Figure 4.1 The Educational Levels of Adult Saudis (25 years and over) in 2017

4.4 Method Used for Collecting the Hijazi NLEs

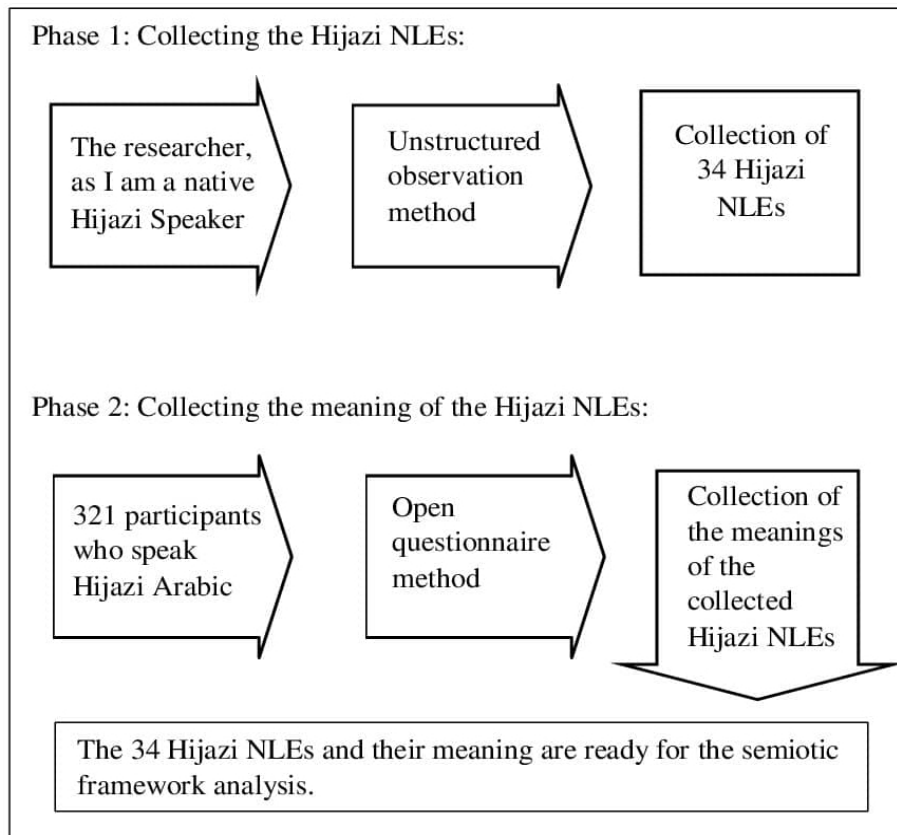


Figure 4.2 Method Used for Collecting the Hijazi NLEs

Figure 4.2 above shows the data collection procedure. It clarifies how the Hijazi NLEs themselves were collected and how their meanings were collected. As mentioned above, I used the unstructured observation method to collect the emotive Hijazi NLEs themselves and the open questionnaire qualitative method to establish the meanings of these emotive Hijazi NLEs.

4.4.1 Collection of the Hijazi NLEs using Unstructured Observation Methods

In the current study, the Hijazi NLEs themselves were collected mainly through the method of observation. This method was used because NLEs do not appear in Arabic dictionaries in general, and in Hijazi Arabic dictionaries in particular. Observation is defined as “the systematic description of events, behaviors, and artifacts in the social setting chosen for study” (Marshall and Rossman 1989: 79). This method is commonly used for qualitative data collection where the researcher takes on the role of the participant in order to collect and store notes within a natural part of the specific culture or context that he/she is aiming to observe (Trochim 2006).

I decided to choose the unstructured observation method, since “the observer records any behavior or event which is relevant to the research questions being investigated” (Gorman and Clayton 1997: 105). This method of observation is helpful since there is no interaction between the researcher and the informants, and therefore events are recorded naturally as they occur (Creswell 1994: 150). To be specific, “the aim of linguistic research in the community must be to find out how people talk when they are not being systematically observed; yet we can only obtain these data by systematic observation” (Labov 1972: 209). Labov (1972) also believes that the biggest problem with collecting natural data lies in the “observer’s paradox” when speakers are aware that they are being recorded. Thus, he presumes that the absence of the researcher will help speakers to present their normal speech (Labov 1972: 209). For this reason, I used an open questionnaire to collect the meaning of these Hijazi NLEs, as will be discussed in detail in Section 4.4.2 below.

Furthermore, “participant observation often requires months or years of intensive work because the researcher needs to become accepted as a natural part of the culture in order to assure that the observations are of the natural phenomenon” (Trochim, Donnelly, and Arora 2015: 63). Thus, as I am a native Hijazi-speaker living in Al-Hijaz region, I began to collect the data of the Hijazi NLEs first-hand, particularly in February 2015, before I had enrolled for my PhD. In order to do this, I noted the form of every NLE I heard by recording

my own production of the NLE.

Since I am a Hijazi speaker, I am aware of all the collected NLEs, even though I do not use them in my daily discourse. For example, I do not use [ixxi:], although I can identify its meanings since I am used to hearing it in the surrounding context. In contrast, I regularly use the labial-palatal clicks [Oʃ] and [Oʃ], and the dental clicks [lʷ], [lʷ|lʷ|lʷ] and [l | l | l]

Furthermore, I am aware of and can use all the other NLEs with the exception of the NLEs [ɔffu:] and [ɪffii], which I am aware of but do not use. So, I know them, but I always prefer to use [uf:] and [ɪf:] instead, which are associated with similar meanings. Moreover, I usually use these kinds of tokens in informal contexts only, including [m:], [Oʃ], [Oʃ], [lʷ], [lʷ|lʷ|lʷ], [l | l | l], [həh], [afə], [ɔf], [ɔbba:], [ɔb], [wej], [wah:], [wal], [ju:], [ah:], [uf:], [ɪf:], [ɔs], [ʃʷ:], [ixxi:], [kix:], [jɛʃ], [ah:], [ax:], [ah:], [aj], and [ax:]¹⁰. Table 4.2 shows the NLEs I know and their meanings, and whether I use them or not.

Table 4.2: Meanings of the Collected Hijazi NLEs from the Researcher's Perspective

Hijazi NLE	Meaning(s)	I know its meaning(s), but I rarely use it	I use it
[lʷ]	To express annoyance		✓
[l l l]	To express contempt towards someone		✓
[lʷ lʷ lʷ]	To express annoyance, or to stop someone from doing something		✓
[kix:]	To express disgust and to warn a child not to make a mistake		✓
[ixxi:]	To express disgust at something, or contempt towards someone		✓
[Oʃ]; [Oʃ]	Self-admiration; disliking or disbelieving something or someone		✓
[afə]	To express disappointment		✓
[ɔf]	To express surprise and shock		✓
[uf:]	To express annoyance or disgust at an unpleasant smell		✓
[m:]	To express enjoyment of food or thinking about something		✓
[jɛʃ]	To express the feeling of disgust		✓
[ɪf:]	To express annoyance or disgust at an unpleasant smell		✓
[ɔbba:]	To express shock arising from a huge unexpected event that has taken place		✓

¹⁰ In the current study, these Hijazi NLEs are transcribed phonetically using the IPA, as some, such as clicks, are unwritable.

Hijazi NLE	Meaning(s)	I know its meaning(s), but I rarely use it	I use it
[ɔb]	To express shock		✓
[ju:]	It is a way of nagging that is used to express annoyance		✓
[ʃw:]	It is like saying ‘Be quiet’		✓
[ɔs]	It is like saying ‘Shut up’		✓
[ah:]	To express a feeling of pain, especially physical pain		✓
[ax:]	To express heartbreak, regret, sadness, sorrow, homesickness or nostalgia		✓
[ah:]	To express heartbreak, regret, sadness, sorrow or psychological and physical exhaustion		✓
[wej]	To express surprise and wonder		✓
[wah:]	To express surprise and shock		✓
[ɪffi:]	To express the disgust arising from an unpleasant smell	✓	
[wal]	To express shock and envy		✓
[ɔffu:]	To express the disgust arising from an unpleasant smell	✓	
[aj]	To express the feeling of physical pain		✓
[həh]	It is like saying ‘I dare you’		✓

4.4.2 Methods of Collecting the Meanings of the Hijazi NLEs

In this study, I examined the meanings of the Hijazi NLEs through two pilot studies as well as the main study. All gave the same instruction:

“Please listen carefully to the following NLEs, and then choose one of the following three options:

I have not heard this NLE before.

I know the NLE but do not know its meaning(s).

I know of the meaning of the NLE.”

The final option was accompanied by a text box to allow participants to fill in the meaning(s) of the NLEs that they knew. The first two options were provided to establish the existence of those NLEs in the Hijazi community. In other words, they determined whether

the participants were aware of these NLEs. In contrast, the final option concerns the meaning(s) of the NLEs. It examines the participants' awareness of the meaning of those NLEs. These three options accompanied every Hijazi NLE collected in this study.

However, the difference between the two pilot studies was the way in which the NLEs were presented. In the first pilot study, I used audio files to present the NLEs, while I used videos in the second one. This change from audio to video was based on the participants' recommendations after the first pilot study, since, at the end of the survey, I asked them if they had any recommendations, comments, or opinions.

In order to explain this further, in the following Sections, 4.4.3 and 4.4.4, I will describe the first and second pilot studies in detail.

4.4.3 First Pilot Study

In the first pilot study, I collected the meanings of the Hijazi NLEs from a group of only 11 Hijazi speakers using the open questionnaire to check its applicability as a qualitative method.¹¹ On the first page of the survey, there was an introduction and description of the study and its purpose, followed by questions designed to obtain general information about the participants' gender, age, Hijazi sub-dialect, and education level. In the second stage, I asked the participants about the meanings of the Hijazi NLEs using the open-ended question.

In this pilot study, the 11 Hijazi speakers were classified into two groups according to gender. Table 4.3 below contains a summary of information about the informants participating in the survey:

Table 4.3: Summary of Informants Participating in the Open Questionnaire

Gender Group	Number of participants	Participant	Age	Education	Dialect
Female	7 Hijazi speakers	P-3	Group A (18-25)	Bachelor's degree	Urban Hijazi
		P- 5	Group A (18-25)	Master's degree	Tribal Hijazi
		P- 6	Group A (18-25)	Bachelor's degree	mixed dialect
		p-7	Group B (26-35)	PhD	mixed dialect
		p-8	Group B (26-35)	Bachelor's degree	Urban Hijazi
		p-9	Group C (36-45)	Bachelor's degree	mixed dialect
		p-11	Group D (46-55)	Bachelor's degree	mixed dialect

¹¹ These responses were not used as part of the 321.

Gender Group	Number of participants	Participant	Age	Education	Dialect
Male	4 Hijazi speakers	P-1	Group A (18-25)	Bachelor's degree	Urban Hijazi
		P- 2	Group B (26-35)	Bachelor's degree	Urban Hijazi
		P4	Group C (36-45)	PhD	mixed dialect
		P-10	Group E (56 +)	Master's degree	mixed dialect

As discussed earlier in Section 4.4.2, in the first pilot study, I provided short audio files and an open-ended question to ask about the meaning of every Hijazi NLE. In recording the audios of every Hijazi NLE, I was assisted by my brother Feras Assaadi as a presenter. He is a 23-year-old Hijazi male who lives in Jeddah. I said every NLE aloud and asked him to repeat it three times. As has been noted, I collected the meanings of the 34 selected Hijazi NLEs. However, due to space restrictions, I am only able to discuss 27 of them here, which are the emotive ones that are associated with emotional meanings. Furthermore, in the first pilot study, there were only 25 emotive Hijazi NLEs as the other 2 NLEs were subsequently recommended by Ziyad Masood who was the expert who validated the videos in the second pilot study. I will discuss this in detail later in Section 4.4.4. Thus, the responses of the 11 participants for the 25 Hijazi NLEs in the first pilot study are presented in Table 4.4 below.

Table 4.4: Participants' Responses in the First Pilot Study

NLE	Participants who selected 'I know of the meaning of the NLE' and provided meaning(s)		Participants who selected 'I know the NLE but do not know its meaning'	Participants who selected 'I have not heard this NLE before'
	Possible meaning(s)	Marginal meaning(s)		
[kix:]	<ul style="list-style-type: none"> Disgusting: 6 To prevent a child from making a mistake: 10 			
[Oʔ]	<ul style="list-style-type: none"> Dissatisfaction with or dislike of a situation: 8 Used when wondering about something: 2 	Understatement: 1		
[afə]	<ul style="list-style-type: none"> To reproach someone for doing something unexpectedly: 10 	Wondering: 1		

NLE	Participants who selected 'I know of the meaning of the NLE' and provided meaning(s)		Participants who selected 'I know of the meaning of the NLE' and provided meaning(s)	Participants who selected 'I have not heard this NLE before'
	Possible meaning(s)	Marginal meaning(s)		
[uf:]	<ul style="list-style-type: none"> To express annoyance: 11 			
[m:]	<ul style="list-style-type: none"> Wondering: 4 Understanding: 5 Tasty (with food): 8 Remembering: 5 			
[jɛŋ]	<ul style="list-style-type: none"> Disgusting: 10 			
[ɪf:]	<ul style="list-style-type: none"> Annoyance: 10 Unpleasant Odour: 4 			
[ɔbba:]	<ul style="list-style-type: none"> Shocking: 6 Unexpected: 5 		P-2 P-5	
[ɔb]	<ul style="list-style-type: none"> Negative surprise: 5 Surprise: 4 Playing with kids: 3 	Forgetting something: 1	P-8	
[ɔf]	<ul style="list-style-type: none"> Express shock: 11 			
[ju:]	<ul style="list-style-type: none"> Annoyance: 6 Forget something: 5 	Disapproval: 1		
[ʃw:]	<ul style="list-style-type: none"> Command silence: 8 To ask for calm: 2 	Order animals to move: 1		
[ɔs]	<ul style="list-style-type: none"> Command silence: 9 To ask for calm: 4 		P- 8	
[m:]	<ul style="list-style-type: none"> Understanding: 5 Enjoying food: 8 Remembering: 4 			
[aɦ:]	<ul style="list-style-type: none"> Pain: 8 Warning someone about and ordering someone to move away from a harmful thing (usually used with children): 3 	Something unexpected happened: 1		
[ax:]	<ul style="list-style-type: none"> Heartbreak: 5 Regret: 3 Pain: 4 Exhaustion: 4 	Forgetting: 1		
[aɦ:]	<ul style="list-style-type: none"> Pain: 11 			
[wej]	<ul style="list-style-type: none"> Astonishment and wonder: 11 	Disapproval: 1		

NLE	Participants who selected ‘I know of the meaning of the NLE’ and provided meaning(s)		Participants who selected ‘I know of the meaning of the NLE’ and provided meaning(s)	Participants who selected ‘I have not heard this NLE before’
	Possible meaning(s)	Marginal meaning(s)		
[wah:]	<ul style="list-style-type: none"> • Astonishment: 10 	Disapproval:1		
[if:i]	<ul style="list-style-type: none"> • Disgust at an unpleasant odour: 11 			
[wal]	<ul style="list-style-type: none"> • Negative surprise: 8 • Shock with envy: 5 			
[ɔffu:]	<ul style="list-style-type: none"> • Disgust at an unpleasant smell: 11 	Warning a child about disgusting things: 1		
[aj]	<ul style="list-style-type: none"> • Pain: 11 			
[həh]	<ul style="list-style-type: none"> • Disdain: 8 • I dare you: 5 			
[l ^w]	<ul style="list-style-type: none"> • Annoyance: 9 • No: 4 			

Based on the participants’ answers in the first pilot study, there are three types of outcome, which are: 1) participants selected ‘I have not heard this NLE before’, 2) participants selected ‘I know the NLE but do not know its meaning’, 3) participants selected ‘I know of the meaning of the NLE’ and provided meaning(s). I divided the last type of answer into possible meanings and marginal meanings.

The second column in Table 4.5 above shows the meanings that were commonly and frequently provided by the participants. In other words, it shows the meanings provided by all or most of the participants.

The third column in the Table 4.4 above shows marginal meanings, which were not commonly provided by the participants. These meanings were only provided by a single participant. These marginal meanings were not taken into consideration and were not included in the analysis. Likewise, this study is only concerned with the meanings of the Hijazi NLEs that were provided by at least 10% of the participants. For example, Table 4.5 shows that, in the first pilot study, one participant provided the meaning of disapproval for the Hijazi NLE [Oʔ], one participant provided the meaning of forgetting for [ax:], one participant provided the meaning of forgetting for [afə], one participant provided the meaning of forgetting for [ʃ^w:].

The fourth and fifth columns in Table 4.4 above show the options ‘I know the Hijazi

NLE but do not know its meaning(s)', and 'I do not know the Hijazi NLE'. The aim of the current study was not to ascertain why Hijazi speakers were not familiar with the meaning of some of the NLEs, or even why they had not heard them before. However, the main reason for including these two options was to exclude unfamiliar NLEs from the analysis. The results show that none of these Hijazi NLEs were totally unidentifiable to all the participants.

In the final section of the survey, I asked the participants whether they wanted to leave any additional thoughts, recommendations, comments, or opinions. Four females and two males recommended changing the audio files to videos because some NLEs, especially the clicks, were not clear enough. This was most likely due to the fact that the clicks are produced using similar places of articulation. So, they needed to listen to the sound files many times to understand the NLE. Thus, though the first pilot study that focused on the audio files does not show any negative consequences for analysis, I decided to design a second study, which included videos instead of audio files in order to facilitate and clarify the questionnaire for the participants.

The pilot study using an open questionnaire method proved successful and appropriate and was therefore employed for this thesis. However, based on the participants' recommendation to use videos instead of audio files, I made another pilot study, in which I followed their recommendation. This had the added advantage that "[I]n contrast to audio and text records video has the potential to visually record the situational use of language, including spatially-encoded linguistic information, gesture and eye gaze" (Ashmore 2008: 77).

4.4.4 Second Pilot Study

In the second pilot study, I gathered together a small group of 10 Hijazi speakers: five females and five males with different ages, educational levels, and Hijazi sub-dialects.¹² Firstly, I asked them the same closed questions for general information about their gender, age, Hijazi sub-dialect, and education level. Table 4.5 shows a summary of that information.

¹² These responses were not used as part of the 321.

Table 4.5: Summary of Informants Participating in the Second Pilot Study

Gender group	Number of participants	Participants	Age	Education	Dialect
Female	5 Hijazi speakers	P-2	Group A (18-25)	Bachelor's degree	mixed dialect
		P-3	Group B (26-35)	PhD	Urban Hijazi
		P-6	Group B (26-35)	Bachelor's degree	mixed dialect
		P-9	Group B (26-35)	Bachelor's degree	Urban Hijazi
		P-10	Group C (36-45)	Bachelor's degree	mixed dialect
Male	5 Hijazi speakers	P-1	Group A (18-25)	Bachelor's degree	mixed dialect
		P-4	Group C (36-45)	Bachelor's degree	Tribal Hijazi
		P-5	Group C (36-45)	Bachelor's degree	mixed dialect
		P-7	Group E (56 +)	Bachelor's degree	Urban Hijazi
		P-8	Group E (56 +)	Secondary	Urban Hijazi

I used the same methods and instruction that I had used in the open questionnaire of the first pilot study. However, I rephrased the instruction to make it suitable for asking about videos. The question was therefore changed to:

“Please watch the following videos, listening carefully to their content, and then choose one of the following three options:

I have not heard this NLE before.

I know the NLE but do not know its meaning(s).

I know of the meaning of the NLE.”

The final option was accompanied by a text box to allow the participants to fill in the meaning(s) of the NLEs that they knew. Every recorded video of every Hijazi NLE was followed by these three options. In recording the videos of the emotive Hijazi NLEs, I was assisted by the same presenter who recorded the audios for the first pilot study. As before, I said every NLE aloud and asked him to repeat it three times. I also asked him to present the NLEs in the most neutral way possible, with limited facial expressions. Undeniably, he could not control all his facial expressions, but at least he could control some gestures like the eyes, the eyebrows, etc.; see Chapter 2 (2.3) for more explanation.

After recording the videos for every Hijazi NLE, it was important to ensure that the videos were accurately presented. The content of the videos of the Hijazi NLEs was therefore validated by professional Hijazi linguists. I explained to these experts that I needed the presenter to control his facial expressions, to avoid the restriction of the possible meanings

associated with these NLEs. The questionnaire aims to investigate if the form and meanings of the emotive Hijazi NLEs are recognised across the Hijazi community. All the five experts supported the idea of producing the NLE with limited facial expressions. These five experts validated the accuracy of the way in which the presenter in the videos articulated every Hijazi NLE with limited facial expressions as much as possible. This kind of validity is known as the validity of the content. It refers to whether a panel of experts agrees that the statements about a specific topic are related to what they are supposed to measure. The item has validity if agreement is obtained from the experts (Siniscalco and Auriat 2005: 77).

Each linguist was asked to comment on every Hijazi NLE after watching the videos.¹³ I also asked them whether they had any recommendations. Table 4.6 below shows that three of the experts – Dr Hamza Alfadhil, Miss Nada Alshahrani, and Miss Sumaiyah Turkistani – agreed on the accuracy of the production of all the Hijazi NLEs. Mr Ziyad Masood also confirmed that all the Hijazi NLEs were presented in an accurate way, but he suggested a useful addition, drawing my attention to the production of the dental click [ʷ] and the labio-dental click [ʷʃ].

He recommended that that the dental click be presented in three different ways: as a isolated sound [ʷ]; by repeating the sound quickly [ʷʷʷʷ]; and by repeating the sound slowly [ʷ | | | ʷ]. Thus, I added two more ways of presenting the dental click based on the recommendation of Ziyad Masood.

Ziyad Masood and Nada Alshahrani further suggested that the NLE [ʷʃ] could express pleasant and unpleasant emotional meanings. With pleasant positive emotional meanings such as liking something or someone, it should be produced with lips that mimic their position when smiling [ʷʃ]. With unpleasant negative emotional meanings such as sorrow, it is produced with lips that mimic their position when unsmiling [ʷʃ]. Thus, I asked the presenter to produce the labio-platal click [ʷʃ] in two different ways in two separate videos.

¹³ All five validators are qualified to validate the presenting of the Hijazi NLEs in the videos because they are professors of linguistics and they are Hijazi speakers.

- Hamza Alfadhil (associate professor), in the Language and Translation department, Taibah University.
- Ziyad Masoud (teaching assistant), in the Language and Translation department, Taibah University.
- Abdulrahman Alarabi (teaching assistant), in the Language and Translation department, Taibah University.
- Nada Alshahrani (teaching assistant), in the department of English, University of Jeddah.
- Sumaiyah Turkistani (teaching assistant), in the department of English, University of Jeddah.

Table 4.6: Content Validation of the Experts

Hijazi NLEs	Dr Hamza Alfadhil	Miss Nada Alshahrani	Miss Sumaiyah Turkistani	Mr Ziyad Masood	Mr Abdulrahman Alarabi
[w]	Accurate	Accurate	Accurate	Accurate, but you need to add two more different productions. Add the articulation with a quick repetition, and another articulation of the same sound with a slow repetition.	Accurate
[kɪx:]	Accurate	Accurate	Accurate	Accurate	Accurate
[Oʔ]	Accurate	It could be produced with lips that mimic their position when smiling and unsmiling based on positive and negative emotional meanings.	Accurate	It could be produced with lips that mimic their position when smiling and unsmiling based on positive and negative emotional meanings.	No answer
[afə]	Accurate	Accurate	Accurate	Accurate	Accurate
[ɔf]	Accurate	Accurate	Accurate	Accurate	Accurate
[uf:]	Accurate	Accurate	Accurate	Accurate	Accurate
[m:]	Accurate	Accurate	Accurate	Accurate	Accurate
[jɛʕ]	Accurate	Accurate	Accurate	Accurate	Accurate
[ɪf:]	Accurate	Accurate	Accurate	Accurate	Accurate
[ɔbba:]	Accurate	Accurate	Accurate	Accurate	Accurate
[ɔb]	Accurate	Accurate	Accurate	Accurate	Accurate
[ju:]	Accurate	Accurate	Accurate	Accurate	Accurate
[ʃw:]	Accurate	Accurate	Accurate	Accurate	Accurate
[ɔs]	Accurate	Accurate	Accurate	Accurate	Accurate
[aħ:]	Accurate	Accurate	Accurate	Accurate	Accurate

Hijazi NLEs	Dr Hamza Alfadhil	Miss Nada Alshahrani	Miss Sumaiyah Turkistani	Mr Ziyad Masood	Mr Abdulrahman Alarabi
[ax:]	Accurate	Accurate	Accurate	Accurate	Accurate
[ah:]	Accurate	Accurate	Accurate	Accurate	Accurate
[way]	Accurate	Accurate	Accurate	Accurate	Accurate
[wah:]	Accurate	Accurate	Accurate	Accurate	No answer
[if:fi]	Accurate	Accurate	Accurate	Accurate	Accurate
[wal]	Accurate	Accurate	Accurate	Accurate	Accurate
[ɔffu:]	Accurate	Accurate	Accurate	Accurate	Accurate
[aj]	Accurate	Accurate	Accurate	Accurate	Accurate
[həh]	Accurate	Accurate	Accurate	Accurate	Accurate

Therefore, in the second pilot study, I added more videos to demonstrate the other types of articulation of the Hijazi NLEs [w] and [Oʃ], in line with Mr Masood's suggestion, as outlined in Table 4.6 above. I then sent these videos to the all the other four experts to validate their accuracy. Mr Abdulrahman Alarabi validated that all the Hijazi NLEs were accurate in their production. However, he provided no answer for [Oʃ] and [wah:], saying, "Due to limited input, I have no answer".

Miss Sumaiyah Turkistani and Mr. Ziyad Masoud were generous and also provided the meanings of these 27 Hijazi NLEs, though I only asked them to validate the videos. Their answers are presented in Table 4.7:

Table 4.7: Meanings of the Hijazi NLEs Provided by the Experts

NLE	Miss Sumaiyah Turkistani	Mr Ziyad Masood
[w]	To express boredom or rejection	To express rejection
[w w w]	To warn a child	To express anger
[]	To express sorrow towards sad events	To express sorrow
[kix:]	To express disgust at an unpleasant odour, or it is a way of grumbling because of boredom	To express disgust
[Oʃ] / [Oʃ]	An expression of liking something	To express sorrow or liking someone or something.
[afə]	An expression of disappointment	To express disappointment
[ɔf]	An expression of surprise or shock	To express surprise or shock
[uf:]	An expression of disgust at an unpleasant odour, or an expression of annoyance	To express annoyance

NLE	Miss Sumaiyah Turkistani	Mr Ziyad Masood
[m:]	To express enjoyment of food	To express the understanding of something
[jɛʕ]	An expression of disgust	To express disgust
[ɪf:]	An expression of disgust at an unpleasant odour, or an expression of annoyance	To express disgust at a bad smell
[ɔbba:]	An expression of shock	To express surprise or shock; it is rarely used in my community
[ɔb]	An expression of shock	Although I have not heard it in my community, I think it expresses surprise or shock
[ju:]	To express boredom or the sudden perception of bad or sad news	It is a way of grumbling about boredom or a way to express annoyance and anger
[ʃw:]	To order silence	To order silence
[ɔs:]	To order silence	To order silence
[aħ:]	An expression of pain	To express pain
[ax:]	An expression of sadness	To express psychological pain
[ah:]	An expression of heartbreak	To express psychological and physiological pain
[wej]	An expression of the surprise	To express surprise or shock
[wah:]	An expression of shock	To express surprise or shock; it is usually used by women
[ɪffi:]	An expression of disgust at an unpleasant odour	To express disgust at the bad smell
[wal]	An expression of shock	To express surprise or shock
[ɔffu:]	An expression of disgust at an unpleasant odour	To express disgust at a bad smell
[a]	An expression of pain	To express pain
[həh]	An expression of arrogance	To express contempt towards someone

The meanings they provided were similar to what I already knew as a native speaker; see Table 4.2. However, they were not identical. Though all of us, the experts and I, understood all the Hijazi NLEs, we recognised different meanings. For example, in Table 4.2, I provided the meaning of ‘to express annoyance’ for the Hijazi NLE [ʃw]. On the other hand, Miss Sumaiyah Turkistani provided the meaning of ‘to express boredom or rejection’, while Mr Ziyad Masood provided the meaning of ‘to express boredom or rejection’. This does not mean that I did not understand that the Hijazi NLE [ʃw] can be associated with the meaning of boredom or rejection, but that the meaning of annoyance is what was in my mind at that moment. Also, you can find other examples if you compare between my answers in Table 4.3 and the experts’ answers in Table 4.8 above. This shows the importance of designing a survey to see how the Hijazi community recognises the meanings of these NLEs in a very detailed way.

Now that the videos had been validated, they were ready to be included in the second pilot study. The participants in the second pilot study gave the same types of answers that I had received in the first pilot study. There are three main types of outcome, which are: 1) participants selected ‘I have not heard this NLE before’, 2) participants selected ‘I know the NLE but do not know its meaning’, 3) participants selected ‘I know of the meaning of the NLE’, and provided meaning(s). I divided the last type of answer into possible meanings and marginal meanings. Table 4.8 below presents the participants’ answers in the second pilot study.

Table 4.8: Participants’ Responses to the Hijazi NLEs in the Second Pilot Study

Hijazi NLE	Participants who selected ‘I know of the meaning of the NLE’ and provided meaning(s)		Participants who selected ‘I know the NLE but do not know its meaning’	Participants who selected ‘I have not heard this NLE before’
	The Meaning(s) Collected	Marginal Meanings		
[w]	<ul style="list-style-type: none"> No: 10 	Not important: 1		
[w w w]	<ul style="list-style-type: none"> Command not to do something: 10 Warning not to do something: 4 Express disapproval of something: 2 			
[]	<ul style="list-style-type: none"> Dissatisfaction: 10 Unexpected behaviour: 4 			
[kix:]	<ul style="list-style-type: none"> Disgust: 5 Prevent a child from making a mistake: 4 	<ul style="list-style-type: none"> Ordering someone to leave something: 1 Forbidding someone to do something: 1 		
[O#]/ [O#]	<ul style="list-style-type: none"> Understatement: 4 Self-confidence: 5 Dissatisfaction or dislike of some situation: 5 	<ul style="list-style-type: none"> Wondering: 1 	P-1	

Hijazi NLE	Participants who selected 'I know of the meaning of the NLE' and provided meaning(s)		Participants who selected 'I know the NLE but do not know its meaning'	Participants who selected 'I have not heard this NLE before'
	The Meaning(s) Collected	Marginal Meanings		
[afə]	<ul style="list-style-type: none"> • Reproach someone for doing something unexpectedly: 4 • Disappointment: 6 			
[ɔf]	<ul style="list-style-type: none"> • Shock: 10 			
[uf:]	<ul style="list-style-type: none"> • Annoyance: 10 • Disgusting smell: 6 			
[m:]	<ul style="list-style-type: none"> • Wondering: 5 • Understanding: 3 • Enjoying food: 5 	<ul style="list-style-type: none"> • Yes: 1 		
[jɛʕ]	<ul style="list-style-type: none"> • Disgusting: 10 			
[ɪf:]	<ul style="list-style-type: none"> • Disgusting smell: 8 • Boring: 7 			
[ɔbba:]	<ul style="list-style-type: none"> • Shock: 6 • Be careful: 4 		P-1	
[ɔb]	<ul style="list-style-type: none"> • Shock: 9 		P-9	
[ju:]	<ul style="list-style-type: none"> • Annoyance: 9 	<ul style="list-style-type: none"> • Exhausting: 1 		
[ʃ ^w :]	<ul style="list-style-type: none"> • To command silence: 5 • To ask for calm: 8 	1		
[ɔs]	<ul style="list-style-type: none"> • Command silence: 10 			
[aħ:]	<ul style="list-style-type: none"> • Pain: 8 • Warning someone about and commanding someone to move away from a harmful thing (usually used with children): 3 			
[ax:]	<ul style="list-style-type: none"> • Heartbreak: 5 • Regret: 4 	<ul style="list-style-type: none"> • Forgetting: 1 		

Hijazi NLE	Participants who selected 'I know of the meaning of the NLE' and provided meaning(s)		Participants who selected 'I know the NLE but do not know its meaning'	Participants who selected 'I have not heard this NLE before'
	The Meaning(s) Collected	Marginal Meanings		
[ah:]	<ul style="list-style-type: none"> • Regret: • Heartbreak: 5 • Exhaustion: 4 	<ul style="list-style-type: none"> • A way of singing: 1 		
[wej]	<ul style="list-style-type: none"> • Surprise: 10 			
[wah:]	<ul style="list-style-type: none"> • Shock: 10 			
[iffi:]	<ul style="list-style-type: none"> • Disgust at a bad smell: 10 			
[wal]	<ul style="list-style-type: none"> • Shock: 10 • Envy: 4 			
[ɔffu:]	<ul style="list-style-type: none"> • Disgust at a bad smell: 10 • Warning someone about and commanding someone to move away from a harmful and disgusting thing (usually used with children): 4 			
[aj]	<ul style="list-style-type: none"> • Pain: 10 • Physical pain: 4 			
[həh]	<ul style="list-style-type: none"> • Disdain: 5 • Pride in one's own ability: 7 	<ul style="list-style-type: none"> • Laugh: 1 		

The open-ended questionnaire method used for the first and second pilot studies proved successful and appropriate, and this was therefore employed for this thesis. The next section of this chapter shows how I categorised the participants' responses in the main study based on how the second pilot study was carried out.

4.5 The Main Study

In the actual study, I used the same question, methods, and instruction that I had used in the open questionnaire of the second pilot study; see Section 4.4, and see the question on page 122. As mentioned earlier in Section 4.2, the main questionnaire was available to answer between the 7th of October, 2016 and the 28th of February, 2017. It was posted online through applications such as Twitter and Instagram. I also sent it as a link by e-mail and WhatsApp to my family, friends, and colleagues, and asked them to send it to any Hijazi speakers they knew.

In those five months, I received 613 responses. However, only 321 responses have been included, as they were the only fully completed ones. *Fully Completed* means that every participant answered every single question in the survey, since some of the participants only answered the beginning of the survey, perhaps because it was too long or for other reasons. These responses have been considered as incomplete, and they have been excluded from the analysis.

There were 321 Hijazi participants who answered the questionnaire completely who were classified according to four social variables: age, gender, education, and dialect. There were 141 males and 180 females. Those 321 Hijazi participants were classified into five groups depending on their age, as shown below:

- Group A: Participants aged 18-25
- Group B: Participants aged 26-35
- Group C: Participants aged 36-45
- Group D: Participants aged 46-55
- Group E: Participants aged 56+

Each time a questionnaire was collected, I went over the participant answers at the beginning to ensure that the participant had answered every single question. Then I grouped their answers in a notebook that was divided into five sections based on the five age groups. I also divided every section of these five sections into two sections depending on the gender. Thus, the first section in the notebook includes the answers of the females and males who belonged to age group A (18-25), and so on.

As mentioned in Section 4.2, the responses were elicited anonymously: each participant is given a number, which allows them to remain anonymous. I used SurveyGizmo to design the survey, and this provided a number for each of the participants. Thus, I used the

coded numbers as provided by SurveyGizmo. The participants are identified as P-1, P-2, P-3, etc.

This way of organising the responses facilitates the process of categorising the participants' answers and hence mapping them onto Shaver et al.'s (2001) emotions classification that I discussed in Chapter 2 (2.2). The next section details the method used to analyse, categorise, and map the participants' responses.

4.6 An Overview of the Method Used to Categorise and Analyse the Participants'

Responses

The analysis of the data of the current study, either in the pilot studies or in the main study, was carried out in two basic steps, namely translating and categorising the participants' responses. The process of categorising the participants' responses included six further steps of coding. The process of coding helps to providing a label or categorisation for a large amount of data that shares similar themes or patterns (Heigham and Croker 2009: 80, 102). The analysis of the meanings of the emotive Hijazi NLEs in the questionnaire went through seven steps in total.

In the first step of analysing the data, I translated all the meanings of every emotive Hijazi NLE that were provided by the participants into English, since the questionnaire was written in Arabic because the target sample was Hijazi Arabic. The collected meanings of the Hijazi NLEs were translated literally and figuratively because Arabic and English differ not only linguistically but also culturally. I therefore divided the translation process into two stages. In the first stage of the translation, I produced the literal and figurative translation of all the collected meanings alone. In the second stage of the translation, I asked for assistance from a native Arabic colleague Alaa Al-Ghamdi, who is a bilingual expert in linguistics, who works as a professor teaching English at Al-Taif University. She revised my translation to validate it and to prevent any errors in translation, interpretation, or typing. Here, I will provide a few of Miss Al-Ghamdi's comments on my translation as examples.

One of the issues she directed my attention towards was the translation of the following idiomatic phrase, which represents the meaning of the Hijazi NLE [O¶] relating to the emotion of admiration or love:

- /ja dzama:lj/
Vocative.particle beautiful.my
Oh, my beauty.

My translation was ‘How beautiful I am’, but her translation is more idiomatic and shows the actual meaning of [ja dzama:lj] as an Arabic counterpart.

Moreover, she directed my attention to the following idiomatic phrase, which also represents the meaning of the Hijazi NLE [O#] relating to the emotion of admiration or love:

- /ja sala:m/
Vocative.particle peace.
Oh, peace

“It is an idiom that expresses the liking of something.”

My translation merely described [ja sala:m] as a metaphorical idiomatic phrase. I simply wrote ‘It is an idiom that expresses the liking of something’. However, Miss Al-Ghamdi advised me to add ‘Oh, peace’, which is considered to be the English counterpart of [ja sala:m].

In the second step of the analysis, after I had finished the translations, I grouped the responses into categories by coding. For every Hijazi NLE, I coded the collected meanings provided by the participants that shared the same content as one phrase. For example, the nouns [fadʒʒah] and [sʿadmah], both of which mean ‘shock’, are synonyms. Furthermore, some participants provided the same content with different responses, as in the phrases [fadʒʒtani] and [sʿadmtani], which mean ‘You shocked me’, and the idiomatic phrase [fadʒʒtani ja fex], which means ‘Hey you, you shocked me’. Moreover, some participants provided the same content through the adjectives [mafʒzu:ʕ] and [masʿadu:m], which mean ‘He is shocked’. All these noun phrases and adjectives are associated with similar content, which is the meaning of shock. Therefore, due to the huge number of responses provided by the 321 participants that had cognate content for every emotive Hijazi NLE in this study, I attempted to code all the responses that shared similar content as a single response. I chose the most frequent responses that were repeatedly provided by the participants and used them as codes, or representative examples, for all the other responses that had similar content. For example, I used the noun [sʿadmah] ‘shock’ as a prototypical example to express the meaning ‘shock’ instead of the noun [fadʒʒah] or the other phrases and adjectives that are associated with the same content, because [sʿadmah] ‘shock’ was provided more frequently than the

other forms. For more information about the meanings provided by every participant, see Appendix E.

As a third step, I grouped together the responses that had similar content, but, unlike the examples in the previous paragraph, were not identical. For instance, to describe the NLE [wah:], the participants provided content that is related to the meaning of shock in general, such as [s'admah] 'shock' in the previous paragraph. However, they also provided content specifically related to being shocked by unexpected bad news, such as the death of someone or any other bad news.¹⁴ This content is not identical: general shock can arise for any reason, such as someone's behaviour, certain actions, events, etc. In this instance, the participants did not specify what kind of shock they were referring to, as they just provided the meaning of 'shock'. In contrast, the other content is specifically related to shock arising as a result of bad news. However, although these responses are not identical, they have similar content that is related to negative surprise. The analysis therefore categorised all similar responses that shared similar content in order to create general definitions to use as representative examples for every NLE. For instance, for the Hijazi NLE [wah:] the representative example that categorised all the similar responses that shared similar content is:

A shocked reaction towards a sudden bad event or unexpected bad news; shock directed at people who unexpectedly did something bad or towards a negative event.

I repeated this process with all 27 emotive Hijazi NLE with different emotional meanings. In this way, it was possible to establish one general meaning for all the emotive Hijazi NLEs that have similar contents. I thereby arrived at different definitions for every NLE, such as the one in italics above.

In the fourth step, I grouped together all the similar definitions that were provided for different Hijazi NLEs into further categories relating to Shaver et al.'s (2001) emotions classification, which I discussed in Chapter 2. In Chapter 2, I discussed Shaver et al.'s (2001) six basic emotions: love, joy, surprise, anger, sadness, and fear. On the basis of this, I categorised all similar definitions related to each Hijazi NLE under love, joy, surprise, anger, sadness, or fear. For example, 'a shocked reaction towards a sudden bad event or unexpected

¹⁴ I will show numerical information under the analysis of the meaning of every Hijazi NLE later in this chapter in order to establish whether the meaning is frequently recognised by the Hijazi community. However, in this introduction, my aim is to explain the process of the data analysis.

bad news; shock directed at people who unexpectedly did something bad or towards a negative event' is categorised under the emotion of surprise.

In the fifth step, I further categorised the emotive Hijazi NLEs that had been grouped under Shaver et al.'s (2001) six basic emotions. For example, according to Shaver et al.'s (2001) emotions classification, the basic emotions can be categorised under the superordinate categories of positive, neutral, and negative emotions. The positive emotions include love and joy, the neutral emotion of surprise, and the negative emotions include sadness, anger, and fear; see Chapter 2 (2.2). However, because surprise can be neutral (i.e. neither negative nor positive) or it can also be a positive or negative emotion, I will classify it as mixed emotion instead of just neutral. Based on this classification, I grouped together all the Hijazi NLEs that are associated with love and joy under 'positive emotive Hijazi NLEs', all the Hijazi NLEs relating to surprise under 'mixed emotive Hijazi NLEs' and all the Hijazi NLEs relating to anger, sadness and fear under 'negative emotive Hijazi NLEs'.

For example, based on the participants' answers, the Hijazi NLE [wah:] is associated with the negative superordinate mode (SO) of the tertiary emotions (T) astonishment and amazement, which are types of the secondary emotion (S) of surprise, which is itself a type of the basic emotion (B) of surprise according to Shaver et al.'s (2001) emotions classification. For more explanation of the category of surprise, see Chapter 2 (2.2).

As part of this step, I also grouped the Hijazi NLEs under their functional meanings. In Chapter 3, I argued that the Hijazi NLEs that are associated with emotional meanings may fulfil different speech functions relating to statements, commands, offers or questioning; see Chapter 3 (3.3). I therefore grouped together all the Hijazi NLEs that fulfil different speech functions. This enabled me to ascertain whether the Hijazi NLEs that have related meanings also share similar expressions or forms, see representations of phonetic representations outlined in chapter 2.

The sixth step of the analysis was related to numerical information, as I examined how many of the 321 participants were aware of the existence of every emotive Hijazi NLE that is associated with an emotional meaning. For each Hijazi NLE, this showed the number of participants who selected: 1) 'I have not heard this NLE before'; 2) 'I know the NLE but do not know its meaning(s)'; 3) 'I know of the meaning of the NLE', but did not provide a meaning; 4) 'I know of the meaning of the NLE' and provided meaning(s)'. Table 4.9 below

is a sample template that I used to describe this numerical information of the Hijazi NLEs based on the 321 participants' answers.

Table 4.9: Sample Templet Used to Present Statistical Information about the Meanings of the NLEs provided by 321 Participants

Hijazi NLE	Participants who selected 'I have not heard this NLE before'	Participants who selected 'I know the NLE but do not know its meaning(s)'	Participants who selected 'I know of the meaning of the NLE' but did not provide a meaning	Participants who selected 'I know of the meaning of the NLE' and provided meaning(s)	The meaning(s) of the NLE provided by the participants
NLE 1	-	-	-	-	-
NLE 2	-	-	-	-	-

It should be noted that sometimes the number of participants who provided a specific meaning for a Hijazi NLE is not equal to their total number, as some participants provided more than one meaning for the same NLE. The number of responses is therefore greater than the number of participants. To illustrate this point, in Appendix D, there are tables containing detailed quantitative information about how the Hijazi participants responded to every Hijazi NLE.

It should also be noted that the last type of answer could be marginal meanings. As discussed in Section 4.4.3, these marginal answers had a very low percentage rate (i.e. only 10% of the 321 participants provided this meaning for the NLE). I did not include these answers in this study. However, I describe them as marginal meanings in order to show that they are not incorrect, but, as only a small percentage of participants provided them, they require additional research beyond the scope of this thesis.

Finally, the seventh step was to establish the results of the analysis. I grouped together all the Hijazi NLEs that share the same meanings and categorised them under one heading, based on their emotive meanings according to Shaver et al.'s (2001) emotions classification: positive love and joy, mixed surprise, and negative anger, sadness or fear. After this stage, the data was ready for the semiotic analysis. In other words, the data was organised in a manner to allow me to explore the non-arbitrary relationship that groups the emotive Hijazi NLEs that share similar emotional meanings and shares some common phonetic features and are

represented by body reflexes through the mimicking of emotional actions in specific situational contexts.

4.7 Some Interesting Responses

Although all the participants' answers were provided as words or phrases or the context in which the NLEs are used, out of the 321 responses in the questionnaire for the main study, there were six interesting responses that attracted my attention. For instance, participant 356, who is female and from age group A, responded with full definitions for the NLEs, with the result that her answers were like a dictionary. Also of note are participant 458, who is male and from age group A, participants 544 and 547, who are females from age group B, and participant 365, who is male and from the age group B, who provided their answers in English even though the survey question was in Arabic. Moreover, participant 551, who is female and from age group B, provided the English interjections that are counterparts of the Hijazi NLEs as her answers. Table 4.10 below represents the responses of participant 551 as an example.

Table 4.10: Responses of Participant 551

Emotive Hijazi NLEs	Participant 551
[tʷ]	tut-tut!
[tʷ tʷ tʷ]	tut-tut! tut-tut! tut-tut!
[l l l]	tut-tut! tut-tut! tut-tut!
[bɪs]	Psst! Hey, you!
[kɪx:]	Yuck! Ick! Eww! Ugh!
[Oʔ]	Humph! Ooh la la! Oh dear!
[afə]	Aww!
[ɔf]	Ooh! What! Uh-oh! Oh no! Oops! OMG! Gee!
[uf:]	Fie! Pew! Pff!
[m:]	Mmm! Yummy!
[jɛʕ]	Yuck! Ick! Eww! Ugh!
[ɪf:]	Fie! Pew! Pff!
[ɔbba:]	Uh-oh! Oh no! Oops!
[ɔb]	Uh-oh! Oh no! Oops!
[ju:]	Blah! Dammit!
[bəs]	Stop!
[ʃʷ:]	Shh!

Emotive Hijazi NLEs	Participant 551
[ɔs]	Shh!
[aħ:]	Ouch!
[ax:]	Aww! Alas!
[ah:]	Aww! Alas!
[wej]	What! OMG! Gee! Really!
[wah:]	What! OMG! Gee! Really!
[iffi:]	Fie! Pew!
[wal]	What! OMG! Gee! Really!
[ɔffu:]	Fie! Pew!
[aj]	Ouch!
[həh]	Hah!

In Table 4.10 above, the participant provides the English counterparts of the Hijazi NLEs. She was the only participant who provided such a response. Her responses help the English reader to understand how the Hijazi NLEs are used in specific situational contexts like their English counterparts.

4.9 Ethical Issues

A report on any ethical issues raised by this study was submitted to the Cardiff University School of English, Communication & Philosophy (ENCAP), Faculty Research Ethics Committee. The project was deemed to be in full compliance with Ethics requirements and was hence approved by the ENCAP Ethics Committee. I received ‘full clearance’, which allowed me to undertake my research.

At the beginning of the questionnaire, the participants were given a description of the research. They were aware of the purpose of the survey, and of the estimated time for completion of the survey. Participants were also informed that they were free to withdraw from the study at any time. No harm would come to the participants by participating, refusing, or withdrawing. In this study, the data (the responses) were elicited anonymously through the online questionnaire, so I did not collect any personal information from participants such as their names or contact details.

The participants were also informed that their responses would not be collected until they submitted the survey by clicking the ‘done’ button at the end of the survey. Moreover, I provided them with my email address so that they could obtain any further information, if needed.

4.10 Summary

This chapter presented the main components of the research, such as the objectives, hypotheses, participants, the methodology used to collect the data, and the strategy and design of the questionnaire. There is also a detailed explanation of the first and second pilot studies. Moreover, at the end of the chapter, I discussed some interesting responses from some participants.

In this chapter, I provided a description of the open questionnaire that was designed to collect the meanings of the Hijazi NLEs in order to allow me to examine their non-arbitrariness. This method was used for a number of reasons. First, Arabic dictionaries in general and in Hijazi Arabic dictionaries in particular do not provide the meanings of these Hijazi NLEs. Second, despite knowing some of the meanings of those Hijazi NLEs as a native speaker, I needed to know accurately how they are recognised by the Hijazi participants with different social variables in the Hijazi community. For instance, as shown in Section 4.4.4, two out of the five experts who validated the videos of the Hijazi NLEs were generous and provided the meanings of the Hijazi NLEs, though I only asked them to validate the videos. Their answers were similar to what I already knew as a native speaker, though they were not identical. All of us, the two experts and I, understood all the Hijazi NLEs, though we used them differently. This does not mean that I did not understand that the meanings they provided are realised by the Hijazi NLEs, but the meanings I provided were what was in my mind at that moment. For more explanation, compare my answers in Table 4.2 and the experts' answers in Table 4.7. This shows the importance of designing a survey investigating how the Hijazi community use these NLEs.

The open questionnaire I used in this study investigated the recognition of Hijazi Hijazi NLEs in the Hijazi community. The sample of the Hijazi participants who answered the open questionnaire provided the meaning/s of every Hijazi NLE as they understood in their everyday lives.

It should be noted that although I examined 34 Hijazi NLEs in total, due to space restrictions, I am only able to discuss 27 of them, which are the emotive ones. I will analyse the meanings of 27 Hijazi NLEs, which were mapped onto Shaver et al.'s (2001) emotions classification, based on the participants' answers. Shaver et al. (2001) suggest a superordinate classification of the basic emotions: positive, negative, and neutral (i.e. neither negative nor positive). The basic emotions of love and joy are classified as positive emotions, the basic

emotions of anger, sadness, and fear are classified as negative emotions, and the basic emotion of surprise is classified as a mixed emotion as it can be neutral (i.e. neither negative nor positive), positive, or negative. I used these superordinate categories of positive, mixed, and negative emotions to divide the analysis of the current data into three chapters. Chapter 5 presents the analysis of the Hijazi NLEs that are mapped onto Shaver et al.'s (2001) positive emotions. Subsequently, Chapter 6 presents the analysis of the Hijazi NLEs that are mapped onto Shaver et al.'s (2001) emotion of surprise, as the emotion of surprise is the only basic emotion that can be neutral (i.e. neither negative nor positive). Besides, it can also be a positive or negative emotion. Thus, I will classify the emotion of surprise as a mixed emotion instead of just neutral. Finally, Chapter 7 presents the analysis of the Hijazi NLEs that are mapped onto Shaver et al.'s (2001) negative emotions.

Thus, the following chapter presents a general quantitative analysis related to the awareness of the Hijazi NLEs and their meanings as recognised across the Hijazi by a sample of 321 participants. Also, it presents the first part of the data analysis, which is the emotive Hijazi NLEs that are associated with the positive emotions love and joy regarding to Shaver et al.'s (2001) emotions classification.

Chapter 5

The Data Analysis I: The Quantitative Analysis and the Analysis of the Positive Emotive Hijazi NLEs

5.1 Introduction

This study aims to examine the non-arbitrary relationship between emotive Hijazi NLEs and their emotional meanings based on a semiotic approach. In Chapter 2, I analysed the form of the emotive Hijazi NLEs, i.e. the phonological articulations of the Hijazi NLEs, and diagrammed their articulation as a series of sequential gestures. The form or the expression of the Hijazi NLEs corresponds to the idea of the sound image (Saussure 1959). It refers to the material form, which can be seen and heard (Hjelmslev 1963). This chapter presents the first part of the analysis in which I will analyse the emotional meanings of the positive emotive Hijazi NLEs as they are expressed by the participants. Analysis of the participants' answers together with the previous analysis of the phonological articulations of the Hijazi NLEs, in Chapter 2, will enable us to examine and discuss the non-arbitrary relationship between the content and expression of the Hijazi NLEs.

As described in Chapter 2, Shaver et al.'s (2001) classification provides over a hundred emotions grouped under six basic headings: love, joy, surprise, anger, sadness, and fear. The Hijazi NLEs were mapped onto Shaver et al.'s (2001) basic emotions, including love, joy, surprise, anger, sadness, and fear. These basic emotions suggest some tentative generalisations about each emotion's cognitive representation, as every basic emotion has some prototypical features, including antecedents, expressions, physiological reactions, and behaviours (Shaver et al. 2001: 47). Thus, since the basic emotions offer tentative generalisations, they have universal meanings (Shaver et al. 2001).

Shaver et al. (2001) also suggest a superordinate classification of the basic emotions: positive, negative, and neutral (i.e. neither negative nor positive). The basic emotions of love and joy are classified as positive emotions; the basic emotion of surprise is classified as mixed emotion as it could be positive, negative, or neutral; and the basic emotions of anger, sadness, and fear are classified as negative emotions.

This chapter analyses the meanings of the positive emotive Hijazi NLEs, which were mapped onto Shaver et al.'s (2001) emotions classification, based on the participants'

answers. However, before analysing the positive emotive Hijazi NLEs, this chapter initially provides a general description for the quantitative data relating to the awareness of the Hijazi NLEs and their meanings in the Hijazi community presented by a sample of 321 participants with different age groups, gender, educational backgrounds, and Hijazi sub-dialects. The numbers shows that the Hijazi NLEs and their meanings are recognisable across the Hijazi community. The majority of the participants have access to the same meaning potentials for the positive emotive Hijazi NLEs, but they have slightly differences in how they conceive of them.

5.2 The Quantitative Description of the Awareness of the Hijazi NLE and their meaning/s:

This study examines 27 emotive Hijazi NLEs whose meanings were checked with an open questionnaire. The questionnaire elicited responses from Hijazi speakers with different ages, gender, Hijazi sub-dialects and educational backgrounds. Table 5.1 below provides the 321 Hijazi speakers who answered the questionnaire completely.

Table 5.1: Classification of the 321 Participants According to Social Variables

Age Group	Num.	Gender	Educational Level					Hijazi Dialect		
			IL*	Sec.*	BA	MA	PhD	TH*	UH*	TH+UH*
A. 18-25	77	F:38	3	10	20	5	0	5	18	15
		M:39	1	10	25	3	0	7	13	19
B. 26-35	92	F:62	1	2	32	17	10	9	27	26
		M:30	0	2	16	9	3	4	14	12
C. 36-45	54	F:29	1	6	15	3	4	5	13	11
		M:25	0	4	12	6	3	5	10	10
D. 46-55	60	F:34	1	6	22	3	2	3	18	12
		M:26	0	6	13	6	1	3	14	9
E. 56+	38	F:17	2	3	6	4	2	4	6	7
		M:21	1	1	14	2	4	0	13	9
Total	321	F:180	8	27	95	32	18	26	82	71
		M:141	2	23	80	26	11	19	64	59
			10	50	175	58	29	45	146	130

ILE: intermediate School Level. Sec.: Secondary School Level.

TH: Tribal Hijazi. UH: Urban Hijazi. TH+UH: mixed dialect between Tribal and Urban Hijazi.

The 321 Hijazi participants were classified into five groups depending on their age, as shown below:

- Group A: Participants aged 18-25
- Group B: Participants aged 26-35
- Group C: Participants aged 36-45
- Group D: Participants aged 46-55
- Group E: Participants aged 56+

Every age group contains both male and female Hijazi participants. The number of males and females in every age group is not equal, although some age groups are close to having an equal number of male and female participants, such as age groups A, C, D, and E. By contrast, some age groups show significant differences between the number of males and females: for instance, age group B, where the number of female participants is double that of males.

Moreover, in every age group and in both genders, there are Hijazi participants who speak different sub-Hijazi-dialects, either tribal Hijazi, urban Hijazi, or mixed dialect Hijazi (i.e. those who switch between the common and urban dialects). Furthermore, in every age group and in both genders, the participants also differ in their educational backgrounds, which range from intermediate school level through high school to Bachelor's degrees, Master's and PhDs.

In the questionnaire, the main question asks about the meaning of 34 Hijazi NLEs. The question provides respondents with three choices for every Hijazi NLE:

1. I have not heard this NLE before.
2. I know it, but I do not know its meaning/s.
3. I know it, and I know its meaning/s.

With the third choice, there is an accompanying text box that the participants were able to fill with the meaning/s of the Hijazi NLE that they know. I collected the meanings of every Hijazi NLE that were provided by the Hijazi participants. Then, I categorised similar meanings under one single meaning, I discussed this point in detail in Chapter 4 (4.6). At that point, I gathered all the meanings for each Hijazi NLE in one table, and this table belongs to

this specific Hijazi NLE. It should be noted that every Hijazi NLE has its own table, which contains its different meanings. I give a score for every type of answer, as follows:

1. I have not heard this NLE before = 0
2. I know it, but I do not know its meaning/s = 1
3. I know it, and I know its meaning/s = 2

N.B. I allocated a score of two if the participant chose the answer ‘I know it, and I know its meaning/s’ without providing any meaning in the accompanying text box. On the other hand, I continued scoring to follow the number of meanings the participants provided in the accompanying text box. Thus, the scoring continues as follows:

4. I know it, and I know its meaning/s, providing one meaning = 3
5. I know it, and I know its meaning/s, providing two meanings = 4
6. I know it, and I know its meaning/s, providing three meanings = 5
7. I know it, and I know its meaning/s, providing four meanings = 6
8. I know it, and I know its meaning/s, providing five meanings = 7

And so on.

Table 5.2 below provides the scores of the meanings for the 34 Hijazi NLEs that were provided by the 321 Hijazi participants, depending on their different ages, gender, sub-dialects, and educational backgrounds. Table 5.2 shows only the data from five participants as an example. For further information on the participants, please see the table in Appendix C.

Table 5.2: The Total Answers and Scores for all the Hijazi NLEs Provided by all the Hijazi Speakers

Participant	Score	Age	Gender	Hijazi sub-Dialects	Educational level
P-423	86	18-25	F	UH	HS
P-356	125	18-25	F	UH	BA
P-358	100	18-25	F	UH+TH	MA
P-353	99	18-25	F	UH+TH	MA

In descriptive statistics of the current study’s data, the following figural box plot shows visually the distribution of numerical data and skewness through displaying the data quartiles (or percentiles) and averages.

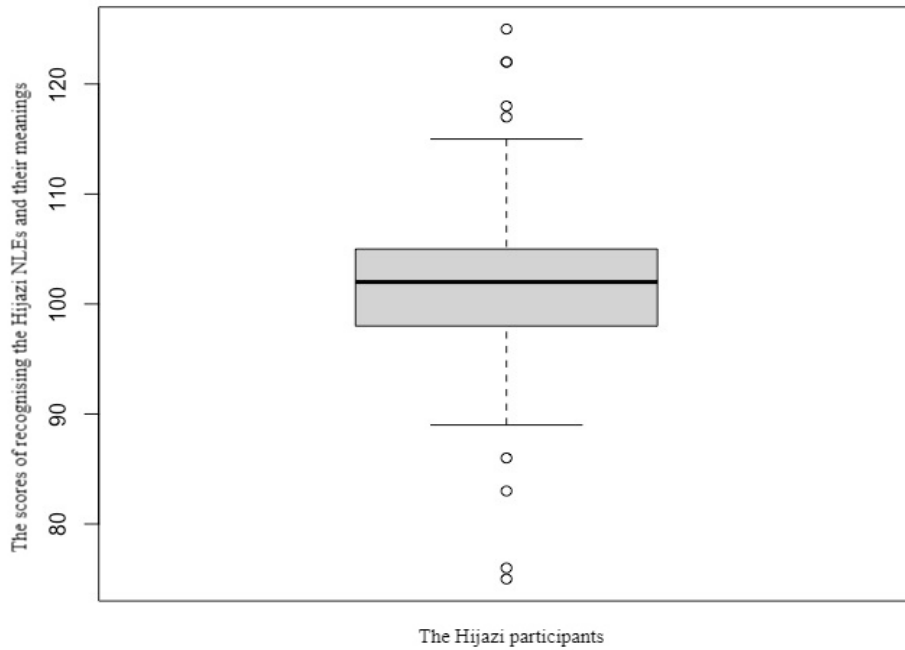


Figure 5.1: The Recognition of the Emotive Hijazi NLEs by 321 Hijazi Participants

Figure 5.1 illustrates that Hijazi NLEs are frequently recognised by 321 Hijazi participants, and hence they are recognised across the Hijazi community. First of all, it is essential to describe how to interpret the box plot, based on Levshina (2015):

- The thick line inside the small boxes is the **median**, which shows the middle value of the dataset (50%). In this data, it is 101.
- The small boxes inside the figure are the interquartile range (**IQR**), which shows the values in the dataset from 25% to 75%.
- **The first quartile (Q1)** shows the 25% value of the middle number between the median and the smallest number (not the “minimum”) of the dataset. In this data, it is the score of 98.
- **The third quartile (Q3)** shows 75% value of the middle number between the median and the highest value (not the “maximum”) of the dataset. In this data, it is the score of 104.

- **The whiskers** are the upper and lower dashed lines, which represent scores outside the middle 50%. The whiskers are never longer than 1.5 times (IQR). In this data, it is the range from the score of 89 to 117.
- **The outliers** are the small circles that represent the scores with unusually high or low values. Regarding the current data, they are very few. There are four participants with unusually high scores, and four participants with unusually low scores. These participants who provides the lower scores are a female from the age group A (18-25) who spoke urban Hijazi and scored 86, a male from the age group A (18-25) who spoke mixed urban and tribal Hijazi and scored 83, a male from the age group A (18-25) who spoke tribal Hijazi and scored 76, and a female from the age group B (26-35) who spoke Urban Hijazi and scored 75.
- **The maximum score** is the highest score, excluding outliers (shown above the whisker at the top). In this study, the maximum score is 115.
- **The minimum scores** is the lowest score, excluding outliers (shown at the end of the whisker at the bottom). In this study the minimum score is 86.

Furthermore, I examined the *P* value (i.e. the probability value), which is used to understand the statistical significance of the awareness of the Hijazi NLEs and their meanings in the Hijazi community. “The *P* value shows the probability of obtaining a given test statistic value or more extreme values if the null hypothesis is true” (Levshina 2015:11). To examine the *P* value, it is important to understand the null hypothesis (H_0) and the alternative hypothesis (H_1). The null hypothesis always predicts that there is no effect or no relationship between variables, while the alternative hypothesis is the research prediction of an effect or relationship. Researchers need them in quantitative analysis because contemporary science is based on the logic of falsification. It is impossible to prove that something is right, but it is possible to reject the opposite by rejecting the null hypothesis. The null hypothesis is the opposite of the alternative hypothesis. Researchers work to reject, nullify, or disprove the null hypothesis. Researchers come up with an alternative hypothesis, one that they think explains a phenomenon, and then work to reject the null hypothesis.

In the current study, the null hypothesis predicts that the Hijazi NLEs and their meanings are not recognised across the Hijazi community, while the alternative hypothesis is that the Hijazi NLEs and their meanings are recognised across the Hijazi community. To examine these hypotheses, I will find the *P* value throughout the one-sided or one-tailed t-

test, which examines the statistical significance in the one direction of interest. It means that I will compare the sample mean to a mean of zero to check whether the sample mean is significantly different from zero. I will compare the sample mean to a mean of zero because the data only have the sample mean; they have no other mean to compare it to. The result of this test is as follows:

P value < 0.00000000000000022

alternative hypothesis: true mean is not equal to 0

95% confidence interval:

101.1204 to 102.4945

sample estimates:

mean of x = 101.8075

From this output, we can see the 95% confidence interval for the mean (101.1 to 102.5) and of course we have got a very low P value to say that the mean is significantly different from zero. The traditional reporting of P value is (indicating only that $P \leq 0.05$; i.e., equal or less than 0.05). In other words, the P value usually indicates a rejection of the null hypothesis at equal or less than 0.05 significance level; i.e. equal or less than 5% significance level. The smaller the P -value, the more certainty there is that the null hypothesis can be rejected, and one has grounds to believe that the result is not due to chance. Thus, the output shows strong evidence for rejecting the null hypothesis and accepting the alternative hypothesis. So, the Hijazi NLEs are recognised through the Hijazi sample that contains 321 Hijazi speakers with different age, gender, and educational backgrounds, and who speak different Hijazi sub-dialects. As a result, the Hijazi NLEs seem to be recognised across the Hijazi community.

As the statistical test shows that there are no overall significant differences in recognising all the Hijazi emotive NLEs, in the following Section 5.3, as well as in the following Chapters 6 and 7, I will go through the data analysis in detail. I will analyse the responses from the survey using the method I discussed in Chapter 4 (4.4). While I was analysing the data, I found that, though the participants had access to all the potential meanings of all the emotive Hijazi NLEs, there are some emotive NLEs that show granular

differences in their recognition according to gender and/or age. These differences need further investigation that is beyond the scope this study.

Following the same seven steps, as discussed in Chapter 4 (4.6), I will analyse the Hijazi NLEs that are associated with positive emotional meanings in Section 5.3.

5.3 The Positive Emotive Hijazi NLEs

In Chapter 2, I argued that the prototypical basic emotions of love and joy share some common concepts and so have fuzzy boundaries (Shaver et al. 2001: 46-47). The concept of fuzzy boundaries refers to the gradual transitions between the prototypical basic emotions. Both are positive emotions that are associated with what a person wants, needs, and likes. Both reflect positive outcomes. Both are expressed by laughing and smiling. They are interrelated, as people always enjoy the thing they love, and they love what they enjoy.

Based on the participants' responses, all the positive emotive Hijazi NLEs, which are associated with the speaker's emotional state of love and joy, were mapped onto Shaver et al.'s (2001) emotions classification, as follows:

Table 5.3: The Hijazi NLEs Mapped onto Shaver et al.'s (2001) Positive Emotions Classification

Superordinate Category	Basic emotion	Secondary emotion	Tertiary emotion	The Hijazi NLEs
Positive emotions	Love	Affection	Adoration, fondness, liking, attractiveness, caring, tenderness, compassion, sentimentality	[m:] [O#]
	Joy	Cheerfulness	Amusement, bliss, gaiety, glee, jolliness, joviality, joy, delight, enjoyment, gladness, happiness, jubilation, elation, satisfaction, ecstasy, euphoria	[m:]
		Pride	Triumph	

Table 5.1 shows that Hijazi has two NLEs that are associated with the meanings of the emotion of love and joy, which are [m:] and [O#]. Before describing the analysis of these two

NLEs, I will present important information about the Hijazi NLE [O#].¹⁵ Some participants made comments such as “This is only used by women” to describe the Hijazi NLE [O#]/[O#]. Table 5.4 below shows the number of participants who provided this comment.

Table 5.4: Number of Participants Who Commented that [O#]/[O#] are Exclusively Used by Females

Age	A		B		C		D		E	
	18-25		26-35		36-45		46-55		56+	
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Number of participants who provided meaning(s) for the Hijazi NLE [O#]/[O#]	33	31	62	23	29	23	34	26	17	21
Number of participants who gave this particular response										
The Hijazi NLE [O#] / [O#] are used by women exclusively	27	28	45	15	18	14	21	19	5	12

Table 5.4 shows that 299 out of the total population of 321 participants provided different emotional meanings for the NLE [O#]/[O#]. The 299 respondents consisted of 175 females and 124 males. The total population of 321 participants is formed of 180 females and 141 males. Table 5.4 shows that 116 females and 88 males stated that the NLE [O#]/[O#] was exclusively used by women. In other words, almost two thirds of the females and males alike surveyed stated that this particular NLEs were exclusively used by females though it was recognised by both genders.

Furthermore, Table 5.4 shows that this is a view shared by both males and females from different age groups as they made this comment alongside the meanings they provided for the Hijazi NLE [O#]/[O#]. So, even if they understood the meaning of this NLE, they wished to make it clear that they associated it’s use chiefly with female speakers. So, this particular response shows some gender differences in the awareness of the use of this NLE.

5.3.1 The Emotive Hijazi NLEs that are Associated with Love

In Chapter 2, love was defined as a basic emotion, which indicates the interpretation of the positive emotions of wanting, needing, liking, adoring, or admiring someone or something. Love can arise if someone has shared with another or others a special time or experience, if

¹⁵ [O#] is associated with the emotions of joy and love as well as the emotions of sadness and anger. I will analyse the negative meanings of the NLE [O#] in Chapter 7, Sections 7.2.12 and 7.3.5.

someone is attracted by another’s physical, mental, or moral characteristics, if someone enjoys communicating with the other person, or if someone finds something attractive (Shaver et al. 2001: 46-47). Also, love is usually expressed by the vocal gesture of smiling lips (Shaver et al. 2001: 46-47).

Hijazi Arabic has two NLEs that are associated with the emotion of love, which are [m:] and [O#]. The participants provided some meanings of the NLEs [O#] and [m:] that were similar to Shaver et al.’s (2001) definition of love, as presented in the previous paragraph. They provided different meanings of the tertiary emotions (T) adoration, fondness, liking, attractiveness, caring, tenderness, compassion, and sentimentality that are types of the secondary emotion (S) of affection, which is itself a type of the basic emotion (B) of love according to Shaver et al.’s (2001) emotions classification.

Table 5.5: Description of the Hijazi NLEs of Love and Joy by 321 Participants

Hijazi NLE	Participants who selected ‘I have not heard this NLE before’	Participants who selected ‘I know the NLE but do not know its meaning’	Participants who selected ‘I know of the meaning of the NLE’ but did not provide a meaning	Participants who selected ‘I know of the meaning of the NLE’ and provided meaning(s)	Participants who provided the meaning of love	Participants who provided the meaning of joy	Participants who provided other meaning(s)
[m:]	0	5	3	313	115	170	99 provided meanings of other mental states
[O#]	1	16	5	299	158	122	298 (149 provided meanings of anger + 149 provided meanings of sadness)

Based on the participants’ responses, Table 5.5 shows how the 321 participants responded in the questionnaire to the stimuli of the Hijazi NLEs [m:] and [O#], which are associated with love and joy. 299 participants selected ‘I know of the meaning of the NLE [O#],’ and provided different emotional meanings for this NLE, including love, joy, sadness, and anger. Out of these participants, 158 provided meanings of love, and 122 provided meanings of joy. Also, out of the 321 participants who took the questionnaire, 313 participants selected ‘I

know of the meaning of the NLE [m:]’ and provided positive emotional meanings for this NLE. Based on the participants’ responses, [m:] is only associated with positive emotional meanings including love and joy. Out of these 313 participants, 115 provided meanings of love, and 170 provided meanings of joy.

It should be noted that, out of the 321 participants who took the questionnaire, 99 suggested that [m:] is associated with some other meanings that is related to other mental states including understanding, remembering, and thinking. Out of these 99 participants, 38 participants provided a meaning that was neither love nor joy, and 61 participants also recognised a meaning of love and/or joy. Due to limited space and time, this study has focused on only the emotive meanings of the Hijazi NLEs. This means that this study did not investigate the cognitive Hijazi NLEs that are associated with mental states such as understanding, thinking, desires, beliefs, etc.

Table 5.5 indicates that all the NLEs that are associated with positive emotions of love and joy are widely recognised by Hijazi speakers; the sole exception was one male from age group C (36-45) for the Hijazi NLE [O#]. Some of the participants, less than 5%, selected ‘I know the NLE but do not know its meaning’. The percentage of participants who said that they knew some of these NLEs without knowing their meaning ranges from a minimum of 5 out of the 321 participants, as in the case of [m:], to a maximum of 16 out of 321 participants, as in the case of [O#]. Finally, for both NLEs a few respondents said that they recognised the meanings but did not provide any meanings. The number of these participants ranges from a minimum of 3 out of the 321 participants, as in the case of [m:], to a maximum of five out of 321 participants, as in the case of [O#].

5.3.1.1 The Hijazi NLE [O#] that is Associated with Love

In Table 5.6 below, there are some typical responses from the questionnaire in which 158 participants provided some meanings of the NLE [O#] relating to the emotion of admiration (T) > affection (S) > love (B) as follows:¹⁶

¹⁶ It should be noted that some participants gave more than one meaning relating to other emotions, and some participants provided more than one meaning of love for [O#]. Because of this, the meanings provided are not equal to the total number of participants who provided answers. This also applies to all the emotive Hijazi NLEs in Chapters 5, 6, and 7.

Table 5.6: Number of Participants who Provided Content Related to 'Love' for [Oḩ]

Total number of participants		321
Number of participants who provided meaning(s)		299
Number of participants who provided meaning(s) related to love		158
Number of participants who provided content similar to:		55
(a)	/ʔɪʕdʒa:b bɪlnafs/ admire of.the.self <u>It expresses self-admiration.</u>	
(b)	/ʔɪʕdʒa:b bɪlʔaj/ like of.the.thing <u>I like this.</u>	48
(c)	/ʔɪʕdʒa:b bɪ-maðʕhar ʔaw bɪ-tasʕar:ʊf ʕaxs/ like of.the.appearance or of.behaviour someone <u>I like someone's look or behaviour.</u>	55

158 out of 321 participants (50%) provided it for [Oḩ]. Those 158 participants provided three meanings for [Oḩ] that are related to love, as appeared in (a), (b) and (c) in Table 5.6.

55 participants who provided meanings relating this NLE to the admiration of oneself or one's achievements, as shown in content (a). Also, 48 participants provided an answer related to liking or loving something in general, as in (b). Finally, 55 participants provided responses relating finding that someone's appearance, personality or behaviour is attractive, as in (c)¹⁷.

Overall, the meaning of love as associated with the NLE [Oḩ] is recognised across the Hijazi community. However, the admiration of oneself and someone else in contents (a) and (c) are more frequently provided than liking something in general in content (b).

After I had translated all the participants' answers, I coded one functional meaning that encompassed all the answers that had the same content of love for the NLE [Oḩ] as follows:

- *[Oḩ] is associated with love, affection, admiration, liking, and adoration towards the looks, behaviour, and actions of the self, or of other people, or towards an object. It is like saying:*
 - *I/you look amazing.*

¹⁷ The meanings were provided by all demographics, see appendix D. This also applies to all the NLEs in this Chapter 5 and Chapters 6 and 7.

- *This looks amazing.*
- *I love what I/you did.*
- *I love what I am/you are doing.*

The next section will detail the analysis of the NLE [m:], which is associated with the emotion of love, using the same process as above to analyse the NLE [O#].

5.3.1.2 The Hijazi NLE [m:] that is Associated with Love

Tables 5.7 below show some typical responses from the questionnaire in which 115 out of 321 participants provided meanings related to the emotion of admiration (T) > affection (S) > love (B) for the NLE [m:] as follows:

Table 5.7: Number of Participants who Provided Content Related to ‘Love’ for [m:]

Total number of participants	321
Number of participants who provided meaning(s)	313
Number of participants who provided meaning(s) related to love	115
Number of participants who provided content similar to:	73
(a) /ʔɪʃdʒa:b bɪlʃaj/ like of.the.thing <u>I like something.</u>	
Number of participants who provided content similar to:	42
(b) /ʔɪʃdʒa:b bɪ-maðʰar ʔaw bɪ-tasʰar:uf ʃaxs/ like of.the.appearance or of.behaviour someone <u>I like someone’s look or behaviour.</u>	

Table 5.7 shows that out of the 321 participants, who took the questionnaire, there are 115 who proposed a meaning of love for the NLE [m:]. Out of those 115, there are 73 participants who provided meanings related generally to finding something attractive, as shown in content (a). Also, 42 participants provided a meaning relating the NLE to liking how someone acts or behaves, as shown in the content (b).

Overall, the meaning of love in relation to the NLE [m:] is recognised across the Hijazi community. However, liking something in general is more frequently provided than liking how other’s people look.

After I had translated all the participants' answers, I coded one functional meaning that encompassed all the answers that had the same content of love for the NLE [m:] as follows:

- *[m:] is associated with love, affection, admiration, liking, and adoration towards the looks, behaviour, and actions of other people or towards an object. It is like saying:*
 - *You look amazing.*
 - *This looks amazing.*
 - *I love what you did.*
 - *I love what you are doing.*

Thus, both Hijazi NLEs [m:] and [O#] that are associated to Love are recognised across the Hijazi community. The majority of the participants who took the questionnaire have access to the same meaning potentials for the NLEs [m:] and [O#], but they have slightly different preferences in how they conceive of them by providing different contents that are related to the same emotional meanings of the NLE.

Also, both Hijazi NLEs [m:] and [O#] are frequently associated with the meanings of love that are related to the senses of affection, admiration, liking, and adoration. Therefore, in certain contexts, these Hijazi NLEs seem to be near-synonyms. The only difference between them is that while [O#] is associated with self-admiration and the admiration of others, [m:] is only associated with admiration of others.

Using the same method above, in the following section, I will analyse positive emotional meanings of joy in relation to the Hijazi NLEs [m:] and [O#].

5.3.2 The Expressive Emotive Hijazi NLEs that are Associated with Joy

In Chapter 2, joy was defined as a positive emotion, which indicates the interpretation of positive and desirable outcomes. For Shaver et al. (2001), joy is a basic emotion that includes the secondary emotions of cheerfulness, zest, contentment, optimism, enthrallment, and pride. Shaver et al. (2001) consider pride to be a type of joy because a proud person communicates something about the cheerful condition or context in which pride arises. They claim that “pride indicates that the self is the agent of a joy-producing outcome; optimism, that one expects a joy-producing outcome in the future” (Shaver et al. 2001: 48). Thus, for Shaver et al. (2001), joy indicates any happy, energetic, positive, and optimistic feelings. It is an emotion that is usually accompanied by vocal expressions such as smiling and laughing.

Based on the participants' responses, Hijazi has two NLEs, namely [m:] and [O#], which are associated with the meanings of joy as defined by Shaver et al. (2001). These two Hijazi NLEs are associated with two types of meanings relating to joy. For example, [m:] signals the enjoyment of food. In this way, joy is related to “experiencing pleasurable stimuli” as Shaver et al. (2001: 42) claim; see Table 2.3. The NLE [m:] or *Mmm!* is universally associated with gustatory pleasure (Wiggins 2002: 316). In this way, [m:] is associated with the tertiary emotions (T) of amusement, joy, delight, enjoyment, gladness, happiness, and satisfaction, which are types of the secondary emotion (S) of cheerfulness, which is itself a type of the basic emotion (B) of joy according to Shaver et al.'s (2001) emotions classification.

On the other hand, [O#] is associated with feelings of enjoying pride, triumph, egotism, and arrogance, or enjoying a challenge by showing the satisfaction derived from pride in their abilities, authority, qualities, and possessions. In this way, the emotion of joy is related to “task success, achievement”, “desirable outcome; getting what was wanted”, “receiving esteem, respect, praise”, “getting something striven for, etc.”, “experiencing pleasurable stimuli, etc.”, “smiling, giggling, laughing”, “feeling excited”, “physically energetic, active, ‘hyper’”, and “voice is enthusiastic, excited” (as claimed by Shaver et al. (2001:42); see Table 2.3 in Chapter 2).

5.3.2.1 The Hijazi NLE [m:] that is Associated with Joy

There are some typical responses from the questionnaire in which 170 participants provided meanings for the NLE [m:] relating to joy. To be specific, these typical responses relate to enjoying food, whether enjoying seeing, remembering, thinking about, or eating it. Tables 5.8 below show some typical responses from the questionnaire:

Table 5.8: Number of Participants who Provided Content Related to ‘Joy’ for [m:]

Total number of participants	321
Number of participants who provided meaning(s)	313
Number of participants who provided meaning(s) related to joy	170
Number of participants who provided content similar to:	82
(a) /ʃaklu ʔal-ʔakil tʕiʕim/ looks.it the.food delicious <u>The food looks or smells delicious.</u>	

Number of participants who provided content similar to:	59
(b) /lam:an ʔaftakır ʔakıl laziz/ when remember.I food delicious <u>It is used when someone remembers some delicious food.</u>	
(c) /mmm mar:a laziz/ mmm very delicious <u>Mmm, this is absolutely delicious!</u>	145
(d) /lam:an afək:ır bı-aklah/ when think.I of -foodstuff <u>It is used when someone is thinking about some food.</u>	23

Table 5.8 shows that out of the 321 participants who took the questionnaire, there are 170 participants who suggested a meaning of joy for the NLE [m:]. Out of those 170, there are different numbers of participants who provided different meanings related to love, as shown in (a), (b), (c) and (d) in Table 5.8.

Content (a) shows that there are 82 participants who provided meanings expressing the enjoyment of craving food by looking at it or smelling it. Content (b) shows that there are 59 meanings relating to remembering how delicious a dish the speaker had already tried. Content (c) shows that there are 145 participants who provided contents related to expressing the enjoyment of eating delicious food. Content (d) shows that there are 23 provided contents which are related to enjoying thinking about delicious food.

Overall, the meaning of joy in relation to the NLE [m:] is recognised across the Hijazi community. However, the enjoyment of eating delicious food is more frequently provided than the other meanings, while thinking about food is the least frequently provided response.

After I had translated all the participants' answers, I coded one functional meaning that encompassed all the answers that had the same content of love for the NLE [m:] as follows:

- *[m:] is associated with gustatory joy or the joy of tasting food. It is like:*
 - *Thinking about delicious food.*
 - *Saying 'I see delicious food'.*
 - *Saying 'I am eating delicious food'.*

The next section will detail the analysis of the NLE [Oʔ], which is associated with the emotion of love, using the same process as that used above to analyse the NLE [m:].

5.3.2.2 The Hijazi NLE [O#] that is Associated with Joy

Table 5.9 below shows typical responses from the questionnaire in which the 122 participants provided meanings of the NLE [O#] relating to the tertiary emotions (T) of pride, arrogance, and triumph, which are types of the secondary emotion (S) of pride, which is itself a type of the basic emotion (B) of joy, according to Shaver et al.'s (2001) emotions classification. These responses show how speakers communicate something about the cheerful condition in which their emotion of pride arises.

Table 5.9: Number of Participants who Provided Content Related to 'Joy' for [O#]

Total number of participants	321
Number of participants who provided meaning(s)	299
Number of participants who provided meaning(s) related to joy	122
Number of participants who provided content similar to:	60
(a) / <i>takab:ur/</i> or / <i>Guru:r/</i> (These are synonyms.) arrogance <u>Shows how the one who uses this NLE is an arrogant person.</u>	
(b) / <i>θiqah bil-nafs/</i> Confidence of.the-self <u>It expresses self-confidence.</u>	36
(c) / <i>farhah bi-ʔitma:m faj bi-nadzaħ/</i> joy of.completion thing with.success <u>It expresses the joy of finishing something successfully.</u>	80
(d) / <i>ʔal-faxr bi-nadzaħ faxs^ʕ ʕaziz/</i> the-pride of.success someone dear <u>Pride in the success of someone dear.</u>	14

Table 5.9 shows that out of the 321 participants who took the questionnaire, there are 122 participants who proposed a meaning of joy for the NLE [O#]. Out of those 122, there are different numbers of participants who provided different meanings related to joy, as shown in contents (a), (b), (c) and (d) in Table 5.9.

Content (a) shows that there are 60 participants whose meanings related to the enjoyment arising from pride, arrogance, and triumph. Arrogance is a negative type of pride, which involves the arrogant person enjoying the feeling of putting others down. On the other hand, content (b) shows that there are 36 participants who provided meanings for the NLE [O#] related to enjoyment arising from pride in oneself and self-confidence. Self-confidence is

a positive type of pride, which involves a self-confident person enjoying a sense of pride in themselves without thinking of putting others down. Content (c) shows that 80 participants provided meanings related to pride arising from the pleasure of feeling successful in reaching a certain goal. Content (d) shows that 14 respondents provided meanings of pride arising from being happy with the success of someone dear to them.

To summarise, all the responses above are related to the meaning of pride (S) > joy (B). Thus, this meaning in relation to the NLE [O#] is commonly recognised in the Hijazi community, as 38% out of the 321 participants, who took the questionnaire, provided this content for [O#] related to joy. However, meaning (c) is more frequently provided than the other meaning, while meaning (d) is the least frequently provided response.

After I had translated all the participants' answers, I coded one functional meaning that encompassed all the answers that had the same content of love for the NLE [O#] as follows:

- *[O#] is associated with the emotional meaning of joy, pride, and triumph towards oneself or other people. It could include a sense of egotism and arrogance. It is more related to people and their actions. It is like saying:*
 - *I am very attractive.*
 - *I am the best.*
 - *I am good at what am I doing.*
 - *I am very proud of myself/someone.*

After all, the Hijazi NLEs [m:] and [O#] are frequently associated with the meanings of joy differently. While [O#] is associated with the meaning of joy that has a sense of pride and arrogance, [m:] is associated with the meaning of the gustatory joy of consuming food.

5.4 Summary

In this chapter, I analysed the Hijazi NLEs that are associated with positive emotional meanings. According to Shaver et al. (2001), love and joy are positive basic emotions that are associated with positive outcomes about what the person wants, needs, and likes. They are interrelated, as people always enjoy the thing they love, and they love what they enjoy.

According to the participants' answers, the Hijazi NLEs [m:] and [O#] are associated with the speaker's emotional state of love and joy. Both Hijazi NLEs [m:] and [O#] are

recognised across the Hijazi community, as they are associated with the meanings of love in specific contexts. Also, both are frequently associated with the meanings of admiration, liking, and adoration: (T) > affection (S) > love (B). In particular contexts, these Hijazi NLEs seem to be near-synonyms. The only difference is that while [O#] is associated with self-admiration, the admiration of others, and the admiration of things, [m:] is only associated with admiration towards others or things.

The Hijazi NLEs [m:] and [O#] are also understandable in the Hijazi community as they are associated with the meanings of joy in specific contexts. They are related with the emotion of joy in different ways. In certain contexts, [m:] is associated with the meaning of amusement, joy, delight, enjoyment, gladness, happiness, and satisfaction, which are types of the secondary emotion (S) of cheerfulness, which is itself a type of the basic emotion (B) of joy according to Shaver et al.'s (2001) emotions classification. To be specific, the participants show typical responses in which the NLE [m:] is associated with the meanings of enjoying food, whether that be enjoying seeing, remembering, thinking about, or eating food.

Moreover, in certain contexts, [O#] is associated with pride, arrogance, and triumph (T) > pride (S) > joy, according to Shaver et al.'s (2001) emotions classification. On the other hand, based on females' responses, [O#] is associated with the emotion of joy that arises from the emotions of pride and self-confidence. It is associated with pride in the abilities, authority, or qualities of oneself, other people, or things.

All the positive emotional meanings in relation to the NLEs [m:] and [O#] are commonly recognised across the Hijazi community. Tables 5.6, 5.7, 5.8 and 5.9 show strong evidence for rejecting the null hypothesis which states the meaning of the NLEs are not recognised by Hijazi community. The majority of the participants provided the same possible meanings of the positive emotive Hijazi NLEs despite having minor differences in how they conceive of them.

In the end, the key point in this chapter is the recognition of the NLEs [O#] and [m:] across the community. The purpose of this chapter is to analyse the collected meanings of the emotive Hijazi NLEs [O#] and [m:], which were provided by the Hijazi participants, by grouping the the similar emotional meanings of every emotive NLE. This allows me, in Chapter 8, to explore the non-arbitrary relationship between emotive Hijazi NLEs that share similar emotional meanings and share some common phonological articulations and are

represented by body reflexes through the mimicking of emotional actions in specific situational contexts.

Following the same seven steps, as discussed in Chapter 4 (4.6), used to analyse the data relating to the Hijazi NLEs that are associated with positive emotional meanings, I will analyse the Hijazi NLEs that are associated with neutral and negative emotional meanings in Chapters 6 and 7.

Chapter 6

Analysis of the Mixed Emotive Hijazi NLEs

6.1 Introduction

In the previous chapter, I analysed the Hijazi NLEs that are associated with positive emotional meanings based on seven steps of analysis. In this chapter, I will use the same seven steps, which were discussed in Chapter 4 (4.6), to analyse the Hijazi NLEs that are associated with the emotional meanings of surprise.

Based on Shaver et al. (2001), the emotion of surprise comes when people least expect something, when a situation arises which they have never experienced before. For Shaver et al, surprise is a neutral basic emotion, which is neither negative nor positive. Surprise can be positive and negative in some situational contexts. Because of that I suggested that surprise can be classified as a mixed emotion rather than just neutral. Shaver et al. (2001) claim that surprise is a complicated emotion as it can have fuzzy boundaries or gradual transitions with other negative or positive emotions; see Chapter 2 (2.2). People can experience both pleasant surprises and unpleasant surprises, or they can experience a surprise that is neither negative nor positive (Shaver et al. 2001: 44-46). Shaver et al. (2001: 46) therefore define surprise as a prototypical basic emotion that indicates the interpretation of being astonished or amazed by some positive, negative, or neutral situation.

For example, according to Shaver et al. (2001), the emotion of shock is a type of the basic emotion of fear, which has fuzzy boundaries with surprise, which results in negative surprise. It is a reaction toward bad sudden unexpected news or a situation that makes people scared. People are shocked when they experience or hear of awful and unexpected things or events. Also, the emotion of annoyance, which is a type of the basic emotion of anger, can have fuzzy boundaries with surprise, which results in negative surprise. In this case, negative surprise is a reaction toward bad sudden unexpected news or a situation that makes people angry or annoyed. Another example is the emotion of disappointment, which is a type of the basic emotion of sadness and can have fuzzy boundaries with surprise, which results in negative surprise. In this case, negative surprise is a reaction toward bad sudden unexpected news or situations that make people upset and sad. Thus, feelings that people experience from bad or negative surprise are the same responses that they get from negative emotions like

feeling angry, sad, or scared. For example, throughout experiencing negative emotions, such as bad surprise, shock, fear, anger, and sadness, people feel sick, jittery and destabilised. For more explanation of how surprise can be negative or positive depending on the fuzzy boundaries it has with other emotions, see the discussion of Shaver et al.'s (2001) emotions classification in Chapter 2 (2.2).

Hijazi Arabic has nine NLEs that are associated with surprise, which are [wej], [wah:], [wal], [afə], [ɔf], [ɔb], [ɔbba:], [ju:], and [ʷ|w|ʷ]. These nine NLEs connote meanings of neutral and negative surprise, but they do not connote meanings of positive surprise. Thus, in this chapter, I will analyse the Hijazi NLEs that are associated with the emotion of surprise, whether neutral or negative. Based on the participants' answers, Table 6.1 shows how these nine Hijazi NLEs map onto the emotion of surprise with its different modes:

Table 6.1: The Hijazi NLEs Mapped onto Shaver et al.'s (2002) Classification of Surprise

Superordinate Category	Basic emotion	Secondary emotion	Tertiary emotion
Neutral	Surprise	Amazement, astonishment	[wej], [wal], [ɔf], [ɔb].
Negative			[afə], [ɔf], [ɔbba:], [ɔb], [wej], [wah:], [wal], [ju:], [ʷ w ʷ].

Table 6.1 shows that Hijazi Arabic has nine NLEs that are associated with the emotion of surprise. The participants provided different meanings of neutral and negative surprises that connote these nine Hijazi emotive NLEs in different contexts.

In Chapter 5 (5.2), I carried out a statistical test to investigate the Hijazi NLEs and their meanings as they are recognised by Hijazi participants. The test shows that the Hijazi NLEs and their meanings are recognisable across the Hijazi community. The data in this chapter shows that most of the participants who took the questionnaire shared similar views about the emotive Hijazi NLEs associated with surprise, but they perceived them differently.

6.2 The Hijazi NLEs that are Associated with Surprise

Based on the participants' answers, some Hijazi NLEs are associated with only two modes of surprise, which are neutral and/or negative, but not positive, surprise.

Table 6.2: Description of the Hijazi NLEs of Surprise by 321 Participants

Hijazi NLE	Participants who selected 'I have not heard this NLE before'	Participants who selected 'I know the NLE but do not know its meaning'	Participants who selected 'I know of the meaning of the NLEs' but did not provide a meaning	Participants who selected 'I know of the meaning of the NLE' and they provided meaning(s)	Participants who provided meaning(s) of surprise		Participants who provided other meaning(s)
					Negative surprise	Neutral surprise	
[wah:]	0	42	5	274	274	0	0
[wej]	0	16	2	303	134	190	0
[wal]	0	34	0	287	271	41	0
[ɔf]	0	0	0	321	222	110	0
[ɔbba:]	11	50	1	259	93	0	144 (fear) 66 (speech function - offer)
[ɔb]	0	43	1	277	99	108	85 (Speech function- (warning))
[ju:]	0	2	2	317	110	0	200 (anger) 155 (fear)
[afə]	0	6	0	315	123	0	212 (sadness)
[^w ^w ^w]	0	0	3	318	101	0	125 (anger) 144 (speech function- warning)

Based on the participants' answers, Table 6.2 shows how the 321 participants responded in the questionnaire to the 9 Hijazi NLEs that are associated with meanings of surprise. This indicates that all the NLEs that are associated with surprise are widely understood by Hijazi speakers; the sole exception were the 11 participants in the case of [ɔbba:].

Table 6.2 shows that in the case of the NLEs [ɔf] and [|^w|^w|^w], all respondents who claimed to know their meanings supplied a meaning. For the other NLEs, a number of respondents, ranging from 2 to 50, selected 'I know the NLE but do not know its meaning'.

For the other NLEs a number of respondents ranging from 1 to 5 stated that they knew the NLE but did not provide a meaning.

Furthermore, based on the participants' answers, Table 6.2 shows that some of these nine Hijazi NLEs are associated with either negative or neutral surprise or both. For example, [wej], [wal], [ɔf], and [ɔb] are associated with negative and neutral surprise. When I was translating the participants' answers, I found that some participants had chosen typical words to describe neutral or negative surprise, such as [*sʿadmah*], which means 'shock' in English. Based on Shaver et al. (2001), the emotion of shock has boundaries or gradual transitions with the negative emotion of fear. I therefore described shock as a negative surprise, and I used participants' responses that included 'shock' to map the NLEs onto their emotional meaning of negative surprise. The participants also used the words [*mufadzaah*:] ('surprise'), [*jifadzaʔ*] ('he is surprised'), [*jistaGrib*], [*jitsaʔal*], and [*jistaʕdʒib*] ('he wonders') to describe neutral surprise, which is neither negative nor positive. 'Wonder' in this context has the sense of someone becoming surprised by self-questioning as she/he wishes to know about something (as defined in the Cambridge Dictionary). I used the participants' responses that included 'surprise' to map the NLEs onto their emotional meaning of neutral surprise. Furthermore, some of the participants used the word [*mufadzaah*:] ('surprise') and accompanied it with a negative adjective, such as [*sajjah*:] 'bad' to show that they meant a bad surprise that could be mapped onto the emotion of negative surprise.

The following sections will provide numerical information and qualitative analysis of the emotional meanings of neutral and/or negative surprise that are associated with the nine Hijazi NLEs.

6.2.1 The Hijazi NLE [wej] that is Associated with Surprise

The Hijazi NLE [wej] is only associated with the emotion of surprise, both negative and neutral, i.e. it does not associate with any other emotion. Out of 321 participants, 303 selected 'I know of the meaning of the NLE' and provided the meaning(s) they knew for [wej]. Furthermore, 324 answers were provided by the 303 participants, 134 of which were for negative surprise and 190 for neutral surprise. It should be noted that the number of answers is greater than the number of participants because some participants provided more than one meaning.

Here are some typical responses from the questionnaire in which the participants provided some meanings of the NLE [wej] relating to negative and neutral surprise:

Table 6.3: Number of Participants who Provided Content Related to 'Negative Surprise' for [wej]

Total number of participants	321
Number of participants who provided meaning(s)	303
Number of participants who provided meaning(s) for negative surprise	134
Number of participants who provided content similar to:	68
(a) /sʻadmah/ shock <u>This is a shock.</u>	
(b) /Mufadzaah: saji:ah:/ surprise bad <u>A bad surprise.</u>	27
(c) /xabar saji:ʔ jifdzaʻ/ news bad shocking <u>This is shocking bad news.</u>	26
(d) /ʔanfadzazʻ mn tasʻar:ufa:t faxsʻ/ shocked.he from behaviors someone <u>He is shocked by someone's behaviour.</u>	13

Table 6.3 shows that out of the 321 participants who took the questionnaire, there are 134 participants who suggested a meaning of negative surprise for the NLE [wej]. Out of those 134 participants, there are different numbers of participants who provided different meanings related to negative surprise, as shown in (a), (b), (c) and (d) in Table 6.3.

Content (a) shows that there are 68 meanings related to shock in general. Those participants wrote one word in Arabic, which is /sʻadmah/, and it means shock. Content (b) shows that there are 27 participants who described surprise as a bad emotion. Content (c) shows that there are 26 participants who provided meanings relating to the bad news that caused shock to the recipient. Content (d) shows that there are 13 provided meanings which are specifically related to being shocked by someone's behaviour.

To summarise, all the meanings presented above related to negative surprise are associated with the Hijazi NLE [wej], and were frequently provided by the participants. Thus, the meanings of negative surprise were recognised in the Hijazi community, as 44% of the 321 participants who provided meanings for [wej] provided the meaning of negative surprise. However, the meaning of shock in general is more frequently provided than the other meanings, while the meaning of being shocked by someone is the least frequently provided response.

In the following tables, I will provide the responses of neutral surprise in relation to the NLE [wej].

Table 6.4: Number of Participants who Provided Content Related to ‘Neutral Surprise’ for [wej]

Total number of participants	321
Number of participants who provided meaning(s)	303
Number of participants who provided meaning(s) for neutral surprise	190
Number of participants who provided content similar to:	76
(a) /Mufadzaah:/ surprise <u>This is a surprise.</u>	
(b) /xabar Ger mutawaq:aʕ/ News not expected <u>This is unexpected news.</u>	67
(c) /jistaGrib min tas'ar:ufa:t faxs'/ surprised.he from behaviours someone <u>He is surprised by someone's behaviour.</u>	54

Table 6.4 above shows that out of the 321 participants who took the questionnaire, there are 190 participants who proposed a meaning of neutral surprise for the NLE [wej]. In their answers, they included the Arabic word /Mufadzaah:/ which translates into English as surprise; they did not specify if the surprise is negative or positive in their answer. Out of those 190 participants, there are different number of participants who provided different contents related to neutral surprise, as shown in (a), (b), and (c) in Table 6.4.

76 participants who only wrote one word which is “surprise”, as shown in content (a). Also, there are 67 participants who provided meanings related to receiving unexpected news that surprises the recipient, as in (b). Finally, there are 54 participants who provided the meaning of being surprised by someone’s unexpected behaviour, as in (c).

To summarise, 59% of the 321 participants who provided meanings for [wej] provided the meaning of neutral surprise. The meanings of neutral surprise were therefore recognised in the Hijazi community. However, the meaning (a) is more frequently provided than the other meaning, while meaning (d) is the least frequently provided response.

After all, although the numbers of answers for negative and neutral surprise that were provided for [wej] are different, [wej] is still frequently recognised with both meanings across the Hijazi community. Therefore, after I had translated all the participants’ answers, I coded

functional meanings that encompassed all the answers that had the same content of surprise for the NLE [wej] as follows:

- *I am amazed or astonished by a sudden unexpected event (i.e. not bad, and not good, just unexpected), or by people who did unexpected things.*
- *I am shocked by a sudden bad and unexpected event or by people who unexpectedly did bad things.*

The next section will detail the analysis of the NLE [wal], which is associated with the emotion of surprise, using the same process as that used above to analyse the NLE [wej].

6.2.2 The Hijazi NLE [wal] that is Associated with Surprise

The Hijazi NLE [wal] is only associated with the emotion of surprise, both negative and neutral, i.e. it does not associate with any other emotion. Out of 321 participants, 287 selected ‘I know of the meaning of the NLE’ and provided the meaning(s) they knew for [wal].¹⁸ Furthermore, for the NLE [wal], 312 answers were provided by 287 participants, 268 of which were for negative surprise and 41 of which were for neutral surprise. Therefore, [wal] tends to be recognised more frequently as conveying negative surprise, although it is associated with both negative and neutral surprise. Here are some typical responses from the questionnaire, in which the participants provided some meanings of the NLE [wal] relating to the emotion of negative and neutral surprise:

Table 6.5: Number of Participants who Provided Content Related to ‘Negative Surprise’ for [wal]

Total number of participants	321
Number of participants who provided meaning(s)	287
Number of participants who provided meaning(s) of negative surprise	271
Number of participants who provided content similar to:	89
(a) /sʕadmah/ shock <u>This is a shock.</u>	
(b) /ʔanfədʒaʕ tasʕar:ufa:t faxsʕ/ shocked.he behaviours someone <u>He is shocked by someone’s behaviour.</u>	67
(c) /ʔanfədʒaʕ tasʕar:ufa:t faxsʕ/ shocked.he behaviours someone <u>He is shocked by someone’s behaviour.</u>	112

¹⁸ For more information about the other 10% of the participants who did not provided a meaning of this NLE, see Section 6.2.

Table 6.5 shows that out of the 321 participants who took the questionnaire, there are 268 participants who suggested different meanings related to negative surprise for the NLE [wal], as shown in (a), (b), and (c) in Table 6.5.

Content (a) shows that there are 89 who just wrote the word /sʕadmah/ which translates as shock in English. Content (b) shows that there are 67 participants who specifically associated the ‘shocking’ with the behaviour of others. Content (c) shows that there are 112 who associated the ‘shocking’ with envy. In this way, the emotion of surprise is related to a negative emotion. In Chapter 2, Shaver et al.’s (2001: 46) assertion that surprise can have fuzzy boundaries with other emotions, such as envy in the above examples, was discussed. The surprise above is related to the emotion of envious anger because envy is a secondary emotion of the basic emotion of anger; see Shaver et al. (2001) and Chapter 2 (2.2) Table 3.2 of the present thesis. Thus, [wal] is used when people feel surprised and angry, if they see something that exceeds their expectations, whether it is related to moral elements, personal qualities, physical features, etc. [wal] is associated with surprise that results in envious anger.

To summarise, the participants provided all the meanings presented above for the NLE [wal]. However, the meaning of negative surprise that is related to the negative emotion of envy was the most frequent meaning for [wal], while the meaning of being shocked by someone’s behaviour was the least frequent. 83% of the 321 participants who provided meanings for [wal] provided the meaning of negative surprise. Thus, the meanings of negative surprise for this NLE were recognised in the Hijazi community.

In the following Table 6.6, I will provide the responses of neutral surprise in relation to the NLE [wal].

Table 6.6: Number of Participants who Provided Content Related to ‘Neutral Surprise’ for [wal]

Total number of participants	321
Number of participants who provided meaning(s)	287
Number of participants who provided meaning(s) of neutral surprise	41
Number of participants who provided content similar to:	28
(a) /mufadzaah:/ surprise <u>This is surprise.</u>	

Number of participants who provided content similar to:	16
<p>(b) /jistaGrib tas^oar:ufa:t faxs^o/ surprised.he behaviours someone. <u>He is surprised by someone's behaviour.</u></p>	

Table 6.6 shows that 15% of the participants who suggested meanings for [wal] provided a meaning of neutral surprise. Thus, [wal] is less frequently associated with neutral surprise in comparison with negative surprise.

Out of the 321 participants who took the questionnaire, there are 41 participants who proposed meanings related to neutral surprise for the NLE [wal] as shown contents (a) and (b) in Table 6.6. There are 28 participants who provided meanings related to the word ‘surprise’, which was neither negative nor positive, as in shown in (a). It is more frequently provided than the other meaning in content (b), which provided by 16 participants. It is the meaning of being surprised by someone’s behaviour.

To summarise, although the numbers of answers for negative and neutral surprise that were provided for [wal] are different, [wal] is still frequently used with both meanings across the Hijazi community. Therefore, after I had translated all the participants’ answers, I coded functional meanings that encompassed all the answers that had the same content of surprise for the NLE [wal] as follows:

- *I am surprised by a sudden unexpected event (i.e. not bad, and not good, just unexpected), or by people who did unexpected things.*
- *I am shocked by a sudden, unexpected, dangerous, or a harmful event, or by people who unexpectedly did dangerous or harmful things.*
- *It is associated with negative surprise arising from envy.*

The next section will detail the analysis of the NLE [ɔb], which is associated with the emotion of surprise, using the same process as that used above to analyse the NLEs [wal] and [wej].

6.2.3 The Hijazi NLE [ɔb] that is Associated with Surprise

Out of 321 participants, 277 selected ‘I know of the meaning of the NLE’ and provided the meaning(s) they knew for [ɔb]. This Hijazi NLE is associated with the emotion of surprise,

both negative and neutral, as well as other meanings. Out of 277 participants, 108 provided the meaning of neutral surprise, 99 provided the meaning of negative surprise, 51 provided the meaning of offering help to others, 34 provided the meaning of warning, as a type of command. In this section, I will only analyse the meanings of negative and neutral surprise in relation to [ɔb].

Here are some typical responses from the questionnaire, in which the participants provided meanings of the NLE [ɔb] relating to the emotion of negative and neutral surprise:

Table 6.7: Number of Participants who Provided Content Related to ‘Negative Surprise’ for [ɔb]

Total number of participants	321
Number of participants who provided meaning(s)	277
Number of participants who provided meaning(s) of negative surprise	99
Number of participants who provided content similar to:	46
(a) /sʕadmah/ shock <u>This is a shock.</u>	
(b) /ʔal-sʕadmah ʔal-muʔad:jah ʔila ʔal-ħasad/ the.shock the.lead to the.envy <u>It expresses the shock that leads to envy.</u>	53

Table 6.7 shows that that out of the 321 participants, there are 99 participants who proposed a meaning of negative surprise for the NLE [ɔb]. It shows two different meanings related to negative surprise that were provided by the participants. Content (a) shows that there are 46 provided meanings which include the Arabic word /sʕadmah/ which translates as shock. Content (b) shows that there are 53 participants who provided meanings related to the feeling of shock that leads to envy. As it has been discussed on p. 180, the feeling of envy arises in the speaker when someone else have something beyond the speaker’s expectation, or when someone else have something the speaker wishes to have. This thing could be physical or moral characteristics, properties, personal belongings, etc.

Overall, all the responses of negative surprise above that are related to the NLE [Oʔ] is commonly recognised in the Hijazi community. However, the meaning that relates the surprise with envy is more frequently provided than the meaning of shock.

On the other hand, I will provide the responses of neutral surprise in relation to the NLE [ɔb] as follows:

Table 6.8: Number of Participants who Provided Content related to 'Neutral Surprise' for [ɔb]

Total number of participants	321
Number of participants who provided meaning(s)	277
Number of participants who provided meaning(s) of neutral surprise	108
Number of participants who provided content similar to: /Mufadzaah:/ surprise <u>This is a surprise.</u>	108

Table 6.8 shows that out of the 321 participants, 108 participants provided one meaning for this NLE which is related to the word surprise, and they did not specify whether it was a negative or positive surprise.

All the contents above are related to the meaning of negative and neutral surprise, and the Hijazi community frequently recognises them. Thus, after I had translated all the participants' answers, I coded functional meanings that encompass all the answers that had the same content of surprise for the NLE [ɔb]. I found that [ɔb] is identical to [wal], as they are both associated with negative and positive surprise as well as the emotion of surprise that is related to envious anger in the same way. For more information, see the earlier discussion of [wal] in Section 6.2.2.

The next section will detail the analysis of the NLEs [ɔf], which is associated with the emotion of surprise, using the same process as that used above to analyse the earlier NLEs.

6.2.4 The Hijazi NLE [ɔf] that is Associated with Surprise

The Hijazi NLE [ɔf] is associated with only the emotion of surprise, both negative and neutral. Out of 321 participants, 100% selected 'I know of the meaning of the NLE' and provided the meaning they knew for [ɔf]. Furthermore, for this NLE, there are 332 answers provided by 321 participants, of which 222 were for negative surprise and 110 for neutral surprise. Thus, [ɔf] tends to be more frequently associated with negative surprise, although it is associated with both negative and neutral surprise.

Here are some typical responses from those the participants who provided some meanings of the NLE [ɔf] relating to the emotion of negative and neutral surprise:

Table 6.9: Number of Participants who Provided Content Related to 'Negative Surprise' for [ɔf]

Total number of participants	321
Number of participants who provided meaning(s)	321
Number of participants who provided meaning(s) of negative surprise	222
Number of participants who provided content similar to:	106
(a) /sʕadmah/ Shock <u>This is a shock.</u>	
(b) /Mufadzaah: saji:ah:/ surprise bad <u>This is a bad surprise.</u>	66
(c) /xabar saji:? jifdzaʕ/ news bad shocking <u>This is shocking bad news.</u>	50

Table 6.9 above shows all the meanings presented above that were frequently provided by the participants to describe the negative surprise associated with the Hijazi NLE [ɔf]. There are 222 participants who suggested different meanings related to negative surprise for the NLE [ɔf], as shown in contents (a), (b), and (c).

Content (a) shows that there are 106 participants who provided meanings with the word shock. This content was the most frequently provided than the other ones. Content (b) shows that the surprise was regarded as a bad emotion by 66 participants. Content (c) shows that there are 50 who provided meanings related to being shocked by bad news. This content was the least frequently provided.

In the following Table 6.10, the responses of neutral surprise in relation to the NLE [ɔf] are presented:

Table 6.10: Number of Participants who Provided Content Related to 'Neutral Surprise' for [ɔf]

Total number of participants	321
Number of participants who provided meaning(s)	321
Number of participants who provided meaning(s) of neutral surprise	110
Number of participants who provided content similar to:	80
(a) /Mufadzaah:/ surprise <u>This is a surprise.</u>	
(b) /xabar Ger mutawaq:aʕ/ news not expected <u>This is unexpected news.</u>	30

Table 6.10 shows that out of all the participants who answered the questionnaire, there are 110 participants who suggested a meaning of neutral surprise for the NLE [ɔf]. Of these, 80 provided meanings related to the word surprise in general, neither negative nor positive, as shown in (a). Also, there are 30 who provided the meaning of being surprised as the recipient received unexpected news, as shown in (b).

All these meanings of neutral and negative surprise in relation to the NLE [ɔf] are recognised in the Hijazi community, although [ɔf] tends to be more frequently understood as realising negative surprise.

After I had translated all the participants' answers, I coded functional meanings that encompassed all the answers that had the same content of surprise for the NLE [ɔf] as follows:

- *I am shocked by a sudden, unexpected, dangerous, or harmful event, or by people who unexpectedly did dangerous or harmful things.*
- *I am surprised by a sudden unexpected event (i.e. not bad, and not good, just unexpected), or by people who did unpredictable things.*

All the of Hijazi NLEs presented above – [wej], [wal], [ɔf], and [ɔb] – are associated with both negative and neutral surprise. In the following section, I will present the analysis of the other Hijazi NLEs that are associated with only negative surprise. The next section will therefore detail the analyses of the NLEs [wah:], [ɔbba:], [afə], [ju:], and [w|w|w], which are associated with the emotion of negative surprise, using the same process as that used above to analyse the other NLEs.

6.2.5 The Hijazi NLE [wah:] that is Associated with Surprise

The Hijazi NLE [wah:] is only associated with the emotion of negative surprise. Out of 321 participants, 247 selected 'I know of the meaning of the NLE' and provided the meaning(s) of negative surprise for [wah:].¹⁹ Thus, this NLE is frequently used in the Hijazi community. Out of the actual number of the participants (i.e. 321), 274 provided meanings related to the negative surprise.

¹⁹ For more information about the other participants who did not provide the meaning(s) of negative surprise, see Section 6.2. This applies to all the other emotive NLEs that associated with the meaning of surprise in the current chapter.

Before presenting the analysis of the meanings that the participants provided for the NLE [wah:], it is interesting to note that some male participants made comments such as “This is only used by women” to describe the Hijazi NLE [wah:], which indicates gender preferences/dispreferences in the assumed use of this NLE. Table 6.11 shows the number of participants who provided this comment:

Table 6.11: Number of Participants Who Commented that [wah:] is Exclusively Used by Females

Age	18-25		26-35		36-45		46-55		56+	
	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Number of participants who provided meaning(s) for the Hijazi NLE [wah:]	34	25	61	19	29	15	34	19	17	21
Number of participants who gave this comment										
The Hijazi NLE [wah:] is used by women	0	8	0	8	0	2	0	4	0	4

Table 6.11 shows that 26 participants, all of whom were male, stated that this was exclusively used by women alongside the meanings they provided for the Hijazi NLE [wah:]. Therefore, even if they recognised the meaning of this NLE, they wished to make it clear that they chiefly associated it with female speech. As this observation is only made by males it seems that the gendered use of this form is only notable to some men. As has been mentioned in Chapter 3 (3.4), Saudi Arabian society is a society that strictly follows the Islamic concepts of modesty and chastity in which gender segregation is a general rule that touches on virtually every aspect of social life (Albalawi 2018: 8). Thus, gender segregation influences the use of language in Hijazi society. This is an interesting outcomes which needs further investigation in future research.

Here are some typical responses from the participants who provided some meanings of the NLE [wah:] relating to the emotion of negative and neutral surprise:

Table 6.12: Number of Participants who Provided Content Related to ‘Negative Surprise’ for [wah:]

Total number of participants	231
Number of participants who provided meaning(s)	274
Number of participants who provided meaning(s) of negative surprise	274
Number of participants who provided content similar to:	139
(a) /s‘admah/ shock <u>This is a shock.</u>	

Number of participants who provided content similar to:	53
(b) /mufadzaah: saji:ah:/ surprise bad <u>This is a bad surprise.</u>	
(c) [xabar saji:ʔ Ger mutawaq:aʕ, zaj mot aħ:d maθalan] news bad not expected, like death somebody example <u>This is unexpected bad news, such as the death of someone.</u>	86

Table 6.12 above shows that out of the 321 participants, there are 274 participants who proposed a meaning of negative surprise for the NLE [wah:]. Out of those 274, there are 139 participants who provided the word /sʕadmah/ which translate as shock in English, as shown in content (a). There are 53 participants who provided meanings that describe the surprise as a negative and bad emotion, as shown in content (b). Also, There are 86 participants who provided meanings related to being surprised by unexpectedly receiving bad news, as appears in content (c).

Overall, the meanings of negative surprise for the NLE [wah:] were recognised in the Hijazi community. However, the content that is related to shock in general was the most frequent response for [wal], while the contents that described surprise as a bad emotion was the least frequent response.

After I had translated all the participants' answers, I coded one functional meaning that encompassed all the answers that had the same content of surprise for the NLE [wah:] as follows:

- *A shocked reaction towards a sudden bad event, unexpected bad news, or people who did unexpected bad things.*

The next section will detail the analysis of the NLE [ʕbba:], which is associated with the emotion of surprise, using the same process as that used above to analyse the other NLEs.

6.2.6 The Hijazi NLE [ʕbba:] that is Associated with Surprise

Out of 321 participants, 260 selected 'I know of the meaning of the NLE' and they provided the meaning(s) they knew for [ʕbba:]. Of these, 93 provided the meaning of negative surprise, 114 provided the meaning of fear, and 66 provided the meaning of offering help, which is simulated by fear.

Here are some typical responses from the questionnaire for the NLE [ɔbba:] relating to the emotion of negative surprise:

Table 6.13: Number of Participants who Provided Contents Related to ‘Negative Surprise’ for [ɔbba:]

Total number of participants	231
Number of participants who provided meaning(s)	259
Number of participants who provided meaning(s) of negative surprise	93
Number of participants who provided content similar to:	
(a) /maxroof/ shocked.he <u>He is shocked.</u>	59
(b) /sʕadmat ʔal-faxsʕ lam:an jitwar:atʕ/ the.shock.of the.person when trouble.he <u>It expresses the feeling of someone who is shocked because he/she get into trouble.</u>	38

Table 6.13 shows the meanings above that are related to negative surprise in relation to [ɔbba:] are frequently recognised across the Hijazi community. There are 93 participants who who proposed a meaning of negative surprise for the NLE [ɔbba:], as shown in contents (a) and (b). There are 59 participants who provided meanings related to being shocked in general, as shown in (a). The participants more frequently provided this meaning than the one in (b), whereas there are 38 participants who provided meanings related to being shocked as result of getting into trouble.

After I had translated all the participants’ answers, I coded one functional meaning that encompassed all the answers that had the same content of surprise for the NLE [ɔbba:], as follows:

- *I am shocked by a sudden, negative, unexpected event.*

The next section will detail the analysis of the NLE [ju:], which is associated with the emotion of surprise, using the same process as that used above to analyse the other NLEs.

6.2.7 The Hijazi NLE [ju:] that is Associated with Surprise

Out of 321 participants, 317 selected ‘I know of the meaning of the NLE’ and provided the meaning(s) they knew for [ju:]. 110 of these participants provided the meaning of negative surprise, 200 provided the meaning of anger, and 155 provided the meaning of fear.²⁰

Here are some typical responses from those participants who provided some meanings of the NLE [ju:] relating to the emotion of negative surprise:

Table 6.14: Number of Participants who Provided Content Related to ‘Negative Surprise’ for [ju:]

Total number of participants		321
Number of participants who provided meaning(s)		317
Number of participants who provided meaning(s) of negative surprise		110
Number of participants who provided content similar to:		79
(a)	/sʕadmah/ shock <u>This is a shock.</u>	
(b)	/xabar sajiʔ Ger mutawaq:aʕ/ news bad not expected <u>An unexpected bad news.</u>	36

Table 6.14 shows that there are 110 participants who proposed a meaning of negative surprise for the NLE [ju:]. Of those, 79 provided the meaning of shock in general, as shown in content (a). The participants did not specify the reason for the shock. Also, there are 36 who provided meanings related to being shocked by receiving unexpected bad news, as shown in content (b).

Overall, the contents above that are related to negative surprise in relation to [ju:] are frequently recognised across the Hijazi community. However, the meaning of shock was the most frequently provided response, while the meaning of being shocked by bad news was the least frequently provided one.

After I had translated all the participants’ answers, I coded one functional meaning that encompassed all the answers that had the same content of surprise for the NLE [ju:], as follows:

- *I am shocked by a sudden, negative, unexpected event.*

The next section will detail the analysis of the NLEs [afə], which is associated with the emotion of surprise, using the same process as that used above to analyse the other NLEs.

²⁰ I will discuss the meaning of fear and anger in Chapter 7, Sections 7.2 and 7.3.

6.2.8 The Hijazi NLE [afə] that is Associated with Surprise

The Hijazi NLE [afə] is associated with the emotion of negative surprise, which has fuzzy boundaries with the negative emotion of sadness. It is also associated with the emotion of sadness alone without fuzzy boundaries with negative surprise. Out of 321 participants, 315 selected ‘I know of the meaning of the NLE’ and provided the meaning(s) they knew for [afə]. Of these 315 participants, 123 provided the meaning of negative surprise, while 171 provided the meaning of sadness, which I will analyse in Chapter 7.

Here are some typical responses from those participants who provided some meanings of the NLE [afə] relating to the emotion of negative surprise:

Table 6.15: Number of Participants who Provided Content Related to ‘Negative Surprise’ for [afə]

Total number of participants	321
Number of participants who provided meaning(s)	315
Number of participants who provided meaning(s) of negative surprise	123
Number of participants who provided content similar to:	44
(a) /ʔal-mufadʒaah: ʔaw ʔal-sʕadmah ʔal-muʔad:jah ʔila xajbat-ʔal-ʔmal/ The surprise or the shock the lead to the disappointment <u>It expresses surprise or shock that leads to disappointment.</u>	
(a) /lam:an ʔatfadʒaʔ bi-faxsʕ sw:a faj jizaʕlnj/ when me.shocked of.someone did something sad.me <u>When I was disappointed and shocked by someone who did something that made me sad.</u>	79

Table 6.15 above shows that the meaning of negative surprise is frequently recognised by the Hijazi community. There are 123 participants who proposed different meanings related to negative surprise for the NLE [afə], as shown in contents (a) and (b).

Content (a) shows that there are 44 participants who provided meanings related to negative surprise that leads to disappointment towards something. They did not specify whether this reaction was towards something, someone or an event. This meaning was the least frequently provided response.

Content (b) shows that 79 participants provided the meaning of negative surprise that leads to disappointment towards a person. This meaning was the most frequently provided by the participants.

After I had translated all the participants' answers, I coded one functional meaning that encompassed all the answers that had the same content of surprise for the NLE [afə], as follows:

- *I am surprised and disappointed by something or someone's actions and reactions.*

The next section will detail the analysis of the NLE [w|w|w|w], which is associated with the emotion of surprise.

6.2.9 The Hijazi [w|w|w|w] that is Associated with Surprise

The Hijazi NLE [w|w|w|w] is associated with the emotion of negative surprise, which has fuzzy boundaries with the negative emotion of anger. It is also associated with other meanings that are related to the emotions of anger and the speech function of warning that is stimulated by anger. To be precise, out of 321 participants, 318 selected 'I know the meaning of the NLE' and provided the meaning(s) they knew for this NLE. Of these 318 participants, 101 provided the meaning of negative surprise, 125 provided the meaning of anger, and 144 provided the meaning of the speech function of commanding. I will discuss the meanings of anger and commanding in relation to this NLE in Chapter 7 (7.2.10).

Here are some typical responses from those participants who provided some meanings of the NLE [w|w|w|w] that are related to the emotion of negative surprise:

Table 6.16: Number of Participants who Provided Content Related to 'Negative Surprise' for [w|w|w|w]

Total number of participants	321
Number of participants who provided meaning(s)	318
Number of participants who provided meaning(s) of negative surprise	101
Number of participants who provided content similar to:	67
(a) /s'admah/ shock <u>This is a shock.</u>	
(b) /xabar saji? Ger mutawaq:aŕ/ news bad not expected <u>An unexpected piece of bad news.</u>	36

Table 6.16 shows that the meaning of negative surprise for the NLE [ʷ|ʷ|ʷ] was frequently recognised in Hijazi community. There are 101 participants who proposed a meaning of negative surprise for the NLE [ʷ|ʷ|ʷ]. Out of those 101 participants, there are 67 participants who provided meanings related to shock in general, whereas they did not specify the reason of feeling shocked, as shown in content (a) in Table 6.16. This meaning was most frequently provided by participants. On the other hand, the meanings that are related to being shocked by bad news was the least frequently provided, as there were only 36 participants who provided it; see content (b) in Table 6.16.

After I had translated all the participants' answers, I coded one functional meaning that encompassed all the answers that had the same content of surprise for the NLE [ʷ|ʷ|ʷ], as follows:

- *I am shocked, amazed, or astonished by a sudden, negative, unexpected event.*

In this point, I analysed the meanings provided by the participants for the Hijazi NLEs that are associated with the emotions of surprise. In the following section, I will summarise the mapping of those nine Hijazi NLEs onto their meanings of surprise.

6.3 Summary

In this chapter, I analysed the Hijazi NLEs that are associated with neutral emotional meanings. According to Shaver et al. (2001: 48), surprise is the only neutral basic emotion that is neither negative nor positive. It can be positive and negative in some situational contexts (Shaver et al. 2001: 48). Because of this I suggested that surprise can be classified as a mixed emotion rather than as neutral.

Surprise can be negative or positive only if it has fuzzy boundaries or gradual transitions with other negative emotions, such as sadness, fear, and anger, or positive emotions such as love and joy (Shaver et al. 2001: 48). The analysis in this chapter shows that Hijazi Arabic has nine NLEs that are associated with meanings of neutral and/or negative surprise, but which do not associate with meanings of positive surprise. To be specific, the Hijazi NLEs [wal], [wej], [ɔf], and [ɔb] are associated with both neutral and negative surprise, while [wah:], [ɔbba:], [afə], [ju:], and [ʷ|ʷ|ʷ] are only associated with meanings of negative surprise. See Figure 6.1 below.

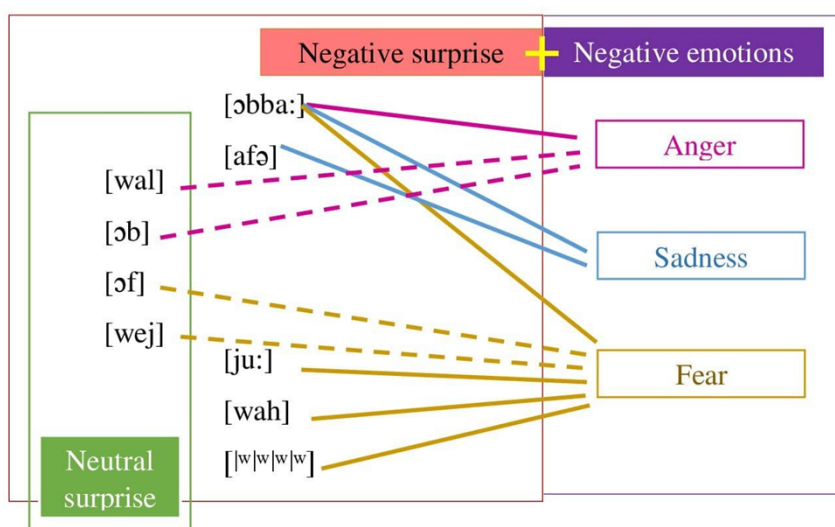


Figure 6.1: The Mapping of the Hijazi NLEs onto the Emotion of Surprise

Figure 6.1 summarises how these nine Hijazi NLEs map onto different modes of surprise. Figure 6.1 has three rectangles: the green rectangle consists of the NLEs that are associated with neutral surprise; the red rectangle consists of the NLEs that are associated with negative surprise; and the yellow rectangle consists of the negative emotions that have fuzzy boundaries with negative surprise, which are anger, sadness, and fear.

As mentioned earlier in this section, no Hijazi NLEs are only and exclusively associated with neutral surprise. However, there are four Hijazi NLEs that are associated with both neutral and negative surprise in different contexts. These four Hijazi NLEs therefore appear in between the green and the red rectangles. The five other Hijazi NLEs, which are only associated with negative surprise, appear in the red rectangle.

Furthermore, as negative surprise has fuzzy boundaries with the negative emotions of anger, sadness, and fear, there are lines between the Hijazi NLEs that are associated with negative surprise and the negative emotions that have fuzzy boundaries with negative surprise in the purple rectangle. There are two types of line: solid lines and dashed lines. The solid lines are for the NLEs that are only associated with the type of negative surprise that has fuzzy boundaries with negative emotions. For instance, [ɔbba:] is only associated with the negative surprise that has fuzzy boundaries with the negative emotions of anger, sadness, and fear. In contrast, [wal] is associated with the emotion of neutral surprise and the emotion of negative surprise that has fuzzy boundaries with the negative emotion of anger.

The Hijazi NLEs [wej], [wə], [wal], [afə], [ɔf], [ɔb], [ɔbba:], [ju:], and [w|w|w] are frequently associated with the emotional meanings of surprise. All of them are recognised

and understandable across Hijazi society. The numbers in the tables from Table 6.3 to Table 6.16 show strong evidence for rejecting the null hypothesis which states the meaning of the NLEs are not recognised across the Hijazi community,). Despite differing perspectives on how they perceive them, most participants understood the same meanings of surprise whether negative or neutral for Hijazi emotive NLEs.

In this chapter, I used the seven steps of analysis which I discussed in Chapter 4 (4.6) to analyse the NLEs that are associated with the emotion of surprise. Next, following the same seven steps used to analyse the data presented in this chapter and the previous chapter, I will analyse the Hijazi NLEs that are associated with negative emotional meanings in Chapter 7.

Chapter 7

Analysis of the Negative Emotive Hijazi NLEs

7.1 Introduction

This study examines the non-arbitrary relationship between emotive Hijazi NLEs and their emotional meanings based on a semiotic framework. In Chapters 5 and 6, I analysed the Hijazi NLEs that are associated with the emotional meanings of love, joy, and surprise based on the seven steps of analysis. In this chapter, I will use the same seven steps, which were discussed in Chapter 4 (4.6), to analyse the Hijazi NLEs that are associated with negative emotional meanings.

According to Shaver et al. (2001), there are three negative basic emotions: anger, sadness, and fear. All three basic negative emotions share some features with each other (Shaver et al. 2001: 44). They show undesirable, negative, and pessimistic outcomes and are expressed by crying, screaming, yelling, or frowning (ibid.). Based on the participants' answers, all the negative emotive Hijazi NLEs which are associated with the speaker's emotional state were mapped onto Shaver et al.'s (2001) emotions classification, as follows. Table 7.1 above shows that Hijazi Arabic has 19 NLEs that are associated with different negative emotions, which are [ju:], [jɛʕ], [ɪf:], [uf:], [ɪffi:], [ɔffu:], [ɪxxi:], [kɪx:], [həh], [Oʕ], [w], [w|w|w|w], [l | l | l], [aħ:], [ax:], [ah:], [aj:], [afə], and [əbba:]. More Hijazi NLEs are associated with negative emotions than with positive and neutral emotions. In the following section I will analyse the meanings of all these 19 Hijazi NLEs that are associated with negative emotions based on the participants' responses.

Table 7.1: The Hijazi NLEs Mapped onto Shaver et al.'s (2001) Negative Emotions Classification

Superordinate Category	Basic Emotion	Secondary Emotion	Tertiary Emotion	The Hijazi NLEs
Negative	Anger	Irritability	Aggravation, agitation, annoyance, grouchiness, grumpiness	[ju:], [ɪf:], [uf:], [w], [w w w w]
		Rage	Anger, outrage, fury, wrath, hostility, ferocity, bitterness, hatred, scorn, spite, vengefulness, dislike, resentment	[Oʕ]

Superordinate Category	Basic Emotion	Secondary Emotion	Tertiary Emotion	The Hijazi NLEs
Negative	Anger	Disgust	Revulsion, contempt, loathing	[jeʕ], [ɪf:], [uf:], [ɪffi:], [ɔffu:], [ɪxxi:], [kɪx:], [həh], []
	Sadness	Suffering	Agony, anguish, hurt	[ah:], [ax:], [ah:], [aj:]
		Sadness	Depression, despair, gloom, glumness, unhappiness, grief, sorrow, woe, misery, melancholy	[ax:], [ah:], [aj:], []
		Disappointment	Dismay, displeasure	[afə], []
		Shame	Guilt, regret, remorse	[ax:].
		Neglect	Alienation, defeatism, dejection, embarrassment, homesickness, humiliation, insecurity, insult, isolation, loneliness, rejection	[ax:], [ah:]
		Sympathy	Pity, sympathy	[]
	Fear	Horror	Alarm, shock, fear, fright, horror, terror, panic, hysteria, mortification	[əbba:] [ju:]
		Nervousness	Anxiety, suspense, uneasiness, apprehension (fear), worry, distress, dread	

While the aim of this study is not to examine the differences in understanding and use of the Hijazi NLEs among different groups of speakers according to their social background, I carried out a statistical test to investigate the Hijazi NLEs and their meanings to ensure that they are recognised across the Hijazi community; see Chapter 5 (5.2). The test shows that the Hijazi NLEs and their meanings are recognisable across the entire Hijazi community. Also, the data in this chapter shows that the majority of the participants recognised the same emotional meanings that are related to negative emotive Hijazi NLEs, but they have differences in how they conceive of them.

7.2 The Hijazi NLEs that are Associated with the Negative Emotion of Anger

In Chapter 2, anger was defined as a negative emotion that indicates the interpretation of frustration, interruption, power reversal, and the harm of a damaged situation or event (Shaver et al. 2001: 45). It refers to the emotions of rage, irritation, envy, and disgust. It should be noted that Shaver et al. (2001) consider disgust, including revulsion and contempt, to be a type of the negative emotion of anger because disgust and anger share similar antecedents, emotional expressions, and physical reactions (Shaver et al. 2001: 36).

Hijazi Arabic has 15 NLEs that are associated with anger, which are [ju:], [ɪf:], [uf:], [ɪffi:], [ɔffu:], [ɪxxi:], [jɛɕ], [kɪx:], [həh], [ʃʷ:], [ɔs:], [Oʃ], [lʷ], [lʷ|w|w|w] and [l | l | l]. To be precise, these 15 NLEs are associated with different shades of anger. For instance, if we examine secondary and tertiary categories more carefully we can see nuanced differences, based on Shaver et al.'s (2001) emotions classification, such as:

- The tertiary emotion (T) of *annoyance*, which is a type of the secondary emotion (S) of *irritation*, which is a type of the basic emotion (B) of *anger* (associated with the Hijazi NLEs [ju:], [ɪf:], [uf:], [ʃʷ:], [ɔs:], [lʷ], and [lʷ|w|w|w]).
- The tertiary emotion (T) of *dislike*, which is a type of the secondary emotion (S) of *rage*, which is a type of the basic emotion (B) of *anger* (associated with the Hijazi NLE [Oʃ]).
- The tertiary emotion (T) of *revulsion*, which is a type of the secondary emotion (S) of *disgust*, which is a type of the basic emotion (B) of *anger* (associated with the Hijazi NLEs [ɪf:], [uf:], [jɛɕ], [ɪf:i], [ɔffu:], [ɪxxi:], and [kɪx:]).
- The tertiary emotion (T) of *contempt*, which is a type of the secondary emotion (S) of *disgust*, which is a type of the basic emotion (B) of *anger* (associated with [ɪxxi:], [həh], and [l | l | l]).

Based on the participants' responses, Hijazi NLEs that are associated with the emotion of anger fulfil two types of speech functions: statement and command. To be specific, all Hijazi NLEs that are associated with anger, except [ʃʷ:] and [ɔs:], fulfil the speech function of a statement. It is like saying 'I'm telling you that I am angry'. As defined in Chapter 3, statement is the means by which the speaker gives information (Halliday and Matthiessen 2014: 136). This information can be emotional, as the speaker is stating that they are experiencing a particular emotion. For example, speakers could direct expression or emotion towards what they are talking about, as in the phrases 'I am happy', 'I am scared', 'I am angry', etc. In this way, the statement speech function constitutes an expressive or emotive function.

On the other hand, five Hijazi NLEs, which are [ɔffu:], [kɪx:], [ʃʷ:], [ɔs:], and [lʷ|w|w|w], fulfil the speech function of command. As defined in Chapter 3, command is a directive speech function where the speaker demands, goods, or services from the addressee. According to Halliday, a command can be negative if it contains the phrase 'I don't want you to do something', or positive if it contains the phrase 'I want you to do something' (Halliday

and Matthiessen 2014: 177-178). There are many types of command including calling, ordering, requesting, telling, warning, etc. (ibid.). Hijazi NLEs are associated with three types of commands, namely ordering, requesting, and warning.

Table 7.2 below shows numerical information about the participants' awareness of the 15 NLEs that are associated with anger and their meanings.

Table 7.2: Responses of 321 Participants to the Hijazi NLEs of Anger

Hijazi NLE	Participants who selected 'I have not heard this NLE before'	Participants who selected 'I know the NLE but do not know its meaning'	Participants who selected 'I know of the meaning of the NLE' but did not provide a meaning	Participants who selected 'I know of the meaning of the NLE' and provided meaning(s)							Participants who provided other meaning (s)
				(Anger)							
				Irritation	Rage	Disgust		Command			
	Annoyance	Dislike	Revulsion	Contempt	Request	Order	Warn				
[jɛʕ]	0	2	1	-	-	318	-	-	-	-	0
[kɪx:]	0	1	0	-	-	220	-	-	-	127	0
[ɔffu:]	0	45	0	-	-	219	-	-	-	113	0
[iffi:]	0	16	2	-	-	311	-	-	-	-	0
[ɪf:]	0	0	4	175	-	170	-	-	-	-	0
[uf:]	0	1	2	193	-	206	-	-	-	-	0
[ju:]	0	2	2	200	-	-	-	-	-	-	0
[ɪxxi:]	0	5	0	-	-	198	151	-	-	-	0
[həh]	0	6	4	-	-	-	155	-	-	-	0
[w]	0	2	0	191	-	-	-	-	-	-	171 other mental state (rejection)
[w w w]	0	0	3	125				-	-	144	101 (surprise)
[l l l]	0	28	4	-	-	-	151	-	-	-	0
[Oʔ]	1	16	5	-	149	-	-	-	-	-	159 (love) 122 (joy) 149 (sadness)
[w:]	0	3	4	-	-	-	-	176	151	-	0
[ɔs:]	0	1	2	-	-	-	-	114	213	-	0

Table 7.2 shows how the 321 participants responded in the questionnaire to the 15 Hijazi NLEs that are associated with the meanings of anger. This indicates that all the NLEs that are associated with anger are widely recognised by Hijazi speakers; the sole exception was one participant for the Hijazi NLE [Oʔ].

Also, it shows that most of the participants were able to describe the meanings of anger for the 15 Hijazi NLEs whether in relation to expressing anger or commanding someone to stop the thing that makes the speaker angry. For example, all these NLEs except [ʃw:] and [ɔs:] express anger. On the other hand, [kix:], [ɔffu:], [w|w|w|w], [ʃw:], and [ɔs:] are articulated to command someone to stop doing the thing that makes the speaker angry, such as making noise, talking loudly etc.

In addition, some of the participants selected ‘I know the NLE but do not know its meaning’. The percentage of participants who said that they knew some of these NLEs without providing a meaning ranges from a minimum of one participant, as in the case of [uf:] and [kix:], to a maximum of 45 out of 321 participants, as in the case of [ɔffu:]. Table 7.2 shows that the NLEs [ɪf:] and [w|w|w|w] were the only ones recognised by all respondents.

For both the NLEs, [ɪf:] and [w|w|w|w], only a few respondents, ranging from 1 to 45, said that they were aware of the NLE but did not know its meanings. Moreover, the number of participants who responded that they recognised the meanings but did not provide any meanings for the NLEs ranged from 0 to 5. In the case of [ɔffu:], [ɪffi:], [Oʔ], and [l] no respondents stated that they knew the NLE and did not provide a meaning.

7.2.1 The Hijazi NLE [jɛʕ] that is Associated with Anger

Out of 321 participants, there are 318 participants who selected ‘I know of the meaning of the NLE’ and provided the meaning(s) they knew for [jɛʕ].²¹ Based on the participants’ answers, the Hijazi NLE [jɛʕ] is associated only with the emotion of revulsion (T) > disgust (S) > anger (B).

²¹ The responses of the other 1% were discussed in Section 7.2. For more information about the other participants who did not provide the meaning(s) of this emotive NLE and other NLEs that are associated with the meaning of anger in the current chapter, see Section 7.2.

Here are some typical responses from those participants who provided some meanings of the NLE [jɛʕ] relating to the emotion of anger arising from disgust:

Table 7.3: Number of Participants who Provided Content Related to ‘Anger’ for [jɛʕ]

Total number of participants	231
Number of participants who provided meaning(s)	318
Number of participants who provided content similar to:	120
(a) /riħah mʕafinah/ smell musty <u>This smells musty.</u>	
(b) /qaraf/ disgust <u>This is disgusting.</u>	200

Table 7.3 shows that of the 321 participants who answered the questionnaire, 318 of them proposed meanings related to revulsion (T) > disgust (S) > anger (B) for the NLE [jɛʕ], as shown in contents (a) and (b). Content (a) shows that there are 120 who provided meanings related to feeling disgusted by smelling bad odors. Content (b) shows that there are 200 participants who provided meanings related to being disgusted; in general, as they did not specify the reason for their disgust. This meaning was more frequently provided by the participants compared with the other content of a disgusting smell. Thus, it seems to be the prototypical meaning for [jɛʕ]; i.e. the most representative and typical example of the category (Rosch 1999, 1973, 1977).

Overall, both meanings of revulsion (T) > disgust (S) > anger (B) associated with the NLE [jɛʕ] are recognised across the Hijazi community. Thus, after I had translated all the participants’ answers, I coded one functional meaning that encompassed all the answers that had the same content of revulsion (T) > disgust (S) > anger (B) for the NLE [jɛʕ], as follows:

- *This looks/smells disgusting.*

The next section will detail the analysis of the NLE [kɪx:], which is associated with the emotion of anger, using the same process as that used above to analyse the other NLEs.

7.2.2 The Hijazi NLE [kɪx:] that is Associated with Anger

The Hijazi NLE [kɪx:] is only associated with the emotion of revulsion (T) > disgust (S) > anger (B). However, it fulfils two speech functions: first, it is associated with stating the

emotion of anger; second, it can also be used to warn the addressee against doing things that make the speaker disgusted and angry. In this way, [kix:] is used to warn the addressee by cautioning them from doing something.

Based on the participants' responses, out of 321 participants, 320 participants selected 'I know of the meaning of the NLE' and they provided the meaning(s) they knew for [kix:], and one participant selected 'I know the NLE but do not know its meaning'. Here are some typical responses from those participants who provided meanings for the NLE [kix:]:

Table 7.4: Number of Participants who Provided Content Related to 'Anger' for [kix:]

Total number of participants	321
Number of participants who provided meaning(s)	320
Number of participants who provided content similar to:	220
(a) /qaraf/ disgusting <u>This is disgusting.</u>	
(b) /taħði:r ʔal-tʕifil min ʔal-ʃaj ʔal-muqrif/ warning the.child from the.thing disgusting <u>It is used to warn a child to move away from a disgusting thing.</u>	127

Table 7.4 shows that out of the 320 participants who suggested a meaning for the NLE [kix:], 220 participants provided meanings related to disgust in general, as appeared in meaning (a) in Table 7.4. Also, there are 127 participants who provided meanings related to warning a child to move away from a disgusting thing. The speaker warns the child to move away from the disgusting things because if the child touches those disgusting things, the speaker will feel angry. In this way, [kix:] is associated with the content of 'I will be angry if you touch the disgusting things' through the speech function of warning, which is a type of command. So, [kix:] is the equivalent of saying, 'I am warning you to move away from the disgusting things that make me angry'.²²

Overall, both meanings of revulsion (T) > disgust (S) > anger (B) associated with the NLE [kix:] are recognised across the Hijazi community. However, the meaning of disgust

²² As a native speaker, I am able to add detail to the meaning of [kix:], although the participants did not provide this information. [kix:] is also used to warn a child not to say disgusting things (taboo words), because if the child says those things, the speaker will be angry. In this way, [kix:] is associated with the content of 'I will be angry if you say this disgusting thing' through the speech function of warning, which is a type of command. So, [kix:] is the equivalent of saying, 'I am warning you not to say those disgusting words that make me angry'.

was provided more frequently than the meaning of warning against touching disgusting things.

After I had translated all the participants' answers, I coded functional meanings that encompassed all the answers that had the same content of revulsion (T) > disgust (S) > anger (B) for the NLE [kix:] as follows:

- *I am disgusted.*
- *I am warning a child not to touch disgusting things.*

The next section will detail the analysis of the NLE [ɔffu:], which is associated with the emotion of anger using the same process as that used above to analyse the other NLEs.

7.2.3 The Hijazi NLE [ɔffu:] that is Associated with Anger

The Hijazi NLE [ɔffu:] is very similar to [kix:], as both of them are only associated with the emotion of revulsion (T) > disgust (S) > anger (B). Also, both are associated with this meaning in two functional ways: first, they are associated with the declaration of the emotion of anger; second, they are used to warn the addressee from doing things that make the speaker disgusted and angry. In this way, [ɔffu:] is like [kix:], as both fulfil the speech function of warning, which is a type of command, as they are associated with the meaning of warning the addressee by cautioning them against doing something.

Based on the participants' responses, from the actual 321 participants, 276 participants selected 'I know of the meaning of the NLE' and provided the meaning(s) they knew for [ɔffu:]. Out of 276 participants, 219 said that [ɔffu:] is associated with the emotion of anger (B); 113 said that [ɔffu:] is associated with warning someone to be away from things that make the speaker disgusted and angry.

Here are some typical responses from those participants who provided some meanings of the NLE [ɔffu:]:

Table 7.5: Number of Participants who Provided the Content Related to 'Anger' for [ɔffu:]

Total number of participants	321
Number of participants who provided meaning(s)	276
Number of participants who provided content such as:	219
(a) /riħah mʕafmah/ smell musty <u>This smell is musty.</u>	

<p style="text-align: center;">Number of participants who provided content such as:</p> <p>(b) /taħði:r ʔal-tʕifil min ʔal-faj ʔal-wesix/ warning the.child from the.thing the.dirty <u>It is used to warn a child about a dirty thing.</u></p>	68
<p>(c) /taħði:r ʔal-tʕifil min ʔal-faj ʔal-dʕa:r/ warning the.child form the.thing the.harmful <u>It is used to warn a child about a harmful thing.</u></p>	61

The 276 participants who suggested meaning(s) for [ɔffu:], provided different contents related to anger, as shown in (a), (b), and (c) in Table 7.5.

Content (a) shows that 219 participants provided a meaning for the NLE [ɔffu:] that is related to feeling disgusted, especially by smelling unpleasant odours. Content (b) shows that there are 68 participants who provided meanings related to feeling disgusted. However, in this content those 68 participants provided a meaning that is related to warning children against touching disgusting things, which make the speaker angry.

Content (c) shows that 61 people provided meanings for the NLE [ɔffu:] that is also related to warning children. However, in this content the participant associated the warning with keeping the children away from harmful things that make the speaker angry. For example, it is associated with warning the child not to touch the hot pot, knives, or anything harmful.

Overall, all meanings of anger (B) associated with the NLE [ɔffu:] are recognised across the Hijazi community. However, the meaning related to disgusting smell was provided more frequently than other meanings of warning against touching disgusting or harmful things.

After I had translated all the participants' answers, I coded functional meanings that encompassed all the answers that had the same content of anger (B) for the NLE [ɔffu:] as follows:

- *This smell is disgusting.*
- *I am warning a child not to touch disgusting and harmful things.*

The next section will detail the analysis of the NLE [iffi:], which is associated with the emotion of anger using the same process as that used above to analyse the other NLEs.

7.2.4 The Hijazi NLE [iffi:] that is Associated with Anger

The Hijazi NLE [iffi:] is only associated with the emotion of revulsion (T) > disgust (S) > anger (B). Out of 321 participants there are 303 participants who selected ‘I know of the meaning of the NLE’ and provided the meaning of revulsion (T) > disgust (S) > anger (B) for [iffi:], see Table 7.6 below:

Table 7.6: Number of Participants who Provided Content Similar to ‘Anger’ for [iffi:]

Total number of participants	321
Number of participants who provided meaning(s)	303
Number of participants who provided content similar to:	303
<i>/riħah mšafmah/</i>	
smell musty	
<u>This smell musty.</u>	

All of the 303 participants who selected ‘I know the meaning of the NLE’ and provided the meaning of revulsion (T) > disgust (S) > anger (B) for [iffi:] provided this meaning in relation to feeling disgusted by an unpleasant bad odour.

After I had translated all the participants’ answers, I coded one functional meaning that encompassed all the answers that had the same content of revulsion (T) > disgust (S) > anger (B) for the NLE [iffi:], as follows:

- *This smell is disgusting.*

The next section will detail the analysis of the NLEs [if:] and [uf:], which are associated with the emotion of anger, using the same process as that used above to analyse the earlier NLEs.

7.2.5 The Hijazi NLEs [if:] and [uf:] that are associated with Anger

According to the participants, both Hijazi NLEs [if:] and [uf:] are associated with two meanings of anger: annoyance (T) > irritation (S) > anger; and revulsion (T) > disgust (S) > anger (B). Some of the participants filled the text box in the questionnaire with phrases such as: ‘the same meaning as [if:]’ in the question about [uf:], or ‘the same meaning as [uf:]’ in the question about [if:]. It is interesting to note that [uf:] and [if:] are associated with the same

meanings and have basic phonetic similarities, including high vowels and a labiodental fricative. Thus, they seem to be the same NLE with two realisations.

To be more precise, out of 321 participants, 318 selected ‘I know of the meaning of the NLE’ and provided meaning(s) for [uf:], and 317 participants selected ‘I know of the meaning of the NLE’ and provided meaning(s) for [if:].

Below are the typical frequent responses from those participants who provided some meanings of the NLEs [if:] and [uf:].

Table 7.7: Number of Participants who Provided Content Related to ‘Anger’ for [if:] and [uf:]

Total number of participants > 321				
The meanings provided by the participants for [uf:] and [if:]	Number of participants who provided meaning(s) for [uf:] and [if:]			
	[uf:]	318	[if:]	317
(a) /riħah mʃafinah/ smell musty <u>This smells musty.</u>	Number of participants who provided this particular meaning	206	Number of participants who provided this particular meaning	170
(b) /mitdˤ:ajiq-ah/ annoyed.he-she <u>He/she is annoyed.</u>	Number of participants who provided this particular meaning	193	Number of participants who provided this particular meaning	175

Content (a) in Table 7.7 shows that 206 people provided the meaning of revulsion (T) > disgust (S) > anger (B) for the NLE [uf:], while there were 170 participants who suggested the same meaning for the NLE [if:].

On the other hand, content (b) in Table 7.7 shows that 193 participants provided the meaning of annoyance (T) > irritation (S) > anger (B) for the NLE [uf:], while 175 participants provided the same meaning for the NLE [if:].

Overall, both meanings that are related to revulsion (T) > disgust (S) > anger (B) and annoyance (T) > irritation (S) > anger (B) that are associated with the NLEs [uf:] and [if:] are recognised across the Hijazi community. However, the meaning of a disgusting smell was provided more frequently than the meaning of annoyance for [uf:], but the opposite is true for [if:].

After I had translated all the participants' answers, I coded functional meanings that encompassed all the answers that had the same content of anger (B) for the NLEs [if:] and [uf:], as follows:

- *This smell is disgusting.*
- *The speaker is getting annoyed and angry towards someone, something, or some action.*

The next section will detail the analysis of the NLE [ju:], which is associated with the emotion of anger using the same process as above.

7.2.6 The Hijazi NLE [ju:] that is Associated with Anger

The Hijazi NLE [ju:] is associated with the emotion of annoyance (T) > irritation (S) > anger (B), as well as negative surprise, as discussed in Chapter 6, and fear, which will be discussed in Section 7.4.1 in this chapter. To be precise, out of 321 participants, 317 participants selected 'I know of the meaning of the NLE' and provided the meaning(s) they knew for [ju:]. Of these participants, 200 provided the meaning of annoyance (T) > irritation (S) > anger (B), 110 provided the meaning of negative surprise, and 155 provided the meaning of fear. In the following, there are some typical responses from those participants who provided some meanings of the NLE [ju:] relating to the emotion of anger:

Table 7.8: Number of Participants who Provided Content Related to 'Anger' for [ju:]

Total number of participants	321
Number of participants who provided meaning(s)	317
Number of participants who provided meaning(s) of anger	200
Number of participants who provided content similar to:	141
(a) /mɪdʕajɪq/ annoyed.he <u>He is annoyed.</u>	
(b) /mɪdʕajɪq wu br-jɪthaltʕam/ annoyed.he and grumbling.he <u>He is annoyed, and he uses this NLE as a way of grumbling.</u>	88

Table 7.8 shows that 200 participants proposed a meaning of anger for the NLE [ju:]. Out of these 200 participants, 141 provided meanings related to annoyance, as shown in (a). The participants more frequently provided this meaning than the meaning in content (b), as only 88 participants described the NLE [ju:] as a means of grumbling.

Overall, both meanings of annoyance (T) > irritation (S) > anger associated with the NLE [ju:] are recognised across the Hijazi community. Thus, after I had translated all the participants' answers, I coded one functional meaning that encompassed all the answers that had the same content of annoyance (T) > irritation (S) > anger (B) for the NLE [ju:], as follows:

- *I am getting annoyed and angry because of someone or something.*

The next section will detail the analysis of the NLE [ixxi:], which is associated with the emotion of anger, using the same process as that used above to analyse the other NLEs.

7.2.7 The Hijazi NLE [ixxi:] that is Associated with Anger

The Hijazi NLE [ixxi:] is only associated with the emotion of anger. However, according to the participants' answers, the Hijazi NLE [ixxi:] is associated with two meanings of anger, especially anger arising from disgust, which are: revulsion (T) > disgust (S) > anger (B) and contempt (T) > disgust (S) > anger (B).

316 participants selected 'I know of the meaning of the NLE' and provided the meaning(s) they knew for [ixxi:]. 198 participants provided the meaning of revulsion (T) > disgust (S) > anger (B) for this NLE; 151 provided the meaning of contempt (T) > disgust (S) > anger (B) for this NLE.

Table 7.9 presents some responses from those participants who provided some meanings of the NLE [ixxi:] relating to the emotion of anger.

Table 7.9: Number of Participants who Provided Content Related to 'Anger' for [ixxi:]

Total number of participants	321
Number of participants who provided meaning(s)	316
Number of participants who provided content similar to:	79
(a) /riħah mšafinah/ smell musty <u>This smells musty.</u>	
(b) /qaraf/ disgust <u>This is disgusting.</u>	124
(c) /riħtuqa:r faxs ^s sw:a faj Galat ^s aw řeb/ despise person did thing wrong or shameful <u>It is used to express contempt for a person who did a wrong or shameful thing.</u>	151

316 participants proposed different meanings related to anger for the NLE [ixxi:], as shown in contents (a), (b), and (c) in Table 7.9. 79 participants provided meanings related to feeling disgusted by an unpleasant smell, as in content (a). 124 participants provided meanings related to feeling disgusted in general without specifying whether it a smell or something else, as in content (b). Finally, there are 151 people who provided meanings related to the negative feeling toward someone as he/she is unworthy of one's notice, respect, or concern; as in content (c).

Overall, all the meanings of disgust (S) > anger (B) associated with the NLE [ixxi:] are recognised across the Hijazi community. However, the meaning related to contempt towards someone is the most frequently provided meaning, in contrast with meanings related to disgust and a disgusting smell.

After I had translated all the participants' answers, I coded functional meanings that encompassed all the answers that had the same content of revulsion (T) > disgust (S) > anger (B) and contempt (T) > disgust (S) > anger (B) for the NLE [ixxi:], as follows:

- *This looks/smells disgusting.*
- *I feel contempt and disdain for someone's actions or behaviour.*

The next section will detail the analysis of the NLE [həh], which is associated with the emotion of anger.

7.2.8 The Hijazi NLE [həh] that is Associated with Anger

There are 311 participants who selected 'I know of the meaning of the NLE' and provided the meaning(s) they knew for the NLE [həh]. All of them said that it is associated with anger; specifically, it is associated with contempt as a tertiary emotion (T), which itself is a type of the secondary emotion (S) of disgust, which is a type of the basic emotion (B) of anger. Table 7.10 presents some responses from the participants who provided meanings for the NLE [həh] relating to the emotion of anger.

Table 7.10: Number of Participants who Provided Content Related to 'Anger' for [həh]

Total number of participants	321
Number of participants who provided meaning(s)	311
Number of participants who provided content similar to:	156
(a) /ʔɪstɪsˈGɑr fɑxsˈ/ / despising someone <u>To despise someone.</u>	
(b) /jɪhtɑqɪr fɑj ʔaw fɑxsˈ/ / despise thing or someone <u>It is used to despise something or someone.</u>	155

In Table 7.10, content (a) shows that 156 people provided contents related to despising people in specific, while content (b) shows that 155 participants provided contents related to despising different things not just people. In this case, the reaction of despising was directed towards a person, an event, an action, behaviour, etc.

Overall, both meanings are recognised in Hijazi community. Thus, after I had translated all the participants' answers, I coded one functional meaning that encompassed all the answers that had the same content of anger for the NLE [həh] as follows:

- *It is associated with the emotional meaning of contempt (T) > disgust (S) > anger by underestimating others' abilities or despising and disdain someone or something.*

The next section will detail the analysis of the NLE [lʷ], which is associated with the emotion of anger.

7.2.9 The Hijazi NLE [lʷ] that is Associated with Anger

The Hijazi NLE [lʷ] is associated with the emotional meaning of annoyance (T) > irritation (S) > anger (B), as well as the meaning of rejection.²³ There are 319 participants who selected 'I know of the meaning of the NLE' and provided the meaning(s) they knew for [lʷ]. Of these, 191 participants said that it was associated with the meaning of annoyance (T) >

²³ Some participants suggested that the Hijazi NLE [lʷ] could be associated with the mental states of rejection and disapproval. However, there will not be any analysis of how [lʷ] is related to the expressive cognitive meaning of the mental states of rejection and disapproval. This would require additional research beyond the scope of this thesis. However, this meaning is mentioned here for reasons of reliability.

irritation (S) > anger (B). Furthermore, 171 participants said that it was associated with the meaning of rejection.

Tables 7.11 presents some typical responses from those participants who provided meanings of the NLE [l^w] relating to the emotion of anger:

Table 7.11: Number of Participants who Provided Content Related to ‘Anger’ for [l^w]

Total number of participants		321
Number of participants who provided meaning(s)		319
Number of participants who provided meaning(s) of anger		191
Number of participants who provided content similar to:		96
(a)	/mitd ^o ajiq min ʔal-ʔizʕadʒ/ annoyed.he from the.disruption <u>He is annoyed by the disruption.</u>	
(b)	/mitd ^o ajiq min ʔal-ħar/ annoyed.he from the.hotness <u>He is annoyed because of the hot weather.</u>	51
(c)	/mitd ^o ajiq min ʃaxs ^o / annoyed.he from someone <u>He is annoyed by someone.</u>	85

Table 7.11 shows that out of the 319 participants who suggested meanings for the NLE [l^w], there are 191 participants who provided different meanings related to anger, as shown in contents (a), (b), and (c) in.

Out of those 191, there are 96 participants who provided meanings related to the discomfort and annoyance particularly because of disturbance or chaos, as shown in content (a). Also, there are 51 participants who provided meanings related to annoyance because of hot weather in specific, as shown in content (b). Finally, there are 85 participants who provided meanings related to annoyance with a person, as shown in content (c).

Overall, all three meanings of annoyance (T) > irritation (S) > anger (B) that are associated with the NLE [l^w] are recognised across the Hijazi community. However, based on the participants’ responses, the content of annoyance due to disruption is provided more frequently than the other contents, followed by the content of being annoyed by someone. The content of being annoyed by hot weather is the least frequently provided response.

After I had translated all the participants’ answers, I coded a functional meaning that encompassed all the answers that had the same content of anger for the NLE [l^w], as follows:

- *I am getting annoyed and angry at someone, some action, or something.*

The next section will detail the analysis of the NLE [lʷ|w|w|w], which is associated with the emotion of anger.

7.2.10 The Hijazi NLE [lʷ|w|w|w] that is Associated with Anger

As discussed in Chapter 6, the Hijazi NLE [lʷ|w|w|w] is associated with the emotion of negative surprise, which has fuzzy boundaries, i.e. it blends into the negative emotion of anger.

Moreover, it is associated with other meanings that are related to the emotions of anger and the speech function of warning, which is a type of command.

To be more precise, there are 318 participants who selected ‘I know the meaning of the NLE’ and provided the meaning(s) they knew for the NLE [lʷ|w|w|w]. Of these, 101 provided the meaning of negative surprise; 125 provided the meaning of anger; and 144 provided the meaning of the speech function of commanding that is stimulated by anger.

Based on the participants’ responses, the Hijazi NLE [lʷ|w|w|w] is associated with annoyance (T) > irritation (S) > anger (B) and also associated with different speech functions. First, it is associated with the emotion of anger. Second, it can also be associated with warn the addressee not to do things that make the speaker annoyed and angry. In other words, this NLE can also fulfil the speech function of warning, as it cautions the addressee not to do something.

Tables 7.12 presents some typical responses from those participants who provided meanings of the NLE [lʷ|w|w|w] relating to the emotion of anger:

Table 7.12: Number of Participants who Provided Content Related to ‘Anger’ for [lʷ|w|w|w]

Total number of participants	321
Number of participants who provided meaning(s)	318
Number of participants who provided meaning(s) related to anger	269
Number of participants who provided content similar to:	125
(a) /mitdʷajiq min ʔal-dʷadʒah/ annoyed.he from the.noise <u>He is annoyed by the noise.</u>	

Number of participants who provided content similar to:	63
(b) /taħði:r ʔaw tahdi:d ʔal- tʕfil/ warning or threaten the child <u>It is used to warn or threaten a child.</u>	
(c) /taħði:r wa ʔiqaf ʔal-faxsʕ min fiʕl ʃajʔ-ma/ Warning and stopping a.person from doing something <u>It is used to warn a person and stop them from doing something.</u>	107

Table 7.12 shows that out of the 318 participants who suggested meanings for the NLE [ʔw|ʔw|ʔw], there are 269 who proposed different contents related to anger, as shown in (a), (b), and (c). 125 provided contents related to the annoyance due to noise in particular, as in content (a). 145 participants proposed a meaning that is related to a warning arising from anger for the NLE [ʔw|ʔw|ʔw]. Of these participants, 63 provided meanings related to warning a child not to do the things that make the speaker angry, as shown in content (b). Also, there are 107 participants who proposed a content that is related to warning arising from anger. This meaning is related to commanding someone and stopping them from doing something that make the speaker angry, as shown in content (c).

Overall, all three meanings of annoyance (T) > irritation (S) > anger (B) associated with the NLE [ʔw|ʔw|ʔw] are recognised across the Hijazi community. However, based on the participants' responses, the content of the annoyance due to noise is more frequently provided than the other meanings, while the content of warning someone and stopping them from doing something is the least frequently provided response.

After I had translated all the participants' answers, I coded functional meanings that encompassed all the answers that had the same content of anger for the NLE [ʔw|ʔw|ʔw], as follows:

- *I am annoyed and angry due to the noise.*
- *Warning a child not to do bad things, touch disgusting things, or get close to harmful and dangerous things.*
- *I am warning a person – adult or child – not to do bad things.*

The next section will detail the analysis of the NLE [|||] which is associated with the emotion of anger, using the same process as that used above to analyse the earlier NLEs.

7.2.11 The Hijazi NLE [l | l | l] that is Associated with Anger

The Hijazi NLE [l | l | l] is associated with the emotional meanings of anger and sadness. 289 participants selected ‘I know of the meaning of the NLE’ and provided the meaning(s) they knew for this NLE. 151 participants said that they associated the NLE with the meaning of contempt (T) > disgust (S) > anger (B). Also, 171 participants said that it is associated with the meaning of sadness. Table 7.13 below presents a typical response from those participants who provided meanings related to the meaning of contempt (T) > disgust (S) > anger (B) for the NLE [l | l | l].

Table 7.13: Number of Participants who Provided Content Related to ‘Anger’ for [l | l | l]

Total number of participants	321
Number of participants who provided meaning(s)	289
Number of participants who provided meaning(s) of anger	151
Number of participants who provided content similar to: <i>/ʔh̄tiqa:r faxs^s sw:a faj mu maqbu:l/</i> despising person did thing not acceptable <u>This is used to signal contempt and disdain for a person who has done unacceptable things.</u>	151

Table 7.13 shows that 151 participants selected ‘I know of the meaning of the NLE’ and suggested a meaning related to anger. They only provided meanings related to feeling of contempt and disdain towards someone.

After I had translated all the participants’ answers, I coded one functional meaning that encompassed all the answers that had the same content of anger for the NLE [l | l | l] relating to contempt (T) > disgust (S) > anger (B), as follows:

- *I feel contempt and disdain for someone’s actions or behaviour.*

The next section will present the analysis of the NLE [O#], which is associated with the emotion of anger.

7.2.12 The Hijazi NLE [O#] that is Associated with Anger

299 participants selected ‘I know the meaning of this NLE’ and provided the meaning(s) they knew for the NLE [O#]. The Hijazi NLE [O#] is associated with four different emotional meanings. As discussed in Chapter 5, 159 participants said that the NLE [O#] is associated with the meaning of love, and 122 participants said that it is associated with the meaning of joy. In this chapter, Table 7.2 shows that 149 participants said that the NLE [O#] is associated

with the meaning of dislike (T) > rage (S) > anger (B). Furthermore, as will be seen in section 7.3.5., 149 participants said that the NLE [Oʔ] is associated with the meaning of sadness. Thus, the Hijazi NLE [Oʔ] is associated with the emotional meaning of love as well as joy, as will be discussed later in this chapter, and the negative emotions of anger and sadness.

Tables 7.14 presents some typical responses from those participants who provided some meanings of the NLE [Oʔ] relating to the emotion of anger:

Table 7.14: Number of Participants who Provided Content Related to ‘Anger’ for [Oʔ]

Total number of participants	321
Number of participants who provided meaning(s)	299
Number of participants who provided meaning(s) of anger	149
Number of participants who provided content similar to:	86
(a) /Gadʕab wa ʕadam ʔadʕab/ anger and not like <u>This expresses anger and dislike.</u>	
(b) /ʔal-naqd ʔal-salbi: bi-sabab ʕadam ʔal-ʔadʕab bi-ʔal-ʕaj/ the.criticism the.negative because not the.like of-the.thing <u>It is a kind of negative criticism due to not liking something.</u>	70

Table 7.14 shows that 149 participants suggested a meaning of anger for the NLE [Oʔ]. 86 provided meanings related to anger arising from disliking something or someone, as appeared in content (a). This meaning was more frequently provided by the participants than the other meanings in content (b). There are only 70 participants who provided meanings that describe this NLE as a way of criticism that arises from dislike and anger, as shown in example (b).

Overall, these two meanings associated with the [Oʔ], which are related to the content of dislike (T) > rage (S) > anger (B), are recognised across the Hijazi community. Thus, after I had translated all the participants’ answers, I coded one functional meaning that encompassed all the answers that had the same content of anger for the NLE [Oʔ] relating to anger as follows:

- *It is associated with the emotional meaning of dislike (T) > rage (S) > anger (B).*

The next section will detail the analysis of the NLEs [ʃw:] and [ʕs:], which are associated with the emotion of anger.

7.2.13 The Hijazi NLEs [f^w:] and [ɔs:] that are Associated with Anger

According to the participants' responses, both Hijazi NLEs [f^w:] and [ɔs:] are only associated with meanings related to annoyance (T) > irritation (S) > anger (B), which are fulfilled with commands. For instance, 318 participants selected 'I know of the meaning of this NLE' and provided meaning(s) for [ɔs:]. Similarly, 314 participants selected 'I know of the meaning of this NLE' and provided meaning(s) for [f^w:].

These two NLEs are very similar, as some of the participants filled the text box in the questionnaire with phrases such as: 'the same meaning as [f^w:]' in the question about [ɔs:], or 'the same meaning as [ɔs:]' in the question about [f^w:]. It is interesting to note that [ɔs:] and [f^w:] are associated with the same meanings, and they are produced with sounds that have a similar place and manner of articulation, such as the voiceless alveolar fricative /s/ in [ɔs:] and the voiceless post-alveolar affricate /ʃ/ in [f^w:]. Both also have a degree of rounding. Thus, they seem to be the same NLE with two realisations.

Table 7.15 present typical frequent responses from those participants who provided some meanings of the NLEs [f^w:] and [ɔs:]:

Table 7.15: Number of Participants who Provided Content Similar to 'Ordering Silence' for [f^w:] and [ɔs:]

Total number of participants > 321				
The meanings provided by the participants for [ɔs:] and [f ^w :]	Number of participants who provided meaning(s) for [ɔs:] and [f ^w :]:			
	[ɔs:]	318	[f ^w :]	314
(a) /ʔaskut/ /ʔankatim/ /ax:ras/ /ʔant ^ʕ am/ <u>These four words are synonyms and all mean 'Shut up'.</u>	Number of participants who provided this particular meaning	213	Number of participants who provided this particular meaning	151
(b) /t ^ʕ alab ʔal-suku:t/ request the.silence <u>Asking for silence.</u>		114		176

Content (a) in Table 7.15 shows that of the 318 participants who suggested a meaning for the NLEs [ɔs:], 213 participants provided the meaning of 'shut up' or ordering silence. On

the other hand, of the 314 participants who suggested a meaning for the NLE [ʃw:], 151 provided the same meaning of ordering silence.

Furthermore, content (b) in Table 7.15 shows that of the 318 participants who suggested a meaning for the NLE [ɔs:], 114 provided a meaning related to requesting silence. On the other hand, of the 314 participants who suggested a meaning for the NLE [ʃw:], 176 provided a meaning related to the same meaning of requesting silence.

Overall, both [ɔs:] and [ʃw:] are recognised across the Hijazi community. Both [ʃw:] and [ɔs:] have similar meanings. However, the meaning of ordering silence was provided more frequently than the meaning of requesting silence for [ɔs:], but the opposite is true for [ʃw:].

After I had translated all the participants' answers, I coded one functional meaning that encompassed all the answers that had the same content of annoyance (T) > irritation (S) > anger (B), which is fulfilled by commands, for the NLEs [ʃw:] and [ɔs:], as follows:

- *I am commanding you to stop talking or making a noise because this is making me annoyed and angry.*

In this way, Hijazi speakers recognise both [ʃw:] and [ɔs:] to order or request someone to be quiet because if they keep talking or making noise, the speaker will feel annoyed and angry. In this way, [ʃw:] and [ɔs:] are associated with the content of 'I will be angry if you are still talking or making a noise' through the speech function of ordering or requesting, which are types of command. So, these NLEs are the equivalent of saying, 'I am commanding you to stop talking or making a noise because this is making me annoyed and angry'.

At this point, I analysed the meanings provided by the participants for the 15 Hijazi NLEs that are associated with the negative emotion of anger. In the following section, I will provide an overview of the use of the Hijazi NLEs that are associated with anger in the Hijazi community.

7.2.14 The Mapping of the Hijazi NLEs that are associated with Anger

In the previous sections of this chapter, I analysed the 15 Hijazi NLEs that are associated with anger, which are [ju:], [ɪf:], [uf:], [ɪffi:], [ɔffu:], [ɪxxi:], [jɛʕ], [kɪx:], [həh], [ʃw:], [ɔs:],

[ʔ], [w], [w|w|w|w] and [|||]. The analysis shows that all of these 15 Hijazi NLEs and their meanings of anger were recognised in the Hijazi community; the majority of the participants selected ‘I know the meaning of this NLE’ and provided a meaning of anger.

Based on Shaver et al.’s (2001) emotions classification, the participants’ answers show that these 15 Hijazi NLEs are associated with different emotional meanings of anger, including annoyance (T) > irritation (S) > anger (B), dislike (T) > rage (S) > anger (B), and revulsion and contempt (T) > disgust (S) > anger (B). Figure 7.1 below summarises how these 15 Hijazi NLEs can be mapped onto different types of anger.

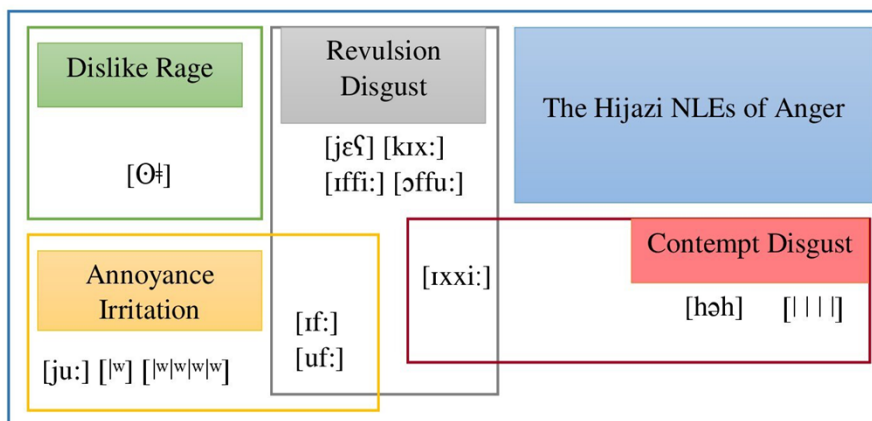


Figure 7.1: The Mapping of the Hijazi NLEs onto the Emotion of Anger

Inside the large rectangle of ‘The Hijazi NLEs of Anger’, Figure 7.1 has four rectangles. First, there is the green rectangle, which consists of the Hijazi NLEs that are associated with dislike (T) > rage (S) > anger (B). Second, the yellow rectangle consists of the Hijazi NLEs that are associated with annoyance (T) > irritation (S) > anger (B). Third, the grey rectangle consists of the Hijazi NLEs that are associated with revulsion (T) > disgust (S) > anger (B). Fourth and finally, the red rectangle consists of the Hijazi NLEs that are associated with contempt (T) > disgust (S) > anger (B).

There is an overlapping relationship between some of the rectangles, especially the grey, red, and yellow ones. This is because some Hijazi NLEs share different meanings of anger. For example, the Hijazi NLEs [ɪf:] and [uf:] share the meanings of annoyance (T) > irritation (S) > anger (B) as well as revulsion (T) > disgust (S) > anger (B). The Hijazi NLEs [ixxi:], [həh], and [|||] share the meanings of revulsion (T) and contempt (T) > disgust (S) > anger (B). In contrast, there are some Hijazi NLEs that are only associated with a single type

of anger. For example, the Hijazi NLEs [ju:], and [l^w], [l^w|^w|^w] are only associated with annoyance (T) > irritation (S) > anger (B). Also, the Hijazi NLEs [jεʕ], [kix:], [ɪffi:], and [ɔffu:] are only associated with the emotion of revulsion (T) > disgust (S) > anger (B). Finally, the Hijazi NLE [Oʔ] is associated with dislike (T) > rage (S) > anger (B).

As discussed in the previous section, Hijazi NLEs that are associated with anger fulfil two types of speech function: statement and command. All the Hijazi NLEs except [j^w:] and [ɔs:] are associated with the emotion of anger, as they fulfil the speech function of a statement in which the speaker gives information. By fulfilling the speech function of statement, the speakers are stating that they are angry by choosing the NLEs. For example, speakers can direct expression or emotion towards what they are talking about, as in the phrases ‘I am annoyed’, ‘I am angry’, etc. In this way, the statement speech function constitutes an expressive or emotive speech function.

In contrast, five Hijazi NLEs, which are [ɔffu:], [kix:], [j^w:], [ɔs:], and [l^w|^w|^w], fulfil the speech function of command, in which the speaker demands information, goods, or services from others. The Hijazi NLEs that are associated with anger fulfil three types of command: ordering, requesting, and warning. Figure 7.2 below summarises how these five Hijazi NLEs can be mapped onto different types of anger. It shows that these Hijazi NLEs are associated with two emotional meanings of anger, which are annoyance (T) > irritation (S) > anger (B) and revulsion (T) > disgust (S) > anger (B), which are fulfilled by two types of the speech function of command: warning and ordering/requesting. In Figure 7.2 there are two rectangles: the yellow rectangle consists of the Hijazi NLEs; the green rectangle consists of the emotional meaning of anger that stimulates the speech functions of commands. There are also lines that connect the NLEs with the stimulated emotional meanings of anger. These lines go through a red circle in the middle of Figure 7.2. This circle represents the speech function of commands.

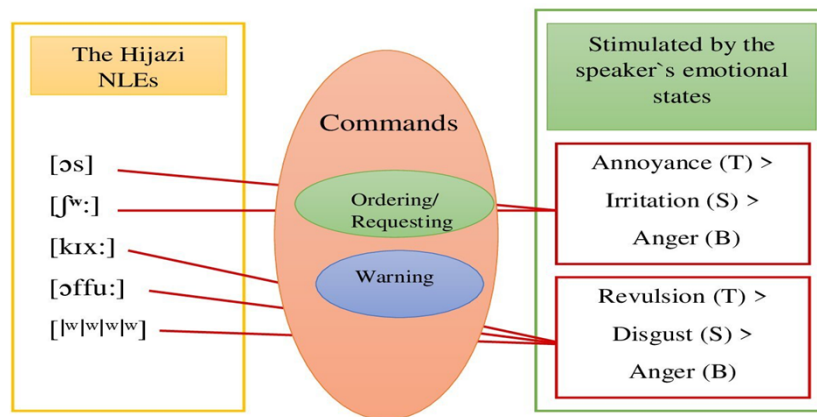


Figure 7.2: The Mapping of the Hijazi NLEs that are associated with Anger onto the Speech Function of Command

Based on the speech function of command, Hijazi speakers associate these five NLEs with commanding someone to do, or not to do, something as otherwise the speaker will be angry. In this way, these five Hijazi NLEs are associated with the content of ‘I will be angry if you do, or don’t do, this action’. These NLEs are the equivalent of saying, ‘I am commanding you to stop doing this action because it makes me angry’.

To summarise, in the previous section in this chapter, I used the seven steps of analysis, as discussed in Chapter 4 (4.6), to analyse the NLEs that are associated with anger. Subsequently, in the following section, I will use the same seven steps to analyse the Hijazi NLEs that are associated with sadness.

7.3 The Hijazi NLEs that are associated with the Negative Emotion of Sadness

In Chapter 2, based on Shaver et al. (2001), the emotion of sadness was defined as a negative emotion that indicates the interpretation of the negative, undesirable, powerless, and helpless outcome of a situation in which the threat has already been realised (Shaver et al. 2001: 44). It is the emotion that arises from pain. It refers to the emotion of physical and psychological suffering, shame, disappointment, neglect, and sympathy. It is usually accompanied by vocal expressions such as crying and whimpering (Shaver et al. 2001: 45).

Hijazi Arabic has seven NLEs that are associated with the meanings of the emotion of sadness, which are [aħ:], [ax:], [ah:], [aj:], [afə], [O#], and [|||]. Based on the participants’

answers, Table 7.16 below shows how these seven Hijazi NLEs map onto the emotion of sadness:

Table 7.16: Hijazi NLEs Mapped onto Shaver et al. 's (2001) Emotions of Sadness

Basic emotion	Secondary emotion	Tertiary emotion	The Hijazi NLEs
Sadness	Suffering	Agony, anguish, hurt	[ah:], [ax:], [ah:], [aj:]
	Sadness	Depression, despair, gloom, glumness, unhappiness, grief, sorrow, woe, misery, melancholy	[ax:], [ah:], [aj:], []
	Disappointment	Dismay, displeasure	[afə], []
	Shame	Guilt, regret, remorse	[ax:]
	Neglect	Alienation, defeatism, dejection, embarrassment, homesickness, humiliation, insecurity, insult, isolation, loneliness, rejection	[ax:], [ah:]
	Sympathy	Pity, sympathy	[]

However, based on Shaver et al.'s (2001) classification of sadness, I suggest a further categorisation, which matches the participants' responses. According to Shaver et al. (2001), the emotion of sadness results from psychological and physical pain. Based on this, I suggest a further categorisation of the meanings of sadness, including psychological, physical, and general sadness, relating to physiological and/or physical pain. I define physical sadness as being related to physical symptoms, such as headaches or body aches, pain, injury, etc., and I define psychological sadness as relating to psychological symptoms, such as sorrow, depression, heartbreak, disappointment, guilt, etc (cf. Shaver et al.'s 2001). Finally, I use the term 'general sadness' to describe the participants' answers that mentioned pain, or sadness resulting from pain, without specifying its type, i.e. physical or psychological.

Furthermore, these three categories of sadness that were used in coding the participants' answers share the same content. For more explanation, see Chapter 4, where I coded the collected meanings of the Hijazi NLEs that share the same content in one phrase. For example, meanings such as, "he/she is physically suffering", "he/she aches from some physical pain", "physical pain", "someone has a headache", "someone has a stomach ache", etc. have the same content of physical pain. I therefore coded those different forms that shared the same content to create a representative example that indicates any physical suffering, which is /?alam dzasadj/ "physical pain", which is mapped onto the category of physical sadness.

In the same way, responses such as, “he/she is sad”, “he/she is psychologically suffering”, “heartbreak”, “he/she is careworn”, “he/she is suffering from a regrettable situation”, “it expresses nostalgia, resulting from sadness at one’s inability to live as one did in the past”, “groan”, “regret”, “disappointed”, “stress”, etc.²⁴ have the same content of psychological pain. I therefore coded these different forms that share the same content to create a representative example that indicates any psychological suffering, which is /*ʔalam nafsi*/ “psychological pain”, which is mapped onto the category of psychological sadness.

Finally, I coded the response /*ʔalam*/, which is a direct translation of “pain” to the category of general pain, as the participants did not specify the type of pain, i.e. physical or psychological.

Thus, I analysed the seven Hijazi NLEs that are associated with the emotion of sadness as connoting three types of sadness: general, psychological, and physical. Table 7.17 below shows numerical information about the participants’ awareness of these seven NLEs that are associated with sadness and their meanings.

Table 7.17: Responses of 321 Participants to the Hijazi NLEs of Sadness

Hijazi NLE	Participants who selected ‘I have not heard this NLE before’	Participants who selected ‘I know the NLE but do not know its meaning’	Participants who selected ‘I know of the meaning of the NLE’ but did not provide a meaning	Participants who selected ‘I know of the meaning of the NLE’ and provided meaning(s) (Sadness)				Participants who provided other meaning(s)
				General sadness	Psychological sadness	Physical sadness	Psychological sadness + Command	
[aj:]	0	3	2	-	-	316	-	0
[ah:]	0	0	5	193	156	53	-	0
[ax:]	0	6	1	95	183	83	-	0
[ah:]	0	1	2	-	72	231	133	0
[afə]	0	6	0	-	171	-	-	123(negative surprise)
[Oʔ]	1	16	5	-	149	-	-	159 (love) 122 (joy) 149 (anger)
[l l l]	0	28	4	-	158	-	-	151 (anger)

²⁴ Appendix E shows examples of the meanings provided by every participant for every Hijazi NLE.

Based on the participants' answers, Table 7.17 shows how the 321 participants responded in the questionnaire to the seven Hijazi NLEs that are associated with meanings of sadness. This indicates that all the NLEs that are associated with anger are widely understood by Hijazi speakers; the sole exception was one participant for the Hijazi NLE [Oʔ].

Also, it shows that most of the participants were able to describe the meanings of sadness for the seven Hijazi NLEs whether in relation to expressing sadness or commanding someone to stop the thing that makes the speaker sad. For example, all these NLEs express sadness, while only [aħ:] is also articulated to command someone to stop doing the thing that makes the speaker sad, such as touching harmful and dangerous things.

In addition, some of the participants selected 'I know the NLE but do not know its meaning'. The percentage of participants who said that they knew some of these NLEs without meaning ranges from a minimum of one out of the 321 participants, as in the case of [aħ:], to a maximum of 28 out of 321 participants, as in the case of [|| ||]. Table 7.17 shows that the NLE [aħ:] was the only one recognised by all respondents.

In all the emotive NLEs that are associated with the emotion of sadness, except [afə], there are few respondents who said that they recognised the meanings but did not provide any meanings. The number of these participants ranges from a minimum of one out of the 321 participants, as in the case of [ax:], to a maximum of five out of 321 participants, as in the case of [aħ:] and [Oʔ].

7.3.1 The Hijazi NLEs [aħ:] and [ax:] that are associated with Sadness

According to the participants' responses, the Hijazi NLEs [aħ:] and [ax:] are only associated with meanings of sadness. They are associated with the three meanings of sadness: general, physical, and psychological sadness arising from general, physical, and psychological pain. The participants provided identical meanings to describe both Hijazi NLEs [aħ:] and [ax:]. Some of the participants filled the text box in the questionnaire with phrases such as: 'the same meaning as [aħ:]' in the question about [ax:], or 'the same meaning as [ax:]' in the question about [aħ:]. It is interesting to note that [aħ:] and [ax:] are associated with the same meanings and have basic phonetic similarities, including low vowels and guttural sounds e.g. voiceless velar fricative [x] and voiceless glottal fricative [h]. Thus, they seem to be the same NLE with two realisations.

Table 7.18 presents the meanings provided by the participants of the Hijazi NLEs [ah:] and [ax:], which are associated with the content of the emotion of general, psychological, and physical pain, which result in general, psychological, and physical sadness:

Table 7.18: Number of Participants who Provided Content Related to ‘Psychological Sadness’ for [ah:] and [ax:]

Total number of participants > 321				
The meanings provided by the participants for [ah:] and [ax:]	Number of participants who provided meaning(s) for [ɑs:] and [ʃw:]			
	[ah:]	316	[ax:]	314
(a) /ʔalam nafsi/ pain psychological <u>Psychological pain.</u>	Number of participants who provided this particular meaning	156	Number of participants who provided this particular meaning	183
(b) /ʔalam dʒasadj/ pain physical <u>Physical pain.</u>		53		83
(a) /ʔalam/ pain <u>Pain.</u>		193		

Table 7.18 shows that 316 participants who selected ‘I know the meaning of the NLE’ and provided meaning(s) for [ah:].²⁵ 156 participants provided the meaning of psychological sadness that arises from psychological pain, 53 provided the meaning of physical sadness that arises from physical pain, and 193 participants provided the meaning of general sadness that arises from pain in general.

On the other hand, there are 314 who selected ‘I know the meaning of the NLE’ and provided meaning(s) for [ax:]. Of these participants, 183 participants provided the meaning of psychological sadness that arises from psychological pain, 83 participants provided the meaning of physical sadness that arises from physical pain, and 95 provided the meaning of general sadness that arises from pain in general.

Overall, both [ah:] and [ax:] are recognised across the Hijazi community. Both [ah:] and [ax:] have three similar meanings that are related to sadness. However, based on the

²⁵ For more information about the other participants who did not provide meaning for this NLE, see Section 7.3. This applies to all the other emotive NLEs that are associated with the meaning of sadness in the current chapter.

participants' responses, the meaning of general sadness that arises from pain in general is provided more frequently than the other contents for [ah:], while the meaning of psychological sadness that arises from psychological pain is provided more frequently than the other meanings for [ax:]. The meaning of physical sadness that arises from physical pain is the least frequently provided response for both [ah:] and [ax:].

After I had translated all the participants' answers, I coded functional meanings that encompassed all the answers that had the same content of anger for the NLE [ah:] and [ax:], as follows:

- *It is associated with the sadness arising from pain in general (the participants did not specify what kind of pain, i.e. physical or psychological).*
- *It is associated with sadness arising from pain resulting from a burn, sickness, and tiredness, or arising from physical stress and exhaustion.*
- *It is associated with sadness arising from psychological stress, heartbreak, regret, remorse, neglect, homesickness, and nostalgia.*

The next section will present the analysis of the NLE [aj:], which is associated with the emotion of sadness using the same process as that used above to analyse the earlier NLEs.

7.3.2 The Hijazi NLE [aj:] that is Associated with Sadness

The Hijazi NLE [aj:] is associated only with the emotion of physical sadness. To be precise 316 participants selected 'I know of the meaning of this NLE' and provided a meaning for [aj:]. Table 7.19 presents the typical responses from those participants who provided some meanings of the NLE [aj:] relating to the emotion of physical sadness:

Table 7.19: Number of Participants who Provided Content Similar to 'Physical Sadness' for [aj:]

Total number of participants	321
Number of participants who provided meaning(s)	316
Number of participants who provided content similar to:	316
<i>/jitʔal:am dʒsadj:an/</i>	
<i>pain.he physically</i>	
<u><i>He/she is physically suffering.</i></u>	

After I had translated all the participants' answers, I coded a functional meaning that encompassed all the answers that had the same content of sadness for the NLE [aj:], as follows:

- *It is associated with sadness because of a feeling of sickness arising for physical reasons due to physical problems. It is like saying, 'I am sad because this is painful'.*

The next section will present the analysis of the NLE [ah:], which is associated with the emotion of sadness using the same process as that used above to analyse the earlier NLEs.

7.3.3 The Hijazi NLE [ah:] that is Associated with Sadness

The Hijazi NLE [ah:] is associated with the emotion of sadness. However, it realises sadness within two speech functions. First, it expresses the emotion of sadness. Second, it can also be used to warn the addressee not to do things that make the addressee and the speaker sad. [ah:] can fulfil the speech function of warning, which is a sub-type of command. In this way, [ah:] is used to warn the addressee by cautioning them not to touch or move close to harmful things.

Table 7.20 below shows the typical responses from those participants who provided some meanings of the NLE [ah:] relating to the emotion of physical and psychological sadness:

Table 7.20: Number of Participants who Provided Content Related to 'Physical and/or Psychological Sadness' for [ah:]

Total number of participants	321
Number of participants who provided meaning(s) of sadness	318
Number of participants who provided content similar to:	231
(a) /jitʔal:am dʒsadj:an/ pain.he physically <u>He/she is physically suffering.</u>	
(b) /lam:an ʔansʔadim bɪ-kala:m dʒariħ wa muħriɖʒ/ when shocked.me by.speech hurtful and embarrassing <u>I use it when I am shocked by hurtful and embarrassing words.</u>	67
(c) /taħði:r ʔal-tʕifil min lams ʔal-faj ʔal-ħa:r ʔaw ʔal-muʔðj/ warn the-child from touch the-thing the-hot or the-harm <u>It is used to warn a child not to touch hot or harmful things.</u>	133

Table 7.24 shows that 318 participants selected ‘I know of the meaning of this NLE’ and provided a meaning for [aħ:], and all these meanings are related to sadness, as shown in (a), (b), and (c). Content (a) shows that there are 231 participants who provided meanings that are related to physical sadness arising from physical pain. Content (b) shows that 67 participants provided meanings of sadness for [aħ:] that are associated with psychological sadness. All participants who provided the meaning of psychological sadness in relation to [aħ:] specifically associated the NLE with embarrassment. Based on Shaver et al.’s (2001) emotions classification, embarrassment is a tertiary emotion (T), which is a type of the secondary emotion (S) of neglect, which is a type of the basic emotion (B) of sadness.

Finally, content (c) shows that 133 participants provided meanings associated with with the emotion of sadness that fulfils the speech function of warning. Given that warning is a type of command, even if the meaning of the Hijazi NLE [aħ:] is predominantly related to its speech function of warning a child to move away from dangerous and harmful things, it also has emotional components. The speaker warns the child to move away from the harmful things because were the child to be injured, the speaker would feel sad. In this way, [aħ:] is associated with the content of ‘I will be sad if something happens to you’ through the speech function of warning, which is a type of command. Therefore, [aħ:] is the equivalent of saying, ‘I am warning you to move away from the things that harm you and make me sad about what might happen to you if you don’t’.

Overall, all the meanings of sadness above that are related to [aħ:] are recognisable across the Hijazi community. However, based on the participants’ responses, the meaning of sadness that arises from physical pain in general is provided more frequently than the other contents, while the meaning of sadness that arises from embarrassment is the least frequently provided response.

After I had translated all the participants’ answers, I coded functional meanings that encompassed all the answers that had the same content of sadness for the NLE [aħ:], as follows:

- *It is associated with sadness arising from physical pain because of a burn, injury, and discomfort.*
- *It is associated with a sad reaction towards an embarrassing and shocking situation.*
- *Warning a child to keep away from dangerous and harmful things that cause physical injury, a burn, or harm.*

The next section will detail the analysis of the NLE [afə] that is associated with the emotion of sadness.

7.3.4 The Hijazi NLE [afə] that is Associated with Sadness

In Chapter 6, I analysed the meaning of negative surprise, which has fuzzy boundaries with the negative emotion of sadness, based on the participants' responses for the Hijazi NLE [afə]. Here, I will analyse how [afə] is associated with the emotion of sadness. 315 participants selected 'I know of the meaning of this NLE' and provided the meaning(s) they knew for [afə]. Of these, 123 provided the meaning of negative surprise, while 171 provided the meaning of sadness. All of these 171 participants provided the meaning of psychological sadness, specifically the emotion of disappointment. Based on Shaver et al.'s (2001) emotions classification, disappointment is a secondary emotion (S), which is a type of the basic emotion (B) of sadness.

It is clear from these figures that, although both the meaning of negative surprise has fuzzy boundaries with sadness, and the meaning of disappointment (S) > sadness (B) in relation to the NLE [afə] are recognised by the Hijazi community, the meaning of disappointment (S) > sadness (B) is more closely associated with [afə] than the meaning of negative surprise.

The following table shows the number of participants who provided the meaning of disappointment (S) > sadness (B) for the NLE [afə]:

Table 7.21: Number of Participants who Provided Content Related to 'Sadness' for [afə]

Total number of participants						321
Number of participants who provided meaning(s)						315
Number of participants who provided meaning(s) of sadness						171
Number of participants who provided content similar to:						171
<i>/taʕbi:r</i>	<i>salbj</i>	<i>justaxdam</i>	<i>li-ltaʕbi:r</i>	<i>ʕan</i>	<i>ʔal-xuðla:n/</i>	
expression	negative	it.used	for.express	about	the.disappointment	
<u>A negative expression used to express the feeling of disappointment.</u>						

Table 7.21 shows that all the 171 participants who provided a meaning of sadness for [afə] suggested a meaning that is related to disappointment (S) > sadness (B). Thus, after I had translated all the participants' answers, I coded one functional meaning that encompassed all the answers that had the same content of disappointment for the NLE [afə], as follows:

- *I did not expect that you would think of me like this; you have disappointed me.*

The next section will detail the analysis of the NLE [O#].

7.3.5 The Hijazi NLE [O#] that is Associated with Sadness

299 participants selected ‘I know of the meaning of this NLE’ and provided the meaning(s) they knew for the NLE [O#]. The Hijazi NLE [O#] is associated with four different emotional meanings. As discussed in Chapter 5, 159 participants said that the NLE [O#] is associated with the meaning of love, and 122 participants said that the NLE [O#] is associated with the meaning of joy. Table 7.14 shows that 149 participants suggested a meaning associating the NLE [O#] with the meaning of dislike (T) > rage (S) > anger (B). As can be seen in Table 7.22 below, 149 participants said that the NLE [O#] is associated with the meaning of sadness. Thus, the Hijazi NLE [O#] is associated with the emotional meaning of love as well as joy, and the negative emotions of anger, as already discussed in Chapter 7, and sadness.

All of the 149 participants who provided a meaning in associating the NLE with the emotion of sadness included the word ‘sad’ in their response. The word ‘sad’ is prototypically related to psychological sadness, which includes sorrow and unhappiness. According to Shaver et al.’s (2001) emotions classification, depression, despair, gloom, unhappiness, sorrow, woe, and misery are tertiary emotions (T), which is a type of the secondary emotion (S) of sadness, which is a type of the basic emotion (B) of sadness.

Table 7.22 below presents a typical response from the participants who provided some meanings of the NLE [O#] relating to the emotion of psychological sadness. It shows that 149 participants associated the NLE [O#] with sorrow.

Table 7.22: Number of Participants who Provided Content Related to ‘Sadness’ for [O#]

Total number of participants	321
Number of participants who provided meaning(s)	299
Number of participants who provided meaning(s) of sadness	149
Number of participants who provided content similar to: <i>/taʕbi:r ʕan ʔal-zaʕal/</i> expression of the-upset <u>An expression of sorrow.</u>	149

After I had translated all the participants' answers, I coded one functional meaning that encompassed all the answers that had the same content of sadness for the NLE [O#], as follows:

- *I am sad about someone or about some event.*

The next section will detail the analysis of the NLE [|||].

7.3.6 The Hijazi NLE [|||] that is Associated with Sadness

The Hijazi NLE [|||] associates with different emotional meanings. 289 participants selected 'I know of the meaning of this NLE' and provided the meaning(s) they knew. As discussed in Section 7.3, 151 participants provided the emotional meanings of contempt (T) > disgust (S) > anger (B) for this NLE. 158 participants provided the meaning of sadness.

All the responses of the 158 participants were associated with meanings of sorrow, grief, and misery. These emotions of sadness are prototypically related to psychological sadness. According to Shaver et al.'s (2001) emotions classification, depression, despair, gloom, unhappiness, sorrow, woe, grief and misery are tertiary emotions (T), which are types of the secondary emotion (S) of sadness, which is a type of the basic emotion (B) of sadness.

Table 7.23 below presents typical responses from the participants who provided some meanings of the NLE [|||] relating to the emotion of sadness:

Table 7.23: Number of Participants who Provided Content Related to 'Sadness' for [|||]

Total number of participants	321
Number of participants who provided meaning(s)	289
Number of participants who provided meaning(s) of sadness	158
The number of participants who provided content similar to:	96
(a) /lam:an tʃu:f ʔaw tɪsmɑʃ ʃan mawqɪf jiħaz:ɪn/ when you.see or you.hear about situation sad <u>It is used when you see or hear about a sad situation.</u>	
(b) /lam:an tɪħzan ʃala aħ:d/ when sorrow.you on someone <u>When you feel sorry for someone.</u>	76

Table 7.23 shows that out of the 158 participants who suggested an association of the NLE [|||] with sadness, there are 96 participants who associated the NLE with feeling sad

toward an event that they see or hear, as shown in content (a). Also, 76 participants provided the meaning of feeling sorry for someone, as seen in (b).

Overall, all of the associations with sadness above in relation to [||||] are recognised in the Hijazi community. However, Table 7.23 shows that meaning (a) is provided more frequently than meaning (b).

After I had translated all the participants' answers, I coded functional meanings that encompassed all the answers that had the same content of anger for the NLE [||||], as follows:

- *I am sorry and sad about what I have witnessed or heard.*
- *I feel sorry for someone.*

In the following section, I will summarise the mapping of the above seven Hijazi NLEs onto their meanings of sadness.

7.3.7 The Mapping of the Hijazi NLEs that are Associated with Sadness

Based on the participants' answers, the analysis shows that all the seven Hijazi NLEs [aħ:], [ax:], [ah:], [aj:], [afə], [O#], and [||||] and their meanings of sadness were recognised in the Hijazi community, as, for each NLE, more than 50% of the participants selected 'I know the meaning of this NLE' and provided an association with sadness. Figure 7.3 below summarises how these seven Hijazi NLEs can be mapped onto different types of sadness.

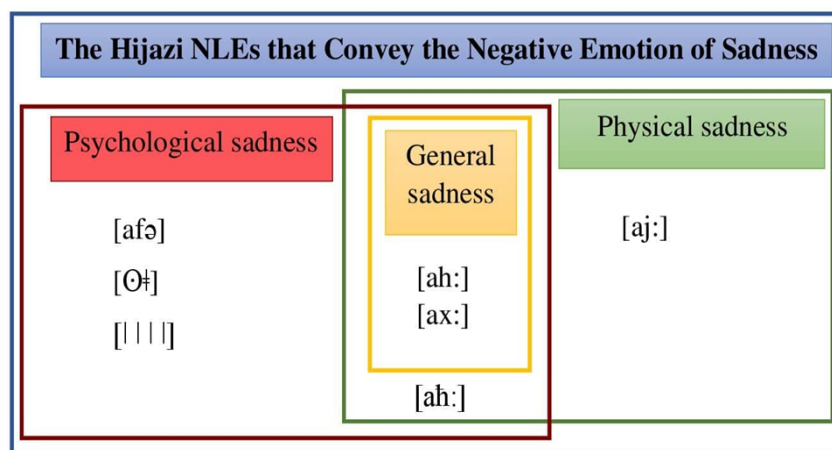


Figure 7.3: The Mapping of the Hijazi NLEs onto the Emotion of Sadness

Figure 7.3 has three rectangles. First, there is the red rectangle that consists of the NLEs that associate with psychological sadness. Second, the yellow rectangle consists of the NLEs that associate with general sadness. Third, the green rectangle consists of the NLEs that associate with physical sadness.

In Figure 7.3, there is an overlapping relationship between the three rectangles. This is because some Hijazi NLEs share different associations with sadness. For example, the Hijazi NLEs [ah:] and [ax:] associate with the three types of sadness, and the Hijazi NLE [aḥ] associates with meanings of physical and psychological sadness. On the other hand, there are some Hijazi NLEs that only associate with one type of sadness. For example, the Hijazi NLE [aj:] only associates with meanings of physical sadness, and the Hijazi NLEs [afə], [Oʔ] and [l | |] only associate with meanings of psychological sadness.

As discussed in the previous section, the Hijazi NLEs that associate with sadness fulfil two types of speech functions: expression and commanding. All seven Hijazi NLEs express the emotion of sadness, as they fulfil the speech function of a statement in which the speaker gives information. Through the speech function of statement, the speaker is stating that they are sad, and this is associated with the NLEs. For example, speakers could direct expression or emotion towards what they are talking about, as in the phrases ‘I am sad’, ‘I am sorry’, etc. In this way, the statement speech function constitutes an expressive or emotive function.

In contrast, only the NLE [aḥ:] fulfils the speech function of warning, which is a type of command, as shown in Figure 7.4 below:

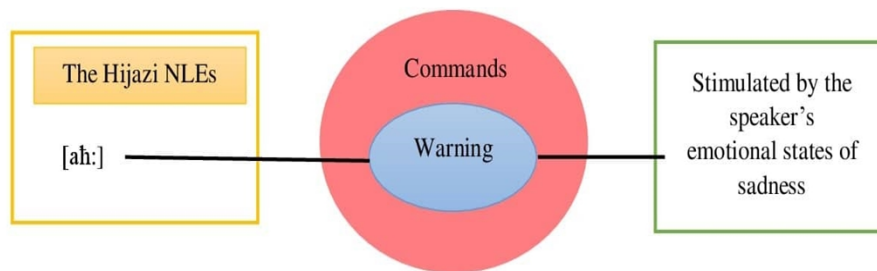


Figure 7.4: The Mapping of the Hijazi NLEs that are associated with Sadness onto the Speech Function of Command

Figure 7.4 has two rectangles: the yellow rectangle consists of the Hijazi NLE; the green rectangle consists of the emotional meaning of sadness that stimulates the speech

functions of warning. There is also a line that connects the NLEs with the stimulated emotional meanings of sadness. This line goes through a red circle in the middle of Figure 7.4. This circle represents the speech function of command.

Based on the speech function of command, the Hijazi speakers associate [ah:] with commanding someone to do, or not do, something because the speaker will be sad. In this way, [ah:] is associated with the content of ‘I will be sad if something happens to you’ through the speech function of command. Thus, [ah:] is the equivalent of saying, ‘I am warning to move away from the things that harm you and make me sad about what might happen to you’.

In this section, I have used the seven steps of analysis discussed in Chapter 4 (4.6), to analyse the NLEs that are associated with sadness. In the following section, I will use the same seven steps to analyse the Hijazi NLEs that are associated with fear.

7.4 The Hijazi NLEs that are Associated with the Negative Emotion of Fear

In Chapter 2, based on Shaver et al. (2001), the emotion of fear was defined as a negative emotion that indicates the interpretation of dangerous or threatening events. It refers to the emotions of horror and nervousness (Shaver et al. 2001: 43). For instance, according to Shaver et al.’s (2001) emotions classification, alarm, shock, fear, fright, horror, terror, panic, hysteria, and mortification are tertiary emotions (T), which are types of the secondary emotion (S) of horror, which is a type of the basic emotion (B) of fear. Anxiety, suspense, uneasiness, apprehension (fear), worry, distress, and dread are also tertiary emotions (T), which are types of the secondary emotion (S) of nervousness, which is a type of the basic emotion (B) of fear.

Hijazi Arabic has three NLEs that are associated with the emotion of fear, which are [ɔb], [ɔbba:], and [ju:]. Table 7.24 below shows the number of participants who were aware of these three NLEs that associate with fear.

Table 7.24: Responses of 321 Participants to the Hijazi NLEs of Fear

Hijazi NLE	Participants who selected 'I have not heard this NLE before'	Participants who selected 'I know the NLE but do not know its meaning'	Participants who selected 'I know of the meaning of the NLE' but did not provide a meaning	Participants who selected 'I know of the meaning of the NLE' and provided meaning(s) (Fear)			Participants who provided other meaning(s)
				Statement	Offer	Command	
[ju:]	0	2	2	155	-	-	110 (negative surprise) 200 (anger)
[ɔbba:]	11	50	1	114	66	-	93 (negative surprise) 66 (speech function warning)
[ɔb]	0	43	1	-	51	34	108 (neutral surprise) 99 (negative surprise)

Table 7.28 shows how the participants responded in the questionnaire to the three Hijazi NLEs that are associated with meanings of fear. Only 11 participants selected 'I have not heard this NLE before' for the Hijazi NLE [ɔbba:]. Also, a number of participants selected 'I know the NLE but do not know its meaning' for all three NLEs: 50 participants selected 'I know the NLE but do not know its meaning' for the NLE [ɔbba:]. 43 participants selected 'I know the NLE but do not know its meaning' for the Hijazi NLE [ɔb]. Finally, only two participants selected 'I know the NLE but do not know its meaning' for the NLE [ju:].

Furthermore, for all the three NLEs, a number of participants selected 'I know of the meaning of this NLE' but did not provide a meaning. For instance, only one participant selected 'I know the NLE but do not know its meaning' for the NLE [ɔbba:]. Only one participant selected 'I know the NLE but do not know its meaning' for the NLE [ɔb]. Finally, only two participants selected 'I know the NLE but do not know its meaning' for the NLE [ju:].

These results show that all of the Hijazi NLEs that are associated with fear are commonly understood across the Hijazi community: their meanings are known by more than 50% of the participants. In other words, Table 7.28 shows that most of the participants were able to identify the meanings of the three Hijazi NLEs. In the following section, I will present

the numbers of participants who selected ‘I know of the meaning of the NLE’ and provided meaning(s), and analyse the meanings given by the participants.

7.4.1 The Hijazi NLE [ju:] that is Associated with Fear

317 participants selected ‘I know of the meaning of the NLE’ and provided the meaning(s) they knew for [ju:].²⁶ The participants provided different associations for [ju:], as it is associated with other meanings related to the emotions of anger and fear. 200 participants associated it with anger, and 155 associated it with fear.

Table 7.25 below presents a typical response from the participants who provided a meaning related to the content of fear for the NLE [ju:]:

Table 7.25: Number of Participants who Provided Content Related to ‘Anxiety and Fear’ for [ju:]

Total number of participants	321
Number of participants who provided meaning(s)	317
Number of participants who provided meaning(s) of fear	155
Number of participants who provided content similar to: <i>/ʔal-txawuf wa ʔal-qalaq mm faj hadaθ ʔaw sajahduth/</i> the.fear and the.anxiety of something happened or will.happen <u>Fear and anxiety of something that has happened or will happen.</u>	155

Table 7.25 shows that 155 participants provided a single meaning for the NLE [ju:] that is associated with the emotion of fear, and this meaning is related to anxiety, worry, distress, and dread (T) > nervousness (S) > fear (B).

After I had translated all the participants’ answers, I coded one functional meaning that encompassed all the answers that had the same content of anger for the NLE [ju:], as follows:

- *Scared and worried because of a negative and fearful situation.*

The next section will present an analysis of the NLE [ʔbba:], which is associated with the emotion of fear.

²⁶ For more information about the other four participants who did not provide meanings for this NLE, see Section 7.4. This applies to all the other emotive NLEs that associated with the meaning of fear in the current chapter.

7.4.2 The Hijazi NLE [ɔbba:] that is Associated with Fear

260 participants selected ‘I know of the meaning of the NLE’ and provided the associations they knew for [ɔbba:]²⁷ 93 provided the association of negative surprise, 114 association the meaning of fear, and 66 provided the association of offering help.

Tables 7.26 presents typical responses from the participants who provided some meanings relating to fear:²⁸

Table 7.26: Number of Participants who Provided Content Related to ‘Fear’ for [ɔbba:]

Total number of participants		321
Number of participants who provided meaning(s)		260
Number of participants who provided meaning(s) of fear		114
Number of participants who provided content similar to:		40
(a)	/ʔal-foʕur be ʔal-xof lam:an jitwar:atʕ ʔal-faxsʕ/ feeling of fear When trouble.he the.person <u>When someone is scared as he/she is in trouble.</u>	
(b)	/ʔal-xof min ʔmkiʕa:f ʕaj saw:etu wa das:etu/ the.fear from revealed.it thing did.I.it and hid.I.it <u>The fear of revealing something I did and hid.</u>	65
(c)	/xof/ fear <u>It expresses fear.</u>	114
(d)	/musaʕadat ʔal- tʕifil ʕala ʔal-wuqu:f/ Help the.child to the.standing. <u>It is used when you help a child to stand up.</u>	66

Table 7.26 shows that 114 participants provided an association with fear for [ɔbba:], as shown in (a), (b), (c) and (d). Out of those 114 participants, content (a) shows that 40 provided a content that is related to alarm, shock, horror, and panic (T) > horror (S) > fear (B) as a result of feeling afraid when getting into trouble. Content (b) shows that 65 participants provided an association that is related with anxiety, worry, distress, and dread (T) > nervousness (S) > fear (B), specifically in a situation where someone is hiding something and is anxious in case the secret is revealed. Content (c)

²⁷ For more information about the other four participants who did not provide a meaning for this NLE, see Section 7.4. This seems quite low in the context of the other NLEs. I do not have reference for this, but as a native speaker I speculate that this is because [ɔbba:] has recently been borrowed from Egyptian Arabic, possibly for geographical reasons, as Egypt is very close to Al-Hijaz, perhaps because of the number of Egyptians who live in Al-Hijaz and work there (which means that there is dialect contact), or maybe because of the media, as Egyptian TV programmes are the most common programmes on Arabic TV.

²⁸ Some participants provided more than one meaning of fear for the NLE [ɔbba:].

shows that all 114 participants associated the NLE [ɔbba:] with the word ‘fear’ in their responses. Content (d) shows that 66 participants provided a content related to offering help to a child arising from the speaker’s feeling of anxiety, worry, distress, and dread (T) > nervousness (S) > fear (B), i.e. when someone helps a child because they are worried about them. In this case, [ɔbba:] is predominately related to its speech function of offering to help a child to stand up. This meaning also has emotional components. For instance, the speakers offer to help the child because they are worried about the child. According to Shaver et al. (2001), worry is a type of fear. [ɔbba:] is associated with the content of ‘I am worried about you’ through the speech function of offering help. So, [ɔbba:] is the equivalent of saying, ‘I am helping you to stand up because I am worried about you’.

Overall, all the associations of [ɔbba:] above that are related to fear are recognised across the Hijazi community. Based on the participants’ answers, it can also be concluded that, of the four meanings, the meaning the included word ‘fear’ is the most frequently provided.

After I had translated all the participants’ answers, I coded functional meanings that encompassed all the answers that had the same content of anger for the NLE [ɔbba:], as follows:

- *Scared and worried because of a negative and fearful situation.*
- *I am offering assistance to and assisting a child with physical activities, such as standing up.*

The next section will present an analysis of the NLE [ɔb], which is associated with the emotion of fear, using the same process as that used above to analyse the earlier NLEs.

7.4.3 The Hijazi NLE [ɔb] that is Associated with Fear

277 participants selected ‘I know of the meaning of the NLE’ and provided the meaning(s) they knew for [ɔb]. As discussed in Chapter 6, 108 participants provided the association with neutral surprise, and 99 participants provided the association with negative surprise.

In this section, I will analyse the participants’ responses that are related to the emotion of fear. 85 respondents provided an association with warning others because of a feeling of fear.

Table 7.27 below presents a typical response from the participants who provided a meaning related to the content of fear for the NLE [ɔb]:

Table 7.27: Number of Participants who Provided Content Similar to ‘Warning Someone Because of Worry’ for [ɔb]

Total number of participants	321
Number of participants who provided meaning(s)	277
Number of participants who provided meaning(s) of fear	85
Number of participants who provided a meaning similar to: <i>/taħði:r mn ʔal-taʕθ:ur fi ʔal-maʕi/</i> warning from the tripping in the walking. <u>It is used to warn someone not to trip.</u>	85

Table 7.27 shows that all of the 85 who provided meanings of fear for the NLE [ɔb] suggested a content that is associated with the meaning of warning based on the speaker’s feeling of anxiety and worry.

After I had translated all the participants’ answers, I coded one functional meaning that encompassed all the answers that had the same content of anger for the NLE [ɔb], as follows:

- *I am warning and advising someone away from a danger that physically hurts, such as falling, tripping, and slipping.*

Based on the last meaning above, [ɔb] is predominately related to its speech function of warning, which is a type of command. This meaning also has emotional components: the speaker warns others because he/she is worried about them. According to Shaver et al. (2001), worry is a type of fear. In this way, [ɔb] is associated with the content of ‘I am worried about you’ through the speech function of warning. So, [ɔb] is the equivalent of saying, ‘Be careful, I am worried about you’.

Having completed this part of the analysis, I then analysed the meanings provided by the participants for three Hijazi NLEs that are associated with the negative emotions of fear. In the following section, I will summarise the mapping of these three Hijazi NLEs onto their meanings of fear.

7.4.4 The Mapping of the Hijazi NLEs that are Associated with Fear

In the previous section of this chapter, I analysed the three Hijazi NLEs that are associated with the emotion of fear, which are [ju:], [ɔbba:], and [ɔb]. All of them are recognised and understood across Hijazi society. Also, all of them are associated with the meaning of surprise, and indeed they are more closely related with surprise than fear. Fewer than 50% of the participants provided an association with fear for these NLEs: 155 respondents provided the meaning of fear for [ju:], 114 provided the meaning of fear for [ɔbba:], 66 provided the meaning of fear that fulfils the speech function of offer for [ɔbba:], and 85 of the participants provided the meaning of fear that fulfils the speech function of warning for [ɔb].

Furthermore, as discussed in the previous section, the Hijazi NLEs that are associated with sadness fulfil two types of speech function: statement and command. [ju:] and [ɔbba:] are associated with the expressive meaning of fear, which fulfils the speech function of a statement in which the speaker gives information. Through the speech function of the statement, the speaker is stating that they are scared, anxious, or worried, and they are associated with this by means of the NLEs. For example, speakers can direct expression or emotion towards what they are talking about, as in the phrases ‘I am scared’, ‘I am worried’, etc. In this way, the statement speech function constitutes an expressive or emotive function.

On the other hand, [ɔbba:] and [ɔb] are associated with the expressive meaning of fear and the emotion of fear, which fulfils the speech function of warning and offering. Figure 7.5 below summarises how these two Hijazi NLEs can be mapped onto different types of fear.

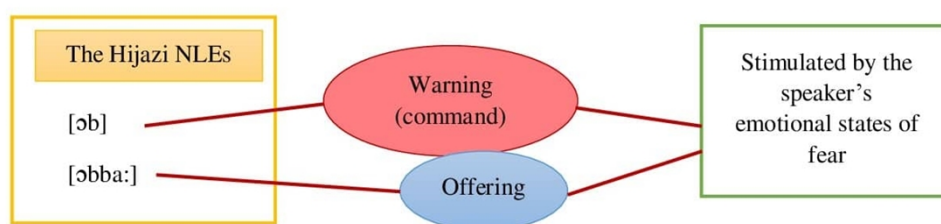


Figure 7.5: The Mapping of the Hijazi NLEs that are associated with Fear onto the Speech Function of Command

Figure 7.5 shows that [ɔbba:] and [ɔb] are associated with fear and fulfil the speech function of offering and warning which are a type of command. It has two rectangles: the yellow rectangle consists of the Hijazi NLE; the green rectangle consists of the emotional meaning of fear that stimulates the speech functions of warning. There are also lines that

connect the NLEs with the stimulated emotional meanings of fear. These lines go through circles in the middle of Figure 7.5. The red circle represents the speech function of warning, which is a type of command. The blue circle represents the speech function of offering.

Based on the speech function of command, [ɔbba:] is associated with the content of ‘I am worried about you’ through the speech function of offering help. So, [ɔbba:] is the equivalent of saying, for instance, ‘I am helping you to stand up because I am worried about you’. On the other hand, based on the speech function of offering, [ɔb] is associated with the content of ‘I am worried about you’ through the speech function of warning. So, [ɔb] is the equivalent of saying, ‘be careful. I am worried about you’.

7.5 Summary

This concludes the analysis of all 27 Hijazi NLEs based on the participants’ responses in relation to Shaver et al.’s (2001) basic emotions classification. In this chapter, I have analysed the meanings of the Hijazi NLEs that are associated with negative emotional meanings that are related to anger, sadness, and fear. In Chapter 5, I analysed the Hijazi NLEs that are associated with the emotions of love and joy, which are classified as positive emotions. In Chapter 6, I analysed the Hijazi NLEs that are associated with the neutral emotion of surprise. Thus, this chapter, besides Chapter 5 and 6, answers the research question “Based on the results of the questionnaire, are these emotive NLEs perceived and understood across the Hijazi community?”

All 27 Hijazi NLEs that are associated with different emotions are recognised by Hijazi speakers. Their meanings are relatively stable across the Hijazi community (see statistical tests in Chapter 5 (5.2)). The percentage of participants who provided meanings for the Hijazi NLEs ranges from a minimum of 81%, as in the case of the two participants in relation to [ɔbba:], to a maximum of 100%, as in the case of [ɔf]. Figures for the rest of the NLEs are as follows: 99% of participants provided meanings for the Hijazi NLEs [uf:], [ɪf:], [kɪx:], [ɔs:], [ju:], [jɛʕ], [l^w], [aħ:], and [l^w|^w|^w]; 98% for [m:], [afə], [ɪxxi:], [aj:], [ah:], [ax:], and [ʃ^w]; 97% [həh]; 94% for [wej] and [ɪffi:]; 90% for [wal] and [l | l | l]; 86% for [ɔb] and [ɔffu:]; 85% for [wah:]; and finally 84% for [Oʔ].

The data analysis went through seven steps, as discussed in Chapter 4 (4.6). In the categorisation and coding process, I provided one representative example that encompassed all the similar meanings that were provided by the participants for every Hijazi NLE. I then

grouped all the similar representative examples that defined the different NLEs into further categories based on Shaver et al.'s (2001) emotions classification: love, joy, surprise, anger, sadness, and fear.

After analysing the meanings of the 27 Hijazi NLEs based on the participants' answers, I set out the findings as in Figure 7.6 below:

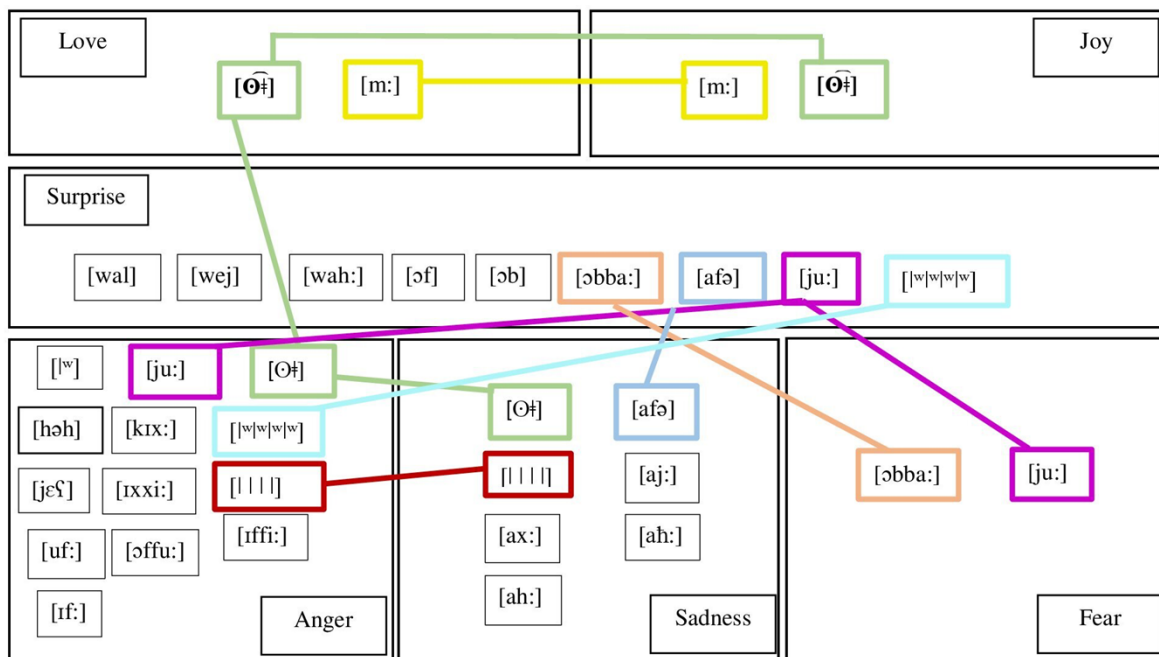


Figure 7.6: The Mapping of the Hijazi NLEs onto Shaver et al.'s (2001) Basic Emotions

Figure 7.6 is divided into six parts based on Shaver et al. (2001): love, joy, surprise, anger, sadness, and fear. The upper rectangles include the NLEs that are associated with love and joy. The long middle rectangle includes the Hijazi NLEs that are associated with surprise. Finally, the three squares in the lower part of Figure 7.6 include the NLEs that are associated with anger, sadness, and fear.

In Figure 7.6, some Hijazi NLEs are presented in coloured rectangles. These NLEs are the ones that are associated with more than one emotional feeling. For example, [m:] and [O#] are associated with the positive emotions of love and joy. In addition to these positive emotions, [O#] is associated with the negative emotions of anger and sadness. Furthermore, [w|w|w] is associated with the emotion of surprise, specifically negative surprise (see Chapter 6) and the negative emotion of anger. [l|l|l] is associated with the negative emotions of anger and sadness. [afə] is associated with the emotion of surprise, specifically negative surprise

(see Chapter 6), and the negative emotion of sadness. [ɔbba:] and [ju:] are associated with the emotion of surprise, specifically negative surprise (see Chapter 6), and the negative emotion of fear. In addition, [ju:] is also associated with the negative emotion of anger.

On the other hand, some Hijazi NLEs are only associated with one emotional meaning. For example, [wej], [wah:], [wal], [ɔb], and [ɔf] are only associated with the emotion of surprise. Also, [həh], [uf:], [ɪf:], [ɔffu:], [ɪffi:], [ɪxxi:], [kɪx:], and [jɛʕ] are only associated with the emotion of anger, while [aj:], [aħ:], [ax:], and [ah:] are only associated with the emotion of sadness.

Now that we have established the emotional meanings of every emotive Hijazi NLE, we will discuss the non-arbitrary form-meaning relationship between the emotive Hijazi NLEs that share some vocalisation elements and re associated with similar emotional meanings regarding to Peirce's (1931-58), Halliday's (1978) and Hjelmslev's (1963) content of the sign. Consequently, the mapping of the Hijazi NLEs with their emotive meanings alongside the analysis of their articulation (see Chapter 2 (2.5)) is the first step in understanding the non-arbitrary, or partly non-arbitrary, relationship between the expression and the content of the Hijazi NLEs.

Chapter 8

Discussion and Results

8.1 Introduction

In this chapter, I will discuss the non-arbitrary relationship between emotive Hijazi NLEs and their emotional meanings based on a semiotic approach. In Chapter 3, it was argued that Hijazi NLEs be considered as semiotic signs. A semiotic sign is anything that signals knowledge and communicates meaning (Peirce 1895; EP 2:13). Emotive Hijazi NLEs signal emotional states, and hence are signs. It was also claimed that, although the relationship between signs and their meanings is usually considered to be arbitrary, the literature reviewed in Chapter 3 argued for a non-arbitrary relationship with their meanings based on specific situational and socio-cultural contexts.

This study does not aim to examine the differences in using the Hijazi NLEs among different groups of speakers according to their different social backgrounds. However, I carried out statistical tests to investigate the recognition of the Hijazi NLEs and their meanings within the Hijazi community, see Chapter 5 (5.2). Both the statistical test and data analysis show that the Hijazi NLEs and their meanings are stable across the Hijazi community.

In this chapter, based on the analysis of the participants' answers in Chapters 5, 6, and 7 and based on the phonological articulations of the emotive Hijazi NLEs that were represented by their parametric articulatory descriptions in Chapter 2 (2.5.1), I will describe the non-arbitrary relationship between the emotive Hijazi NLEs and their emotional meanings based on a semiotic analysis with reference to three points.

First, I will go through the semiotic approaches that I used to explore whether there exists a non-arbitrary relationship between the emotive Hijazi NLEs and their meanings in detail. Based on Halliday's (1978) and Hjelmslev's (1963) concept of stratification, I will show how I examined the emotive Hijazi NLEs as semiotic signs that are stratified between two orders of the Hijazi NLEs' abstraction: the content plane of the Hijazi NLEs (i.e. the emotional meanings of love, joy, surprise, anger, sadness, and fear) and expression plane of the Hijazi NLEs (i.e. phonological form).

Second, I will show how I examined the form-meaning relationship of the emotive Hijazi NLEs, as they are produced by mimicking emotional states. In other words, I will examine how the phonological forms of the emotive Hijazi NLEs partly mimic certain vocal actions tied to emotional aspects (cf. Goddard 2014; Wierzbicka 1992; Darwin 1872). Mimicry refers to the idea of matching non-verbal body behaviours, such as vocal, facial, and gestural expressions, with the expresser's emotional states in specific events (Hess and Fischer 2017; Winkielman et al. 2016; see also Chapter 2 (2.4) and Chapter 3 (3.3)). What is being projected by mimicry is some sort of representation of emotions. For instance, crying is not sadness, but it is certainly an index for sadness; laughing is not joy, but it is certainly an index for joy, etc.

Thus, the mental, psychological, and physical elements in the human body are interrelated to produce the 27 emotive Hijazi NLEs that have been analysed in this study, since these elements show the non-arbitrary relationship between the emotive Hijazi NLEs and their emotional meanings based on a semiotic analysis. In this way, I will examine how the minds of Hijazi speakers prototypically categorise the emotive NLEs with some embodied emotional aspects, and hence they prototypically categorise them with some specific mimicking vocal gestures that underlie the phonological form of those Hijazi NLEs. For example, some Hijazi NLEs, such as [ɪf:], [uf:], [ɪffi:], and [ɔffu:] are formed using /f/, which mimics the action of blowing air out of the mouth, which stands as an icon of the emotion of anger, as will be demonstrated in Section 8.2.3.

Third and finally, I will show how the concept of indexicality and iconism behind the mimicking of some vocal actions suggests that the content and the expression of the Hijazi NLEs exist in a very tight meta-redundancy or realisational relation. Lemke (2015: 121) argues that meta-redundancy of the sign-meanings relationship has a contingent probability relationship, as it depends on the context. Meta-redundancy refers to the fact that some specific patterns of Hijazi vocal expressions are more likely to be found in some specific situations, but there are always other patterns of Hijazi vocal expressions that are possibly found in this same specific situation. Thus, the situation predicts the NLE as much as the NLE predicts the situation.

Thus, Section 8.2 below will be divided into five sub-sections based on the emotional meanings that are associated with the emotive Hijazi NLEs. In these five sub-sections, I will sketch the non-arbitrary relationship between the form of the Hijazi NLEs, as analysed in

Chapter 2, and their emotional meanings, as analysed in Chapters 5, 6, and 7. I will show the meanings of all the emotive Hijazi NLEs that are associated with the speaker's emotional states through the different speech functions, including statements, and some directive speech functions (i.e. commanding and offering).

I will compare the expression and content of the Hijazi NLEs to see whether (i) similar/related forms have similar meanings and (ii) these forms can be related to bodily gestures which are icons or indexes that mediate between form and meanings of the Hijazi NLEs.

In sum, to see if the vocalisations of the Hijazi NLEs that are associated with similar forms are also associated with similar meanings, I will discuss two major ideas. First, I will describe the phonological elements of their forms or expressions, which are shared by every group of Hijazi NLEs that have the same content. These will be grouped according to the emotional meanings of the NLEs, which were mapped onto Shaver et al.'s (2001) emotions classification, as follows:

- Positive emotional meanings, including love and joy.
- Mixed emotional meanings, including surprise.
- Negative emotional meanings, including sadness, anger, and fear.

Second, I will discuss the non-arbitrary, iconic, and indexical relationship between the contents and expressions that are shared by every group of Hijazi NLEs.

8.2 The Emotive Hijazi NLEs

In Chapter 2, the Hijazi NLEs were mapped onto Shaver et al.'s (2001) proposed basic emotions, such as love, joy, surprise, anger, sadness, and fear. The meanings of those basic emotions and their accompanying vocal expressions determine the iconic and indexical relationship between the Hijazi NLEs and their emotional meanings in real-life situations; see Chapter 2. Thus, in the following sections, I will discuss the non-arbitrary relationship between the form and meaning of every group of emotive Hijazi NLEs, which fulfil different speech functions, based on Shaver et al.'s (2001) basic emotions classification.

Table 8.1 summarises how the vocalisations of the emotive Hijazi NLEs that are associated with similar forms are associated with similar emotional meanings.

Table 8.1: Summary of the Results that Show the Non-arbitrary Relationship Between the Emotive Hijazi NLEs and their Meanings.

Superordinate	Basic emotion	The Hijazi NLEs	The indexical and iconic elements
Positive	Love	[m:], [ʕ]	<ul style="list-style-type: none"> The retracted upwards smiling lips that accompany the production of the labial sounds in [ʕ] and [m:]. The corners of the lips always go up, as they mimic smiling, in positive emotions such as admiration or enjoyment (Ekman 2003: 43; Darwin 1872: 200). These vocalisations that correspond with the mimicking action of smiling are an iconic representation, which in itself is an index for love and joy.
	Joy	[m:], [ʕ]	
Neutral or Negative	Surprise	[wal], [wah:], [wej], [afə], [ɔf], [ɔb] [ɔbba:], [ju:], and [w w w]	<ul style="list-style-type: none"> The production of vowels /ɔ/ and /u:/ in [ɔf], [ɔbba:], [ɔb], and [ju:] and the production of the vowel /a/ in [afə], [wah:], [wej], and [wal], which are related to mimicking the action of a speechless mouth, which involves speakers opening their mouths, whether with rounded or unrounded open lips, to draw deep and rapid breaths, stand as iconic and indexical elements of surprise. Thus, this vocalisation that lies behind the mimicking action of opening the mouth shows an iconic representation, which in itself is an index for surprise.
Neutral or Negative	Surprise	[w w w]	<ul style="list-style-type: none"> The semi-open rounded lips behind the production of the denti-alveolar click [w w w]. This vocalisation of rounded lips is an iconic representation of the denti-alveolar click [w w w], which in itself is an index for surprise. Kryk-Kastovsky (1997) and Darwin (1872) claim that surprise is signalled by opening mouths wide, whether rounded or unrounded, and this click is produced with a semi-open rounded mouth. So, the only feature it shares with the other NLEs that are associated with surprise is the vocalisation of rounded lips.

Superordinate	Basic emotion	The Hijazi NLEs	The indexical and iconic elements
Negative	Anger	[ju:], [həh], [ɪf:], [uf:], [ɔs:], [iffi:], [ɔffu:], [jɛʕ], [ixxi:], [kix:], [Oʕ], [lʷ], [lʷ w w w] and [l l l].	<ul style="list-style-type: none"> the blowing of air out of the mouth that is related with the production of the labial /f/, the clearing of the throat, vomiting, or retching that accompanies the production of the guttural sounds /k/, /g/, and /x/, the sarcastic laughter that mimics the production of [həh], the retracted lips and exposed grinning teeth that are related to the production of the click [l l l] and the vowels /ɪ/ and /i/, the retracted downward lips that are related to the production of the click [Oʕ] the rounded lips as they mimic the vocal action of scowling lips that are related to production of the vowels /ɔ/ and /u/, such as [ju:], [uf:], [ɔffu:], and [ɔs:]; or even in the case of [lʷ:], which does not include a vowel but mimics the vocal action of scowling lips. <p>All the vocalisations above show the iconic representation of these 14 Hijazi NLEs, which in itself is an index for anger.</p>
Negative	Sadness	[ah:], [ah:], [aj], [ax:], [afə], [Oʕ], [l l l].	<ul style="list-style-type: none"> The lips are open and unrounded behind the phonological form of the sounds /ʔa/ in the Hijazi NLEs [ah:], [ax:], [ah:], [aj], and [afə]. Thus, the mouth mimics the expressions of crying or weeping, as these actions indicate sadness (Darwin 1872: 148-152, Shaver et al. 2001: 44-45). Thus, the vocalisation of the open mouth through a mimicking of the actions of crying or weeping shows the iconic representation of these five Hijazi NLEs, which in itself is an index for sadness. The lips are retracted, downward and unsmiling during the articulation of the clicks [l l l] and [Oʕ]. Thus, the lips mimic crying or weeping.

Superordinate	Basic emotion	The Hijazi NLEs	The indexical and iconic elements
Negative	Sadness	[aḥ:], [ah:], [aj], [ax:], [afə], [Oḥ], [l l l].	<ul style="list-style-type: none"> During the feeling of sadness, grief, and sorrow, the corners of the mouth are drawn downwards, which is “so universally recognized as a sign of being out of spirits and sad” (Darwin 1972: 177). Thus, this vocalisation shows the iconic representation of these two Hijazi NLEs clicks, which in itself is an index for sadness.
	Fear	[ɔb], [ɔbba:], [ju:]	<ul style="list-style-type: none"> The lips are open and rounded behind the articulation of the rounded vowels. During the experience of fear, the jaw drops down, and the lips are opened horizontally, as they are slightly protruded or rounded The shape of the mouth, when a person is experiencing the emotion of fear, mimics the expressions of yelling or screaming (Darwin 1872: 292; Shaver et al. 2001: 43). <p>Thus, these vocalisations above show the iconic representation of these three Hijazi NLEs, which in itself is an index for fear.</p>

Based on Table 8.1, I will explain in detail the non-arbitrary, iconic, and indexical relationship between the contents and expressions that are shared by every group of Hijazi NLEs that share similar forms and associated with similar meanings.

8.2.1 The Hijazi NLEs that are Associated with the Positive Emotions of Love and Joy

As discussed in Chapter 2, the prototypical basic emotions of love and joy have fuzzy boundaries, i.e. there are gradual transitions between some basic emotions, as they share some common concepts (Shaver et al. 2001: 46-47). Both love and joy are positive basic emotions that are associated with what the person wants, needs, and likes. Both show optimistic outcomes. Both are expressed by laughing and smiling. They are interrelated, as people always love what they enjoy, and enjoy the thing they love.

Based on the participants’ answers, Chapter 5 shows that the Hijazi NLEs [m:] and [Oḥ] are both associated with the meaning of love and joy in different situational contexts. To

be precise, both are associated with the meanings of love that are related to the senses of affection, admiration, liking, and adoration. Therefore, in certain contexts, these Hijazi NLEs seem to be near-synonyms. The only difference between them is that while [Oʃ] is associated with self-admiration and the admiration of others, [m:] is only associated with admiration of others.

On the other hand, Chapter 5 also shows that, in the sense of joy, [m:] is associated with gustatory joy or the joy of tasting food. [Oʃ] is associated with the emotional meaning of joy, pride, and triumph towards oneself or other people. It can include a sense of egotism and arrogance. It is more related to people and their actions. It is like saying: ‘I am very attractive’, ‘I am the best’, or ‘I am very proud of myself/someone’.

As shown in Chapter 2, Table 2.3, love and joy relate to vocal expressions such as smiling (Shaver et al. 2001: 46-47). These expressions are the mimicking vocal actions that correspond with the phonological expressions of the Hijazi NLEs that are associated with love and/or joy. The Figure 8.1 shows the phonetic mapping of the parametric articulations of the Hijazi NLEs that are associated with love and joy.

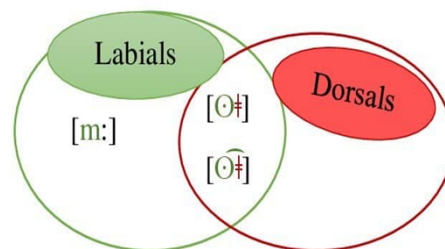


Figure 8.1: The Phonetic Mapping of the Parametric Articulations of the Hijazi NLEs that are Associated with Love and Joy

[Oʃ] and [m:] are the forms that represent the expression of the Hijazi NLEs that are associated with positive emotional meaning, as [Oʃ] and [m:] are associated with love and joy. Both of them mimic the vocal expressions of smiling that correspond with their phonological forms. For instance, both [O] and [m:] are formed by labial sounds including the bilabial click [O] in the Hijazi NLE [Oʃ] and the bilabial nasal /m/ in the NLE [m:]. Both are produced with lips which are retracted upwards. The lips always go backwards and upwards, as in the act of smiling, with positive emotions such as loving or liking something

(Darwin 1872: 212). In this way, the articulation of [ʕ], and [m:] is an iconic representation, which itself is an index for joy and happiness based on Shaver et al. (2001).

As a result:

The content of love and joy has a meta-redundant relationship with the expression of the Hijazi NLEs [ʕ] and [m:]. They share some common phonological articulations and are represented by body reflexes through the mimicking of smiling in specific situational contexts, as follows:

- The retracted upwards smiling lips accompany the production of the labial sounds in [ʕ] and [m:]. The corners of the lips always go up, as they mimic smiling, in positive emotions such as admiration or enjoyment (Ekman 2003: 43; Darwin 1872: 200).

All of the phonetic vocalisations of the labial sounds [ʕ] and [m] that correspond with the mimicking actions of smiling show the iconic representation of the Hijazi NLEs [ʕ] and [m:] which in itself is index for love and/or joy. In other words, it shows the non-arbitrary relationship between these two Hijazi NLEs and their meanings of love and/or joy.

8.2.2 The Hijazi NLEs that are Associated with Surprise

In Chapter 2, based on Shaver et al. (2001), surprise is defined as the only neutral basic emotion that is neither negative nor positive. However, surprise can be negative or positive only if it has fuzzy boundaries or gradual transitions with other negative emotions, such as sadness, fear, and anger, or positive emotions such as love and joy (Shaver et al. 2001).

Based on the participants' answers, Chapter 6 showed that the Hijazi NLEs that are associated with surprise are only associated with the neutral and negative meanings of surprise, i.e. they do not associate with the positive meanings of surprise. Based on the participants' answers, and based on Figure 7.8, Table 8.2 below describes the meaning of the Hijazi NLEs that are associated with neutral and negative surprise:

Table 8.2: The Meaning of The Hijazi NLEs that are Associated with Neutral and Negative Surprise

The Meaning of Surprise		The Hijazi NLEs
Neutral Surprise	I am surprised by a sudden unexpected event (i.e. not bad, and not good, just unexpected), or by people who did unexpected things.	[wej], [wal], [ɔb], [ɔf]
Negative Surprise	Fear	I am shocked by a sudden bad, negative, and unexpected harmful event, or by people who unexpectedly did bad, negative, and harmful things.
	Anger	It is associated negative surprise arising from envy. (Envy is a secondary emotion of the basic emotion of anger, see Chapter 2 (2.2)).
	Sadness	I am surprised and disappointed by something or someone's actions and reactions.
	Anger + sadness + fear	I am shocked, angry, and sad because of a sudden bad, negative, and unexpected harmful event, or by people who unexpectedly did bad, negative, and harmful things.
	Anger	It is associated negative surprise arising from envy. (Envy is a secondary emotion of the basic emotion of anger, see Chapter 2 (2.2)).

Table 8.2 shows that all nine of these Hijazi NLEs are associated with the meaning of negative surprise, which are [wal], [wah:], [wej], [afə], [ɔf], [ɔb] [ɔbba:], [ju:], and [w|w|w]. However, only four out of these nine Hijazi NLEs are associated with both neutral and negative surprise, which are [wal] and [wej], [ɔf], and [ɔb].

Furthermore, as discussed in Chapter 2, based on Shaver et al. (2001), the facial and vocal gestures that accompany the emotion of surprise are related to the emotion that surprise has fuzzy boundaries with; see Section 2.2. So, if surprise has fuzzy boundaries with negative emotions, it will be accompanied by vocal and facial gestures that arise from these negative emotions. For instance, if surprise has fuzzy boundaries with the negative emotion of anger, it will be expressed by the vocal gestures of anger, which are aggressive and threatening vocal

gestures, such as a loud ferocious voice, yelling, shouting, scowling lips, or retracted lips with grinning teeth exposed.

However, Kryk-Kastovsky (1997) and Darwin (1872) claim that the emotion of surprise in general – neutral, positive, or negative – is related to vocal gestures of being speechless, by opening the mouth wide, whether rounded or unrounded, to draw deep and rapid breaths, as people across cultures do when producing surprise NLEs; see Chapter 2 (2.4). In this way, these expressions accompany the emotion of surprise are the mimicking vocal actions that correspond with the phonological expressions of the Hijazi NLEs that are associated with the emotions of neutral and negative surprise. Figure 8.2 shows the phonetic mapping of the parametric articulations of the Hijazi NLEs that are associated with negative and neutral surprise.

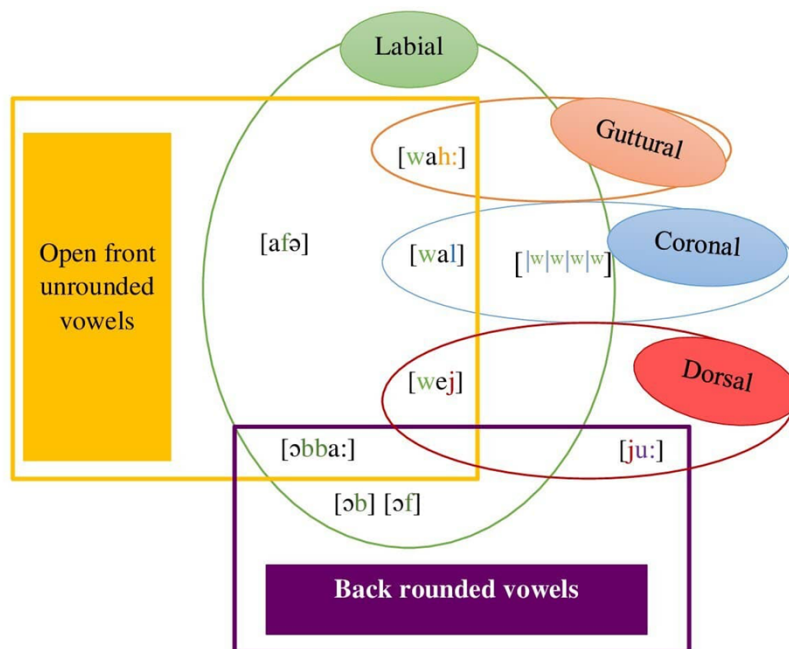


Figure 8.2: The Phonetic Mapping of the Parametric Articulations of the Hijazi NLEs that are Associated with Surprise

In the following discussion, I will start with the click sounds, then I will discuss the other NLEs that are produced with consonants and vowels or consonants alone.

The Hijazi NLEs that are Associated with Surprise and are Produced with Clicks

As discussed in Chapter 6, based on the participants' answers, the NLE [ʷ|ʷ|ʷ] is associated with the emotional meaning of negative surprise that has fuzzy boundaries with fear. It associates itself with the meaning of 'I am shocked, amazed, or astonished by a sudden, negative, unexpected event'; see Chapter 6 (6.2.9).

This Hijazi NLE is formed by the denti-alveolar click, which is a coronal sound produced in the front area of the vocal cavity. In the production of this sound, the tip or the blade of the tongue connects with the alveolar ridge just behind the upper teeth; see Figure 2.25. However, the only element of vocalisation that this click NLE has in common with the other NLEs that are associated with surprise is the shape of the lips during its production. For instance, this click is produced with semi-open rounded lips. This vocalisation of the rounded lips is the iconic representation of the Hijazi NLE denti-alveolar click [ʷ|ʷ|ʷ], which in itself is an index for surprise. Although Kryk-Kastovsky (1997) and Darwin (1872) claim that surprise is expressed with a wide-open mouth, whether rounded or unrounded, this click is produced with a semi-open rounded mouth. So, the only feature it shares with the other NLEs that are associated with surprise is the vocalisation of rounded lips. It is formed by a coronal sound only, which is the denti-alveolar click [ʷ|ʷ|ʷ], and all the other emotive Hijazi NLEs that are associated with surprise are not formed solely by coronal sounds. Even though [wal] is part-formed by the coronal sound [l], it also part-formed by the dorsal sound [w] like [wej] and [wah:]. This might be because the Hijazi sounds system does not include clicks. So, even if Hijazi speakers use these clicks to form a NLE, they associate them with the other sounds that already exist in Hijazi sounds system.

In the following, the other NLEs that are associated with surprise and are produced with consonants and vowels, rather than clicks, will be discussed.

The Hijazi NLEs that are associated with Surprise and are Produced with Pulmonic Consonants and Vowels

Figure 8.2 shows that eight out of nine of the Hijazi NLEs that are associated with surprise are produced with consonant and vowels, and only one is formed using the denti-alveolar click [ʷ]. Figure 8.2 also shows that six of the Hijazi NLEs that are associated with surprise are formed by sounds that are produced in the front area of the vocal cavity. For example,

[afə], [ɔf], [ɔb], and [ɔbba:] are produced with the labial sounds /f/ and /b/. Also, the denti-alveolar click [l], as discussed earlier on page 299, and /wal/ are produced with the coronal sounds click [l] and /l/.

In addition, all eight Hijazi NLEs that are associated with surprise and are articulated using consonants and vowels are formed by sounds that are produced at the back of the vocal cavity (i.e. laryngeal and dorsal sounds). Five out of these eight Hijazi NLEs are produced with a laryngeal sound, such as /h/ in [wah:]. Also, others are produced with dorsal sounds, such as /j/ in [ju:] and [wej], and /w/ [wah:], [wej], and [wal]. In addition, four Hijazi NLEs are formed by consonants and vowels that are produced in the front area of the vocal cavity, specifically labial sounds. These NLEs are [afə], [ɔf], [ɔb], and [ɔbba:].

Furthermore, all of the Hijazi NLEs that are associated with surprise are formed by two types of vowel sound. First, the Hijazi NLEs [ɔf], [ɔbba:], [ɔb], and [ju:] are formed by back rounded vowels, such as /ɔ/ and /u:/, which are produced with open rounded lips. Second, the Hijazi NLEs [afə], [wah:], [wej], and [wal] are formed by the open front unrounded vowel /a/, which is produced with wide-open unrounded lips.

Indeed, the production of the NLEs [wej], [wah:], and [wal] include the semi-vowel /w/, which is similar to the close back rounded vowel /u/ (cf. Cruttenden 2014: 233). During the articulation of these three NLEs, speakers open their mouths with the lips initially in a rounded position because of the semi-vowel /w/; they are then opened wide because of the unrounded vowel /a/.

Thus, all the Hijazi NLEs that are associated with surprise are produced with wide-open lips, whether rounded or unrounded. This corresponds to Kryk-Kastovsky's (1997) claim that the emotion of surprise in general, whether neutral, positive or negative, is related to vocal gestures of being speechless, by opening mouths wide, rounded or unrounded, to draw deep and rapid breaths, as people across cultures do when producing surprise NLEs; see Chapter 2 (2.4).

As a result:

The content of surprise has a meta-redundant relationship with the expression of the nine Hijazi NLEs that are associated with surprise. They share some common mimicking of the vocal actions that correspond with their vocalisations to iconically and indexically draw attention to the speaker's current emotion of surprise in a specific situation. These vocalisations include:

- The production of the vowels /ɔ/ and /u:/ in [ɔf], [ɔbba:], [ɔb], and [ju:], and the production of the front vowels /a/ and /e/ in [afə], [wah:], [wal], and [wej], which are related to mimicking the action of speechlessness, in which speakers open their mouths, whether with rounded or unrounded opened lips, to draw deep and rapid breaths.
- The semi-open rounded lips behind the production of the denti-alveolar click [l^wl^wl^w].

All the vocalisations that correspond with the mimicking actions of open rounded and unrounded lips show the iconic representation of the Hijazi NLEs [afə], [ɔf], [ɔb], [ɔbba:], [ju:] [wah:], [wej], [wal], and [l^wl^wl^w], which in itself is an index for surprise. In other words, it shows the non-arbitrary relationship between these nine Hijazi NLEs and their meaning of surprise.

8.2.3 The Hijazi NLEs that are Associated with Anger

As discussed in Chapter 7 (see Figure 7.8), based on Shaver et al.'s (2001) emotions classification, the participants' answers show that there are 15 Hijazi NLEs that are associated with the emotional meanings of anger as follows in Table 8.3:

Table 8.3: The Meaning of The Hijazi NLEs that are Associated with Anger

The Meaning of Anger	The Hijazi NLEs
annoyance (T) > irritation (S) > anger (B)	[ju:], [ɪf:], [uf:], [j ^w :], [ɔs:], [l ^w], and [l ^w l ^w l ^w].
dislike (T) > rage (S) > anger (B)	[Oʔ]
revulsion (T) > disgust (S) > anger (B)	[ɪf:], [uf:], [jɛʕ], [ɪffi:], [ɔffu:], [ɪxxi:] and [kɪx:]
contempt (T) > disgust (S) > anger (B)	[ɪxxi:], [həh], and [l l l].

In Chapter 2, anger was defined as a negative emotion that indicates the interpretation of frustration, interruption, power reversal, and the harm of a damaged situation or event (Shaver et al. 2001: 45). Usually, the emotion of anger, in general, is accompanied by aggressive and threatening vocal gestures, such as a loud ferocious voice, yelling, shouting, a scowling mouth, and retracted lips with grinning teeth exposed (Shaver et al. 2001:45; Darwin 1872: 92, 258, 243-248; Ekman 2003: 148-151, Wierzbicka 1992: 178). In addition, disgust as a secondary emotion of the basic emotion of anger is accompanied by mimicking vocal expressions, such as blowing and spitting something out of the mouth, or by

simulating clearing the throat, vomiting, or retching (cf. Wierzbicka 1992; Darwin 1872: 258; Goddard 2014: 14, 89).²⁹

These expressions accompanying the emotion of anger are the mimicking vocal actions that correspond with the phonological expressions of the Hijazi NLEs that are associated with the emotions of anger. Figure 8.3 shows the phonetic mapping of the parametric articulations of the Hijazi NLEs that are associated with anger.

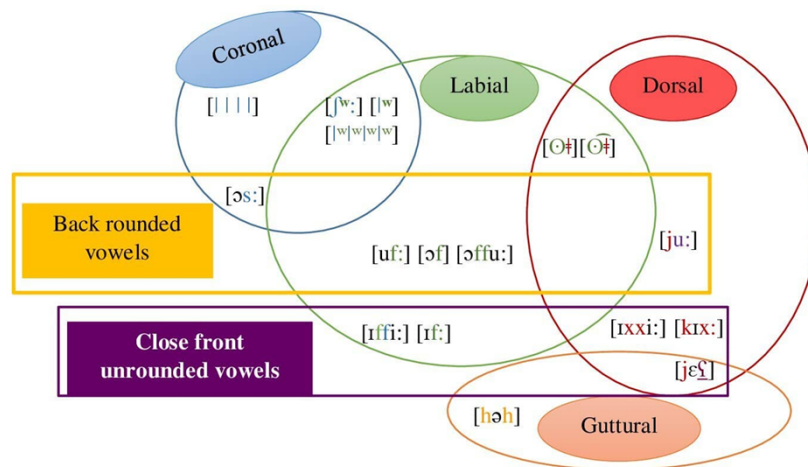


Figure 8.3: The Phonetic Mapping of the Parametric Articulations of the Hijazi NLEs that are Associated with Anger

In the following discussion, I will start with the Hijazi NLEs of anger that are produced using click sounds, before discussing the other NLEs of anger that are produced with consonants and vowels, or consonants alone.

The Hijazi NLEs that are Associated with Anger and are Produced with Nonpulmonic Sounds/ Clicks

Hijazi speakers use clicks to produce four NLEs that are associated with different emotions of anger. For instance, the palatal click [ʈ] and the bilabial click [ɔ] are used to produce the Hijazi NLE [ɔʈ]. Also, there are three NLES which have a denti-alveolar click [l] articulation that are associated with the different meanings of anger: it is produced isolated with rounding lips without any repetition [lʷ], and; with rounding lips with faster repetition [lʷ|ʷ|ʷ]; or without rounding lips with slower repetition [l|l|l].

²⁹ See Chapter 2 (2.4).

As discussed in Chapter 5, based on the participants' answers, the Hijazi NLE [ʔ] realises the meaning of dislike (T) > rage (S) > anger (B). It realises the meaning of anger towards some content, such as:

- I am angry because I don't like someone's behaviour.
- I am angry because I don't like this situation or idea.

However, as discussed in Section 8.2.1, [ʔ] can also be associated with the positive emotions of love and joy. So, the same Hijazi NLE [ʔ] is associated with opposite meanings. The only difference between the Hijazi NLE [ʔ] that is associated with the positive emotions of joy and love, on the one hand, and the Hijazi NLE [ʔ] that is associated with the negative emotion of anger, on the other, is that speakers use different vocal gestures to produce them. For example, in Section 8.2.1, it was shown that the Hijazi NLE [ʔ] is produced with retracted smiling lips to be associated with the meanings of love and joy. However, this section shows that this NLE is produced with retracted downward unsmiling lips to realise the emotion of dislike (T) > rage (S) > anger (B). Thus, the only aspect of vocalisation that these four click NLEs have in common with the other NLEs that are associated with anger is the shape of the lips during production of the NLE. This result stands as an initial finding based on my intuition as a native speaker of the Hijazi dialect. Also, this finding was based on Mr Masood's and Miss Alshahrani's observations, as outlined in Chapter 4, Table 4.7, who were two of the five experts that validated the accuracy of the way in which the presenter produced every Hijazi NLE in the videos which I used in the survey.

These different vocal gestures that accompany the production of the NLE [ʔ] that is associated with contradictory emotions in different situational contexts are related with the arousal of the emotion (i.e. level of alertness and physical tension) of happiness or anger. The vocal gestures that are characterised by a high level of arousal of intense emotions are in a competitive context, which means that the specific emotions can be recognised from vocal and facial expressions only if the situational context is known (Cavicchi et al. 2018; Shaver et al. 2001).

On the other hand, Hijazi speakers use the denti-alveolar click [l] in three ways to express the different meanings of anger. For instance, they produce the clicks [l^w] and [l^{w|w|w}] to express annoyance (T) > irritation (S) > anger (B) which has arisen due to a disturbance. This NLE connotes the meaning of anger towards some content: 'I am annoyed and angry'. Based on this meaning of anger, the [l^w] or [l^{w|w|w}] are produced with rounded

lips, as these mimic the vocal action of scowling lips that is related with anger (Shaver et al. 2001: 45; Darwin 1872: 92, 258, 243-248; Ekman 2003: 148-151; Wierzbicka 1992: 178). This shows the iconic representation of [l^w] when produced in a single articulation or when articulated with faster repetition [l^w|^w|^w], which in itself is an index of anger.

Speakers produce [l|l|l] to express contempt (T) > disgust (S) > anger (B). This NLE connotes the meaning of anger towards a content such as: ‘I am angry because I am disgusted by someone who has done something contemptuous’. The shape of the lips through the production of this NLE is retracted, as it mimics the vocal action of retracted lips, with grinning teeth exposed, which is related to disgust as a type of anger (as claimed by Darwin 1872: 92, 258, 243-248; Ekman 2003: 148-151, Wierzbicka 1992: 178). This shows the iconic representation of [l|l|l], which in itself is an index of disgust (S) > anger (B).

Thus, these clicks only share the shape of the mouth during the articulation with the other NLEs that are associated with anger. In the following section, the other NLEs that are associated with anger and are produced with consonants and vowels, rather than clicks, will be discussed.

The Hijazi NLEs that are Associated with Anger and are Produced with Pulmonic Consonants and/or Vowels:

Figure 8.3 above shows that most of the Hijazi NLEs that are associated with anger are produced with consonant and vowels. Out of the 14 Hijazi NLEs that are associated with anger, 10 are formed by sounds that are produced at the back of the vocal cavity (i.e. laryngeal and dorsal sounds). These Hijazi NLEs are [ju:], [həh], [ɪf:], [uf:], [ʊs:], [ɪffi:], [ʊffu:], [jɛʕ], [ɪxxi:], and [kɪx:]. One of these is produced with laryngeal sounds, which /h/ in [həh]. Others are produced with dorsal sounds, such as /j/ in [ju:] and [jɛʕ], /ʕ/ in [jɛʕ], and /x/ in [ɪxxi:] and [kɪx:]. These NLEs are associated with the three different meanings of anger as follows:

1. Annoyance (T) > irritation (S) > anger (B) is associated with [ju:], [ɪf:], [uf:], and [ʊs:].
2. Revulsion (T) > disgust (S) > anger (B) is associated with [ɪf:], [uf:], [jɛʕ], [ɪffi:], [ʊffu:], [ɪxxi:], and [kɪx:].
3. Contempt (T) > disgust (S) > anger (B) is associated with [ɪxxi:] and [həh].

These guttural sounds are produced with vocal gestures that are like clearing the throat, simulating vomiting, or retching (cf. Wierzbicka 1992; Darwin 1872: 258; Goddard 2014: 14). Thus, these mimicking actions behind the phonological form (i.e. the sequence of sounds segments of the NLEs) that are produced with laryngeal and dorsal sounds stand as an iconic representation of these NLEs, which in itself is an index of anger.

Out of the 10 Hijazi NLEs that are associated with anger and are formed by different consonants and vowels, six are produced in the front area of the vocal cavity (i.e. using labial and coronal sounds). These Hijazi NLEs are [ɪf:], [uf:], [ɪffi:], [ɔffu:], [ʃ^w:], and [ɔs:]. Some of these are produced with labial sounds, such as /f/ in [ɪf:], [uf:], [ɪffi:], and [ɔffu:]. Others are produced with coronal sounds such as the sound /ʃ/ in the NLE [ʃ^w:] and the sound /s/ in the NLE [ɔs:]. These NLEs are associated with the three different meanings of anger as follows:

4. Annoyance (T) > irritation (S) > anger (B) is associated with [ɪf:], [uf:], and [ɔs:].
5. Revulsion (T) > disgust (S) > anger (B) is associated with [ɪf:], [uf:], [ɪffi:], and [ɔffu:].

The labial sound /f/, which forms [ɪf:], [uf:], [ɪffi:], and [ɔffu:], is produced with vocal gestures similar to spitting or blowing out of the mouth, whether using rounded or retracted downward lips (cf. Darwin 1872: 92, 258; Wierzbicka 1992: 178). The Hijazi NLEs [ɔs:] and [ʃ^w:], which are associated with anger arising from a disturbance, are formed by the coronal voiceless fricatives /s/ and /ʃ/. This voiceless quality possibly stands as an icon of commanding someone to be quiet (Wharton 2009: 74, 101). Furthermore, I suggest that the hissing in the voiceless fricatives /s/ and /ʃ/ stands as an index for commanding someone to be quiet, since, as Kockelman (2005, 2003) and Goddard (2014) claim, symbolic indexical properties can include auditory qualities. In this way, the Hijazi NLEs [ɔs:] and [ʃ^w:] are a way of commanding others to be quiet by drawing their attention to the speaker's feeling of anger because of the disturbance or noise that the addressee is making, by using the friction or hissing quality of the voiceless fricatives /s/ and /ʃ/. The speaker uses a vocal action that mimics the disturbance or noise caused by the addressee to express the feeling of anger.

Thus, the mimicking actions behind the phonological form of the NLEs that are produced with labial, coronal, laryngeal, and dorsal sounds are an iconic representations, which in themselves are an index of anger.

In addition to the mimicking actions behind the articulation of the Hijazi NLEs that are associated with anger, the shape of the lips also stands as an iconic and indexical element

to show the non-arbitrary relationship between these 14 Hijazi NLEs and their meaning of anger. The shape of the lips lies behind the production of the vowels. For instance, some of these Hijazi NLEs, such as [ju:], [uf:], [ɔffu:], and [ɔs:], are produced with rounded lips because of the vowels /ɔ/ and /u/. This also corresponds to blowing or pushing the mouth out, as it mimics the vocal action of scowling lips that is related to anger (as claimed by Shaver et al. 2001: 42-45). Furthermore, although the Hijazi NLE [ʃʷ:] is not formed by vowels, it is produced like those NLEs that are formed by rounded vowels, as all of them mimic the vocal action of scowling lips. Thus, these mimicking actions behind the phonological form of the NLEs that are produced with rounded lips are an iconic representation, which in itself is an index for anger.

In addition, some of the Hijazi NLEs that are associated with anger are produced with retracted downward lips because of articulation of the vowels /ɪ/, /i/, and /ɛ/, e.g., [ɪf:], [ɪffi:], [ɪxxi:], [kɪx:], and [jɛɕ]. These retracted downward lips correspond with anger, as they mimic the vocal action of retracted lips, with grinning teeth exposed, which is related to anger (as claimed by Darwin 1872: 92, 258, 243-248; Ekman 2003: 148-151; Wierzbicka 1992: 178). Thus, these mimicking actions behind the phonological form of the NLEs that are produced with retracted lips and grinning teeth exposed are an iconic representation, which in itself is an index of anger.

Furthermore, Hijazi speakers use the NLE [həh], which is formed by the mid central vowel /ə/ and the laryngeal /h/, to express the emotion of anger, especially contempt (T) > disgust (S) > anger (B). The articulation of the Hijazi NLE [həh] corresponds to the production of a single laugh; see Section 8.2.1. In this section, the Hijazi NLE [həh] is associated with the emotional meaning of contempt (T) > disgust (S) > anger by underestimating others' abilities or despising and disdain someone or something; see Chapter 7 (7.2.8).

In this way, Hijazi NLE [həh] is associated with the negative type of laughing. There is more than one type of laughter depending on the situational context (Poyatos 2002: 73). As well as laughing positively because of joy and happiness, we can also laugh negatively. People can produce satirical laughter to express contempt, irony, and sarcasm (Poyatos 2002: 73). In this way, the meaning of the Hijazi NLE [həh] can turn from the positive emotion to the negative meaning of despising and scolding others.

The contradictory emotions associated by [həh] in different situational contexts are related to the heightened physiological arousal (i.e. level of alertness and physical tension) of the negative or positive emotions of joy or anger. The vocal gestures that characterise the heightened physiological arousal of intense emotions are in a competitive context, as the specific emotions can be recognised from the vocal and facial expressions only if the situational context is known (Cavicchi et al. 2018, Shaver et al. 2001). Thus, based on the meaning of anger, this mimicking action of a sarcastic laugh behind the phonological form of [həh] is an iconic representation, which in itself is an index for contempt (T) > disgust (S) > anger.

As a result:

The content of anger has a meta-redundant relationship with the expression of the 14 Hijazi NLEs that express anger. They share some common mimicking of the vocal actions that correspond with their vocalisations to iconically and indexically draw attention to the speaker's current emotion of anger in a specific situation. These vocalisations include:

1. blowing air out of the mouth, which is related to the production of the labial /f/,
2. clearing the throat, vomiting or retching, which accompanies the production of the guttural sounds /k/, /g/, and /x/,
3. sarcastic laughter, which mimics the production of [həh],
4. retracted lips and exposed grinning teeth, which are related to the production of the click [l l l] and the vowels /ɪ/ and /i/,
5. retracted downward lips, which are related to the production of the click [Oʔ]
6. rounded lips, as they mimic the vocal action of scowling lips, which are related to the production of the vowels /ɔ/ and /u/, such as [ju:], [uf:], [ɔffu:], and [ɔs:]; or even in the case of [ʃʷ:], which does not include a vowel but mimics the vocal action of scowling lips.

All the vocalisations that lie behind the six mimicking actions above show the iconic representation of these 14 Hijazi NLEs, which in itself is an index for anger. In other words, it shows the non-arbitrary relationship between those 14 Hijazi NLEs and their meaning of anger.

8.2.4 The Hijazi NLEs that are Associated with Sadness

As discussed in Chapter 7 (7.3), the emotion of sadness stands as signified, meaning, or content of the Hijazi NLEs that are provoked by the experience of sadness toward the speaker's content ('I am sad') in a specific spatio-temporal context. Sadness was defined as a negative emotion that indicates the interpretation of the negative, undesirable, powerless, and helpless outcome of a situation in which the threat has already been realised (Shaver et al. 2001: 44; see also Chapter 2 (2.2)). It refers to the emotion aroused by physical and psychological pain. It is usually accompanied by vocal expressions such as crying and whimpering (Shaver et al. 2001: 45).

In Chapter 5, based on the participants' answers, I divided the meaning of sadness into psychological, physical, and general sadness, as participants provided different meanings of sadness concerning psychological and/or physical pain. For more explanation, see Chapter 7 (7.3). Based on Shaver et al.'s (2001) emotions classification, the participants' answers show that there are seven Hijazi NLEs that are associated with three emotional meanings of sadness as follows:

Table 8.4: The Meaning of The Hijazi NLEs that are Associated with Sadness

The meaning of sadness	The Hijazi NLEs
It is associated with the content 'I am sad because of pain in general'. (The participants did not specify what kind of pain, i.e. physical or psychological.)	[ax:] [ah:]
It is associated with the content 'I am sad because of pain resulting from physical problems such as a burn, sickness, and tiredness, or because of physical stress and exhaustion'.	[ax:] [ah:] [aj] [aħ:]
It is associated with the content 'I am sad because of psychological stress, heartbreak, regret, remorse, neglect, homesickness, and nostalgia'.	[aħ:], [ax:], [ah:], [afə], [] and [Oʔ]

Table 8.3 shows that the minds of the Hijazi speakers prototypically categorise the NLEs [ax:] and [ah:] with their experience of sadness resulting from all three contents above. However, the minds of the Hijazi speakers prototypically categorise the NLE [aj] with their experience of sadness resulting from physical pain. Moreover, the minds of the Hijazi

speakers prototypically categorise the NLEs [ah:], [afə], [Oʃ], and [l l l] with their experience of sadness resulting from psychological pain.

These expressions, which accompany the emotion of sadness arising from pain, are a mimicking of the vocal actions that correspond with the phonological expressions of the Hijazi NLEs that are associated with the emotions of sadness. Figure 8.4 shows the phonetic mapping of the parametric articulations of the Hijazi NLEs that are associated with sadness.

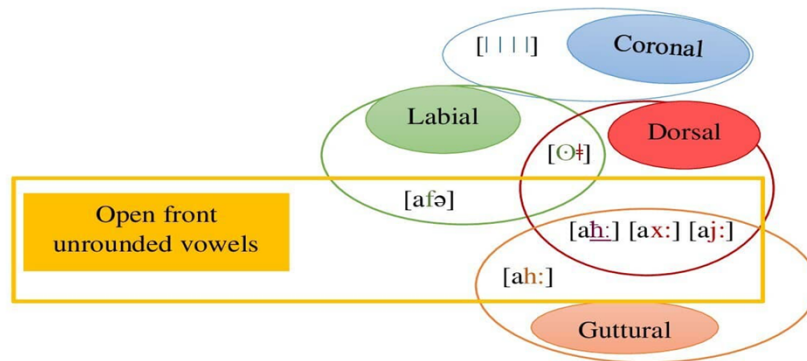


Figure 8.4: The Phonetic Mapping of the Parametric Articulations of the Hijazi NLEs that are Associated with Sadness

In the following discussion, I will start with the clicks, and then I will discuss the other NLEs of sadness that are produced with the pulmonic consonants and vowels, or pulmonic consonants alone.

The Hijazi NLEs that are Associated with Sadness and are Produced with Nonpulmonic Sounds/Clicks

Hijazi speakers use three clicks to produce four NLEs that are associated with different emotions of sadness. All of these clicks are produced at the front of the vocal cavity (i.e. labial and coronal sounds). For instance, the Hijazi NLE [Oʃ] is formed by a coronal sound, which is the palatal click [ʃ], and a bilabial sound, which is the bilabial click [O]. As discussed in Chapter 5, the participants’ answers show that the Hijazi NLE [Oʃ] connotes the meaning of sadness (B) towards some content, such as:

- I am sad about someone or about some event.

In Section 8.2.1 of this chapter, I discussed the Hijazi NLE [ʔ], as it is associated with the positive emotion of love, including admiration and liking, to express joy, including pride and self-confidence, and it is associated with dislike (T) > rage (S) > anger (B). So, the same Hijazi NLE [ʔ] is associated with different meanings, as well as opposite meanings.

The only difference between the Hijazi NLE [ʔ] that is associated with the positive emotion of joy and love and the Hijazi NLE [ʔ] that is associated with the negative emotion of anger and sadness is that speakers use different vocal gestures. For example, in Section 8.2.1, it was shown that retracted lips with smiling position accompany the Hijazi NLE [ʔ] that is associated with love and joy. However, in Section 8.2.3, it was shown that the Hijazi NLE [ʔ] that is associated with the emotion of dislike (T) > rage (S) > anger (B) is accompanied by lips with an unsmiling position that are retracted downwards. Similarly, the Hijazi NLE [ʔ] that is associated with the emotion of sadness is accompanied by lips that are retracted downward with an unsmiling position.

Furthermore, as discussed in Sections 8.2.1 and 8.2.3 in this chapter, these different vocal gestures accompanying the production of the NLE [ʔ], which is associated with contradictory emotions in different situational contexts, are related to the arousal of emotion (i.e. level of alertness and physical tension) of happiness, anger, or sadness. The vocal gestures that characterise the high arousal of the intense emotions are in a competitive context, as the specific emotions can be recognised from the vocal and facial expressions only if the situational context is known (Cavicchi et al. 2018; Shaver et al. 2001).

The Hijazi NLE [|||] is formed by a coronal sound, which is the denti-alveolar click, to express the psychological emotion of sorrow and sadness. In the production of this sound, the tip or the blade of the tongue makes contact with the alveolar ridge just behind the upper teeth; see Chapter 2 (2.5), Figure 2.25. However, the only feature of vocalisation that this click NLE has in common with the other NLEs that are associated with sadness is the shape of the lips during its production.

Therefore, the Hijazi NLEs [ʔ] and [|||] are synonyms. They are recognised in the same situational context and associated with the same meaning of sadness. Also, like the NLE [ʔ] that is associated with the emotion of sadness, the denti-alveolar click [|||] is accompanied by retracted downward unsmiling lips.

The only feature that these clicks share with the other NLEs that are associated with sadness is the shape of the mouth during articulation. The following section will present the

other NLEs that are associated with sadness but are produced with consonants and vowels, rather than clicks.

The Hijazi NLEs that are Associated with Sadness and are Produced with Pulmonic Consonants and/or Vowels

Figure 8.4 above shows that five out of the seven Hijazi NLEs that are associated with sadness are formed by consonants and vowels. These are [aḥ:], [ax:], [ah:], [aj], and [afə]. Only one of the NLEs that is formed by consonants and vowels is produced in the front area of the vocal cavity, as it includes a labial sound. This NLE is [afə], and it is formed by the labial /f/. However, all five of these NLEs are formed by sounds that are produced in the back of the vocal cavity, including laryngeal and dorsal sounds. For example, [aj] and [ax:] are produced with dorsal sounds such as /j/ and /x/. Finally, and most crucially, all five of these NLEs are formed with the vowel /a/. The way in which the mouth is opened in unrounded position to form the vowel /a/ during the articulation of these five Hijazi NLEs mimics the actions of crying, screaming, or weeping. Thus, these mimicking actions of crying, screaming, or weeping correspond with the phonological form of these five NLEs that are produced with the initial /a/ are an iconic representation, which in itself is an index for sadness.

As a result:

The content of sadness has a meta-redundant relationship with the expression of the seven Hijazi NLEs that are associated with sadness. They share some mimicking of the vocal actions that correspond with their vocalisations to iconically and indexically draw attention to the speaker's current emotion of sadness in a specific situation. These vocalisations include:

1. The open unrounded lips that correspond with the phonological form of the sound /a/, which is produced with lips that are wide open in the Hijazi NLEs [aḥ:], [ax:], [ah:], [aj], and [afə]. There is a correlation between expressions of sadness and expressions of crying or weeping (Darwin 1872: 148-152, Shaver et al. 2001: 44-45). Lips can also sometimes be open and the corner of the lips drawn slightly downwards (Darwin 1872: 148-152; Ekman 2003: 112-115).
2. The retracted downward unsmiling lips that accompany the production of the clicks [ʔ] and [l l l], as they mimic the way of crying and weeping. During the feeling of sadness, grief and sorrow, “[t]he corners of the mouth are drawn

downwards, which is so universally recognized as a sign of being out of spirits” (Darwin 1972: 177).

All the vocalisations that correspond with the two mimicking actions above are an iconic representation of these seven Hijazi NLEs, which in itself is an index for sadness. In other words, it shows the non-arbitrary relationship between these seven Hijazi NLEs and their meanings of sadness.

8.2.5 The Emotive Hijazi NLEs that are Associated with Fear

Based on Shaver et al.’s (2001) emotions classification, the participants’ answers presented in Chapter 7 (7.4) show that there are three Hijazi NLEs that are associated with the emotional meanings of fear, which are [ju:], [ɔbba:], and [ɔb]. All three of these NLEs are associated with the meaning of surprise as well. This is to be expected, as Shaver et al. (2001) claim that the emotion of surprise is highly active in the arousal (i.e. level of alertness and physical tension) of the emotions of fear, including alarm, shock, and panic.

In Chapter 2, fear was defined as a negative emotion that indicates the interpretation of dangerous or threatening events. It refers to the emotions of horror and nervousness towards an event (Shaver et al. 2001: 43). The emotions of alarm, shock, fear, fright, horror, terror, panic, hysteria, and mortification are tertiary emotions (T), which are types of the secondary emotion (S) of horror, which is a type of the basic emotion (B) of fear. The emotions of anxiety, suspense, uneasiness, apprehension (fear), worry, distress, and dread are also tertiary emotions (T), which are types of the secondary emotion (S) of nervousness, which is a type of the basic emotion (B) of fear. Furthermore, the emotion of fear is usually accompanied by vocal expressions such as screaming, yelling, crying, or pleading for help (Shaver et al. 2001: 43).

The participants’ answers presented in Chapter 7 (7.4) show that these three Hijazi NLEs are associated with some meanings of fear, based on Shaver et al.’s (2001) emotions classification, as follows:

Table 8.5: The Meaning of The Hijazi NLEs that are Associated with Fear

The meanings of fear based on participants’ answers	The Hijazi NLEs
I am scared and worried because of a negative and fearful situation	[ju:] [ɔbba:]

The meanings of fear based on participants' answers	The Hijazi NLEs
I am offering assistance to and assisting a child with physical activities, such as standing up.	[ɔbba:]
I am warning and advising someone to move away from a danger that physically hurts, such as falling, tripping, and slipping.	[ɔb]

Table 8.5 shows that the minds of the Hijazi speakers prototypically categorise the NLEs [ju:], [ɔbba:], and [ɔb] with their experience of fear, resulting in all three contents above. Alongside the three NLEs that are associated with the emotions of fear are the mimicking vocal actions that correspond with their phonological articulation. Figure 8.5 shows the phonetic mapping of the parametric articulations of the Hijazi NLEs that are associated with fear.

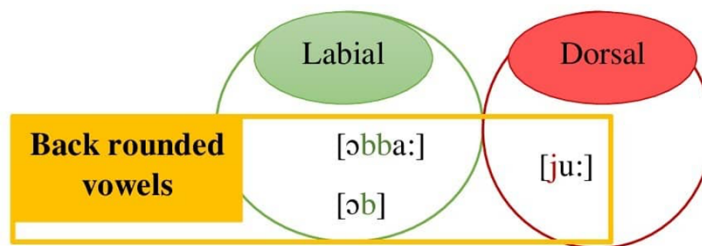


Figure 8.5: The Phonetic Mapping of the Parametric Articulations of the Hijazi NLEs that are Associated with Fear

Figure 8.5 shows that all three Hijazi NLEs that are associated with fear are formed with rounded vowels, such as the diphthong /ɔ/ in [ɔbba:] and [ɔb] and /u:/ in [ju:].

As a result:

The content of fear has a meta-redundant relationship with the expression of the Hijazi NLEs [ju:], [ɔbba:], and [ɔb], which are associated with fear. They share some common mimicking of the vocal actions that correspond with their vocalisations to iconically and indexically draw attention to the speaker's current emotion of fear in a specific situation. These vocalisations include:

1. All of them are produced with open rounded lips. During the experience of fear, the jaw drops down, and the lips are opened horizontally (Ekman 2003: 177). The vocal expressions of fear are like those of negative surprise, as the

lips are slightly protruded (Darwin 1872: 284). Therefore, several sounds are commonly uttered depending on the shape of the rounded mouth (Darwin 1872: 285), such as the rounded vowels that form the Hijazi NLEs [ɔbba:], [ɔb], and [ju:]. The shape of the mouth when a person is experiencing the emotion of fear mimics the expressions of yelling or screaming (Darwin 1872: 292; Shaver et al. 2001: 43).

All the vocalisations that correspond with the mimicking actions above show the iconic representation of these three Hijazi NLEs, which in itself indexes fear. In other words, it shows the non-arbitrary relationship between these three Hijazi NLEs and their meanings of fear.

After I finished this examination of the emotive Hijazi NLEs that are associated with different emotions as they appeared in Sections 8.2.1, 8.2.2, 8.2.3, 8.2.4, and 8.2.5, I found that there seems to be a strong probabilistic relationship between expression and content in specific situational contexts of love, joy, surprise, anger, sadness, or fear. The speaker's mind integrates the iconic and indexical signs with the NLEs that are associated with every emotion of these six basic emotions. In other words, hearers interpret the NLE by integrating it with the internal emotional state of every emotion. The contextual redundancies are constructed between the emotional experiences of every emotion and clusters of body expressions such as the vocalisations that correspond to the mimicking actions (cf. Thibault 2004:171, also see Chapter 3 (3.3) in this study). Thus, an intrinsic awareness of the sign is grounded in the speaker's mind, and this provides a model for possible action in the world (Thibault 2004:171).

At this point, I will go through the semiotic approaches that I used to examine the non-arbitrary relationship between the emotive Hijazi NLEs and their emotional meanings in detail.

8.3 The Emotive Hijazi NLEs as Stratified Semiotic Signs

Like all signs, emotive Hijazi NLEs consist of two orders of abstraction: the content plane (emotional meaning) and the expression plane (phonological form). The content plane consists of the accumulated mental concepts that are related to the material forms of the sign, depending on certain rules or conventions. The meaning of the sign is then the connotative

sum of the relationship between the expression and content. Both the expression and content plane have a form and a substance, (Hjelmslev 1963). Thus, every sign is composed of 4 strata.

Halliday and Matthiessen (2014: 24-25) claim that, from the perspective of the speaker, “[i]n step one, the interfacing part, experience and interpersonal relationships are transformed into meaning... In step two, the meaning is further transformed into wording”. Therefore, to structure the emotive Hijazi NLEs, speakers initially realise their emotional experiences into meanings in a specific situational context. Then, in the process of wording, the emotive Hijazi NLEs are expressed and performed by speaker.

For example, and this refers to all the other emotive Hijazi NLEs, the content of the Hijazi NLE [kix:] is the emotional meaning of anger. To be precise, it includes the tertiary emotion (T) of revulsion, which is a type of the secondary emotion (S) of disgust, which is itself a type of the basic emotion (B) of anger, according to Shaver et al.’s (2001) emotions classification. The meaning of the emotive Hijazi NLEs is the list of emotions that are qualified to be the content of those tokens. Thus, the content of the emotive Hijazi NLEs refers to how the speaker encodes the emotional experiences in a specific context. For example, the Hijazi NLE [kix:] is associated with the content of ‘I am disgusted and angry’.

For a further issue, the emotional meaning of the emotive Hijazi NLE should fulfil different speech functions, such as statement, offer, command, or request. Thus, the meaning of emotive Hijazi NLEs is structured by content and speech functions. The speech functions of the NLEs are related to their use. They are related to the performative act of information provided concerns the speaker’s feeling. They are communicative actions that the speaker is performing towards others, by informing, asking, and commanding what is mentioned by the emotional content. For example, [kix:] is associated with the content of ‘I am disgusted and angry’ if it fulfils the statement speech function. A statement refers to the way in which the speaker gives information. Through the speech function of the statement, the speaker is stating that they are disgusted and angry, and they realise this feeling through the NLEs. For example, speakers can direct expression or emotion towards what they are talking about, as in the phrases ‘I am disgusted’, ‘I am angry’, etc. In this way, the statement speech function constitutes an expressive or emotive function. In addition, [kix:] is associated with the content of ‘I will be angry if you touch the disgusting thing’ if it fulfils the warning as a type

of the speech function of command, as it is used to command a child to stop an action that is making the speaker disgusted and angry.

After organising the construal of the emotional experiences as the content of the Hijazi NLEs, the speaker realises their expression. The first step in realising the expression of these spoken signs is the composing of their phonological structure. The composing refers to the internal organisation of the speech sounds into the formal structures of the Hijazi Arabic system. The composing or phonology of the sign refers to the material that is used to shape the form of the sign. In the emotive Hijazi NLEs, these materials are the spoken sounds such as /k/, /x/, /f/, /i/, /u/, etc.

The final step in structuring the expression of the Hijazi NLEs is sounding, as it is termed by Halliday and Matthiessen (2014: 24-26). This is the step in which the form of the Hijazi NLE is realised. It refers to the materialised forms that are used as signifiers in a specific variety, such as Hijazi Arabic. It shows an interface via vocal gestures of speech or phonetic articulations. Thus, the speaker takes the internal organisation of the sounds as a base and interfaces them with the vocal gestures as resources for speech in a specific language or dialect (Halliday and Matthiessen 2014: 25-26).

Halliday and Matthiessen (2014) align with Hjelmslev's (1963) stratification as Halliday's content, which includes meaning and wording, and is equal to Hjelmslev's content, which contains content form and content substance. The semantic stratum of Halliday and Matthiessen (2014) is equal to the content-substance of the Hijazi NLEs, as both refer to the emotional meanings that are qualified to be the content of those tokens, since Hjelmslev's (1963) content-substance is the structuring of the minimal distinctive unit of meaning based on a specific situational context. These minimal distinctive units of the meanings of the semiotic sign acquire certain behaviours according to the specific situational context (Hjelmslev 1963).

In this way, I suggest that the indexical and iconic components of mimicking actions that correspond with the vocalisation of the emotive Hijazi NLEs are parts of the minimal distinctive units of their emotional meanings which are used to explain the non-arbitrary relationship between the emotive Hijazi NLEs and their meanings. Every basic emotion accompanied by specific non-verbal expressions stands as an indexical element of these emotions. For instance, vomiting or retching is an index of disgust, crying is an index of sadness, laughing and smiling are indexes of joy and love, etc. (for more information see

Chapter 2 (2.2)). The shape of the mouth while producing the emotive NLEs that are associated with different emotions stand as iconic representations which in themselves index to these emotions. For example, the indexical and iconic components of mimicking the actions of vomiting or retching that correspond with the vocalisation of the NLE [kix:] are parts of the minimal distinctive unit of its meaning. [kix:] is articulated using retracted lips with grinning teeth, which are exposed because of the vowel /ɪ/, and the guttural sounds /k/ and /x/, which mimic the actions of vomiting or retching. The shape of the mouth and the mimicking of the actions of vomiting or retching that correspond with the vocalisation of [kix:] show its iconic representations, which are themselves indexes for disgust, which is a type of anger, according to Shaver et al. (2001). In this way, the indexical and iconic component of the emotive NLEs is represented by the mimicking actions and the shape of the mouth stands as minimal distinctive units of the emotional meanings of the emotive Hijazi NLEs.

On the other hand, the wording stratum of Halliday and Matthiessen (2014) is equal to the content-form of the Hijazi NLEs, as both refer to the performative and communicative content of the NLE in specific situational and socio-cultural contexts. In other words, both of them refer to how every emotive Hijazi NLE is expressed and performed from the point of view of the speaker.

On the expression plane, Halliday and Matthiessen's (2014) composing level is equal to Hjemsløv's (1963) expression-substance, which refers to the internal organisation of the speech sounds into the formal structures of the Hijazi Arabic system. Furthermore, Halliday and Matthiessen's (2014) sounding level is equal to Hjemsløv's (1963) expression-form, as both refer to taking sound as it is interfacing with the body's resources for speech.

During the production of the emotive Hijazi NLEs, the speaker simultaneously mobilises both the content and expression planes together with both their forms and substances. All minimal units of the emotive Hijazi NLE meanings, which include the emotions, correspond with body reflexes through the iconic and indexical mimicking of the vocal actions that correspond with their phonological forms put forward a content that is realised as a valid signified of the emotive Hijazi NLEs. On the other hand, the articulator sounds are the substance that is used to shape the vocal gestures of the emotive Hijazi NLEs. This thereby creates a form that is realised as a valid signifier of the emotive Hijazi NLEs.

8.4 The Iconicity and Indexicality of the Hijazi NLEs

Emotive Hijazi NLEs are natural expressions. They are not random but reveal a symbolic system of indexes and icons that are embodied in our daily experiences within specific situational contexts. I suggest that there are two elements that illustrate the indexical and iconic relationship between the emotive Hijazi NLEs and their emotional meanings.

First, the shape of the mouth during the articulation of these spoken signs stands as an iconic element that resembles the emotional meanings of the NLEs. The shape of mouth lies behind the phonological articulations of the NLEs and is related to the mimicking actions. This is mostly connected with the articulation of the vowels that form the emotive Hijazi NLEs. For instance, rounded lips mimic the vocal action of a scowling mouth, which is an index of anger. These rounded lips are related to the production of the vowels /ɔ/ and /u/ in [ju:], [uf:], [ɔffu:], and [ɔs:], which are associated with anger. Another example would be wide-open unrounded lips, as these mimic the vocal action of crying and whimpering, which are indexes of sadness. These wide-open unrounded lips are related to the production of the vowel /a/, or the initial sound /a/, in [aj], [aħ:], [ax:], [ah:], and [afə], which are associated with sadness.

Second, the mimicking actions that correspond to the phonological articulations of those spoken signs stand as indexical elements, as mimicry is a sort of representation of emotions. For instance, vomiting or retching is not disgust, but it is an index of disgust. The mimicking actions of weeping and crying through an open mouth, which correspond with the articulation of the NLEs [aj], [aħ:], [ax:], [ah:], and [afə], are parts of the minimal distinctive unit of its meaning. These five NLEs that express sadness are articulated with an open mouth because of the initial sound /a/. The shape of the mouth and the mimicking of the actions of weeping and crying through an open mouth, which correspond with the articulation of these five NLEs, show their iconic representation, which itself is an index for sadness, based on Shaver et al. (2001).

Thus, the mimicking actions and the shape of the lips that correspond with the phonological form of the emotive Hijazi NLEs stand as indexical and iconic components that illustrate the non-arbitrary relationship between the Hijazi NLEs and their emotional meanings. Therefore, based on Hjelmslev's (1963) concept of the minimal distinctive units of the meanings, which are structured in the content-substance and acquire certain behaviours according to the specific situational context, I suggest that these indexical and iconic

elements, which are related to the mimicking actions and the shape of the lips, are parts of the minimal distinctive units of the meanings of the emotive Hijazi NLEs that acquire certain behaviours according to the specific situational context (Hjemslev 1963).

For a further issue, through their suggested dyadic model of the sign, which includes two planes, expression and content, Halliday and Matthiessen (2014) state that the realisational relationship across the content and expression boundary is arbitrary with some very minor exceptions. For example, in the case of some linguistic items, such as primary interjections, which match the NLEs in this study, the realisational relationship between the content and expression strata is non-arbitrary, as the patterns of the expression realise patterns of meaning (Halliday and Matthiessen 2014: 24-27).

Thus, this realisation is a process or relationship that is used to map out meanings, some of which may be non-arbitrary. This realisational relationship is known as meta-redundancy, and this will be discussed in detail in the following section in relation to the Hijazi NLEs.

8.5 Meta-Redundancy of the Hijazi NLEs

The indexical and iconic elements that are related to the mimicking of some vocal actions suggests that the non-arbitrary relationship between the content and expression of the emotive Hijazi NLEs exists in a very tight meta-redundant, realisational relation, or highly predictive relationship; see Chapter 3 (3.3). The meta-redundant relationship of the sign's content and expression has a contingent probability relationship that depends on the context (Lemke 2015: 121). The meta-redundancy of Hijazi NLEs is the relationship between their expression and their content, which exists through the mapping of the content of internal experience onto vocal expressions in specific situational contexts. Thus, the emotional meaning of the emotive Hijazi NLEs is related not only to a specific phonological structure, but also to the vocal gestures required to produce this specific phonological structure in a specific context. Thus, the iconic and indexical relationship between the emotive Hijazi NLEs and their emotional meanings is not a redundant or one-way relationship, but a meta-redundant or multi-way relationship.

In Section 8.2, the discussion of the Hijazi NLEs and their emotional meanings demonstrated that a group of emotive Hijazi NLEs that are associated with the same meaning

have something in common, even if they have different forms. For more information, see Figures 2.27, 2.28, and 7.6. Every group of emotive Hijazi NLEs that has been categorised under the same emotional meaning share specific patterns of vocalisation, mimicking vocal actions, and shape of the lips, which shows their iconicity and indexicality. For example, the Hijazi NLEs [aj], [aħ:], [ax:], [ah:], and [afə] are associated with the emotional meaning of sadness arising from pain. Although they have different articulations, they share some patterns of vocalisation, mimicking vocal actions, and shape of the lips; see Chapter 2 (2.5). Thus, although [aj], [aħ:], [ax:], [ah:], and [afə], which are associated with the same meaning of sadness, have different forms, they have something in common. They share the vocalisation and mimicking actions that index the emotion of sadness. Therefore, I used the theory of meta-redundancy to examine the non-arbitrary relationship between the other emotive Hijazi NLEs and their emotional meanings; see Section 8.2.4.

From the results at the end of the discussion in Sections 8.2.1, 8.2.2, 8.2.3, 8.2.4, and 8.2.5, there seems to be a strong probabilistic relationship between expression and content in specific situational contexts of love, joy, surprise, anger, sadness, or fear. In this way, from the external perspective, a speaker's mind accounts for the awareness of the meaning of the NLEs which rely upon the external signs that provide information about these different internal emotional states (cf. Thibault 2004:171). On the other hand, from the internal perspective the internal state is the locus of self-referential information that the speaker's mind use to interpret and engage with others and with external worlds (cf. Thibault 2004:171). Thus, a speaker's mind increases information such as the integration of iconic and indexical signs to the symbolic sign, which goes with the changes in the external observable dynamic world that can be accessed by observers as signs of possible internal states (cf. Thibault 2004:171). For more explanation, in the current case of this study, we can say that speaker's mind increases information such as the integration of iconic and indexical signs to the emotive NLEs. In other words, we interpret the vocal expressions of the speakers as redounding (i.e. contextually integrating) with the internal emotional states and intentions (cf. Thibault 2004:171). The contextual redundancies are constructed between the emotional experiences, such as love, joy, surprise, anger, sadness, or fear, and clusters of body expressions such as the vocalisations that correspond to the mimicking actions (cf. Thibault 2004:171). So, the information is grounded in the speaker's mind in intrinsic awareness of the sign and provides models for possible actions in the world (Thibault 2004:171).

Based on the examination of the form of the Hijazi NLEs and their meanings of the emotive Hijazi NLEs in Section 8.2, emotive Hijazi NLEs are considered to be motivated semiotic signs. There is a non-arbitrary relationship between their contents and expressions based on a semiotic approach. This non-arbitrary relation is evident through the realisation of a third element, which refers to the different awareness of these emotive Hijazi NLEs. The body reflexes through the mimicking of the vocal actions that correspond with their phonological forms in specific situational contexts show indexical and/or iconic relationships that mediate between the emotive Hijazi NLEs and their emotional meaning. In the following section 8.7, I will summarise the result that the non-arbitrary iconic and indexical relationship between the vocalisations of the emotive Hijazi NLEs that are associated with similar forms are also associated with similar emotional meanings.

8.6 Summary and Result

In this chapter, based on the analysis of the participants' answers in Chapters 5, 6 and 7, which indicate the meanings of the emotive Hijazi NLEs, and based on the phonological articulations of the Hijazi NLEs that were represented by their parametric articulatory descriptions in Chapter 2, I have discussed the non-arbitrary relationship between the emotive Hijazi NLEs and their emotional meanings based on a semiotic approach.

This chapter strictly answer the research questions How do these emotive Hijazi NLEs associate with their emotional meanings? How do these emotive Hijazi NLEs show a non-arbitrary relationship with their emotional meanings?

Emotive Hijazi NLEs like all other semiotic signs have content (meaning) and expression (form). The relationship between the content and expression of the emotive Hijazi NLEs is non-arbitrary, as the emotive Hijazi NLEs are motivated by iconicity and indexicality of the vocal gestures. Their phonological vocalisations represent body reflexes, which are related to the speaker's current emotional states, through a mimicking of the vocal actions that correspond with their phonological forms in specific situational contexts. I have therefore discussed how the phonological vocalisations of the emotive Hijazi NLEs show the indexical and iconic relationship between their form and their emotional meanings. All the emotive Hijazi NLEs are indexes and icons, as they draw attention to the speaker's emotional state.

This discussion of the relationship between the emotive Hijazi NLEs and their emotional meanings was organised according to the emotional meanings of the NLEs, which were mapped onto Shaver et al.'s (2001) classification of basic emotions, including the positive basic emotion of love and joy, the neutral basic emotion of surprise, and the negative basic emotions of sadness, anger, and fear.

Under every emotional meaning of the NLEs, which were mapped onto Shaver et al.'s (2001) six basic emotions, I compared the emotive Hijazi NLEs' expression and content to ascertain whether the vocalisations of the Hijazi NLEs that are associated with similar forms are also associated with similar meanings. Thus, I discussed this non-arbitrariness of the emotive Hijazi NLEs in two parts. The first part examined the vocal gestures that correspond with the phonetic and phonological forms of the Hijazi NLEs. The second part attempted to show that gestures that are associated with similar forms are also associated with similar functions, which are represented by the emotional meanings outlined in Shaver et al.'s (2001) emotions classification.

As a result, I found that the content of a specific emotion has a meta-redundant relationship with the expression of the emotive Hijazi NLEs that are associated with this specific emotion. The emotive Hijazi NLEs that are associated with the same emotional meaning share some common concepts. In other words, from the description above, there seems to be a strong probabilistic relationship between the NLEs in specific situational contexts that are related to love, joy, surprise, anger, sadness, or fear. All the emotive Hijazi NLEs that occur in the same context of a specific emotion iconically and indexically draw attention to the speaker's current state of this particular emotion in a specific situation.

I found that the indexical and iconic relationship between the emotive Hijazi NLEs and their emotional meanings is presented in two ways. First, it is presented by the mimicking actions that are related to the speakers' emotional states that correspond with the phonological articulation of the Hijazi NLEs. Second, it can also be presented by the shape of the mouth during the articulation of the sounds that form the emotive Hijazi NLEs. These indexical and iconic meanings of mimicking actions and the shape of the mouth are parts of the minimal distinctive unit of the emotive Hijazi NLEs' meanings that illustrate the non-arbitrary relationship between the emotive Hijazi NLEs and their meanings. Based on Hjelmslev's (1963) concept of minimal distinctive units of meaning, which are structured in the content-substance, these acquire certain behaviours according to the specific situational

context. In other words, all the mimicking actions that correspond with the vocalisations of every group of emotive Hijazi NLEs that are associated with specific emotions show iconic representations, which in themselves are indexes for that specific emotion.

Chapter 9

Conclusion, Limitations, and Recommendations

9.1 Introduction

This chapter draws conclusions regarding the current research, showing the major findings obtained throughout the data analyses. The main goal of this work is to examine and describe how the emotive Hijazi NLEs associate with their emotional meanings and how these emotive Hijazi NLEs show a non-arbitrary (i.e. iconic and indexical) relationship with their emotional meanings. As shown in Table 8.1, I found that the vocalisations of the emotive Hijazi NLEs that are associated with specific emotions show iconic representations, which in themselves are indexes for that specific emotion. Semiotics was used to support this model, as this examines the non-arbitrary relationship between the phonological form of the emotive Hijazi NLEs and their emotional content.

In this chapter, I will answer the research questions that were set out in Chapter 1, with regard to the research hypothesis.

1. How can the emotive Hijazi NLEs be classified by their functions?
2. What do the emotive Hijazi NLEs communicate in Hijazi Arabic?
3. Based on the results of the questionnaire, are the emotive NLEs perceived and understood across the Hijazi community?
4. How do the emotive Hijazi NLEs associate with their emotional meanings? How do these emotive Hijazi NLEs show a non-arbitrary relationship with their emotional meanings?

As seen in Chapter 3, there are some hypotheses that were used to illustrate the non-arbitrary relationship between the emotive Hijazi NLEs and their emotional meanings, which I will summarise as follows.

With reference to Halliday's (1978) and Hjelmslev's (1963) frameworks, I argued that the emotive Hijazi NLEs are semiotic signs which show an interactional relationship between two orders of abstraction: the content plane (i.e. meaning) and expression plane (i.e. phonological form). The relationship between the content and expression of the emotive

Hijazi NLEs is non-arbitrary, as the Hijazi NLEs are motivated by the iconicity and indexicality of the vocal gestures.

The emotive Hijazi NLEs are sensory-motor productions. The speaker's body works as an essential resource for their meaning-making. Speakers use their body elements as a vehicle for determining emotional aspects to embody meaningful experiences for structuring the meaning and the phonological vocalisations of these emotive Hijazi NLEs. The mental, psychological, and physical elements in the human body are interrelated to produce the emotive Hijazi NLEs. The vocal gestures that were motivated by the speaker's emotion in a specific situational context and correspond with the articulation of the emotive Hijazi NLEs show iconic representations, which in themselves are indexes for that particular emotion.

The phonological forms of the emotive Hijazi NLEs partly mimic certain vocal actions tied to emotional aspects. Mimicry is defined as the idea of matching non-verbal bodily actions, such as vocal, facial, and gestural expressions, with the expresser's emotional states in specific events (Hess and Fischer 2017; Winkielman et al. 2015; see also Chapter 2 (2.3)). In this study, mimicry, which corresponds with the phonological forms of the emotive Hijazi NLEs, is the representation of the emotions that are associated with these NLEs. For instance, the Hijazi NLEs [uf:] and [ɔffu:] are formed using /f/, which mimics the action of blowing air out of the mouth, which indicates the emotion of anger. So, the mimicking action of blowing air out is not anger, but it is certainly an index for anger.

Ultimately, the indexicality and iconism behind the vocalisation of the emotive Hijazi NLEs suggest that the content and expression of the emotive Hijazi NLEs exist in a very tight meta-redundant relationship that depends on the context. The main concept of meta-redundancy focuses on the fact that specific patterns of Hijazi vocal expressions are more likely to be found in a specific situation, but there are always other patterns of Hijazi vocal expressions that might be found in this same specific situation. As seen in Table 8.1 in the previous chapter, groups of Hijazi NLEs that are associated with the same emotional meaning share common vocalisations.

In this chapter, I will re-examine these hypotheses in order to answer the research questions, as the results of the study, as seen in Table 8.1, provided plausible answers to the research questions. However, before that, I will present an overview of how the data for the current study was collected. I will then answer the research questions based on the theoretical

arguments and discussion. After that, I will discuss the contribution the study makes to this field, the limitations of the study, and recommendations for future research.

9.2 An Overview of the Data Collection for the Current Study

As seen in Chapter 4, due to a lack of glossaries or dictionaries of the Hijazi variety of Arabic, this study utilised a questionnaire-based methodology to investigate the meanings of 34 emotive Hijazi NLEs from the Hijazi community. Although I examined all 34 of these NLEs, space restrictions meant that only 27 of them could be discussed in this thesis. These 27 were the emotive ones that are associated with emotional meanings. The other seven, which I excluded, associate with meanings that are related to the speaker's mental states, including different desires and beliefs.

The emotive Hijazi NLEs that I discussed in this thesis were [m:], [Oʃ], [Oʃ], [həh], [afə], [ɔf], [ɔbba:], [ɔb], [wej], [wah:], [wal], [ju:], [uf:], [ɪf:], [ɔs:], [ʃw:], [ɔffu:], [ɪffi:], [ɪxxi:], [kɪx:], [jɛʃ], [aħ:], [ah:], [aj], [ax:], [l^w], [l^w|w|w^w] and [l | l | l].

Since these emotive Hijazi NLEs do not appear in Arabic dictionaries in general, or in Hijazi Arabic dictionaries in particular, it was necessary for me to collect the NLEs before carrying out the survey. As a native Hijazi-speaker living in Al-Hijaz region, I began to collect the Hijazi NLEs first-hand, using my own observations, in February 2015, before I had enrolled for my Ph.D. In order to do this, I noted the form of every NLE I heard by recording my own production of the NLE using Voice Notes on my phone, as well as recording the NLEs that I already knew of and used myself as a Hijazi speaker.

After I had collected the Hijazi NLEs, following two pilot studies, I designed an open questionnaire, which included only one main question, which was about the meanings associated with each Hijazi NLE. Each question included a video that reproduced the Hijazi NLE. The question, as translated from Arabic to English, was as follows:

“Please watch the following videos, listening carefully to their content, and then choose one of the following three options:

I have not heard this NLE before.

I know the NLE but do not know its meaning(s).

I know of the meaning of the NLE.”

A text box to allow the participants to fill in the meaning(s) of the NLEs that they knew accompanied the final option. Every recorded video of every Hijazi NLE was followed by the three options above.

The meanings of the selected Hijazi NLEs were elicited from 321 Hijazi speakers of different genders, ages, educational levels, and Hijazi sub-dialects. Although the aim of this study is not to examine the differences in awareness of the Hijazi NLEs by different demographics, I carried out a series of statistical tests to determine whether these NLEs and their meaning were recognised across the Hijazi community based on the participants' answers. The statistical test showed that the selected Hijazi NLEs and their meanings are known across the Hijazi speech community (see Chapter 5 (5.2)).

In the current study, the meanings of the 27 emotive Hijazi NLEs that were collected from the Hijazi community underwent semiotic analysis to show the non-arbitrary relationship of the emotive Hijazi NLEs and their emotional meanings. There are a multitude of potential approaches that are used to support this model. As discussed in Chapter 2, the emotive Hijazi NLEs are considered to be sensory-motor productions. Thus, in structuring the Hijazi NLEs, the body is a crucial resource for meaning-making. I mapped their emotional meaning in terms of Shaver et al.'s (2001) emotions classification schema. In Chapter 3, I reviewed the literature of semiotic theory with regards to the non-arbitrary relationship between Hijazi NLEs and their meanings. The following section will answer the research questions based on the theoretical argument that I used to discuss the non-arbitrariness of the emotive Hijazi NLEs and their emotional meanings.

9.3 Outline of Theoretical Arguments and Discussion

First of all, as seen in Chapter 8, I found that the 27 emotive Hijazi NLEs have a non-arbitrary (iconic and indexical) relationship with their emotional meanings. In other words, I found that the vocalisations of every group of emotive Hijazi NLEs that are associated with specific emotions show iconic representations, which in themselves are indexes for that specific emotion; see Table 8.1. Thus, the findings provided reasonable answers for the three main research questions that were set out in Chapter 1. I will summarise my answers based on the theoretical arguments that I used to discuss the non-arbitrariness of the emotive Hijazi NLEs and their emotional meanings as follows:

1. How can these emotive Hijazi NLEs be classified by their functions?

The emotive NLEs are defined as short tokens ('noisy non-words') that can independently constitute utterances and stand by themselves to signify emotional states, depending on the specific communicative situation in a particular socio-semiotic context. The emotive Hijazi NLEs are semiotic signs. In semiotics, a sign is anything that realises knowledge of something else (Peirce 1895; EP 2: 13). Signs communicate meanings. Emotive Hijazi NLEs signal emotional states and hence are signs.

Like any semiotic sign, the emotive Hijazi NLEs show an interactional relationship between two orders of abstraction: the content plane (i.e. meaning) and expression plane (i.e. phonological form). Semiotic signs are usually arbitrary: their meaning is not predictable from the form (Saussure 1959: 69). However, there are some exceptions for some signs such as the emotive NLEs that are motivated by the speaker's emotion. Emotive Hijazi NLEs are intimately associated with their vocalisation. There are visual and acoustic resemblances between the vocalisation of these NLEs and their emotive meanings. In order to understand this resemblance between the form and meanings of the emotive Hijazi NLEs, I will examine the structuring of the emotional meanings and the phonological forms of the emotive Hijazi NLEs by answering the following question.

2. What do these emotive Hijazi NLEs communicate in Hijazi Arabic?

In order to answer this question, it was necessary to examine the structure of the meanings of these spoken signs. Chapter 2 described the structure of emotional meanings of the Hijazi NLEs, and the structure of their phonological forms. In Chapters 5, 6, and 7, I mapped the recognition of the emotional meanings given by the participants in the questionnaire onto Shaver et al.'s (2001) emotions classification schema. In Chapter 8, I examined the non-arbitrary, or the partly non-arbitrary, relationship between the emotional meanings provided by the participants and the phonological forms of the emotive Hijazi NLEs. Table 8.5 summarises how the vocalisations of the emotive Hijazi NLEs that are associated with similar forms are also associated with similar emotional meanings. Therefore, in this section, I will present an overview of the structure of both the meanings and forms of the emotive Hijazi NLEs, as both of these are needed to illustrate the non-arbitrariness of the spoken signs. To be precise, I will go over how the meanings of the emotive Hijazi NLEs are mapped onto emotions, and how their phonetic and phonological forms are structured. This provided a

useful basis to discuss the non-arbitrary relationship between the form and the meaning of the emotive Hijazi NLEs.

Firstly, depending on the context, these emotive Hijazi NLEs are sound sequences that give a voice to the speaker's emotions. Through these emotive Hijazi NLEs, speakers express their emotional states. All of the emotive Hijazi NLEs, except [ʃw:], [ɔs:], are associated with different emotions, as they fulfill the speech function of a statement in which the speaker gives information. Through the speech function of the statement, the speaker is stating that they are experiencing a particular emotion, and they are associated with this through the NLEs. In other words, the emotive Hijazi NLEs realise complex emotional content that contains [the subject] + [the emotional content] + [the speech function]. For example, speakers can direct expression or emotion towards what they are talking about, as in the phrases 'I am happy', 'I am sad', 'I am angry', etc. In this way, the statement speech function constitutes an expressive or emotive speech function. In other words, statements arise as responses to internal emotional needs. They refer to how speakers express their emotional state of love, joy, surprise, sadness, anger, and fear.

There are eight emotive Hijazi NLEs, including [ʃw:], [ɔs:], [ah:], [ɔffu:], [kix:], [ɔb], [ɔbba:], and [w|w|w], which fulfil directive speech functions such as commanding and offering. These eight Hijazi NLEs arise as responses to speakers' internal emotional needs, as they demand goods or services from, or give them to, others.

Through statement or other directive speech functions, all the Hijazi NLEs are associated with the emotional content of, for example, 'I am angry, sad, happy, annoyed, etc.' through the speech functions of stating, commanding, or offering. For example, in Chapter 7, my analysis showed that [kix:] is associated with the content of 'I will be angry if you touch the disgusting thing' through the speech function of warning, which is a type of command. So, [kix:] is the equivalent of saying, 'I am warning you to move away from the disgusting things that make me angry'.

Although the emotive Hijazi NLEs are associated with emotional meanings and fulfil different speech functions, the most important point which shows their arbitrariness is their emotional meanings rather than their speech functions. I therefore mapped the emotional meanings of the 27 emotive Hijazi NLEs in terms of Shaver et al.'s (2001) emotions classification schema, which includes six basic emotions: love, joy, surprise, anger, sadness, and fear. The basic emotions can be categorised under superordinate categories including

positive, neutral, and negative emotions; see Chapter 2 (2.2). It should be noted that the emotion of surprise is the only neutral basic emotion, which is neither negative nor positive (Shaver et al. 2001). Also, surprise can be positive and negative in some situational contexts (Shaver et al. 2001). Because of that I suggested that surprise could be classified as mixed emotion rather than just a neutral one.

Table 9.1 summarises the prototypical meanings, identified from the participants' answers, associated with the emotive Hijazi NLEs; as shown in Chapters 5, 6, and 7 .

Table 9.1: Summary of the Basic Meanings that are Associated with the Emotive Hijazi NLEs

Emotive Hijazi NLEs	Superordinate	Basic emotion	The prototypical meanings that encompassed all the participants' answers that had the same content of the basic emotion that are associated with the emotive Hijazi NLEs
[Oʔ]	Positive	Love	Love, affection, admiration, liking and adoration towards the looks, behaviour and actions of the self, or of other people, or towards an object.
[m:]			Love, affection, admiration, liking and adoration towards the looks, behaviour and actions of other people or towards an object.
[Oʔ]	Positive	Joy	The joy, pride and triumph towards oneself or other people. It could include a sense of egotism and arrogance. It is more related to people and their actions.
[m:]			The gustatory joy or the joy of tasting food.
[wej] [wal] [ɔb] [ɔf]	Positive, Negative, or Neutral	Surprise	I am surprised by a sudden unexpected event (i.e. not bad, and not good, just unexpected), or by people who did unexpected things.
[wej] [wal] [wah:] [ɔb] [ɔbba:] [ɔf]			I am shocked by a sudden bad and unexpected event, or by people who unexpectedly did bad things.
[ju:] [lʷ w w]			The negative surprise arising from envy.
[wal] [ɔb]			I am surprised and disappointed by something or someone's actions and reactions.
[afə]			

Emotive Hijazi NLEs	Superordinate	Basic emotion	The prototypical meanings that encompassed all the participants' answers that had the same content of the basic emotion that are associated with the emotive Hijazi NLEs
[kix:] [ixxi:]	Negative	Anger	I am disgusted.
[ɔffu:] [iffi:] [if:] [uf:] [ixxi:]			This smell is disgusting
[kix:] [ɔffu:] [w w w w]			I am warning a child not to touch things that makes me angry
[w w w w]			I am warning a person – adult or child – not to do bad things that makes me angry.
[if:] [uf:] [ju:] [w]			I am getting annoyed and angry towards someone, something, or some action.
[j ^w :] [ɔs:]			I am commanding you to stop talking or making a noise because this is making me annoyed and angry.
[ixxi:] [l l l]			I feel contempt and disdain for someone's actions or behavior.
[həh]	Negative	Anger	The meaning of contempt (T) > disgust (S) > anger by underestimating others' abilities or despising and disdain someone or something.
[Oʔ]			It conveys the emotional meaning of dislike (T) > rage (S) > anger (B).
[ax:] [ah:]	Negative	Sadness	The sadness arising from pain in general (the participants did not specify what kind of pain, i.e. physical or psychological).
[ax:] [ah:] [aj] [ah:]			The sadness arising from pain resulting from a burn, sickness, and tiredness, or arising from physical stress and exhaustion.
[ax:] [ah:] [ah:]			The sadness arising from psychological stress, heartbreak, regret, remorse, neglect, homesickness, and nostalgia.
[afə]			I did not expect that you would think of me like this; you have disappointed me.
[Oʔ][l l l]	Negative	Sadness	I am sad about someone or about some events.

Emotive Hijazi NLEs	Superordinate	Basic emotion	The prototypical meanings that encompassed all the participants' answers that had the same content of the basic emotion that are associated with the emotive Hijazi NLEs
[ju:] [ɔbba:]	Negative	Fear	Scared and worried because of a negative and fearful situation.
[ɔbba:]			I am offering assistance to and assisting a child with physical activities, such as standing up.
[ɔb]			I am warning and advising someone away from a danger that physically hurts, such as falling, tripping, and slipping.

Based on Shaver et al.'s (2001) emotions classification, I grouped together all the Hijazi NLEs that are associated with love and joy under 'positive emotive Hijazi NLEs', all the Hijazi NLEs relating to the meanings of surprise under 'mixed emotive Hijazi NLEs', and all the Hijazi NLEs relating to the meanings of anger, sadness, or fear under 'negative emotive Hijazi NLEs'. I then analysed the meanings of the emotive Hijazi NLEs in Chapters 5, 6, and 7, in terms of Shaver et al.'s (2001) superordinate emotions classifications.

According to Shaver et al.'s (2001) emotions classification, the six basic emotions have the same prototypical meanings across cultures, since they are tentative generalisations or initial encodings of the cognitive representation of prototypical emotions; see Chapter 2 (2.2). They show innateness and universality, as they have similar action tendencies, similar mental and abstract antecedents, and similar social and interpersonal functions across cultures (Shaver et al. 2001: 205). They are considered to be components of humans' cognition, mental states, perceptions, and appraisals that are associated with specific response patterns (Shaver et al. 2001: 205).

Basic emotions are prototypical emotions that most people consider to be the most distinct (Shaver et al. 2001). Thus, because of their innateness and universality, I used the basic emotions classification as a tool to map the Hijazi NLEs with to emotional meanings. Although it is an Anglophone emotions classification schema, I used Shaver et al.'s (2001) emotions classification for this mapping because there is no existing emotions classification schema for Arabic. I therefore had no option but to use an Anglophone emotions classification as a tool for the form-meaning mapping of the emotive Hijazi NLEs. Furthermore, despite this study being based on Hijazi Arabic, an Anglophone emotions

classification can still be used to map the form-meaning of the NLEs, as these spoken signs are universal, or near-universal; they are less conventional than the other lexicalised expressions of emotion and their emotive meanings are less language-specific (cf. Wierzbicka 1992: 166). Furthermore, the basic emotions themselves are near universal (Shaver et al 2001).

Besides the structuring of the emotional meanings, Chapter 2 described the structure of the phonetic and phonological forms of the 27 emotive Hijazi NLEs. It provided detailed descriptions of the articulations of every emotive Hijazi NLE. This consists of two kinds of articulation, namely: (i) the emotive Hijazi NLEs that are formed by pulmonic sounds, and (ii) the emotive Hijazi NLEs that are formed by non-pulmonic sounds; see Chapter 2 (2.6). Every emotive Hijazi NLE is accompanied by a diagram to show the sequence of events of the segments underlying a particular NLE. The description shows the movements of specific articulators of the sounds that structure the Hijazi NLEs, specifically, the vocal folds, the soft palate, the jaw, the lips, and the tongue with its different parts including the tip, the blade, the back, and the root. This phonetic description of the parametric articulation of the Hijazi NLEs allowed me to see the similarities between the forms of the Hijazi NLEs that are associated with similar emotional meanings.

The key point that I was focusing on by mapping the meanings onto Shaver et al.'s (2001) emotions classification and describing the parametric articulation of the forms of the emotive Hijazi NLEs was to illustrate the iconic and indexical relationship between those spoken signs and their emotional meanings. In other words, after I had grouped, categorised, and mapped the collected emotional meanings of the emotive Hijazi NLEs onto Shaver et al.'s (2001) emotions classification, I found that the emotive Hijazi NLEs that have related meanings also share similar expressions or forms presented by the phonological articulations.

In Chapter 8, based on the parametric articulations of every emotive Hijazi NLE, I presented different figures that showed the phonetic mapping of the Hijazi NLEs that are associated with the same emotional meaning (see Figures 8.1, 8.2, 8.3, 8.4, and 8.5), which enabled me to find the vocalisations shared by every group of emotive Hijazi NLEs that are associated with similar emotional meanings. This demonstrated the non-arbitrary relationship between those Hijazi NLEs and their emotional meanings. For example, all the Hijazi NLEs [ah:], [ax:], [ah:], [aj:], and [afə], which are associated with the emotional meanings of sadness, share the phonological form of the initial sound /a/. Another example is that the

Hijazi NLEs [m:] and [Oʃ], which are associated with love, are produced with labial sounds such as [m] and [O]. For more examples, see Table 8.1, which summarises the findings, which show that every group of emotive Hijazi NLEs that are associated with the same emotional meaning also share some common vocalisations. In other words, in specific contexts, we can predict which emotive Hijazi NLEs will associate to this specific emotional meaning.

Before going through the relationship between the emotive Hijazi NLEs that share similar vocalisations and share similar emotional meanings, which appears in the answer to question 4 – *How do the emotive Hijazi NLEs associate with their emotional meanings? How do these emotive Hijazi NLEs show a non-arbitrary relationship with their emotional meanings?* – I would like to go through the data analysis to see how the emotive Hijazi NLEs are recognised across the Hijazi community as this appears in the answer to question 3 below.

3. Based on the results of the questionnaire, are these emotive NLEs perceived and understood in the Hijazi community?

As discussed in Chapter 4 (4.4.2), in order to examine the non-arbitrariness of the emotive Hijazi NLEs, I designed an open questionnaire to collect the meanings of the Hijazi NLEs from random collection of Hijazi speakers with different social backgrounds. This survey considers recognition and meaning association of the Hijazi emotive NLEs. Thus, it should be noted that, due to limited space and time, the current study has focused only on examining the non-arbitrary relationship between the content and expression of emotive Hijazi NLEs, and accordingly, its conclusion and results are confined to this aim. The aim of this study was not to ascertain how participants with different social variables responded to the Hijazi NLEs and their meanings, as this would require additional research beyond the scope of this thesis. However, I carried out statistical tests to ensure that all the Hijazi NLEs were known across the Hijazi speech community, see Chapter 5 (5.2). Consequently, The data analysis, in Chapters 5, 6, and 7, shows that the Hijazi NLEs and their meanings are commonly recognised across the Hijazi community.

Thus, based on the data analysis and statistical findings that were presented in Chapters 5, 6, and 7, and based on the findings of the study, which were presented in Table

8.1, I will demonstrate how the emotive Hijazi NLEs show a non-arbitrary relationship with their emotional meanings by answering the following questions.

4. How are these emotive Hijazi NLEs associated with their emotional meanings? How do these emotive Hijazi NLEs show a non-arbitrary relationship with their emotional meanings?

I found that the vocalisations of every group of emotive Hijazi NLEs that are associated with specific emotions show a non-arbitrary (iconic and indexical) relationship between the forms and meanings of the emotive Hijazi NLEs. Thus, I used some semiotic approaches that support this model. With regards to Halliday (1978) and Hjelmslev (1963), I consider the emotive Hijazi NLEs to be stratified semiotic signs that have an internal dynamic abstract system. Emotive Hijazi NLEs demonstrate an interactional relationship between two orders of abstraction: content (i.e. meaning) and expression (i.e. phonological form). Both the expression and content plane have a form and a substance, as Hjelmslev (1963) claims; or semantics and lexicogrammar, phonology and phonetics, as Halliday and Matthiessen (2014) claim. Thus, every sign is structured by four related layers. The same can be said for the Hijazi NLEs as a sign system.

Based on Halliday and Hjelmslev's (1963) concept of stratification, the content of emotive Hijazi NLEs includes minimal distinctive units of meaning based on a specific situational context. These minimal distinctive units of meaning are represented by the emotional meanings (i.e. the semantic or the content-substance) besides the vocal gestures that accompany these emotions, which in themselves are used to explain the non-arbitrary relationship between the emotive Hijazi NLEs and their meanings. For example, the Hijazi NLEs [aħ:], [ax:], [ah:], [aj], and [afə], which are associated with the emotion of sadness, are articulated with open and unrounded lips, which correspond with the phonological form of the sound /a/. Thus, the vocal gestures of opening the mouth mimic the expressions of crying or weeping, as these actions indicate sadness (c.f Darwin 1872: 148-152, Shaver et al. 2001: 44-45). As discussed in Chapter 2, mimicry here is the representation of the emotions. For instance, crying is not sadness, but it is certainly an index for sadness; laughing is not joy, but it is certainly an index for joy, etc. In other words, mimicry refers to the matching of the vocal gestural expressions with the expresser's emotional states in specific situational

contexts. These mimicking actions play an important role in structuring the emotional meanings of the emotive Hijazi NLEs. For more examples, see Table 8.1.

In addition, the content of emotive Hijazi NLEs includes the lexicogrammar stratum or the content-form, which refers to the process of wording that refers to how the NLEs are expressed and performed by the speaker. I therefore claimed that, though the emotive NLEs are not ordinary lexical items in that they are marked for tense, they are part of the lexicogrammar in that they represent wording which realise emotional thoughts.

Furthermore, I also argued that they are the most delicate grammatical element, realising various speech functions. For example, the Hijazi NLEs [aħ:], [ax:], [ah:], [aj], and [afə] are associated with the speaker's emotional state of sadness and fulfil the speech function of statement. As discussed in Chapter 3, a statement gives information. In the case of the emotive Hijazi NLEs, through the speech function of statement, the speaker is stating that they are experiencing a particular emotion, and they realise this through the NLEs, such as the emotion of sadness, which is associated with [aħ:], [ax:], [ah:], [aj], and [afə]. So, the speaker uses these NLEs to direct expression or emotion towards what they feel, as in the propositional content 'I am sad'.

As seen in Chapter 3 (3.3), Halliday claims that, in real-life situations, there are four primary speech functions: offer, command, statement, and question. These four speech functions correspond with two fundamental types of speech role: (i) giving, and (ii) demanding, which are related to the nature of two commodity exchanges: (a) goods and services, or (b) information (cf. Halliday and Matthiessen 2014: 135). In this study, I found that the emotive Hijazi NLEs are associated with the speaker's emotional state and fulfil different speech functions, including statement, and other directive speech functions, such as commanding and offering. Based on the participants' answers, as seen in Chapters 5, 6, and 7, I found that all emotive Hijazi NLEs, except [ʃw:], and [ɔs:], are associated with different emotions, as they fulfil the speech function of a statement, in which the speaker is stating that they are experiencing a particular emotion, which they associate by means of the NLEs. For example, speakers could direct expression or emotion towards what they feel, so using an NLE is like saying 'I am giving information about my feeling of happiness', 'I am giving information about my feeling of sadness', etc.

Based on the participants' answers, there are eight emotive Hijazi NLEs, including [ʃw:], [ɔs:], [aħ:], [ɔffu:], [kix:], [ɔb], [ɔbba:], and [w|w|w|w], which are associated with different

emotional meanings and fulfil directive speech functions such as commanding and offering. They arise as responses to the speaker's internal emotional needs, as the speaker demands goods or services from, or gives them to, others. For example, [f^w:] and [ɔs:] are associated with the emotion of anger and fulfil the speech function of command. They are like saying, 'I am commanding you to stop talking or making a noise because this is making me annoyed and angry'. For more examples, see Chapter 7 and the analysis of the NLEs [aħ:], [ɔffu:], [kix:], [ɔb], [ɔbba:], and [w^w|w^w|w^w].

In the current study, I did not investigate whether these speech functions play a role in the non-arbitrary relationship between the emotive Hijazi NLEs and their emotional meanings, as I found that the vocal gestures that are motivated by the speaker's emotional experience play the most obvious role in illustrating the non-arbitrariness of the emotive Hijazi NLEs. However, the role of the speech function needs more investigation in future research. I did not find that vocal gestures are motivated by the speech functions. The role of the speech functions in relation to the Hijazi NLEs may be motivated by other acoustic features such as prosody and intonation, and I did not focus on this point in this study. Therefore, the role of the speech function needs more investigation.

Furthermore, the expression of emotive Hijazi NLEs includes the composing stratum or the expression-substance, which refers to the internal organisation of the speech sounds into the formal structures of the Hijazi Arabic system. It also contains the sounding stratum or the expression-form, both of which refer to taking sound as the basic interface with the body's resources for speech. In order to answer research question number 2, to describe the expression of the emotive Hijazi NLEs, I presented detailed descriptions of the parametric articulations of every emotive Hijazi NLE, with diagrams, in Chapter 2 (2.5). I also presented different figures, which showed the phonetic mapping of the Hijazi NLEs that are associated with the same emotional meaning (see Figure 8.1, 8.2, 8.3, 8.4, and 8.5), to find the vocalisations that are shared by every group of the emotive Hijazi NLEs that are associated with a similar emotional meaning. This demonstrated the non-arbitrary relationship between those Hijazi NLEs and their emotional meanings.

The key focus here is the mapping of the content and expression of the emotive Hijazi NLEs to illustrate the iconic and indexical relationship between those spoken signs and their emotional meanings. In other words, there are groups of motivated NLEs whose expressions can predict or realise their content of specific emotional meanings in specific situational

contexts. During the production of Hijazi NLEs, the speaker simultaneously mobilises both the content and expression planes together with both their forms and substances. All minimal units of the Hijazi NLE meanings, which include the emotions, and the body reflexes through the iconic and indexical mimicking of the vocal actions that correspond with their phonological forms, put forward a content that is realised as a valid signified of the emotive Hijazi NLEs.

As discussed in Chapter 8, I found that the articulation of a specific group of emotive Hijazi NLEs that index a specific emotion is not random but shows a non-arbitrary (iconic and indexical) relationship to a specific situational context. The shape of the mouth that lies behind the mimicking actions, which in themselves correspond with the phonological forms of the emotive Hijazi NLEs, shows its iconic representations, which are themselves indexes for a specific emotion.

For instance, the Hijazi NLEs [ʕʕ] and [m:] are produced with the labial sounds [ʕ] and /m/. They are produced with retracted upwards lips with a smiling position that accompany the production of these labial sounds. The corners of the mouth go up, as this mimics smiling. The mimicking action of smiling is a representation of the emotions of love and joy (Ekman 2003: 43; Darwin 1872: 200). It is not love and joy, but it indexes these emotions. Thus, the vocalisations that correspond with the mimicking action of smiling show an iconic representation, which in itself is an index for love and joy.

From the example above, we can see that there is no one-to-one relationship between the form and the meanings of the emotive Hijazi NLEs that are associated with the positive emotions of love and joy. However, there are multi-relations or meta-redundant relations, in which the speaker links some emotional meanings to non-random expressions or vice versa. For example, in specific situational contexts, the contents of love and/or joy are associated respectively with expressions of the Hijazi NLEs [ʕʕ] and [m:]. Thus, meta-redundancy indicates that, in specific contexts, we can predict that the Hijazi NLE [ʕʕ] and [m:] indicate the love or joy. As Halliday (2002: 356) states “This relationship is symmetrical; ‘redounds with’ is equivalent both to ‘realizes’ and to ‘is realized by’”. So, there is a meta-redundant relationship between the expressions and contents of the NLEs that realise the positive emotions of love and joy, and this is also the case with the other Hijazi NLEs that realise different emotional meanings. For more explanation, see Table 8.2, which summarises the findings of this study.

As discussed in Chapter 3, meta-redundancy indicates “the relationship through one element on one level redounding with, co-occurring with, another element on a different level” (Taverniers 2011: 56). It lies behind the stratification or the idea of hierarchical relationships, i.e. relations of relations of relations (Lemke 2015: 120; see also Lemke 2005). In this way, with regard to meta-redundancy, we can relate the meaning that is related to our emotions not only with a sound sequence in a specific phonological structure, but also with the vocal motors of producing this specific phonological structure in a specific context (cf. Halliday and Matthiessen 2014: 25). Thus, the relationship between the indexical and/or iconic NLEs and their meanings is not a one-way relationship (i.e. redundant), but rather it is a multi-way relationship (i.e. meta-redundant). Also, in specific contexts, the realisational relationship between content and expression of the Hijazi NLEs is predictive rather than determinative.

9.4 Contribution of the Study

This study is the first to focus on the Arabic language which examines the non-arbitrariness of the emotive Hijazi NLEs. Furthermore, it is the first in the field to examine in depth the non-arbitrariness of such linguistic items (i.e. emotive Hijazi NLEs) using potential semiotic approaches such as Halliday’s (1978) and Hjelmslev’s (1963) stratified model. As seen in Chapter 1, where the research gap was discussed, most existing research in this area has involved investigating the semantics and pragmatics of the ‘noisy non-words’ that can independently constitute utterances and stand by themselves to signify emotional and mental aspects depending on the specific situational and socio-cultural context (see Ward 2000a, 2000b, 2006; Scherer 1994; Stang 2016; Goddard 2014; Poggi 2009; Wierzbicka 1992; Ameka 2006; Wharton 2003; and Goddard 2014, to name only a few). Illustrating these ‘noisy non-words’, or NLEs as I call them in this study, as semiotic signs required more investigation. Therefore, in this research, I carried out this investigation and I examined the emotive Hijazi NLEs as semiotic signs that have a non-arbitrary (i.e. iconic and indexical) relationship with their meanings in specific situational and socio-cultural contexts. There is no doubt that some researchers have indicated the non-arbitrary relationship between these NLEs and their meanings, but they mention this point briefly without going into detail or investigating how and why ‘noisy non-words’ have an iconic and indexical relationship with their meanings.

For example, Saussure (1959) claims that primary interjections, which are similar to NLEs, as discussed in Chapter 1, are non-arbitrary signs, as they are “spontaneous expressions of reality dictated [...] by natural forces” (Saussure 1959: 69). Stang (2009: 47) also claims that primary interjections are non-arbitrary linguistic items, as they are a “rendering of body reflexes like shivering or retracting (e.g. *Brrr! Ugh!*)”. In addition, Wierzbicka (1992: 176) claims that some of the primary interjections “appear to be linked with certain physical gestures and [...] this may well be the reason why they can be perceived as ‘natural’ (that is, non-arbitrary)”. Goddard (2014: 59) asserts that the unusual articulation of the primary interjections includes “iconic-imitative components”. This concept, as presented by Goddard (2014), is what motivated me to undertake this research, and led me to decide to illustrate the non-arbitrariness of ‘noisy non-words’, or NLEs as I call them in this study, that are associated with emotional meanings in different Hijazi socio-cultural contexts.

This thesis, therefore, makes an important contribution to knowledge about the non-arbitrariness of the emotive NLEs, in semiotic frameworks. Its results not only contribute to our understanding of the non-arbitrariness of the emotive Hijazi NLEs, but also offer additional evidence in relation to the universality of the emotive NLEs. This is because these tokens are semi-universal, less conventional (i.e. their meanings are predictable based on their forms) than the other lexicalised expressions of emotion, and their emotive meanings are less language-specific (cf. Wierzbicka 1992: 166).

Being the first study of the non-arbitrariness of the emotive NLEs in Arabic, this research also contributes to the study of Arabic dialects. The semiotic framework has proved to be applicable to these emotive NLEs, and, accordingly, it is a strong possibility that it would work for the emotive NLEs in other dialects of Arabic or in other languages. This study may therefore stimulate further studies of emotive NLEs in the Arab world or even universally. Emotive NLEs are natural, near-universal signs as their meanings rely entirely on universal or near-universal emotive concepts that are produced by emotional vocal gestures, and hence they can display a high degree of linguistic similarity. Nevertheless, this study has examined NLEs in Hijazi Arabic and more work is required to know if the same relationships hold in other languages to examine the universality of these NLEs.

The methodological framework used for collecting the meanings of Hijazi emotive NLEs has proved also to be the most effective for collecting the meanings of these linguistic items’ meanings in the absence of Hijazi dictionaries. This is important because there are no

dictionaries for most modern Arabic dialects, including the Hijazi dialect. This framework not only successfully collected the meanings of these NLEs, but it also uncovered many potential future approaches to these emotive Hijazi NLEs.

To summarise, this study has contributed to the basic and fundamental knowledge required to enable future research into these NLEs from a semiotic perspective to be carried out. It has contributed to the basic knowledge in that the emotive Hijazi NLEs are semiotic signs that have two orders: content (meaning) and expression (form). The relationship between these two orders is non-arbitrary; the emotive Hijazi NLEs are motivated by iconicity and indexicality of the vocal gestures. Their phonological vocalisations represent body reflexes that are associated with the speaker's emotional states, through a mimicking of the vocal actions that correspond with their phonological forms in specific situational contexts.

9.5 Implications for Future Study

Due to limited space and time, this study has focused on only one type of Hijazi NLE, which is the emotive Hijazi NLEs. This means that this study did not investigate the cognitive Hijazi NLEs that are associated with mental states such as understanding, thinking, desires, beliefs, etc., nor did it include an investigation of the phatic Hijazi NLEs or conative Hijazi NLEs that are associated with the speaker's mental attitude resulting from mental conditions, such as understanding, thinking, desires, beliefs, etc. and fulfil different directive speech functions such as commanding, questioning, and offering.

Thus, in future research, using the same methods as those used in this study and a semiotic approach, I would explore whether the vocalisations of every group of the cognitive, phatic, and conative Hijazi NLEs that are associated with specific mental aspects show iconic representations, which in themselves are indexes for that specific mental aspect. Moreover, I would explore other possible acoustic features, such as prosody and intonation, which show the iconic and indexical relations between the Hijazi NLEs and their speech functions, including statement, commanding, questioning, and offering.

On the other hand, although the basic emotions are universal, cross-linguistic research on emotion shows that there are differences in conceptualising the delicacy emotions (i.e. the secondary and tertiary) in different cultures (Shaver et al. 2001; El-asri 2018: 51). Because

there is no Arabic emotions classification schema to avoid the limitations of cultural differences between the delicacy emotions, I looked for an Anglophone emotions classifications schema which has been used in previous Arabic studies. As noted on p.p 28-19 El-asri (2018) used Shaver et al.'s (2001) emotions classification as he believes that it is one of the most popular emotions frameworks used in linguistic studies (El-asri 2018). I also found that Shaver et al.'s (2001) emotions classification works as a tool for mapping the Hijazi NLEs and their emotional meanings. I did not find any difficulty in the process of mapping. However, for future research in pragmatics, it is useful to explore the prototypical emotions categorisation in Hijazi Arabic, or at least in the Arabic language.

Furthermore, in future research, I would explore gender, age, educational levels and sub-dialect differences in recognising the Hijazi NLEs in the Hijazi community in more detail. In other words, I would explore whether there were different but overlapping uses between the various subgroups.

Also, as the current research considers recognition and meaning association, not the use of these NLEs, I would explore the use of these NLEs in the Hijazi community in the future by recording speakers' actual use of these forms. For example, I would go deeply into investigating the use of the bilabial clicks, which are produced by lips with a smiling position to express positive emotions and with an unsmiling position to express negative emotions. Mr Masood and Miss Alshahrani, who were the experts that validated the accuracy of the Hijazi NLE that presented in the videos which I used in the survey, and I initially recognised this concept.

In the end, we can say that emotive NLEs are very interesting linguistic items, and they deserve further research, especially from an experimental point of view. They are commonly adhered to in everyday life. Speakers use them through their everyday speech, as they perform important functions. On the one hand, semiotically, I found that emotive NLEs can be considered to be voices of the speaker's emotional state. On the other hand, they may also carry out significant practical and social functions, which I aspire and hope to be my future research.

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Appendices

Appendix A: Sample of the Survey in Arabic

المصطلحات الصوتية في اللهجة الحجازية: دراسة صوتية دلالية

المصطلحات الصوتية في اللهجة الحجازية: دراسة صوتية دلالية

جامعة كارديف
كلية اللغة الإنجليزية والاتصالات والفلسفة وأبحاث اللغة

بسم الله الرحمن الرحيم

أختي الكريمة / أخي الكريم

السلام عليكم ورحمة الله وبركاته

يعد هذا النموذج وسيلة جمع البيانات الأساسية لبحث رسالة دكتوراه في اللغويات بعنوان: التعبيرات الصوتية في اللهجة الحجازية- در

يستغرق إكمال هذا الاستبيان قرابة ٧-١٠ دقائق

يوجد سؤال واحد فقط لعدة تلميحات صوتية حجازية

أتمنى دعمكم من خلال المشاركة في هذا الاستبيان وإعادته إلى الباحثة من خلال الضغط على زر "إرسال" في آخر الاستبيان. عند

يرجى الإجابة على الأسئلة التالية

الرجاء اختيار الجنس

ذكر

أنثى

الرجاء اختيار الفئة العمرية التي تنتمي/تنتهين إليها

١٨-٢٥

٢٦-٣٥

٣٦-٤٥

٤٦-٥٠

٥٦ وما فوق

الرجاء اختيار اللهجة الحجازية التي تكلمت/تكلمتني بها

- اللهجة البدوية
 اللهجة الحضرية
 ما بينهما

الرجاء اختيار المؤهل التعليمي

- ابتدائي
 متوسطة
 ثانوية عامة
 البكالوريوس
 الماجستير
 درجة الدكتوراه
 غير متعلم

فضلاً، يرجى مشاهدة مقطع الفيديو التالية والإستماع بعناية إلى محتوياتها . تم اختيار/أي أحد العبارات الثلاثة المعالجة لكل مقطع فيديو
١- لم أسمع بهذا المصطلح الصوتي من قبل
٢- سمعت به ولكن لا أعرف معناه
٣- سمعت به وأعرف معناه
الخيار الأخير يسجبه مربع نص لكتابة ما تعرفه من معاني

المصطلح الصوتي ١



إجابة المصطلح الصوتي ١

- لم أسمع بهذا المصطلح الصوتي من قبل
 سمعت به ولكن لا أعرف معناه
 سمعت به وأعرف معناه

إذا لديك أي تعليق أو اقتراح أو رأي، الرجاء كتابته في المربع التالي (اختياري)

تفضلو بقبول وافر الشكر و التقدير على مشاركتكم

لمزيد من المعلومات ، يرجى إرسال بريد إلكتروني

للباحثة: مشاعل الساعدي

mashael.assaadi@gmail.com

أو لمشرفها الدراسي: د. جيرارد أويبرادي

OGradyGN@cardiff.ac.uk

إرسال

I will only add the first two pages and the last page of the survey. The first and second pages include a description of the survey for the participants and general questions about the participant's age, gender, educational background, and the Hijazi dialect spoken. The second page of the survey also includes the main task of the survey, which is:

“Please watch the following videos, listening carefully to their content, and then choose one of the following three options:

I have not heard this NLE before.

I know the NLE but do not know its meaning(s).

I know of the meaning of the NLE.”

The final option was accompanied by a text box to allow the participants to fill in the meaning(s) of the NLEs that they knew. The final page includes text box for the participant's comments and the emails of the researcher and her supervisor. All the other pages in between included the three options of the main question, which were repeated after every recorded video of every Hijazi NLE. The following link includes the videos of the emotive Hijazi NLEs that are attached in the survey:

https://drive.google.com/drive/folders/1huOmcTG6-4yPHILjU_H_4UB2mOTxCUir

Appendix B: A Sample of the Survey in English

Cardiff University
School of English, Communication
and Philosophy Language and Communication Research

Dear Ms/Mr,
Peace be upon you and Allah's mercy and blessings

This survey is designed for collecting information for a Ph.D. in linguistics, entitled **The Non-Lexical Expression in Hijazi Arabic: A Phono-semiotic Study**.

It will take 5-10 minutes to complete.

There is only one question for several Hijaz Non-lexical Expressions

We thank you for taking part in this survey and returning it to the researcher. If you decide not to continue with the survey, your information will not be collected until you submit the survey by clicking the SUPMET button.

Kindly answer the following questions:

1- Choose your gender:

----Male ----Female

2-Choose the age range that you belong to:

----18-25
---- 26-35
---- 36-45
---- 46-55
---- 56 and above

3- Choose the Hijazi dialect that you speak:

----Tribal Hijazi ----Urban Hijazi ---- Switch between them

4- Choose your education level

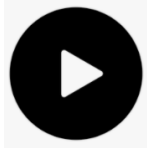
----Primary school level
----Elementary school level
----Secondary school level
---- Bachelor's degree
----Master's degree
---- PhD
---- Uneducated

5- Kindly watch the following videos, listen carefully to their contents, and then choose one of the three options that accompanies every video:

1. I don't know this sound.
2. I heard it before, but I don't know its meaning.
3. I know the NLE and I know its meaning(s).

If you select the third option, please fill in the box the meaning(s) you know about this sound.

Hijazi NLE 1:



- I don't know this sound.
- I heard it before, but I don't know its meaning.
- I know it and I know its meaning(s).

Please leave any additional thoughts about non-lexical sounds (optional)

Thank you for your participation. For further information, please e-mail:

- The researcher:
Mashaël Assaadi,
mashaël.assaadi@gmail.com
- The supervisor:
Dr Gerard O'Grady
OGradyGN@cardiff.ac.uk

Appendix C: Demographic Description of Hijazi Participants and and their ratings of the NLE.

In chapter 4, section 4.1, I described the collection of a number of Hijazi NLEs and their meanings from the Hijazi community. As a native speaker of Hijazi Arabic, I used my own observations to collect 34 Hijazi NLEs. I then designed an open-ended questionnaire to capture the meanings of these linguistic items in order to examine their non-arbitrariness. It should be noted that, although I gathered data on all 34 of these Hijazi NLEs, due to space restrictions, I will only be able to discuss 27 of them. These are the emotive ones that convey emotional meanings.

I stated that, the questionnaire asked the respondents to identify meanings for the 34 Hijazi NLEs, The question provides respondents with three choices for every Hijazi NLE:

1. I have not heard this NLE before.
2. I know it, but I do not know its meaning/s.
3. I know it, and I know its meaning/s.

With the third choice, there is an accompanying text box where the participant was invited to list the meaning/s of the Hijazi NLE that he/she knows. I collected the meanings of every Hijazi NLE that were provided by the Hijazi participants. Then, I categorised similar meanings under one single meaning. At that point, I gathered all the meanings for each Hijazi NLE into one table,. It should be noted that every Hijazi NLE has its own table, which contains its different meanings. I give a score for every type of answer, as follows:

1. I have not heard this NLE before = 0
2. I know it, but I do not know its meaning/s = 1
3. I know it, and I know its meaning/s = 2

N.B. I allocated a score of two if the participant chooses the answer ‘I know it, and I know its meaning/s’ without providing any meaning in the accompanying text box. On the other hand, I continued scoring to follow the number of meanings the participants provided in the accompanying text box. Thus, the scoring continues as follows:

4. I know it, and I know its meaning/s, providing one meaning = 3
5. I know it, and I know its meaning/s, providing two meanings = 4
6. I know it, and I know its meaning/s, providing three meanings = 5
7. I know it, and I know its meaning/s, providing four meanings = 6
8. I know it, and I know its meaning/s, providing five meanings = 7 And so on.

The following Table C1 provides two type of information, (i) the first five columns provides demographic description of Hijazi speakers participating in this study; (ii) the last column provides

the total scores of the meanings for the 34 Hijazi NLEs, including the 27 emotive ones, that were provided by the 321 Hijazi participants.

Table C1: The Data of the Total Scores of the Meanings for the 34 Hijazi NLEs based on 321 participants with Different Demographic Background

Num.	Participant	Age	Gender	Dialect	Educational Level	Scores
1.	P-17	18-25	F	TH	BA	117
2.	P-18	18-25	F	UH	BA	95
3.	P-184	18-25	F	UH	BA	108
4.	P-19	18-25	F	UH+TH	BA	103
5.	P-20	18-25	F	UH+TH	BA	100
6.	P-23	18-25	F	UH+TH	BA	97
7.	P-3	18-25	F	TH	BA	105
8.	P-311	18-25	F	UH	HS	100
9.	P-314	18-25	F	UH	HS	95
10.	P-328	18-25	F	UH+TH	BA	99
11.	P-35	18-25	F	UH	HS	111
12.	P-351	18-25	F	UH	ILE	97
13.	P-353	18-25	F	UH+TH	MA	99
14.	P-356	18-25	F	UH	BA	125
15.	P-358	18-25	F	UH+TH	MA	100
16.	P-419	18-25	F	UH	BA	96
17.	P-423	18-25	F	UH	HS	86
18.	P-425	18-25	F	UH+TH	BA	103
19.	P-429	18-25	F	UH	ILE	98
20.	P-432	18-25	F	UH	HS	91
21.	P-438	18-25	F	UH+TH	HS	103
22.	P-440	18-25	F	UH	HS	104
23.	P-441	18-25	F	UH	HS	98
24.	P-503	18-25	F	UH+TH	BA	101
25.	P-52	18-25	F	UH+TH	ILE	102
26.	P-521	18-25	F	UH	BA	108
27.	P-522	18-25	F	UH+TH	MA	104
28.	P-529	18-25	F	TH	BA	98
29.	P-531	18-25	F	UH+TH	BA	99
30.	P-539	18-25	F	UH+TH	MA	92
31.	P-549	18-25	F	UH+TH	HS	110
32.	P-551	18-25	F	UH	HS	108
33.	P-566	18-25	F	UH	BA	105
34.	P-568	18-25	F	UH	BA	110
35.	P-569	18-25	F	UH+TH	BA	105

Num.	Participant	Age	Gender	Dialect	Educational Level	Scores
36.	P-592	18-25	F	UH	MA	122
37.	P-6	18-25	F	TH	BA	96
38.	P-7	18-25	F	TH	BA	102
39.	P-10	18-25	M	TH	BA	76
40.	P-310	18-25	M	UH+TH	HS	102
41.	P-316	18-25	M	UH	BA	100
42.	P-317	18-25	M	UH+TH	BA	97
43.	P-321	18-25	M	UH+TH	HS	97
44.	P-341	18-25	M	TH	BA	103
45.	P-369	18-25	M	UH	BA	102
46.	P-370	18-25	M	UH	BA	96
47.	P-372	18-25	M	UH	BA	94
48.	P-380	18-25	M	UH	BA	98
49.	P-390	18-25	M	TH	BA	90
50.	P-391	18-25	M	UH	BA	95
51.	P-393	18-25	M	UH	MA	96
52.	P-394	18-25	M	UH	BA	96
53.	P-395	18-25	M	UH	BA	99
54.	P-4	18-25	M	TH	BA	99
55.	P-403	18-25	M	UH+TH	BA	96
56.	P-412	18-25	M	TH	HS	98
57.	P-420	18-25	M	UH+TH	MA	83
58.	P-422	18-25	M	UH	BA	95
59.	P-445	18-25	M	UH+TH	HS	95
60.	P-447	18-25	M	UH+TH	HS	94
61.	P-449	18-25	M	UH+TH	BA	89
62.	P-450	18-25	M	UH	BA	102
63.	P-451	18-25	M	UH+TH	HS	97
64.	P-452	18-25	M	UH+TH	BA	99
65.	P-453	18-25	M	UH+TH	HS	99
66.	P-458	18-25	M	UH+TH	BA	95
67.	P-537	18-25	M	UH	MA	101
68.	P-541	18-25	M	UH+TH	BA	101
69.	P-601	18-25	M	UH+TH	BA	97
70.	P-602	18-25	M	TH	ILE	89
71.	P-603	18-25	M	UH+TH	HS	96
72.	P-605	18-25	M	UH+TH	BA	102
73.	P-612	18-25	M	UH	BA	101
74.	P-613	18-25	M	UH+TH	HS	105
75.	P-614	18-25	M	TH	BA	100
76.	P-623	18-25	M	UH+TH	BA	100

Num.	Participant	Age	Gender	Dialect	Educational Level	Scores
77.	P-87	18-25	M	UH+TH	HS	99
78.	P-124	26-35	F	UH	BA	103
79.	P-136	26-35	F	UH+TH	BA	102
80.	P-15	26-35	F	UH	BA	105
81.	P-188	26-35	F	UH+TH	HS	96
82.	P-190	26-35	F	TH	BA	102
83.	P-206	26-35	F	UH+TH	BA	100
84.	P-212	26-35	F	UH+TH	BA	100
85.	P-217	26-35	F	UH	MA	106
86.	P-225	26-35	F	UH+TH	MA	115
87.	P-234	26-35	F	UH	MA	100
88.	P-236	26-35	F	UH	BA	110
89.	P-277	26-35	F	UH+TH	MA	103
90.	P-309	26-35	F	UH+TH	BA	106
91.	P-315	26-35	F	UH+TH	ILE	104
92.	P-324	26-35	F	UH+TH	MA	107
93.	P-325	26-35	F	UH	MA	100
94.	P-329	26-35	F	UH+TH	BA	101
95.	P-330	26-35	F	UH	BA	106
96.	P-331	26-35	F	UH	BA	100
97.	P-354	26-35	F	UH+TH	BA	105
98.	P-355	26-35	F	UH	BA	106
99.	P-357	26-35	F	UH+TH	BA	95
100.	P-360	26-35	F	UH+TH	BA	110
101.	P-381	26-35	F	TH	PhD	100
102.	P-397	26-35	F	UH	BA	75
103.	P-405	26-35	F	UH+TH	MA	108
104.	P-406	26-35	F	UH	BA	89
105.	P-408	26-35	F	UH+TH	BA	96
106.	P-418	26-35	F	UH	BA	92
107.	P-421	26-35	F	UH+TH	BA	106
108.	P-428	26-35	F	UH	BA	100
109.	P-436	26-35	F	UH	BA	105
110.	P-460	26-35	F	UH	MA	108
111.	P-479	26-35	F	UH	BA	101
112.	P-532	26-35	F	TH	MA	99
113.	P-544	26-35	F	UH+TH	MA	107
114.	P-545	26-35	F	UH	MA	106
115.	P-546	26-35	F	UH+TH	PhD	103
116.	P-547	26-35	F	TH	PhD	104
117.	P-548	26-35	F	UH+TH	PhD	100

Num.	Participant	Age	Gender	Dialect	Educational Level	Scores
118.	P-552	26-35	F	UH	BA	98
119.	P-553	26-35	F	UH+TH	BA	104
120.	P-554	26-35	F	UH	BA	102
121.	P-556	26-35	F	UH	BA	107
122.	P-559	26-35	F	UH+TH	BA	106
123.	P-567	26-35	F	UH+TH	PhD	100
124.	P-570	26-35	F	TH	BA	102
125.	P-574	26-35	F	UH	BA	104
126.	P-577	26-35	F	UH+TH	MA	98
127.	P-578	26-35	F	UH	PhD	97
128.	P-581	26-35	F	UH	PhD	97
129.	P-584	26-35	F	UH+TH	PhD	112
130.	P-585	26-35	F	UH	MA	95
131.	P-589	26-35	F	UH+TH	MA	94
132.	P-593	26-35	F	UH	BA	105
133.	P-595	26-35	F	TH	HS	102
134.	P-596	26-35	F	UH+TH	MA	97
135.	P-597	26-35	F	UH	PhD	102
136.	P-652	26-35	F	TH	MA	109
137.	P-86	26-35	F	UH	BA	103
138.	P-9	26-35	F	TH	MA	122
139.	P-92	26-35	F	TH	PhD	118
140.	P-376	26-35	M	UH+TH	MA	99
141.	P-379	26-35	M	UH	BA	102
142.	P-563	26-35	M	UH+TH	BA	101
143.	P-572	26-35	M	UH	MA	99
144.	P-573	26-35	M	UH	HS	100
145.	P-598	26-35	M	UH	MA	106
146.	P-599	26-35	M	TH	PhD	106
147.	P-611	26-35	M	UH+TH	BA	107
148.	P-615	26-35	M	UH	MA	101
149.	P-622	26-35	M	TH	PhD	101
150.	P-626	26-35	M	UH+TH	HS	103
151.	P-120	26-35	M	TH	BA	20
152.	P-230	26-35	M	UH+TH	BA	94
153.	P-264	26-35	M	UH+TH	BA	102
154.	P-319	26-35	M	UH	MA	99
155.	P-363	26-35	M	UH	BA	98
156.	P-364	26-35	M	TH	MA	95
157.	P-367	26-35	M	UH	MA	103
158.	P-386	26-35	M	UH	BA	101

Num.	Participant	Age	Gender	Dialect	Educational Level	Scores
159.	P-456	26-35	M	UH+TH	BA	97
160.	P-467	26-35	M	UH+TH	BA	94
161.	P-493	26-35	M	UH+TH	BA	104
162.	P-496	26-35	M	UH+TH	BA	95
163.	P-524	26-35	M	UH	MA	104
164.	P-525	26-35	M	UH	MA	98
165.	P-534	26-35	M	UH+TH	BA	96
166.	P-542	26-35	M	UH+TH	BA	100
167.	P-557	26-35	M	UH	PhD	99
168.	P-558	26-35	M	UH	BA	94
169.	P-84	26-35	M	UH	BA	100
170.	P-101	36-45	F	UH+TH	MA	109
171.	P-108	36-45	F	TH	BA	106
172.	P-126	36-45	F	TH	MA	94
173.	P-145	36-45	F	UH+TH	BA	101
174.	P-147	36-45	F	UH+TH	BA	102
175.	P-148	36-45	F	UH	HS	98
176.	P-155	36-45	F	UH	BA	104
177.	P-160	36-45	F	UH	ILE	97
178.	P-162	36-45	F	UH+TH	PhD	110
179.	P-164	36-45	F	TH	BA	100
180.	P-167	36-45	F	UH+TH	PhD	105
181.	P-172	36-45	F	UH	PhD	106
182.	P-176	36-45	F	UH+TH	HS	109
183.	P-207	36-45	F	UH	BA	102
184.	P-213	36-45	F	UH	MA	106
185.	P-214	36-45	F	UH+TH	HS	96
186.	P-287	36-45	F	UH	BA	104
187.	P-288	36-45	F	UH	BA	107
188.	P-307	36-45	F	UH	HS	103
189.	P-333	36-45	F	UH	BA	100
190.	P-414	36-45	F	UH	BA	108
191.	P-417	36-45	F	UH	HS	103
192.	P-442	36-45	F	UH+TH	BA	102
193.	P-45	36-45	F	UH	BA	113
194.	P-50	36-45	F	TH	HS	103
195.	P-508	36-45	F	TH	PhD	103
196.	P-54	36-45	F	UH+TH	BA	103
197.	P-543	36-45	F	UH+TH	BA	98
198.	P-66	36-45	F	UH+TH	BA	115
199.	P-186	36-45	M	UH	BA	106

Num.	Participant	Age	Gender	Dialect	Educational Level	Scores
200.	P-247	36-45	M	UH	BA	98
201.	P-262	36-45	M	UH	BA	99
202.	P-269	36-45	M	UH+TH	HS	105
203.	P-272	36-45	M	TH	BA	103
204.	P-343	36-45	M	UH	BA	102
205.	P-352	36-45	M	UH+TH	BA	112
206.	P-361	36-45	M	UH	BA	105
207.	P-362	36-45	M	UH+TH	BA	106
208.	P-365	36-45	M	UH+TH	PhD	99
209.	P-433	36-45	M	UH	HS	92
210.	P-444	36-45	M	UH	MA	96
211.	P-457	36-45	M	UH	BA	106
212.	P-481	36-45	M	UH	BA	103
213.	P-506	36-45	M	UH+TH	MA	105
214.	P-582	36-45	M	UH+TH	MA	114
215.	P-606	36-45	M	TH	MA	89
216.	P-607	36-45	M	UH+TH	PhD	109
217.	P-610	36-45	M	TH	BA	104
218.	P-616	36-45	M	UH+TH	MA	96
219.	P-617	36-45	M	TH	PhD	100
220.	P-618	36-45	M	UH	MA	104
221.	P-619	36-45	M	UH+TH	HS	101
222.	P-82	36-45	M	UH+TH	BA	106
223.	P-9	36-45	M	TH	HS	100
224.	P-107	46-55	F	UH+TH	BA	98
225.	P-111	46-55	F	UH+TH	BA	109
226.	P-117	46-55	F	UH+TH	BA	103
227.	P-141	46-55	F	UH	BA	108
228.	P-143	46-55	F	UH+TH	BA	101
229.	P-149	46-55	F	UH+TH	BA	103
230.	P-153	46-55	F	UH+TH	HS	100
231.	P-181	46-55	F	UH	BA	102
232.	P-182	46-55	F	UH	BA	106
233.	P-189	46-55	F	UH+TH	HS	105
234.	P-195	46-55	F	UH+TH	BA	103
235.	P-198	46-55	F	UH+TH	MA	108
236.	P-201	46-55	F	UH	BA	103
237.	P-211	46-55	F	UH+TH	PhD	102
238.	P-215	46-55	F	TH	BA	102
239.	P-226	46-55	F	UH	MA	103
240.	P-276	46-55	F	UH	HS	107

Num.	Participant	Age	Gender	Dialect	Educational Level	Scores
241.	P-284	46-55	F	UH	MA	101
242.	P-34	46-55	F	UH	BA	100
243.	P-39	46-55	F	UH	BA	107
244.	P-40	46-55	F	UH	BA	105
245.	P-413	46-55	F	UH+TH	HS	99
246.	P-454	46-55	F	UH	ILE	94
247.	P-477	46-55	F	UH	HS	99
248.	P-478	46-55	F	UH	HS	101
249.	P-48	46-55	F	UH	BA	101
250.	P-49	46-55	F	UH	BA	105
251.	P-5	46-55	F	TH	BA	102
252.	P-509	46-55	F	UH+TH	BA	99
253.	P-519	46-55	F	UH	BA	113
254.	P-540	46-55	F	UH	BA	101
255.	P-57	46-55	F	TH	BA	105
256.	P-59	46-55	F	UH	BA	108
257.	P-93	46-55	F	UH	PhD	108
258.	P-2	46-55	M	TH	BA	101
259.	P-245	46-55	M	UH+TH	BA	110
260.	P-250	46-55	M	UH+TH	BA	96
261.	P-254	46-55	M	UH+TH	BA	99
262.	P-263	46-55	M	TH	MA	99
263.	P-265	46-55	M	UH	BA	105
264.	P-345	46-55	M	UH+TH	HS	103
265.	P-368	46-55	M	UH+TH	BA	103
266.	P-410	46-55	M	UH	BA	102
267.	P-411	46-55	M	UH	MA	99
268.	P-424	46-55	M	UH	MA	111
269.	P-427	46-55	M	UH	HS	97
270.	P-443	46-55	M	UH	HS	92
271.	P-463	46-55	M	UH	BA	93
272.	P-471	46-55	M	UH	BA	101
273.	P-476	46-55	M	UH	HS	96
274.	P-485	46-55	M	UH	BA	115
275.	P-495	46-55	M	UH	BA	97
276.	P-512	46-55	M	UH	PhD	103
277.	P-600	46-55	M	UH+TH	HS	111
278.	P-609	46-55	M	UH+TH	BA	106
279.	P-621	46-55	M	UH	BA	100
280.	P-70	46-55	M	UH+TH	HS	89
281.	P-89	46-55	M	UH	MA	111

Num.	Participant	Age	Gender	Dialect	Educational Level	Scores
282.	P-179	46-55	M	TH	MA	103
283.	P-73	46-55	M	UH+TH	MA	112
284.	P-14	56+	F	UH+TH	PhD	91
285.	P-178	56+	F	UH+TH	BA	100
286.	P-183	56+	F	UH+TH	BA	110
287.	P-266	56+	F	UH	ILE	99
288.	P-280	56+	F	UH+TH	MA	100
289.	P-292	56+	F	TH	MA	100
290.	P-322	56+	F	UH	BA	94
291.	P-340	56+	F	UH+TH	MA	115
292.	P-378	56+	F	TH	HS	111
293.	P-382	56+	F	TH	MA	102
294.	P-384	56+	F	UH	BA	102
295.	P-385	56+	F	UH	ILE	92
296.	P-56	56+	F	TH	BA	103
297.	P-604	56+	F	UH	HS	90
298.	P-661	56+	F	UH+TH	PhD	102
299.	P-666	56+	F	UH	HS	100
300.	P-88	56+	F	UH+TH	BA	102
301.	P-228	56+	M	UH	BA	115
302.	P-240	56+	M	UH	BA	100
303.	P-283	56+	M	UH	PhD	102
304.	P-349	56+	M	UH	BA	103
305.	P-464	56+	M	UH	BA	106
306.	P-497	56+	M	UH+TH	BA	104
307.	P-504	56+	M	UH+TH	MA	100
308.	P-517	56+	M	UH	HS	108
309.	P-608	56+	M	UH+TH	BA	104
310.	P-61	56+	M	UH+TH	MA	103
311.	P-620	56+	M	UH+TH	PhD	113
312.	P-63	56+	M	UH+TH	ILE	107
313.	P-67	56+	M	UH+TH	BA	105
314.	P-78	56+	M	UH	BA	100
315.	P-83	56+	M	UH	BA	101
316.	P-246	56+	M	UH	BA	98
317.	P-251	56+	M	UH	BA	110
318.	P-374	56+	M	UH	PhD	103
319.	P-375	56+	M	UH	PhD	110
320.	P-474	56+	M	UH+TH	BA	110
321.	P-475	56+	M	UH+TH	BA	106

Appendix D: Quantitative Information for Every Hijazi NLE

The Hijazi NLE [O#]

Table D1: The Meanings of the Hijazi NLE [O#] Based on the Participants' Answers

Age	18-25		26-35		36-45		46-55		56+	
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	1	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	0	8	0	7	0	1	0	0	0	0
Participants who selected 'I know of the NLE and its meaning' but did not provide a meaning	5	0	0	0	0	0	0	0	0	0
Participants who selected 'I know of the NLE and its meaning' and provided (a) meaning(s)	33	31	62	23	29	23	34	26	17	21
Meanings	Number of participants who gave this particular meaning									
Love (affection/admiration)	27	8	38	7	22	7	28	8	7	7
Joy (pride/pride + triumph)	8	14	27	13	7	14	6	15	3	15
Anger (dislike)	29	12	30	10	14	9	18	11	6	10
Sadness (sorrow)	21	10	36	4	18	10	23	12	7	8

Note. The number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D2: The Meanings of the Hijazi NLE [O#] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	1	
Participants who selected 'I know this NLE but do not know its meaning'	0	16	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	5	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Love	122	37
	Joy	51	71
	Anger	97	52
	Sadness	105	44

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D3: The Meanings of the Hijazi NLE [θ̄] According to Age

Age		A	B	C	D	E
		18-25	26-35	36-45	46-55	56+
Total number of participants		77	92	54	60	38
Participants who selected 'I have not heard this NLE before'		0	0	1	0	0
Participants who selected 'I know this NLE but do not know its meaning'		8	7	1	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning		5	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Love	35	45	29	36	14
	Joy	22	40	21	21	18
	Anger	41	40	23	29	16
	Sadness	31	40	28	35	15

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [həh]

Table D4: The Meanings of the Hijazi NLE [həh] Based on the Participants' Answers

Age	18-25		26-35		36-45		46-55		56+	
	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	0	0	1	0	0	0	0	3	2	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	2	2	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	38	37	59	30	29	25	34	23	15	21
Meanings	Number of participants who gave this particular meaning									
Joy (pride and triumph)	18	16	33	14	17	11	18	11	7	11
Anger (disgust/ contempt)	20	21	26	16	12	14	16	12	8	10

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D5: The Meanings of the Hijazi NLE [həh] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	3	3	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	2	2	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Joy	93	63
	Anger	82	73

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D6: The Meanings of the Hijazi NLE [həh] According to Age

Age	A	B	C	D	E	
	18-25	26-35	36-45	46-55	56+	
Total number of participants	77	92	54	60	38	
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	0	1	0	3	2	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	2	2	0	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Joy	34	47	28	29	18
	Anger	41	42	26	28	18

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [m:]

Table D7: The Meanings of the Hijazi NLE [m:] Based on the Participants' Answers

Age	18-25		26-35		36-45		46-55		56+	
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	0	0	4	0	1	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	3	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	38	36	58	30	28	25	34	26	17	21
Meanings	Number of participants who gave this particular meaning									
Joy	19	21	29	16	16	19	16	14	6	14
Love	16	4	25	7	12	3	13	7	8	4
Different Mental state	12	15	17	13	10	12	10	12	4	10

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D8: The Meanings of the Hijazi NLE [m:] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	5	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	3	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Joy	86	84
	Love	53	62
	Different Mental state	74	25

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D9: The Meanings of the Hijazi NLE [m:] According to Age

Age		A	B	C	D	E
		18-25	26-35	36-45	46-55	56+
Total number of participants		77	92	54	60	38
Participants who selected 'I have not heard this NLE before'		0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'		0	4	1	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning		3	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Joy	40	45	35	30	20
	Love	27	30	22	22	14
	Different Mental state	20	32	15	20	12

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [wah:]

Table D10: The Meanings of the Hijazi NLE [wah:] Based on the Participants' Answers:

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	0	14	0	11	0	10	0	7	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	4	0	1	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	34	25	61	19	29	15	34	19	17	21
Meanings	Number of participants who gave this particular meaning									
Surprise (negative)	34	25	61	19	29	15	34	19	17	21

Table D11: The Meanings of the Hijazi NLE [wah:] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	0	42	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	5	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Surprise (negative)	175	99

Table D12: The Meanings of the Hijazi NLE [wah:] According to Age

Age	A	B	C	D	E	
	18-25	26-35	36-45	46-55	56+	
Total number of participants	77	92	54	60	38	
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	14	11	10	7	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	4	1	0	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Surprise (negative)	59	80	44	53	38

The Hijazi NLE [wej]

Table D13: The Meanings of the Hijazi NLE [wej] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	2	6	0	0	0	5	0	3	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	1	1	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	36	32	61	30	29	20	34	23	17	21
Meanings	Number of participants who gave this particular meaning									
Surprise (negative)	25	19	35	18	17	14	21	15	12	14
Surprise (neutral)	18	13	30	12	12	7	15	10	7	10

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D14: The Meanings of the Hijazi NLE [wej] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	2	14	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	1	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Surprise (negative)	110	80
	Surprise (neutral)	82	52

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D15: The Meanings of the Hijazi NLE [wej] According to Age

Age	A	B	C	D	E	
	18-25	26-35	36-45	46-55	56+	
Total number of participants	77	92	54	60	38	
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	8	0	5	3	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	1	0	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Surprise (neutral)	44	53	31	36	26
	Surprise (negative)	31	42	19	25	17

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [wal]:

Table D16: The Meanings of the Hijazi NLE [wal] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25		26-35		36-45		46-55		56+	
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	<u>6</u>	0	<u>8</u>	0	<u>7</u>	0	<u>6</u>	0	<u>7</u>	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	32	39	54	30	22	25	28	26	10	21
Meanings	Number of participants who gave this particular meaning									
Surprise (neutral)	9	5	10	3	3	2	2	4	0	3
Surprise (negative)	27	39	52	27	22	24	25	23	10	19

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D17: The Meanings of the Hijazi NLE [wal] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	34	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Surprise (neutral)	24	17
	Surprise (negative) + fear	136	132

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D18: The Meanings of the Hijazi NLE [wal] According to Age

Age		A	B	C	D	E
		18-25	26-35	36-45	46-55	56+
Total number of participants		77	92	54	60	38
Participants who selected 'I have not heard this NLE before'		0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'		6	8	7	6	7
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning		0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Surprise (neutral)	14	13	5	6	3
	Surprise (negative)	66	79	46	48	27

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [ɔf]

Table D19: The Meanings of the Hijazi NLE [ɔf] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	38	39	62	30	29	25	34	26	17	21
Meanings	Number of participants who gave this particular meaning									
Surprise (neutral)	17	17	27	10	7	6	10	6	5	5
Surprise (negative)	26	22	40	20	23	19	24	20	12	16

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D20: The Meanings of the Hijazi NLE [ɔf] According to Gender

Gender		F	M
Total number of participants		180	141
Participants who selected 'I have not heard this NLE before'		0	0
Participants who selected 'I know this NLE but do not know its meaning'		0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning		0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Surprise (neutral)	66	44
	Surprise (negative)	125	97

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D21: The Meanings of the Hijazi NLE [ɔf] According to Age

Age		A	B	C	D	E
		18-25	26-35	36-45	46-55	56+
Total number of participants		77	92	54	60	38
Participants who selected 'I have not heard this NLE before'		0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'		0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning		0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Surprise (neutral)	34	37	13	16	10
	Surprise (negative)	48	60	42	44	28

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [ɔb]

Table D23: The Meanings of the Hijazi NLE [ɔb] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	5	0	9	0	3	3	3	7	7	6
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	1	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	33	38	53	30	26	22	31	19	10	15
Meanings	Number of participants who gave this particular meaning									
Surprise (neutral)	13	16	18	12	10	12	10	10	3	4
Surprise (negative)	19	18	24	14	6	8	5	3	0	2
Speech function (warning)	2	5	11	8	11	5	16	11	7	9

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D23: The Meanings of the Hijazi NLE [ɔb] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	27	16	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	1	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Surprise (neutral)	54	54
	Surprise (negative)	54	45
	Speech function (warning)	47	38

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D24: The Meanings of the Hijazi NLE [ɔb] According to Age.

Age		A	B	C	D	E
		18-25	26-35	36-45	46-55	56+
Total number of participants		77	92	54	60	38
Participants who selected 'I have not heard this NLE before'		0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'		5	9	6	10	13
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning		1	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Surprise (neutral)	29	30	22	20	7
	Surprise (negative) + fear	37	38	14	8	2
	Speech function (warning)	7	19	16	27	16

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [ɔbba:]

Table D25: The Meanings of the Hijazi NLE [ɔbba:] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	2	1	4	2	1	1
Participants who selected 'I know this NLE but do not know its meaning'	8	0	10	2	2	4	1	10	6	7
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	29	39	52	28	25	20	29	14	10	13
Meanings	Number of participants who gave this particular meaning									
Surprise (negative)	14	19	20	12	7	10	5	2	2	2
Fear	17	22	25	14	5	6	10	7	0	8
Speech function (offer)	3	0	9	4	14	5	14	6	8	3

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D26: The Meanings of the Hijazi NLE [ɔbba:] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	7	4	
Participants who selected 'I know this NLE but do not know its meaning'	27	23	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Surprise (negative)+ anger	48	45
	Fear (alert/horror)	57	57
	Speech function (offer)	48	18

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D27: The Meanings of the Hijazi NLE [ɔbba:] According to Age

Age	A	B	C	D	E	
	18-25	26-35	36-45	46-55	56+	
Total number of participants	77	92	54	60	38	
Participants who selected 'I have not heard this NLE before'	0	0	3	6	2	
Participants who selected 'I know this NLE but do not know its meaning'	8	12	6	11	13	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	0	0	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Surprise (negative)+ anger	33	32	17	7	4
	Fear (alert/horror)	39	39	11	17	8
	Speech function (offer)	3	13	19	20	11

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [ju:]

Table D28: The Meanings of the Hijazi NLE [ju:] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25		26-35		36-45		46-55		56+	
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	2	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	2	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	36	37	62	30	29	25	34	26	17	21
Meanings	Number of participants who gave this particular meaning									
Surprise (negative)	19	9	24	12	9	7	9	7	5	9
Anger (annoyed)	25	21	34	18	17	18	23	18	9	17
Fear	16	11	32	16	13	14	20	13	7	13

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D29: The Meanings of the Hijazi NLE [ju:] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	2	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	2	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Surprise (negative)	66	44
	Anger	108	92
	Fear	88	67

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D30: The Meanings of the Hijazi NLE [ju:] According to Age

Age		A	B	C	D	E
		18-25	26-35	36-45	46-55	56+
Total number of participants		77	92	54	60	38
Participants who selected 'I have not heard this NLE before'		0	0	0	0	0
The participants who chose that they know without its meaning		2	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning		2	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Surprise + fear	28	36	16	16	14
	Anger	46	52	35	41	26
	Fear	27	48	27	33	20

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [w|w|w|w]

Table D31: The Meanings of the Hijazi NLE [w|w|w|w] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	26-35	36-45	36-45	46-55	46-55	56+	56+	
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	1	1	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	37	38	61	30	29	25	34	26	17	21
Meanings	Number of participants who gave this particular meaning									
Anger (annoy)	15	15	28	11	8	12	13	11	5	7
Surprise (negative)+fear	11	10	16	9	11	8	13	6	7	10
Speech function (warning)	19	11	29	15	14	14	14	9	8	11

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D32: The meanings of the Hijazi NLE [١١١١١١] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	0	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	2	1	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger	69	56
	Surprise (negative)	58	43
	Speech function (warning)	84	60

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D33: The meanings of the Hijazi NLE [١١١١١١] According to Age

Age	A	B	C	D	E	
	18-25	26-35	36-45	46-55	56+	
Total number of participants	77	92	54	60	38	
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	0	0	0	0	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	2	1	0	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger	30	39	20	24	12
	Surprise	21	25	19	19	17
	Speech function (warning)	30	44	28	23	19

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [lʷ]

Table D34: The Meanings of the Hijazi NLE [lʷ] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	1	1	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	37	38	62	30	29	25	34	26	17	21
Meanings	Number of participants who gave this particular meaning									
Anger (annoy)	21	26	34	19	20	17	18	19	7	10
Mental state (reject)	25	22	35	16	14	14	16	14	12	13

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D35: The meanings of the Hijazi NLE [lʷ] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	1	1	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger	100	91
	Mental state (reject)	92	79

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D36: The Meanings of the Hijazi NLE [lʷ] According to Age

Age	A	B	C	D	E	
	18-25	26-35	36-45	46-55	56+	
Total number of participants	77	92	54	60	38	
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	2	0	0	0	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	0	0	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger	47	53	37	37	17
	Mental state (reject)	47	51	28	30	25

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [iffi:]

Table D37: The Meanings of the Hijazi NLE [iffi:] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	3	2	5	5	0	1	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	1	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	34	36	57	25	29	24	34	26	17	21
Meanings	Number of participants who gave this particular meaning									
Anger (disgust/ revulsion)	34	36	57	25	29	24	34	26	17	21

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D38: The Meanings of the Hijazi NLE [iffi:] According to Gender

Gender	F	M
Total number of participants	180	141
Participants who selected 'I have not heard this NLE before'	0	0
Participants who selected 'I know this NLE but do not know its meaning'	8	8
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	1
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger	171
		132

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D39: The Meanings of the Hijazi NLE [iffi:] According to Age

Age	A	B	C	D	E
	18-25	26-35	36-45	46-55	56+
Total number of participants	77	92	54	60	38
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	5	10	1	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	2	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger	70	82	53	60
					38

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [jeʕ]

Table D40: The Meanings of the Hijazi NLE [jeʕ] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25		26-35		36-45		46-55		56+	
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	0	0	1	0	1	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	1	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	38	38	61	25	28	25	34	26	17	21
Meanings	Number of participants who gave this particular meaning									
Anger	38	38	61	25	28	25	34	26	17	21

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D41: The Meanings of the Hijazi NLE [jeʕ] According to Gender

Gender	F	M
Total number of participants	180	141
Participants who selected 'I have not heard this NLE before'	0	0
Participants who selected 'I know this NLE but do not know its meaning'	2	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	1
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger	178
		140

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D42: The Meanings of the Hijazi NLE [jeʕ] According to Age

Age	A	B	C	D	E
	18-25	26-35	36-45	46-55	56+
Total number of participants	77	92	54	60	38
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	0	1	1	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger	76	91	53	60
					38

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [ɔffu:]

Table D43: The Meanings of the Hijazi NLE [ɔffu:] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	2	15	0	17	0	1	0	6	0	4
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	36	24	62	13	29	24	34	20	17	17
Meanings	Number of participants who gave this particular meaning									
Anger	26	24	38	13	20	24	27	18	13	16
Speech function (warning)	14	3	30	2	16	2	24	4	11	7

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D44: The Meanings of the Hijazi NLE [ɔffu:] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	2	43	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger	124	95
	Speech function (warning)	95	18

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D45: The meanings of the Hijazi NLE [ɔffu:] According to Age

Age	A	B	C	D	E	
	18-25	26-35	36-45	46-55	56+	
Total number of participants	77	92	54	60	38	
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	17	17	1	6	4	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	0	0	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger	50	51	44	45	19
	Speech function	17	32	18	26	18

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [kix:]

Table D46: The Meanings of the Hijazi NLE [kix:] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	0	1	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	38	38	62	30	29	25	34	26	17	21
Meanings	Number of participants who gave this particular meaning									
Anger	31	38	39	17	18	16	20	18	9	14
Speech function (warning)	13	3	32	14	13	10	15	10	8	9

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D47: The Meanings of the Hijazi NLE [kix:] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	0	1	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger	117	103
	Speech function (warning)	81	46

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D48: The Meanings of the Hijazi NLE [kix:] According to Age

Age	A	B	C	D	E	
	18-25	26-35	36-45	46-55	56+	
Total number of participants	77	92	54	60	38	
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	1	0	0	0	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	0	0	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger	69	56	34	38	23
	Speech function (warning)	16	46	23	25	17

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [ixxi:]

Table D49: The Meanings of the Hijazi NLE [ixxi:] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+	F	M	F	M	
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	1	1	2	1	0	0	0	0	2	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	37	38	60	29	29	25	34	26	15	21
Meanings	Number of participants who gave this particular meaning									
Anger (disgust/revulsion)	24	24	41	18	17	16	21	13	11	13
Anger (disgust/contempt)	19	17	29	11	15	10	18	16	5	11

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D50: The Meanings of the Hijazi NLE [ixxi:] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	3	2	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger (disgust/revulsion)	114	84
	Anger (disgust/contempt)	86	65

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D51: The Meanings of the Hijazi NLE [ixxi:] According to Age

Age	A	B	C	D	E	
	18-25	26-35	36-45	46-55	56+	
Total number of participants	77	92	54	60	38	
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	2	3	0	0	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	0	0	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger (disgust/revulsion)	48	59	33	34	24
	Anger (disgust/contempt)	36	40	25	34	16

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [||||]

Table D52: The Meanings of the Hijazi NLE [||||] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	7	9	7	5	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	4	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	27	30	55	25	29	24	34	26	17	21
Meanings	Number of participants who gave this particular meaning									
Anger (disgust/ contempt)	14	10	32	10	13	16	19	12	12	13
Sadness	17	20	27	15	17	11	16	16	9	10

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D53: The meanings of the Hijazi NLE [||||] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	14	14	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	4	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger (disgust/ contempt)	90	61
	Sadness	86	72

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D54: The Meanings of the Hijazi NLE [||||] According to Age

Age	A	B	C	D	E	
	18-25	26-35	36-45	46-55	56+	
Total number of participants	77	92	54	60	38	
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	16	12	0	0	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	4	0	0	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger (disgust/ contempt)	47	53	37	37	17
	Sadness	47	51	28	30	25

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [rf:]

Table D55: The Meanings of the Hijazi NLE [rf:] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	4	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	34	39	62	30	29	25	34	26	17	21
Meanings	Number of participants who gave this particular meaning									
Anger (irritation/annoyance)	23	24	35	13	10	15	21	14	7	13
Anger (disgust/revulsion)	16	17	31	20	22	11	17	16	10	10

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D56: The Meanings of the Hijazi NLE [rf:] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	0	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	4	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger (irritation/annoyance)	96	79
	Anger (disgust/revulsion)	96	74

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D57: The Meanings of the Hijazi NLE [rf:] According to Age

Age	A	B	C	D	E	
	18-25	26-35	36-45	46-55	56+	
Total number of participants	77	92	54	60	38	
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	0	0	0	0	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	4	0	0	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger (irritation/annoyance)	47	48	25	35	20
	Anger (disgust/revulsion)	33	51	33	33	20

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [uf:]

Table D58: The Meanings of the Hijazi NLE [uf:] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25		26-35		36-45		46-55		56+	
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	0	0	0	<u>1</u>	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	1	1	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	38	38	61	29	29	25	34	26	17	21
Meanings	Number of participants who gave this particular meaning									
Anger (irritation/annoyance)	23	22	43	16	12	18	20	14	9	16
Anger (disgust/revulsion)	27	26	40	21	17	13	23	17	10	12

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D59: The meanings of the Hijazi NLE [uf:] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	0	1	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	1	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger (irritation/annoyance)	107	86
	Anger (disgust/revulsion)	117	89

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D60: The Meanings of the Hijazi NLE [uf:] According to Age

Age	A	B	C	D	E	
	18-25	26-35	36-45	46-55	56+	
Total number of participants	77	92	54	60	38	
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	0	1	0	0	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	1	0	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Anger (irritation/annoyance)	45	59	30	34	25
	Anger (disgust/revulsion)	53	61	30	40	22

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [aj]

Table D61: The Meanings of the Hijazi NLE [aj] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	0	2	0	0	0	1	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	1	1	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	38	36	61	30	29	24	34	26	17	21
Meanings	Number of participants who gave this particular meaning									
Sadness	38	36	61	30	29	24	34	26	17	21

Table D62: The Meanings of the Hijazi NLE [aj] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	0	3	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	1	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Sadness	179	137

Table D63: The Meanings of the Hijazi NLE [aj] According to Age

Age	A	B	C	D	E	
	18-25	26-35	36-45	46-55	56+	
Total number of participants	77	92	54	60	38	
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	2	0	1	0	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	1	0	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Sadness	74	91	53	60	38

The Hijazi NLE [ah:]

Table D64: The Meanings of the Hijazi NLE [ah:] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	2	3	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	38	36	59	30	29	25	34	26	17	21
Meanings	Number of participants who gave this particular meaning									
Sadness (in general)	32	26	26	14	12	23	16	16	9	19
Sadness (physical)	0	3	15	6	7	3	6	6	2	5
Sadness (psychological)	23	7	28	12	17	14	18	12	9	16

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D65: The Meanings of the Hijazi NLE [ah:] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	0	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	3	2	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Sadness (in general)	95	98
	Sadness (physical)	30	23
	Sadness (psychological)	95	61

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D66: The Meanings of the Hijazi NLE [ah:] According to Age

Age		A	B	C	D	E
		18-25	26-35	36-45	46-55	56+
Total number of participants		77	92	54	60	38
Participants who selected 'I have not heard this NLE before'		0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'		0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning		2	3	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Sadness (in general)	58	40	35	32	28
	Sadness (physical)	3	21	10	12	7
	Sadness (psychological)	30	40	31	30	25

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [ax:]

Table D67: The Meanings of the Hijazi NLE [ax:] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	N	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	1	1	2	0	0	0	1	0	0	1
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	36	37	60	30	29	25	33	26	17	20
Meanings	Number of participants who gave this particular meaning									
Sadness	13	12	23	6	9	7	8	9	6	4
Physical sadness	12	10	12	9	9	8	7	6	5	5
Psychological sadness	19	16	38	19	21	14	20	12	7	17

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D68: The Meanings of the Hijazi NLE [ax:] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning's	4	2	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Sadness	57	38
	Physical sadness	45	38
	Psychological sadness	105	78

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D69: The Meanings of the Hijazi NLE [ax:] According to age

Age	A	B	C	D	E	
	18-25	26-35	36-45	46-55	56+	
Total number of participants	77	92	54	60	38	
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	
Participants who selected 'I know this NLE but do not know its meaning's	2	2	0	1	1	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	0	0	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Sadness	25	29	16	17	10
	Physical sadness	22	21	17	13	10
	Psychological sadness	29	47	35	32	24

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [ah:]

Table D70: The Meanings of the Hijazi NLE [ah:] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	0	0	0	0	0	0	1	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	1	1	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	38	38	61	30	29	25	33	26	17	21
Meanings	Number of participants who gave this particular meaning									
Physical Sadness	23	25	43	20	21	19	26	23	13	18
Psychological Sadness	13	19	19	16	3	2	0	0	0	0
Speech function (warning)	15	8	24	7	19	15	15	9	8	13

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D71: The Meanings of the Hijazi NLE [ah:] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	1	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	1	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Physical sadness	126	105
	Psychological	35	37
	Speech function (warning)	81	52

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D72: The Meanings of the Hijazi NLE [ah:] According to Age

Age	A	B	C	D	E	
	18-25	26-35	36-45	46-55	56+	
Total number of participants	77	92	54	60	38	
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	0	0	0	1	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	1	1	0	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Physical sadness	48	63	40	49	31
	Psychological sadness	32	35	5	0	0
	Speech function (warning)	23	31	34	24	21

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLE [afə]

Table D73: The Meanings of the Hijazi NLE [afə] based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	1	0	1	0	4	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	37	39	61	30	25	25	34	26	17	21
Meanings	Number of participants who gave this particular meaning									
Surprise (negative)	16	13	25	12	11	9	14	7	6	10
Sadness	25	26	39	18	18	19	21	20	11	15

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D75: The Meanings of the Hijazi NLE [afā] According to Gender

Gender	F	M	
Total number of participants	180	141	
Participants who selected 'I have not heard this NLE before'	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	6	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Surprise (negative)	72	51
	Sadness	114	98

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D74: The Meanings of the Hijazi NLE [afā] According to Age

Age	A	B	C	D	E	
	18-25	26-35	36-45	46-55	56+	
Total number of participants	77	92	54	60	38	
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	16	12	0	0	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	4	0	0	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Surprise (negative)	47	53	37	37	17
	Sadness	51	57	37	41	26

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLEs [ʔs]

Table D75: The Meanings of the Hijazi NLE [ʔs] Based on the Participants' Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
Total number of participants	38	39	62	30	29	25	34	26	17	21
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE but do not know its meaning'	0	0	0	0	1	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	0	2	0	0	0	0	0	0	0	0
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	38	37	62	30	28	25	34	26	17	21
Meanings	Number of participants who gave this particular meaning									
Requesting the silence	19	17	25	11	8	9	7	10	3	5
Ordering the silence	22	24	38	19	20	16	27	17	14	16

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D76: The Meanings of the Hijazi NLE [ɔs] According to Gender

Gender		F	M
Total number of participants		180	141
Participants who selected ‘I have not heard this NLE before’		0	0
Participants who selected ‘I know this NLE but do not know its meaning’		1	0
Participants who selected ‘I know this NLE and its meaning’ but did not provide a meaning		0	2
Participants who selected ‘I know this NLE and its meaning’ and provided (a) meaning(s)	Requesting the silence	62	52
	Ordering the silence	121	92

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D77: The Meanings of the Hijazi NLE [ɔs] According to Age

Age		A	B	C	D	E
		18-25	26-35	36-45	46-55	56+
Total number of participants		77	92	54	60	38
Participants who selected ‘I have not heard this NLE before’		0	0	0	0	0
Participants who selected ‘I know this NLE but do not know its meaning’		0	0	1	0	0
Participants who selected ‘I know this NLE and its meaning’ but did not provide a meaning		2	0	0	0	0
Participants who selected ‘I know this NLE and its meaning’ and provided (a) meaning(s)	Requesting the silence	36	36	17	17	8
	Ordering the silence	46	57	36	44	30

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

The Hijazi NLEs [fʷ:]

Table D78: The Meanings of the Hijazi NLE [fʷ:] based on the Participants’ Answers

Age	A		B		C		D		E	
	18-25	26-35	36-45	46-55	56+					
Gender	F	M	F	M	F	M	F	M	F	M
The actual number of the Participants	38	39	62	30	29	25	34	26	17	21
Participants who selected ‘I have not heard this NLE before’	0	0	0	0	0	0	0	0	0	0
Participants who selected ‘I know this NLE but do not know its meaning’	0	2	0	0	1	0	0	0	0	0
Participants who selected ‘I know this NLE and its meaning’ but did not provide a meaning	2	2	0	0	0	0	0	0	0	0
Participants who selected ‘I know this NLE and its meaning’ and provided (a) meaning(s)	36	35	62	30	28	25	34	26	17	21
Meanings	Number of participants who gave this particular meaning									
Requesting the silence	20	19	37	14	18	19	21	16	8	12
Ordering the silence	16	16	25	17	13	11	15	12	10	8

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D79: The Meanings of the Hijazi NLE [f*:] According to Gender

Gender		F	M
Total number of participants		180	141
Participants who selected 'I have not heard this NLE before'		0	0
Participants who selected 'I know this NLE but do not know its meaning'		1	2
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning		2	2
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Requesting the silence	96	80
	Ordering the silence	87	64

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Table D80: The Meanings of the Hijazi NLE [f*:] According to Age

Age	A	B	C	D	E	
	18-25	26-35	36-45	46-55	56+	
Total number of participants	77	92	54	60	38	
Participants who selected 'I have not heard this NLE before'	0	0	0	0	0	
Participants who selected 'I know this NLE but do not know its meaning'	2	0	1	0	0	
Participants who selected 'I know this NLE and its meaning' but did not provide a meaning	2	0	0	0	0	
Participants who selected 'I know this NLE and its meaning' and provided (a) meaning(s)	Requesting the silence	39	51	37	37	20
	Ordering the silence	32	42	24	27	18

Note. The total number of participants who provided meanings is not equal to the total number of participants because some participants gave more than one meaning.

Appendix E: Examples of the different responses that show similar meanings provided by every female participant from the age group A (18-25).

In chapter 4, section 4.6, I discussed that in the second step of the analysis, after I had finished the translations of the participants' responses, I grouped the responses into categories by coding. For every Hijazi NLE, I coded the collected meanings provided by the participants that shared the same content as one phrase. For example, the nouns [fadʒʕah] and [sʕadmah], both of which mean 'shock', are exact synonyms. Furthermore, some participants provided the same content with different responses, as in the phrases [fadʒʕtani] and [sʕadmtani], which mean 'You shocked me', and the idiomatic phrase [fadʒʕtani ja fex], which means 'Hey you, you shocked me'. Moreover, some participants provided the same content through the adjectives [mafʒu:ʕ] and [masʕadu:m], which mean 'He is shocked'. All these noun phrases and adjectives convey the same content, which is the meaning of shock. Therefore, due to the huge number of responses provided by the 321 participants that had the same content for every Hijazi NLE in this study, I attempted to code all the responses that shared the same content as a single response, and I used this for all the responses which had the same content. I chose the most frequent responses that were repeatedly provided by the participants and used them as codes, or representative examples, for all the other responses that had the same content. For example, I used the noun [sʕadmah] 'shock' as a representative example to express the meaning 'shock' instead of the noun [fadʒʕah] or the other phrases and adjectives that convey the same content, because [sʕadmah] 'shock' was provided more frequently than the other forms.

The following figures were Examples of the different responses that show similar meanings provided by some female participants from the age group A (18-25)

NLE	p-569	p-568	p-566	p-551	p-549	p-539	p-432
[i]	د	صعاب و ثقل	د	درد	درد و آزار	د	درد و غم
	No	Pressure and burden - No	No	like No	rejection and annoyance	No	burden
[j]	عصبانیت و خشم و عداوت	تشنج زدن لاشکل	شوک	آسیب لاشکرت	آزار	شیء مزاح	شیء غیر متوقع و شگفتا
	He is angry furiously and he is unbearable	warning, like don't do this	shock	Be careful, don't come close	annoyance	something annoy. g	unexpected shocking thing
[k]	مخالفت و استهزاء و بی احترامی	انتقاد و تمسخر و استهزاء	مخالفت و استهزاء و بی احترامی	بی احترامی	تمسخر و استهزاء	(1)	مخالفت و استهزاء
	He looks something as an act of contempt	to contempt someone or to look like feeling sad about a particular sth	Disinclination with the behavior of the especially person	Stone on you	being sad for someone		when you have a sad news
[kix]	غرت	غرت	بوی سبزه و سبزه و غرت	سبزه	عصبانیت و استهزاء	عزت و شوهر	غرت
	It is disgusting	disgust	It must leave the dirty musty thing	Musty	it is used to mean the child	laughing and disgusting	it is disgusting
[kix-i]	استهزاء و اذیت	غرت	الغرت و استهزاء و اذیت	شیء مزاح	شیء مزاح و استهزاء	انتقاد و تمسخر	اذا غرت من لغت
	to contempt	disgust	to be disgusted from a musty thing or to contempt a person	"Musty thing"	to express laughing and disgust	to contempt a person	I am disgusted from your actions
[o]	شوق و تعجب	تغر العین و ابرار	تغر العین و ابرار	تغر العین	تغر العین	تغر	(2)
	arrogance	Proud of himself or someone else	It is used as saying about body	Self-confidence	She is arrogant	boast	
[p]	همه را بداند	زود و غم و استهزاء	الغرت	زود و غم و استهزاء	الغرت و استهزاء	زود و غم و استهزاء	زود و غم و استهزاء
	Dislike others	upset and dislike of something	Sadness	She is upset and she doesn't like any	The angry and upset woman	Sadness due to any sad situation or for anger	Oh, my heart
[pof]	زود و غم و استهزاء	زود و غم	قل عقل هه ا	زود و غم و استهزاء	زود و غم و استهزاء	الغما و استهزاء	زود و غم
	a shocking reaction	He is shocked	Seriously!	He is shocked and tries to believe the situation	an expression of surprise	surprised by something	Shock
[pof]	ظنن او ریح عین	احسن الظنن و احسن الریح العین	مکه نقر و مکه من مل	مکه نقر و مکه من مل	مکه نقر و مکه من مل	مکه نقر و مکه من مل	مکه نقر و مکه من مل
	burden or a much smell	How worried!	Maybe for disgust or maybe for boredom and anger	Maybe for disgust or maybe for boredom	about smell or maybe boredom	annoyance	Shuffle of boredom or a snuffle of bad smell

[m:]	يبدو جميلاً He looks very smart something	الجميلة حلو Gosh! This is beautiful	ممتاز وممتع أكل He is hungry and loves food	سباغلام Oh! Please! "an action for admiration"	بماكل شيء لذيذ He is eating something delicious	عروض رائعة Seeing a beautiful thing	جميلة !! Beautiful !!
[dɪ:]	شيء يعجب الاطفال something that causes disgust	عابث الاطفال؟ what a disgusting thing	شيء رديء something dirty	مغارة Musty	عجرف It is disgusting	مقرف Loathing	تؤذي وروث disgust and Dirt
[dɪ:]	رغبة مصطنع a musty smell	ابشع هذا الطعم! what a bore-don	عابث bore-don	رائحة بائسة بصطنع Either he looks bored or he smells a bit stale	ملفتن bore-don	رائحة سيئة a bad smell	②
[ʒəʊbi:]	شيء مخيف a scary thing	صدمة! Shock	صدمة وشلل shock and fear	②	اشفاق طفل / صدمت مؤسف بمرور الوقت to think up the "shock" can use perfect and to say "a situation has happened"	①	سوء الحظ sad
[ʒəʊb]	مفاجأة surprise	عشوق! seriously!	يا حبيبي! صدمة an opinion for shock	مفاجئ surprising	نوع من الصدمة a kind of shock	مفاجئ surprising	②
[ʒu:]	شيء يربط ويجمع something unites and sticks or it could be like [ʒu:] it is better	عابث الاطفال؟ what a bore-don? and often as looking	سوء حظه [ʒu:] it is better	طابع من صدمة He is in trouble and scared	نوع من الصدمة اشفاق a kind of shock or a kind of bore-don	②	زبي أو سبا like [ʒəʊbi:]
[f:]	طلبه لدمع وطلبه صوت ask about and request the silence	طلبه الصمت request silence	استمع لطلبه strongly this is necessary	اراد ان يطلب الصمت يطلب if I want to ask someone to be silent	طلبه الصمت request calm	صمت be quite	اسكن be silent
[ʒəʊs]	طلبه الصمت request and order silence	شكيت بطلبه وقدمه to shut up with a rude way	الطلبه وانهم الصمت shut up / no more talk	لما ان اسكن احد ما ان اسكن if I want to shut up someone with anger	طلبه الصمت request calm	صمت be silent	اسكن be silent
[ʒəʊh]	شيء يربط ويجمع something unites and sticks or it could be like [ʒu:] it is better	عابث الاطفال؟ what a bore-don? and often as looking	عشوق! seriously!	طابع من صدمة He is in trouble and scared	نوع من الصدمة اشفاق a kind of shock or a kind of bore-don	شيء يربط something unites "physical" It hurts and burns / or ... be careful it hurts and burns	يجمع ويجمع أو اشفاق شيء يربط ويجمع It hurts and burns / or ... be careful it hurts and burns
[ʒəʊx]	شيء يربط ويجمع something unites and sticks or it could be like [ʒu:] it is better	عابث الاطفال؟ what a bore-don? and often as looking	عشوق! seriously!	طابع من صدمة He is in trouble and scared	نوع من الصدمة اشفاق a kind of shock or a kind of bore-don	زحمه واحسان fatigue and Tiredness	②
	طلبه ask for	طلبه الصمت request silence	طلبه الصمت request silence	طلبه الصمت request calm	طلبه الصمت request calm	طلبه الصمت request calm	طلبه الصمت request calm

[?ah]	ألم	ألم و غم	ألم و حزن	ألم	ألم و حزن و غم ألم و حزن و غم ألم و حزن و غم	ألم و غم	ألم و غم
	Pain	Pain and Grief	Pain and Sadness	Pain	Wishing and regretting and maybe a expect regret and pain	regret and pain	Fatigue
[wa]	عجب	عجب و دهشة	عجب و دهشة	عجب	عجب !	②	عجب
	wonder	wonder	wonder!	shock	wonder!		He is surprised
[wah]	عجب	عجب و دهشة	عجب و دهشة	②	عجب و دهشة	عجب و دهشة	عجب
	shock	shocking by disaster	oh this is disaster shocking		huge shock	a big surprise	He is shocked
[?afi]	عجب	عجب و دهشة	عجب و دهشة	عجب و دهشة	عجب و دهشة	①	عجب و دهشة
	a smelly smell	a smelly smell	what a bad smell! it is used with children	a smelly smell	it is used with the children for the bad smell		smell a bad thing
[wal]	عجب	عجب و دهشة	عجب و دهشة	عجب و دهشة	عجب و دهشة	①	عجب و دهشة
	shock with envy	big surprise and disbelief	idea for surprise	idea for surprise	idea for surprise		
[?ofu]	عجب	عجب و دهشة	عجب و دهشة	عجب و دهشة	عجب و دهشة	عجب و دهشة	عجب و دهشة
	a smelly smell	congregation of enough to smell	what an unpleasant smell! It is used with children	at the child's approach the smelly thing	it is used to describe the bad smell of children	a smelly smell	smell a bad thing
[?aj]	ألم	ألم و غم	ألم و غم	ألم و غم	ألم و غم	ألم و غم	ألم و غم
	he is in pain physical	he is in pain he suffers from stomach or back pain	ache	my stomach hurts me		say you hurt me "physically"	the feeling of a physical pain
[bah]	عجب	عجب و دهشة	عجب و دهشة	عجب و دهشة	عجب و دهشة	عجب و دهشة	عجب و دهشة
	arrogance	an evil laugh that shows the challenge	to contempt people	to contempt	it is used to show knowledge and ability	I swear you just now what are you doing	the feeling of strength that is accompanied by self-confidence
[?ifi]	عجب	عجب و دهشة	عجب و دهشة	عجب و دهشة	عجب و دهشة	عجب و دهشة	عجب و دهشة
	I feel sorry for you	I did not expect this from you	you disappointed me	I did not expect this from you	disappointment	disappointment	he is shocked by a friend's behaviour

NLE	P-503	P-428	P-441	P-440	P-429	P-438	P-592
[i]	بoredom No, it's too cruel to expose the children to a	بمجرد It means No	بمجرد boredom	بمجرد boredom	بمجرد No/He is bored	بمجرد He is bored	boredom or it is used instead of No.
[i]	shock strongly and not agreeing strongly or the shock of a	shock Shock from a bad situation	shock shock	shock strongly worded warning for the child	shock to warn the child	shock don't do that and it's repeated with	shock He is shocked by what he heard or saw.
[i]	to contempt amateur and amateur	to contempt if you have someone's death	to contempt to feel sad about the situation	to contempt the feeling of sorrow	to contempt to control someone's behaviour	to contempt salty	to contempt I just like this, with some of carelessness
[ix]	disgusting it is disgusting	disgusting it is disgusting and	disgusting something disgusting our hand	disgusting it's disgusting for the children	disgusting something nasty	disgusting The NLE [ix]	disgusting It means it should be avoided because it is disgusting and it is used with children
[ix:i]	disgusting to contempt someone	disgusting something disgusting	disgusting another expression for disgust	disgusting show me you	disgusting something nasty	disgusting The NLE [ix]	disgusting to feeling of disgust from someone's behaviour
[o]	for beauty when you see a beautiful thing	for beauty to express the admiration of the beauty	for beauty admiration	for beauty Marxist	for beauty I am the most beautiful one	for beauty self-admiration	for beauty for beauty
[o+]	for beauty heartbreak; sadness; anger and dislike	for beauty self-sorrow / anger	for beauty I am annoyed	for beauty annoyed and angry woman	for beauty I am angry	for beauty an angry woman	for beauty anger & heart-breaking; sadness and grief
[oaf]	for beauty who you see or how a shocking thing	for beauty how serious something has happened	for beauty something bad and shocking	for beauty a shocking news	for beauty a bad news that causes a shock	for beauty shock	for beauty a reaction of surprise or shock
[oaf]	for beauty a bad smell or boredom	for beauty boredom	for beauty a bad smell	for beauty a bad smell that is enough	for beauty a musty smell	for beauty you annoyed me	for beauty a kind of the feeling of disgust

[m:]	اللذيق الطيب Alah! This is very hot! the name of hot is 'har' and spicy is 'tahir' and to eat is 'akal'.	ذرية الكلى لذيق وريح very delicious food	شيء جميل beautiful thing	صحت I loved this	مرور لذيذ very delicious	بذ الوجع والتفكير when hungry and thinking about food	المعنى الصحيح من فهم اللفظ to express understanding about misunderstanding
[d:]	مغرف This is disgusting	شيء مغرف something disgusting	نجان a stink	مغرف disgusting	مغرف disgusting	مغرف disgusting	يعني مغرف It means something disgusting
[h:]	شيء مزيج ومغرف something smelly and boring	ريحه مزيج a bad smell	مغرف boredom	مغرف boredom	مغرف boredom	مغرف a bad smell	عالم الغموض والغموض It is usually used to express anger and annoyance
[Pachca]	①	مغرف مزيج To express the fear of a suddenly things has happened	مغرف مفاجئ unpleasant surprise	شيء كبير ومغرف a scary and dangerous thing has happened	①	المغرف المزيج The fear when getting involved in a problem	مغرف مفاجئ a way to hold the chalk stand up
[Pachb]	مغرف shock	مغرف مفاجئ shock beyond belief	مغرف مفاجئ surprise	شيء كبير لم يتوقع unexpected thing has happened	②	مغرف مفاجئ a shock	مغرف مفاجئ seriously, for to mean someone has tripped or slipping
[u:h]	كأنك تكون والدك الذي يتعجب As if you were saying (and) this is shocking and scary	التهاب annoyance	التهاب complaint of boredom	مغرف مفاجئ enough to cover I will not complete this	③	أوتعجب [Puff] it is boring	مغرف مفاجئ a shock, fear and anxiety
[f:]	مغرف Be quiet	مغرف Be quiet	مغرف مفاجئ I did not expect annoyance	مغرف مفاجئ enough to be quiet	مغرف request silence	مغرف request calm	مغرف مفاجئ Could you please keep your voice down?
[Pach]	مغرف ordering silence	مغرف Be silence	مغرف مفاجئ Resistant; this is annoying	مغرف مفاجئ shut up	مغرف request silence	مغرف request calm	مغرف مفاجئ Could you please be silent?
[Pah]	مغرف مفاجئ [Pah] this burns me [Pah] you embarrassed me	مغرف مفاجئ when embarrassed	مغرف مفاجئ Hell in Hell, burnt or wounded	مغرف مفاجئ chills	مغرف مفاجئ smelly burns	مغرف مفاجئ attention for the present action, or to mean to do something dangerous	مغرف مفاجئ warning to do something dangerous
[Pax]	مغرف مفاجئ [Pax] my whole body ache me	مغرف مفاجئ Pain	مغرف مفاجئ A wish that has no chance of success	مغرف مفاجئ Pain	مغرف مفاجئ A wish that has no chance of success	مغرف مفاجئ Stress	مغرف مفاجئ "I wish", it is said with Pain and heart break

[ʔah]	ألم ووجع قلب Pain and heartbreak	ألم Pain	شئ مؤلم ويوجع القلب Something painful and breaks the heart	ألم ووجع قلب Pain and heartbreak	ألم Pain	ألم ووجع قلب Pain and heartbreak	ألم ووجع قلب Pain and heartbreak
[ʔaj]	تعجب ودهشة Amaze and Shock	استغرب wonder	صعاب Shocks	صعاب Shocks	دهشة shock	صعاب surprise	ألم ووجع قلب Pain and heartbreak
[ʔah]	دهشة shock	دهشة shock	دهشة shock	دهشة shock	دهشة shock	دهشة shock	ألم ووجع قلب Pain and heartbreak
[ʔhi:]	رائحة كريهة a bad smell	رائحة كريهة a bad smell	رائحة كريهة a bad smell	رائحة كريهة a bad smell	رائحة كريهة a bad smell	رائحة كريهة a bad smell	رائحة كريهة a bad smell
[ʔaj]	صعاب surprise	صعاب surprise	صعاب shocks	صعاب shocks	صعاب shocks	صعاب surprise	صعاب surprise
[ʔufu]	رائحة كريهة a bad smell	رائحة كريهة a bad smell	رائحة كريهة a bad smell	رائحة كريهة a bad smell	رائحة كريهة a bad smell	رائحة كريهة a bad smell	رائحة كريهة a bad smell
[ʔaj]	ألم ووجع something hurts "physically"	ألم ووجع something hurts "physically"	ألم ووجع something hurts "physically"	ألم ووجع something hurts "physically"	ألم ووجع something hurts "physically"	ألم ووجع something hurts "physically"	ألم ووجع something hurts "physically"
[hah]	استهانة underestimate someone's ability	استهانة underestimate someone's ability	استهانة underestimate someone's ability	استهانة underestimate someone's ability	استهانة underestimate someone's ability	استهانة underestimate someone's ability	استهانة underestimate someone's ability
[ʔafu]	تفاجؤ I didn't expect it from you / you shocked me	تفاجؤ I didn't expect it from you	تفاجؤ I didn't expect it from you	تفاجؤ I didn't expect it from you	تفاجؤ I didn't expect it from you	تفاجؤ I didn't expect it from you	تفاجؤ I didn't expect it from you

