

A Cognitive Linguistic analysis of HAND and FACE metaphors and metonymies in Jordanian Arabic

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Abstract: This study aims to investigate the metaphorical and metonymical uses of HAND and FACE in Jordanian Arabic (JA) by adopting a version of Conceptual Metaphor Theory (CMT) based on the notion of *main meaning focus*. A 30,000-word corpus was built for the sake of this study. The original Metaphor Identification Procedure (Pragglejaz Group, 2007) was employed to identify metaphorical expressions; then, Steen's (2007) procedure was used to extract the conceptual metaphors. The results showed that HAND as a source domain can be used to conceptualize CHARACTER TRAITS, CULTURAL VALUES, STATES, and EMOTIONS, whereas FACE as a source domain can be used to conceptualize CHARACTER TRAITS and EMOTIONS. This conceptualization is realized through metaphonymies in which the source domain is constructed metonymically. The findings also showed that there are both similarities and differences between JA and other languages and varieties in relation to HAND and FACE metaphorical conceptualizations. Similarities are attributed to the universality of human embodiment, whereas differences are related to cultural variations. The study recommends that future studies be conducted on the metaphor and metonymies of other body parts, including EYE, HEART, HEAD, TONGUE, BACK, MOUTH, etc.

Keywords: cognitive linguistics, embodiment, FACE, HAND, metaphor, metonymy, Jordanian Arabic

1. Introduction

In cognitive science, one understanding of the term *embodiment* refers to how an agent's own body functions in its daily, situated cognition and structures our thinking (Gibbs, 2006). Similarly, Lakoff (1987) characterizes embodiment as our collective biological potential as well as our individual and societal experiences as beings interacting with our surroundings. Both universal and culture-specific aspects of human embodiment shape our experiences, thoughts, meanings, imaginations, reasoning, and communication (Johnson, 2017). According to Johnson (1987), one such aspect consists of image-schematic structures that stem from both personal and socio-cultural embodied experiences. In particular, body parts are used to conceptualize CHARACTER TRAITS, EMOTIONS, MENTAL FACULTIES, and CULTURAL VALUES across languages and cultures (Maalej, 2014).

Bergen (2015: 26) stated that "the most widely recognized and influential place where embodiment has played a role in Cognitive Linguistics is metaphor". The examination of different aspects of embodiment via analyzing body-part conceptualizations has gained a lot of consideration in recent years (e.g., Maalej & Yu, 2011; Sharifian, 2017). These have explored the conceptualization of both internal and external body parts, such as the head, heart, eye, liver, stomach, mind, etc. In the broad field of Cognitive Linguistics, there are major variations among the research studies that examine the metaphorical and metonymical usage of body parts in terms of their scope and method. For example, a corpus-based analysis can be carried out to investigate the metaphorical and metonymical usages of body parts (e.g., Deignan & Potter, 2004). In addition, more global conceptual metaphors (see Section 2.1) can be postulated to identify which body parts are involved in the metaphorical conceptualization of a particular phenomenon, such as happiness and anger (Kovecses, 2010).

The current study aims to explore the metaphorical and metonymical usage of certain body parts, i.e., HAND and FACE, in Jordanian-spoken Arabic in a corpus built from scratch. The importance of the current research stems from the fact that the current study is the first study that investigates HAND and FACE metaphors and metonymies in Jordanian Arabic as used in social media, namely, Facebook and Twitter, and comment sections on news websites. The structure of the paper is as follows. Section 2 presents the theoretical framework and reviews some previous relevant studies. Section 3 describes the methodology, while Section 4 presents the findings along with discussion, and Section 5 concludes.

2. Background

2.1. Theoretical framework

Conceptual Metaphor Theory (CMT) is an influential, albeit not the only, theoretical model for the analysis of metaphor and metonymy in Cognitive Linguistics. It was originally presented by George Lakoff and Mark Johnson in their popular book *Metaphors We Live By* (1980). According to CMT, metaphor is not primarily an aesthetic device in language or any other semiotic system like gesture or pictures (e.g., Zlatev et al., 2023) but a mental process used to construct reality. The theory distinguishes between concrete metaphorical expressions and general *conceptual metaphors*, which construe one domain of experience that is typically abstract, the target domain, in terms of another that is typically concrete, the source domain (e.g., Abu Rumman et al., 2023). More specifically, Kövecses (2010, p. 4) stresses that conceptual metaphors differ from metaphorical linguistic. For instance, in the sentence *He's without direction in life*, all words that are related to life and are derived from the domain of journey are metaphorical linguistic expressions, while the corresponding conceptual metaphor that these words indicate is LIFE IS A JOURNEY. The use of small capital letters indicates an underlying cross-domain mapping, which motivates all the corresponding metaphorical expressions.

CMT has been modified and refined since its emergence in 1980 (Lakoff & Johnson, 1980, 1999; Lakoff, 1993; Kövecses, 2002, 2010, 2021; Fauconnier and Turner 2003; Gibbs, 2006; Steen 2008, 2011). For example, Kövecses (2010, p. 138) proposed the idea of the *main meaning focus*, which is defined as follows:

Each source is associated with a particular meaning focus (or foci) that is (or are) mapped onto the target. This meaning focus is conventionally fixed and agreed on within a speech community; it is typical of most cases of the source; and it is characteristic of the source only. The target inherits the main meaning focus (or foci) of the source.

The aforementioned statement implies that a source domain provides predetermined conceptual elements that are agreed upon by a community of speakers. According to Kövecses (2010), the main meaning focus is therefore some fundamental knowledge about a source that is frequently discussed in the speech community and accurately represents the source. An example of the main meaning focus is the ARGUMENT IS A BUILDING metaphor, reflected in sentences like *we've got the framework for a solid argument*, and *if you don't support your argument with solid facts, the whole thing will collapse*. In these examples, the main focus is on the strength, structure, and creation of an argument. Buildings have a foundation on which a structure is built; if the structure is not solid, it is likely to collapse. This knowledge is basic and central to buildings and known by most people within a speech community.

Several researchers argued that no metaphor theory could be adequate without considering the cultural dimension of metaphors (Kövecses, 2021; Maalej & Yu, 2011). Further, some scholars have begun to develop theories of conceptual metaphors that focus both on the embodied nature and cultural embeddedness of metaphor (Gibbs 1994, 2006; Kövecses 2000, 2005). In particular, Cultural Linguistics which is concerned with the relationship between cultural

conceptualizations and language, has concentrated on how cultural conceptualizations shape embodied language by examining embodied cultural metaphors (Sharifian, 2017). Yu (2015, p. 227) maintained that different cultures conceptualize the body and bodily experience differently, “attributing different values and significances to various body parts and organs and their functions”.

Kövecses (2005) claimed that conceptual metaphors reflect variations both cross-culturally and interculturally and subsequently proposed Extended Conceptual Metaphor Theory (Kövecses, 2020), which is not only a cognitive theory of metaphor but has a rich contextual component. Hence, there has to be a focus on how the embodied mind interacts with the environment in which communication takes place (Gibbs & Cameron, 2008). Extended Conceptual Metaphor Theory proposes that each conceptual metaphor does not exist only on one single level, i.e., domains or frames, but on four hierarchical levels of schematicity, i.e., image schemas, domains, frames, and mental spaces (Kövecses, 2021).

As well-established in Cognitive Linguistics, metonymy is also another figure that is associated with our cognitive system (Lakoff & Johnson, 1980; Kövecses & Radden, 1998). In metonymy, we use one entity to refer to another closely related entity. For instance, in the sentence *I am reading Shakespeare*, the word *Shakespeare* refers to Shakespeare’s works. Most metonymic expressions are grouped based on the relationship that holds between one entity and another. Therefore, we can gain the following relations: THE PRODUCER FOR THE PRODUCT, e.g., *I am reading Shakespeare*, THE PLACE FOR THE EVENT, e.g., *America doesn't want another Pearl Harbor*, THE PLACE FOR THE INSTITUTION, e.g., *The White House isn't saying anything*, and AN OBJECT USED FOR THE USER, e.g., *we need a better glove at third base*.

Evans and Green (2006) argue that metonymy, like metaphor, should be considered a conceptual phenomenon. Metonymy is characterized by contiguity which indicates that there is a close relationship that holds between the two entities (p. 311). In a nutshell, metonymy “is not a cross-domain mapping, but instead allows one entity to stand for another because both concepts coexist within the same domain” (Evans & Green, p. 312). Kövecses (2010, p. 173) states that the entity that is used to refer to another entity is the “vehicle entity,” while the entity that is referred to is the “target entity”. According to Kövecses and Radden (1998, p. 39), metonymy is “a cognitive process in which one conceptual entity, the vehicle, provides mental access to another conceptual entity, the target, within the same domain, or ICM [i.e., Idealized Cognitive Model]”.

Goossens (1990, p. 352) argues that there are many cases in which metaphor and metonymy interact; this phenomenon is called *metaphonymy*. Goossens provides two main forms of metaphonymy, namely metonymy from metaphor and metonymy within metaphor. Evans and Green (2006) state that “metaphor from metonymy,” which is the first form of interaction between metaphor and metonymy, shows that “a metaphor is grounded in a metonymic relationship” (p. 319). For instance, the expression “close-lipped” denotes SILENCE based on the fact that a person is usually silent when his/her lips are closed. On the other hand, “close-lipped” can metaphorically mean “speaking but giving little away”. This metaphorical meaning stems from the fact that the absence of meaningful information is perceived in terms of silence.

Metonymy within metaphor is the second form of interaction between metaphor and metonymy. For instance, the sentence *She caught the Prime Minister’s ear and persuaded him to accept her plan* indicates the conceptual metaphor ATTENTION IS A MOVING PHYSICAL ENTITY in which attention is conceptualized as a moving entity, i.e., the minister’s ear which has to be caught. From this metaphor, the metonym EAR FOR ATTENTION is obtained in which a body part, i.e., the ear, functions as a vehicle to stand for the concept of attention. Hence, the metonymy exists “inside” the metaphor (Evans & Green, 2006 p. 320).

The present study employs Kövecses’ (2010, 2011) version of CMT based on the notion of main meaning focus as a theoretical framework for data analysis of both metaphors and metonymies. Basically, each source domain is linked with a particular meaning focus (or foci) that is (are) mapped onto the target domain. This meaning focus (or foci) is (are) fixed and approved by a speech community. For instance, the main meaning focus of the source domain of fire is intensity.

2.2. Empirical studies of metaphorical and metonymy uses of body part terms

Many studies have examined the metaphors and metonymies of different body parts (Ahn & Kwon, 2007; Marmaridou, 2011; Zibin, 2021; Maalej, 2014; Fan, 2017; Zhang, 2021; Abumathkour 2022; Derki 2022; Taghian 2023, among others). Ahn and Kwon (2007) examined conceptual metaphor and metonymy of HAND in English. The study found that HAND is used metaphorically to conceptualize POSSESSION, e.g., *the store has plenty of merchandise on hand for sale*, CONTROL, e.g., *put the matter in the hands of the lawyer*, COOPERATION, e.g., *Korea and America hold hands again*, and attention, e.g., *Could you just focus on the job in hand?*. On the other hand, HAND is commonly used metonymically to stand for A PERSON, e.g., *the gentleman is my father's right-hand man*, EMOTION, e.g., *Brian welcomed me with glad hands*, ACTIVITY, e.g., *Brian studied very hard and put the last hand on the test*, SKILL, e.g., *my mother is a dab hand at making cookies*, CONTROL, e.g., *the slaves were in his hands*, GIVING, e.g., *all students must hand in a report every other week*, and SIDE, e.g., *you have to get in the right-hand and go straight*.

Similarly, Marmaridou (2011) explored the metaphors and metonymies of FACE in modern Greek. The findings revealed that FACE metaphorically stands for DIRECT AND HOSTILE COMMUNICATION, e.g., *i ijetes tha sinomilisun prosopo me prosopo* 'the leaders will talk face to face'. The study found that FACE is metaphorically understood as the CONTAINER OF EMOTION, e.g., *ipe o thios Klondomiro me prosopo jemato stenoxoria* 'Uncle Klondomiro spoke with a face full of sorrow'. FACE reflects the part of the whole metonymy in which FACE stands for a person, e.g., *den thimame na exo synandihi me ena tetio prosopo* 'I don't remember having met such a face'. The researcher concluded that "face embodies not only conceptions of personhood, but also psychological and social aspects of the self, such as emotion, character, and social standing. It also embodies conceptions of spatial orientation" (Marmaridou, 2011, p.36).

Similarly, Maalej (2014) examined the conceptual metaphors and metonymies of HAND and in Tunisian Arabic. The study revealed that the HAND is used metaphorically to represent several character traits, namely, DEXTERITY and AWKWARDNESS, e.g., *San 'it-ha fi jdii-ha* 'she has craft in her hands'; wealth and poverty, e.g., *jidd-u maljaana* 'his hand is full'; productivity, e.g., *jidd-ha xafifa* 'her hand is light', and LACK OF PRODUCTIVITY, e.g., *jidd-ha raziina* 'her hand is heavy'; THIEVING, e.g., *jidd-u xafifa* 'his hand is light'; POWER and AUTHORITY, e.g., *jidd-u Tawiila* 'his hand is long'; GENEROSITY and MEANNESS, e.g., *jidd-u miTluqa* 'his hand is stretched forward'; DISCOURAGEMENT, e.g., *jidd-i Harqit-ni* 'my hand burnt me'; CONTROL, e.g., *fiaan fi jidd-I* 'X is in my hand', and LOSS OF CONTROL, e.g., *fiaan xraž min jid-di* 'X left my hand'; INVOLVEMENT and SOLIDARITY, e.g., *jadu Allahi ma'a lžama'a* 'God's hand is with the group'. HAND is used metonymically to stand for a person, e.g., *di-ih ma Tammin šajj* 'his hands can do nothing'.

On the other hand, HEAD was found to be used metaphorically to represent MENTAL FACULTIES, e.g., *'amill illi qal-l-u raaS-u* 'he did what his head told him'; character traits, such as STUBBORNNESS, e.g., *raaS-u kbiir* 'his head is big', and cultural values such as INDUSTRIOUSNESS, e.g., *saakai-h a'la min raaS-u* 'his feet were higher than his head'; HOSPITALITY, e.g., *ala raaS-i w 'ain-I* 'on my head and my eyes'; DISHONOR, e.g., *xalla-l-na raaS-i fi-t-traab* 'he caused our head to be in the ground'; and PRIDE, e.g., *hazzil-na raaS-na* 'he lifted our head for us'. Furthermore, HEAD is used metonymically to stand for a person, e.g., *xallaawah braaS-u fiddaar* 'they left him with his head at home'.

Likewise, Zibin (2021) examined metaphorical and metonymical uses of bodily substance, i.e., blood in Jordanian Arabic (henceforth, JA), by adopting the version of Conceptual Metaphor Theory based on the notion of main meaning focus (Kövecses, 2010, 2011), as in the present study. The results indicate that blood can be used to conceptualize CHARACTER TRAITS e.g., *damm-ha xafi:f* (lit. Her blood is light), 'She has a sense of humor', ESSENCE, e.g., *damm-uh fi: ra?bat-ak* (lit. His blood is in your neck), 'You bear responsibility for his life/death', and EMOTION, e.g., *xallah damm-I yiyli* (lit. He made my blood boil), 'He made me angry' in JA through metonymy-based metaphors. The study concluded that similarities in the metaphorical

conceptualization of blood between Arabic and other languages are ascribed to universal features of human embodiment, i.e., blood, while differences were attributed to a sociocultural embodiment of certain qualities of blood shared by members of the Jordanian community: two different kinds of embodiment, as stated in the introduction.

Abumathkour (2022) explored conceptual metaphors and metonymies of HAND in Jordanian spoken Arabic. A corpus that consists of 50 idiomatic expressions was built based on a dictionary of idiomatic expressions in JSA and a book of Jordanian proverbs. The results revealed that HAND is used metaphorically to conceptualize ABILITY, e.g., *baTixti:n b'i:d waèdih ma binhèmlo* 'two watermelons cannot be carried in one hand', POSSESSION, e.g., *Pi:dduh naSfih /Pi:dduh maskih* 'his/her hand is dry or close-fisted', and CONTROL, e.g., *i:dduh Tajlih* 'his/her hand can reach anything/someone is well connected', whereas the HAND is used as a metonymy to stand for A PERSON, e.g., *aSabi' Pi:ddak mish wahdeh* 'the fingers of the same hand are not the same (in size or shape)'.

Similarly, Derki (2022) investigated the metaphorical conceptualization of HAND in idiomatic expressions related to HAND as used in Jordanian spoken Arabic. The researcher concluded that HAND is used metaphorically to represent SKILLFULNESS, e.g., *Piedu Khafeefeh* 'his hand is light', SUPPORT, e.g., *Piedi bzin-na: rak* 'my hand is in your belt', SUCCESS, e.g., *Piedu khadra* 'his hand is green', STRENGTH, e.g., *Piedu tarma* 'his hand is deaf', RASHNESS, e.g., *Pidu btisbug lsanuh* 'his hand outturns his tongue', INABILITY, e.g., *ilPied gaseerih* 'his hand is short', HONESTY, e.g., *Pieuh nTheefeh* 'his hand is clean', DISHONESTY, e.g., *Piedu taweeleh* 'his hand is long', STINGINESS, e.g., *Pieduh na: shfih* 'his hand is dry', INFLUENCE, e.g., *Piedu taylih* 'his hand is reaching', SELF-DEPENDENCE, e.g., *Piedak wala jami: lit Pin-na: s* 'your hand and not the charity of others', COOPERATION, e.g., *Pied wahadiah ma bitsaf-fig* 'one hand doesn't clap', POSSESSION, e.g., *hat Pieduh ala Pishi* 'put his hand on something', and GENEROSITY, e.g., *Pilu Paydi bayda?* 'he has got white hands'.

Likewise, Taghian (2023) examined the metaphorical conceptualization of HAND in 10 idioms and proverbs in Egyptian Colloquial Arabic. The study revealed that HAND in Egyptian Arabic is used to represent DOMINANCE, e.g., *allylly yamudu 'iidah ealaa si tataqatae 'iidah* 'if someone approaches to hit his master, his hands will be cut', POWER, e.g., *'iidi mish katiea* 'I am not handicapped', CONTROL, e.g., *'iidik junbuk* 'Stand at attention/ hands aside', INGRATITUDE, e.g., *yaeadu al'iid allylly aimtadataluh* 'bite the hands that extends to him', AUTHORITY, e.g., *maskah min 'iidih allylly bitawajueih* 'he pressures on his hurting hand', SEVERITY, e.g., *'iiduh tarsha* 'his hands are blind', SKILL, e.g., *'iiduh tutlaf fi harir* 'have a hand in something', HUMILITY, e.g., *'abus iidik* 'to kiss a hand/ to beg you', ENVY, e.g., *alkaeka fi 'iid alyatim eajbih* 'The plain pie in the orphan's hand is amazing', and ACTIVITY, e.g., *al'iid albatalat najisa* 'the devil makes work for idle hands./ idle hands are filthy'. The researcher concluded that figurative meanings of the selected idioms "are cognitively achieved by conceptual metonymy, conventional knowledge, and conceptual metaphor respectively" (Taghian, 2023, p.135).

Based on this review, it seems that literature is scarce on metaphors and metonymies of HAND and FACE in Arabic languages/varieties, compared to those of other languages. Thus, this study aims to contribute to the body of existing research on the metaphorical and metonymical conceptualization of HAND and FACE in JA. In particular, to the best of our knowledge, not a single study has investigated the metaphors and metonymies of FACE in Arabic. Regarding HAND metaphors and metonymies, there are only a few studies that tackled this issue in Jordanian Arabic idiomatic expressions collected from dictionaries and books (see Abumathkour 2022; Derki 2022). Hence, the current study is the first that examines HAND and FACE metaphors and metonymies as used in a genre that has never been examined before, i.e., social media, namely, Facebook and Twitter, and comment sections on news websites.

3. Methodology

3.1. Corpus

The corpus was compiled from scratch for the sake of the current study, during 2021 by collecting data from the comment section published on local Jordanian news websites, i.e., Alwakeel News, Ammon, and Khaberni, and from social media websites, namely, Facebook and Twitter. The archives of these news websites were searched, and all texts that include words for the concepts of HAND and FACE were copied entirely and pasted as a text file. The texts collected from social media were written by 250 Jordanians whose native language is Jordanian Arabic.¹ The keywords employed in collecting the data from both resources were *ʔi:d* ‘hand’, *ʔilʔi:d* ‘the hand’, *ʔi:duh* ‘his hand’, *ʔi:dha* ‘her hand’, *ʔi:dhum*, *ʔadeihum* ‘their (male) hand’, *ʔi:dhin*, *ʔadeihin* ‘their (female) hand’, *ʔi:di* ‘my hand’, *ʔi:dak* ‘your hand’, *ʔi:dna* ‘our hand’. *wadʒh* ‘face’, *ʔalwadʒh* ‘the face,’ *widʒhuh* ‘his face’, *widʒihha* ‘her face’, *widʒihhum*, ‘their (male) hand’, *widʒihhin* ‘their (female)face,’ *widʒhi* ‘my face’, *widʒhak* ‘your face’, *widʒihna* ‘our face.’ In total, the corpus includes around 30,000 words.

3.2. Data analysis

Word Smith Tools Version 7 (Scott, 2012), which is compatible with Arabic data, was used. The texts, which were copied from the comment section of local news websites and social media websites and then pasted as text files, were fed into this software to generate concordances. The concordance function in the software searches the entire corpus and finds each and every single instance of the target word, i.e. HAND surrounded by the context in which it occurs. Accordingly, we could identify whether the word is used as a metaphorical or metonymical expression in that particular context.

A pilot study was carried out manually to identify metaphor and metonymy candidates in a manageable sample (4,000 words) drawn from the corpus. The lack of literature on HAND and FACE metaphors and metonymies in Arabic makes a corpus-driven approach in the pilot study a necessary step. The results of the pilot study revealed that HAND in JA can be employed to conceptualize different target concepts such as CHARACTER TRAITS, CULTURAL VALUES, STATES, and EMOTIONS, whereas FACE can be used to conceptualize the following target domains, namely, CHARACTER TRAITS and EMOTIONS. After the candidates of metaphors and metonymies related to HAND and FACE in the pilot were identified, a corpus-based approach was adopted to examine the results gained from the pilot on the entire corpus, 30,000 words. Tognini-Bonelli (2001, pp. 84-85) distinguishes between corpus-based studies and corpus-driven studies. Corpus-based studies make use of the data included in the corpus in order to examine a theory or a hypothesis, and thus, one can confirm it, refine it, or reject it. Corpus-driven studies make use of the data included in the corpus as the main source for formulating a hypothesis about language. In this respect, the present study was corpus-based, as it aims at identifying the metaphors and metonymies of two body parts, i.e. HAND and FACE in a 30,000-word corpus of Jordanian Arabic (JA) by adopting Conceptual Metaphor Theory (CMT) and the notion of main meaning focus.

3.3. Identification Procedure of Metaphors and Metonymies

A bottom-up approach was used to extract the conceptual metaphors from the metaphorical expressions. In other words, hypotheses about cross-domain mappings between the source and target domains were extracted using linguistic expressions (see Ansah, 2014). To this end, the

¹ The Arabic variety used in Jordan is known as Jordanian Arabic. It belongs to the Levantine Arabic subgroup. The number of persons speaking Jordanian Arabic is approximately 6.24 million.

study used a simplified version of Steen's (2007) procedure, as follows. Consider the JA sentence (1).

- (1) *hu zalamih ?i:duh ja:ddih*
He man hand- his tight
lit. He is a man whose hand is tight
'He is a mean man'

The first step is using the Metaphor Identification Procedure (MIP, Pragglejaz Group, 2007) to identify the metaphorical words. At this stage, the contextual and basic meanings of each lexical item were identified. The basic meaning tends to be more precise, historically older, and more concrete – easier to imagine, see, hear, feel, smell, and taste – and related to bodily action. If the contextual meaning contrasted with the basic meaning but can be understood in comparison with it, then the lexical item was marked as metaphorical. Thus, since the phrase *?i:duh ja:ddih* ('his hand is tight') is used in a meaning different in this context than in its basic meaning, as his hand in this example is not literally tight, it was marked as metaphorical. In particular, the phrase gives the meaning of a character trait, i.e., meanness. Secondly, a number of such metaphorical expressions were generalized using general concepts, e.g., TIGHT HAND and MEANNESS. Thirdly, it was determined if there is some similarity or analogy between the target domain (MEANNESS) and some entity in the source domain (TIGHT HAND). Fourthly, the analogical structure was converted into a mapping structure between two conceptual domains, i.e., MEANNESS IS A TIGHT HAND.

To identify metonymical expressions in the corpus employed in the current study, Littlemore's (2015, p. 127) procedure adapted from Steen (2007) was followed. Consider example (2) from the data.

- (2) *fi: wudzu:h dzdi:dih fi: ?ilmaktab*
there faces new in office
lit. there are new faces in the office
'there are new people in the office'

Firstly, body-related words like *wudzu:h dzdi:dih* 'new faces' were identified as candidate vehicles. Secondly, it was noted if such expressions were used to stand for other referents, serving as targets. Thirdly, more general entities for both vehicles and targets were identified; in (2), it can be observed that the bodily (PART), FACE, is used to represent the people (WHOLE) who have to participate in the classroom. Finally, the fact that the new people in the office (2) are referred to using a part of their bodies, i.e., FACE, rather than referring to them directly can be generalized to the PART FOR WHOLE conceptual metonymy.

4. Findings and Discussion

Analyzing the data showed that HAND is used in JA to express several metaphorical and metonymical target concepts, namely, CHARACTER TRAITS, CULTURAL VALUES, STATES, and EMOTIONS. Metaphorical and metonymical expressions depicting these target concepts are presented and discussed in the following section.

4.1. Hand in JA

HAND was found to be used metaphorically in JA to depict several CHARACTER TRAITS, namely, generosity and meanness, support, physical strength, integrity, and lack of integrity. CULTURAL VALUES, namely, philanthropy, indebtedness, assistance, honesty, cooperation, and solidarity,

STATES, namely richness and poverty, productivity and lack of productivity, power and authority, control and loss of control, fertility, and dexterity, and EMOTIONS, namely, fear.

4.1.1. Character Traits

HAND in JA is involved in conceptualizing several negative and positive character traits, which are presented and illustrated in Table 1. According to the main meaning focus proposed by Kövecses (2010, 2011), the metaphorical expressions in examples (3-8) employ specific traits of HAND to create metaphors in which the metaphor is motivated by PART FOR WHOLE metonymy, i.e., HAND and stands for the whole person. For instance, the hand’s length is used in JA to conceptualize power and authority. If HAND is perceived as long, it is used to conceptualize POWER and AUTHORITY, producing the following conceptual metaphor BEING POWERFUL IS HAVING A LONG HAND. This metaphor is motivated by PART FOR WHOLE metonymy, i.e., HAND stands for A PERSON.

Table 1. Negative and positive character traits conceptualized by HAND in JA with examples (3-8)

Character Trait	#	Utterance	Literal Translation	Idiomatic Translation
Generosity and Meanness	3	ما يحب أطلع معها لأنه ايدها شادة كثير <i>ma: bahib ʔaʔlaʕ maʕha liʔannuh ʔi:dha ma:ska kθi:r</i>	I don’t like to hang out with her since her hand is so tight.	I don’t like to hang out with her since she is so mean.
	4	مرخي ايده على الآخر <i>ʔimraxxi: ʔi:du ʕal ʔa:xir</i>	He has loosened his hands ultimately.	He is so generous.
Support	5	هو ايدي اليمين <i>hu: ʔi:di: ʔaljami:n</i>	He is my right hand.	He is very supportive of me.
Recklessness	6	الولد ايده طرشة <i>ʔilwalad ʔi:duh tarʕah</i>	The boy whose hand is deaf.	He is a reckless boy.
Integrity and Lack of Integrity	7	الزلمة معروف ايده نظيفة <i>ʔizzalamih maʕru:f ʔi:du ʔinði:fih</i>	The man is known for having a clean hand.	The man is known for being virtuous.
	8	لأنه زلمة ايده وسخة <i>liʔannuh zalamih ʔi:du wisxah</i>	Because he is a man whose hand is dirty.	Because he is a dishonest man.

Below we comment on the conceptual metaphors for each of the four character traits represented by HAND in the data.

Generosity and Meanness: Building on HAND IS A CONTAINER FOR WEALTH, when someone’s hand is tightly closed, this metaphorically indicates that this person is mean and stingy. Being stingy is conceptualized as having a tight hand because a stingy person typically grips his hand tightly so that the fingers are curled in towards the palm, implying that he/she refuses to pay more for anything or even to buy it altogether. This produces the following conceptual metaphor BEING STINGY IS HAVING ONE’S HAND TIGHTLY CLOSED as in example (3). In the same vein, when a stingy person is asked to spend more money, he/she is asked metaphorically to loosen his hand and make it less tight as in *raxxi: ʔi:dak* ‘loosen you hand’. Accordingly, the generous person is metaphorically conceptualized as being the one whose hand is loose, as in example (4), suggesting that he spends a lot of money. Therefore, this manifests the following conceptual metaphor BEING GENEROUS IS HAVING A LOOSE HAND.

Support: The conceptualization of HAND is based on its position as left or right. As shown in example (5), the right hand is used to refer to someone very supportive, and thus, you depend on

him/her a lot. The right hand tends to be stronger than the left hand and it is the one that we have more control over it compared with the left one. In addition, the right hand is the one that we use to carry out the majority of activities, and thus we depend on it heavily. Likewise, the person whom you trust and rely on greatly is metaphorically construed as your right hand: BEING SUPPORTIVE IS BEING THE RIGHT HAND. There are also more specific cultural motivations for this metaphor in JA. According to the Encyclopedia of Quran, in Islam, the right hand has a positive connotation since it is associated with good, whereas the left hand is associated with evil. For example, those who refused to believe in the resurrection or persisted in their terrible sins will receive their *kitāb* 'record' in their left hand on the day of judgment. On the other hand, those who follow their prophets or their holy books and performed good deeds will be given their *kitāb* 'record' in their right hand on the day of judgment.

Recklessness: Describing someone's hand as being deaf is used metaphorically in JA to indicate that this person is reckless. Furthermore, this person tends to carry out reckless actions without caring or worrying about the possible bad consequences of their actions and without responding to other people's advice. Thus, he/she looks like a deaf person who does not hear what people are saying to him/her. This yields the following conceptual metaphor: BEING RECKLESS IS HAVING A DEAF HAND as in example (6). This metaphor appears to be culturally specific.

Integrity and Lack of Integrity: The conceptualization of HAND in this sub-target concept is based on a certain quality given to a hand conveyed in the form of adjectives, e.g., *ʔinḏi:f* 'clean'. Using the adjective clean to describe a hand is used to conceptualize a positive meaning that this person is virtuous, as in example (7). A clean hand is free from dirt. Similarly, a virtuous person is free from dirty actions, such as immoral and illegal behaviors and actions. This yields the conceptual metaphor BEING VIRTUOUS IS HAVING A CLEAN HAND. In contrast, using the adjective *wasix* 'dirty' to describe HAND is used to conceptualize dishonesty as in example (8). A dishonest person is the one who is involved in dirty actions and crimes, such as bribery and corruption. This yields the following conceptual metaphor BEING DISHONEST IS HAVING A DIRTY HAND. Conversely, in English, if you get your hands dirty in your job, you become involved in all aspects of it, including work that is physical, unpleasant, or less interesting.

4.1.2. Cultural Values

In JA, HAND is used metaphorically to conceptualize several cultural values, which are presented and illustrated in Table 2. The metaphorical expressions in examples (9-14) employ specific traits of the hand to create Metaphoronomies in which the metaphor is motivated by part for whole metonymy, i.e., hand, and stands for the whole person.

Philanthropy: The color of the hand provides different shades of meaning. For instance, white is associated with purity, innocence, brightness, beauty, fairness, and honesty (Wu, 2016). In JA, the white color of the hand indicates that the person is a philanthropist and he/she does a lot of charity work, as in example (9). This yields the conceptual metaphor BEING A PHILANTHROPIST IS HAVING A WHITE HAND.

Indebtedness: Having someone’s hand in your throat is used metaphorically in JA to indicate that you have provided this person with various ways of support, including financial support, and thus he becomes so indebted and obliged to you, as in (10). This appears to be culture specific, despite the universal experience of having the throat as the opening through which the food that you have eaten goes to the stomach to be digested. Accordingly, having your hand in someone’s throat means you have fed this person, i.e., supported him. This reveals the conceptual metaphor BEING INDEBTED TO SOMEONE IS HAVING THIS ONE’S HAND IN YOUR THROAT.

Ingratitude is metaphorically expressed through biting the hand of the person who has supported you. When someone helps you, you are expected to show gratitude, not to bite his/her hand. This yields the following conceptual metaphor: BEING UNGRATEFUL IS BITING SOMEONE’S HAND, as in example (11). Similarly, In English, if you bite the hand that feeds you, you are unfriendly or harm someone kind to you.

Assistance: HAND is used to conceptualize seeking assistance by establishing mappings between asking for assistance and holding someone else’s belt. A belt is a band of leather, cloth, etc., that you wear around your waist to hold up your clothes and prevent them from falling down. Likewise, holding someone’s belt implies that the person who seeks assistance from someone else needs him/her to hold them up, like the belt that holds up his/her clothes. This manifests in the conceptual metaphor SEEKING ASSISTANCE IS HOLDING YOUR HAND IN SOMEONE ELSE’S BELT, as in example (12). This metaphor could be described as culturally specific.

Table 2. Cultural values conceptualized by HAND in JA with examples (9-14)

Cultural value	#	Utterance	Literal Translation	Communicative Translation
Philanthropy	9	هاي ناس اديها بيضا <i>ha:j na:s ?i:dha be:dah</i>	Those people whose hands are white.	Those people are philanthropists.
Indebtedness	10	ايدي في حلقه <i>?i:di: fi: halquh</i>	My hand is in his throat.	He is so indebted to me.
	11	عض الإيد إلي انمدت له <i>ʕad ?il?i:d ?illi ?inmaddatluh</i>	He bit the hand which reached out to him.	He is ungrateful to the person who has helped him.
Assistance	12	ايدي في زنارك لا تتركني لِحالي <i>?i:di: bi: zinnarak la: titrikni laha:li:</i>	My hand is in your belt; don’t leave me alone.	Please help me, and don’t leave me alone.
Honesty	13	ايدي على راسك عيد شو قال المدير <i>?i:di: ʕala ra:sak ʕi:d fu: qa:l ?ilmudi:r</i>	My hand is on your head; repeat what the manager has said.	Tell me the truth by repeating what the manager has said.
Cooperation and Solidarity	14	ايد في ايد بنقدر نبني هالبلد <i>?i:d bi ?i:d ?ibniqdar ?ibnibni: halbalad</i>	Hand in hand, we can build the country.	Let’s cooperate to build the country.

Honesty: HAND is used to conceptualize seeking honesty from someone by establishing mappings between asking for telling the truth and putting your hand on someone else’s head. This yields the conceptual metaphor SEEKING HONESTY IS PUTTING YOUR HAND ON SOMEONE ELSE’S HEAD, as in example (13). The head is the highest part of the human body, and it is the most important body organ in the body, which includes the brain. Hence, when you put your hand on someone’s head, you put your hand on the highest and the most important body organ. This shows that the matter is critical and you have to be honest.

Cooperation and Solidarity: Cooperation with people is metaphorically expressed through putting hands together. There is a Jordanian proverb that says, “One hand cannot clap”. This

indicates that using only one hand to carry out activities is very difficult. Similarly, working alone to achieve something is very difficult, but by cooperation, you can achieve a lot of things easily. Thus, putting your hands together makes you able to do many activities easily, including being able to clap your hands and do other activities. This yields the conceptual metaphor COOPERATION IS PUTTING HANDS TOGETHER, as in example (14). In the same way, in English, hand in hand refers to two people or things which are very closely connected, and they depend on each other.

4.1.3. States

HAND in JA is used metaphorically to conceptualize a number of states, i.e., poverty and richness; productivity and lack of productivity; power and authority, control and loss of control; fertility and dexterity, which are presented and illustrated in Table 3. The metaphorical expressions in examples (15-27) employ specific traits of HAND to create Metaphoronomies in which the metaphor is motivated by PART FOR WHOLE metonymy, i.e., HAND and stands for the whole person.

Richness and Poverty: HAND in JA is directly associated with richness and poverty. HAND is conceived as a container for wealth, which might be described as being full or empty. Richness and wealth are basically associated with having a hand that is full of money. Accordingly, the conceptual metaphor in example (15) is BEING RICH IS HAVING ONE'S HANDS FULL. On the other hand, poverty is directly related to having a hand that is empty from money. This yields the following conceptual metaphor BEING POOR IS HAVING ONE'S HANDS EMPTY, as in example (16). This is quite different from English, where to have your hand's full means "you are very busy or have a lot to do".

Productivity and Lack of Productivity: The quality of HAND as the main meaning focus can be described in terms of its weight to conceptualize productivity and lack of productivity. For instance, if HAND is described as light *xafi:f* in JA, then it has a positive connotation and is employed to conceptualize a productive personality, as in (17). This yields the conceptual metaphor BEING PRODUCTIVE IS HAVING A LIGHT HAND. In the Jordanian society, having a light hand is tightly associated with the profession of medicine in which a good doctor/nurse is the one whose hand is light. Thus, the one whose hand is light is the one who gives you an injection perfectly and quickly without feeling pain. In contrast, unproductive workers are those who do a few tasks slowly. Hence, this reflects the conceptual metaphor BEING UNPRODUCTIVE IS HAVING A HEAVY HAND (example 18). In contrast, in English, dealing with or treating people with a *heavy hand* means "acting with discipline and severity, with little or no sensitivity", while "having a light hand" is idiomatic for having the ability to pickpocket.

Power and Authority: Lack of power and authority is also expressed metaphorically in example (19) through having one's hand tied. Having tied hands prevents the person from doing what he wants. Likewise, a powerless person who has no authority cannot get what he wants, such as privileges, promotions, incentives, etc. This yields the conceptual metaphor BEING POWERLESS IS HAVING HANDS TIED. Similarly, in English, if a person has their hands tied, something such as an agreement or a rule is preventing them from doing what they would like to do.

The quality of HAND as the main meaning focus can also be described in terms of its length to conceptualize power and lack of authority. The longer the hand is, the more powerful the person is. Therefore, this yields the conceptual metaphor BEING POWERFUL IS HAVING A LONG HAND, as in example (20). Basically, a long hand can reach and get anything nearby easily compared with a short hand. Similarly, a person with authority can get anything they want easily. On the other hand, the short hand is directly related to the lack of power and authority. This reveals the following conceptual metaphor BEING POWERLESS IS HAVING A SHORT HAND, as in example (21).

The UP-DOWN schema is also used to represent power and lack of authority in JA. Example (22) reflects the conceptual metaphor POWER IS UP. In contrast, the opposite of the situation yields the following conceptual metaphor LACK OF POWER IS DOWN which represents the situation of all

people whose hands are under the powerful individual's hand. Similarly, in English, if a person or organization gets or gains the upper hand, they take control over a situation, as in *The authorities claim to have the upper hand in the fight against drinking and driving.*

Table 3. States conceptualized by HAND in JA, as in examples (15-27)

States	#	Utterance	Literal Translation	Communicative Translation
Richness and Poverty	15	لأنه زوجها زلمة ايديه مليانة <i>laʔinnuh zu:dʒha zalamih ʔide: malja:nih</i>	Because her husband is a man whose hands are full.	Because her husband is a rich man.
	16	طالعة ايده فاضية لعمه <i>ta:lʃa ʔade: fa:dʒih la ʃammhuh</i>	His hands appear empty like his uncle's hands.	He is as poor as his uncle.
Productivity and Lack of Productivity	17	بنصحك تتعاملي معها لانه ايدها خفيفة <i>banʃaʔhik titʃa:mali maʃha liʔannuh ʔideha xafi:fiʔh</i>	I advise you to deal with her since her hand is light.	I advise you to deal with her because she is a productive person.
	18	انسبها كل التعليقات بتحكي انه ايدها ثقيلة <i>ʔinsi:ha kul ʔittaʃli:qa:t ʔibtihki: ʔinnuh ʔideha ʔiʔqi:lih</i>	Forget her all comments saying that her hand is heavy.	Forget about her since all comments indicate that she is an unproductive person.
Power and Authority	19	أديه مربطين <i>ʔade: ʔimrabbati:n</i>	His hands are tied.	Nothing is under his control.
	20	روحوا لعنده هذا زلمة ايده طابله <i>ru:hu: laʃinduh ha: ʔa zalamih ʔi:duh tajlih</i>	Go to him since this is a man whose hand is long.	Go to him since he is a powerful man.
	21	صدقيني ايده قصيرة <i>ʃadqi:ni ʔi:duh qasi:rih</i>	Believe me, his hand is short.	Believe me, he is a powerless man.
	22	إله الإيد العليا <i>ʔilu ʔilʔi:d ʔilʃulja</i>	He has the upper hand.	He has a lot of power.
Control and Loss of Control	23	طلعت ايدي من الموضوع <i>tallaʃit ʔi:di min ʔalmawdu:ʃ</i>	I get my hand out of the matter.	The whole matter is no longer under her control.
	24	زوجها على قد ايدها <i>zu:dʒha: ʃala qad ʔi:dha</i>	Her husband has the same size as her hand.	Her husband is under her control.
	25	مسكه من ايده الي بتوجعه <i>ma:skuh min ʔi:duh ʔilli ʔibto:dʒʃuh</i>	I hold him from his hand which hurts him.	He is under my control.
Fertility	26	يا الله ايده كثير خضره <i>Ja: ʔallah ʔi:dha koi:r xadrah</i>	Oh my god, her hand is very green.	Oh my god, she is very good at planting.
Dexterity	27	عشان صنعته في ايده <i>ʃafa:nuh sanʃituh fi: ʔibʔi:du</i>	Because he is a man whose craft is in his hand.	Because he is a man who has a craft.

Control and Loss of Control: Loss of control over something is metaphorically expressed as getting something out of hand, stemming from the HAND IS A CONTAINER conceptualization. Example (23) reflects the conceptual metaphor LOSS OF CONTROL IS GETTING OUT OF HAND. Similarly, in English, if a person or situation gets out of hand, they cannot be controlled any longer.

The quality of HAND as the main meaning focus can also be described in terms of its size to conceptualize control and loss of control. In particular, control over someone is also

metaphorically conceptualized in the way in which the controlled person's hand has the same size as the controller's hand, as in (24). This reflects the conceptual metaphor BEING CONTROLLED IS HAVING THE SIZE OF THE CONTROLLER'S HAND. Control over someone is also metaphorically conceptualized in a way in which the controller holds the controlled painful hand (example 25). This yields the conceptual metaphor BEING CONTROLLED IS HAVING YOUR PAINFUL HAND HELD.

Fertility: The color of HAND indicates different meanings, including fertility. In example (26), having a green hand is used metaphorically to indicate that the person is good at gardening and letting plants be fertile. There is a strong connection between having a green hand and being good at planting since the color of plants is green, implying that having a green hand indicates your proficiency at making plants grow very well. This reflects the following conceptual metaphor BEING GOOD AT FARMING IS HAVING A GREEN HAND. Similarly, in English, "having green fingers," according to the Macmillan dictionary, means "to be good at growing plants". You can also say "have a green thumb, " an American expression that means the same.

Dexterity: Based on the HAND IS A CONTAINER metaphor, the hand is conceptualized as a container for manual work, as in (27). Dexterity is considered the character trait that is associated with hands; manual work is done by hand, and thus, HAND is considered the container for manual skill and work. This yields the conceptual metaphor HAND IS A CONTAINER FOR MANUAL SKILL.

4.1.4. Emotions

HAND in JA is used metaphorically to conceptualize emotion, i.e., fear, which is presented and illustrated in Table 4.

Table 4. Emotions conceptualized by Hand in JA, as in example (28)

Emotions	#	Utterance	Literal Translation	Communicative Translation
Fear	28	دائما ايدها على قلبها <i>dajman ?i:dha: ?ala qalbha</i>	Her hand is always on her heart.	She is always afraid.

As shown in (28), HAND is used to conceptualize the emotion of fear by establishing mappings between the gesture of putting one's hand on the heart and experiencing fear. The heart is directly associated with fear since those who feel scared undergo some physiological changes in their heart, including an increase in heart rate or lapses in heartbeat. Hence, putting one's hand on the heart shows that the person attempts to control or dispel their fear. This motivates the conceptual metaphor BEING AFRAID IS PUTTING ONE'S HAND ON THE HEART.

4.2. Hand-for-Person Metonyms

HAND in JA is also used in a PART-WHOLE metonymy in which HAND stands for person as in example (29) person (Table 5). A possible motivation for this metonymy is that HAND provides access to the entire person's body.

Table 5. HAND-FOR-PERSON Metonymy in JA, as in example (29)

Metonymy	#	Utterance	Literal Translation	Communicative Translation
Hand-for-Person Metonyms	29	طلب ايدها للزواج <i>talab ?i:dha: lil zawa:dž</i>	Ask her hand for marriage.	Asking to marry her.

4.3. Face in JA

FACE is used metaphorically in JA to depict several CHARACTER TRAITS, namely, hypocrisy, rudeness, honesty, and EMOTIONS, namely, sadness, fear, blame, pride, and happiness. The metaphorical expressions in examples (30-41) employ specific traits of FACE to create metaphonimies in which the metaphor is motivated by PART FOR WHOLE metonymy, i.e. the FACE stands for the whole person.

4.3.1. Character Traits

FACE is used metaphorically in JA to depict several CHARACTER TRAITS which are presented in Table (6).

Table 6. Character Traits conceptualized by FACE in JA, as in examples (30-33)

Character traits	#	Utterance	Literal Translation	Communicative Translation
Hypocrisy	30	هاي البنت بوجهين <i>haj ?ilbint biwidzhe:n</i>	This girl has two faces.	This girl is a hypocrite.
Rudeness	31	وجهه ما في دم <i>widzhuh ma fi:h dam</i>	His face has no blood.	His is rude.
	32	وجهه بارد <i>widzhuh ba:rid</i>	His face is cold.	He is rude.
Honesty	33	وجهه أبيض <i>widzhuh ?abjad</i>	His face is white.	He is honest.

Hypocrisy: Hypocrisy is a character trait that is associated with FACE in JA. In example (30), being two-faced is used metaphorically to show that his person is a hypocrite since this person pretends to show certain beliefs or opinions, but they do not have one. This yield the following conceptual metaphor BEING HYPOCRITE IS BEING TWO FACED. Likewise, in English, being two-faced means being insincere, and having a false or hypocritical personality.

Rudeness: Rudeness is another character trait that is associated with FACE in JA. A rude person is represented metaphorically as having a face that does not include blood (example 31). This is reflected in the following conceptual metaphor BEING RUDE IS AS HAVING A BLOODLESS FACE. A rude person does not care about other people’s feelings. Generally speaking, when a person has a certain feeling, such as shyness, joy, or anger, he undergoes some physiological changes, such as changes in heart rate, body temperature, etc. In particular, there is a correlation between the effect of emotions on vascular activity in the face. For example, facial blood flow increases when you feel joy and anger (Drummond, 1994). In addition, embarrassment is accompanied by an increase in forehead skin blood flow (Matsukawa et al., 2018). This explains why those who feel embarrassed, their face turns red. However, a rude person is a person who does not show emotions towards other people, and thus he does not undergo such physiological changes as if he does not have blood.

The quality of FACE as the main meaning focus can be described in terms of its temperature to conceptualize rudeness. Accordingly, being rude is metaphorically represented by having a cold face as in example 32. This yields the following conceptual metaphor BEING RUDE IS HAVING A COLD FACE. When someone feels embarrassed, there will be “an increase in the volume of blood flowing through superficial vessels in the face, neck and upper chest, driven by heightened sympathetic nervous system activity, reddens the skin and increases skin temperature” (Drummond et al., 2020, p. 27). However, a rude person does not experience emotions such as

embarrassment, and thus he/she doesn't increase redness in the skin and increased in skin temperature. Instead, the temperature of their skin, including the skin of their face, will be cold.

Honesty: The quality of FACE as the main meaning focus can also be described in terms of its color to conceptualize honesty in which the white color of the face shows honesty as in example (33). White has a positive connotation in the Jordanian community, and it tends to show purity, cleanness, and innocence. This yields the following conceptual metaphor BEING HONEST IS HAVING A WHITE FACE.

4.3.2. Emotions

FACE is metaphorically used as a container for emotions, such as sadness, fear, happiness, etc. This demonstrates the following conceptual metaphor FACE IS A CONTAINER FOR EMOTIONS. The emotions that are conceptually represented by FACE in JA are represented in Table (7).

Table 7. Emotions conceptualized by FACE in JA, as in examples (34-41)

Emotions	#	Utterance	Literal Translation	Communicative Translation
Sadness	34	وجهه في حزن <i>widʒhuh fi: huzun</i>	Sadness is in his face.	He is sad.
	35	وجهه مسود <i>widʒhuh miswid</i>	His face is black.	He is sad.
Pride	36	بيضت وجهنا <i>bajjadit widʒihna:</i>	You have whitened our face.	You make us feel proud.
Shame	37	سود وجهنا <i>sawwad widʒihna:</i>	Blacken our face.	He ashamed us.
Embarrassment	38	وجهه حمرا <i>widʒhu hamrat</i>	His face blushed.	He becomes embarrassed.
Happiness	39	انفرد وجهه <i>?infarad widʒhuh</i>	His face becomes flat.	He becomes happy.
Fear	40	وجهه مصفر <i>widʒhuh ?imsafrin</i>	His face is yellow.	He is sick.
Blame	41	الناس اكلت وجهه <i>?innas ?aklat widʒhuh</i>	People ate his face.	People blamed him.

Sadness: FACE is metaphorically used as a container for emotions, such as sadness, fear, happiness, etc. Example (34) demonstrates the conceptual metaphor FACE IS A CONTAINER in which the word *fi*: 'in' depicts the emotions as objects, whereas FACE is the container that includes these objects. In example (35), sadness is metaphorically represented in terms of the black color. As pointed out by Allan (2007), the black color has a negative connotation cross-culturally, and the term 'black' is associated with funeral clothes and death in Western communities. Similarly, people in Jordan tend to wear black clothes during funeral ceremonies to show sadness. This yields the conceptual metaphor BEING SAD IS HAVING A BLACK FACE.

Pride: The color of FACE provides different shades of meaning. According to Rabab'ah and Al-Saidat (2014), white is viewed positively in the Arabic culture in general and Jordanian Arabic in particular as "it indicates innocent, harmless, and evil-free matters" (p. 255). The whiteness of the face is associated with pride as in example (36). Accordingly, when someone whitens your face, he/she makes you feel proud because of your good achievements and deeds. This yields the conceptual metaphor BEING PROUD IS HAVING A WHITE FACE. Having a white face is also associated with honesty, which appears to be culture specific.

Shame: Shame is expressed metaphorically through the color of one’s face. In particular, shame is metaphorically associated with the black color as in example (37). Thus, if someone has blackened your face, this means this person makes you feel ashamed. This is reflected through the conceptual metaphor BEING SHAMEFUL IS HAVING A BLACK FACE. On the other hand, in English (and other cultures), in a situation where you feel that you are humiliated or are not respected, this is expressed as “loss of face”, as in *We must reach a satisfactory compromise and make sure that neither party loses face*.

Embarrassment: Embarrassment is metaphorically associated with the blush of your cheeks. Accordingly, having your face blushed is metaphorically used to mean shyness as in example (38). This yields the conceptual metaphor BEING SHY IS HAVING A RED FACE. Color terms such as red are metaphorically used to indicate the change of emotions in the body because when people are shy, the adrenaline increases their breathing rate and causes the widening of the capillaries that carry blood to the skin. Hence, blood is then brought closer to the surface of the skin, causing the blush of the face, making it warmer and redder (Kesten, 2016).

Happiness: The quality of FACE as the main meaning focus can be described in terms of its shape to conceptualize emotions. For example, happiness is metaphorically expressed by having a flat face. Happiness is reflected through one’s facial expression in which the person smiles, and his facial muscles will be relaxed and flat compared with anger, for instance, in which the facial expressions tend to be sharp, and the facial muscles tend to shrink. This is reflected by the conceptual metaphor BEING HAPPY IS HAVING A FLAT FACE, as in (39).

Fear: The quality of FACE as the main meaning focus can also be described in terms of its color to conceptualize different target concepts. In example (40), the color yellow is associated with fear in JA. The face turns yellow because when are frightened, your blood is shunted away from the skin, including the skin on the face. This is reflected in the conceptual metaphors BEING AFRAID IS HAVING A YELLOW FACE together with the conceptual metonymy PHYSIOLOGICAL EFFECTS OF AN EMOTION STAND FOR THE EMOTION (Lakoff & Kövecses, 1987, p. 4).

Blame: Blaming someone for doing something can be expressed metaphorically by “eating” someone’s face, as in (41). This yields the conceptual metaphor BEING BLAMED IS HAVING ONE’S FACE EATEN. This metaphor could be described as culturally specific, but its motivation is not hard to comprehend. When you eat a meal, you spoil its shape and texture. Likewise, when you blame someone for doing something wrong, his dignity is spoiled and affected negatively like a meal that no longer looks good and complete since it is eaten from.

4.4. Face-for-Person Metonyms

FACE in JA is also used in a PART-WHOLE metonymy of FACE FOR-PERSON, as in example (42) in which FACE is used metonymically to stand for the whole person (Table 8). The motivation for the FACE-FOR-PERSON metonymy is that the FACE provides access to the entire person’s body.

Table 8. FACE-FOR-PERSON Metonyms in JA, as in example (42)

Metonymy	#	Utterance	Literal Translation	Communicative Translation
Hand-for-Person Metonymy	42	هَذَا وَجْهٌ جَدِيدٌ فِي الْعَيْلَةِ <i>ha:da wiǰih ʔiǰzi:d</i> <i>fi: ʔilʕe:lih</i>	This is a new face in the family.	This is a new person in the family.

5. Conclusions

In this study, we found that HAND and FACE in Jordanian Arabic (JA) are employed figuratively to express various target concepts. For instance, HAND is used figuratively to conceptualize CHARACTER TRAITS, CULTURAL VALUES, STATES, and EMOTIONS, whereas FACE is used figuratively to represent CHARACTER TRAITS and EMOTIONS. These target concepts are expressed through metaphonymies in which the same metonymy, HAND FOR PERSON, and FACE FOR PERSON is used to provide access to the person and his/her character traits, cultural values and emotion. The use of HAND and FACE to conceptualize such abstract concepts as character traits, emotion, etc. lends support to a broad notion of embodiment, including both universal and culture-specific aspects (Johnson, 1987; Gibbs, 2006; Maalej, 2014). A large number of metaphorical and metonymical target concepts show the significance of HAND and FACE as source domains in JA.

Adopting the version of Conceptual Metaphor Theory based on main meaning focus (Kövecses, 2010, 2011), as well as the notion of metaphonymy using the HAND as a source domain yielded several generalizations. Concerning character traits, the metaphorical conceptualizations are BEING VIRTUOUS IS HAVING A CLEAN HAND, BEING STINGY IS HAVING A TIED HAND. Conceptualizations of states are BEING PRODUCTIVE IS HAVING A LIGHT HAND, and BEING POWERFUL IS HAVING A LONG HAND, among others. Cultural values conceptualizations are COOPERATION IS PUTTING HANDS TOGETHER and BEING A PHILANTHROPIST IS HAVING A WHITE HAND, among others. Emotions conceptualizations are BEING AFRAID IS PUTTING ONE'S HAND ON HEART.

Metaphonymy using FACE as a source domain yields several CHARACTER TRAITS conceptualizations such as BEING A HYPOCRITE IS BEING TWO FACED, BEING RUDE IS AS HAVING A BLOODLESS FACE, among others. They also reflect several EMOTIONS conceptualizations such as BEING SAD IS HAVING A BLACK FACE; BEING EMBARRASSED IS HAVING A RED FACE. These conceptual metaphors are based on the same metonymies HAND FOR PERSON and FACE FOR PERSON.

The conceptual metaphors that have been identified map a certain attribute or actions associated with HAND and FACE to conceptualize the corresponding target concepts. For instance, several mappings used from the source domain of the HAND are related to its attributes, such as heaviness, lightness, size, color, and length to conceptualize different characteristic traits reflecting specific foci. In the same vein, several mappings used from the source domain of HAND are related to certain actions involving HAND, such as tying one's hands to conceptualize different characteristic traits reflecting specific foci. Besides, several mappings used from the source domain of FACE are related to its attributes, such as color, temperature, shape, etc.

The main findings show that there are both similarities and differences in JA metaphors of HAND and FACE compared to other languages, and varieties of Arabic, namely Egyptian and Tunisian Arabic. As found by Zhang (2021) for English, HAND is used to conceptualize power, status, and strength, as well as possession, control, and cooperation (Ahn & Kwon, 2007). However, there are also differences. For example, HAND is used metaphorically to conceptualize attention in English, e.g., *Could you just concentrate on the job in hand?*, but not in JA.

Unsurprisingly, the findings are even more consistent with those of Abumathkour (2022), Derki (2022), Taghian (2023), and Maalej (2014), who examined the metaphors and metonymy of HAND in different varieties of Arabic language, including Jordanian, Egyptian, and Tunisian Arabic. For example, according to Abumathkour (2022), and Derki (2022) who investigated HAND metaphors and metonymies in JA, the present study has revealed more target concepts conceptualized by HAND than the ones mentioned in previous studies, such as fertility, dexterity, involvement and lack of involvement, philanthropy, gratitude, stability, and fear.

In comparison with Taghian (2023), who explored HAND in Egyptian Arabic, all target concepts that are metaphorically represented by HAND in Egyptian Arabic were also found to be used in JA, namely dominance, power, control, ingratitude, incapability, severity, skill, humility, and activity except for one target concept, i.e., envy.

In relation to the findings of Maleej (2016), all target concepts represented by HAND in Tunisian Arabic were also found to be represented in Jordanian Arabic: dexterity, wealth and poverty, productivity and lack of productivity, thieving, power and authority, generosity and meanness, control and loss of control, involvement and solidarity except for awkwardness, and discouragement.

Finally, comparing with the findings of Marmaridou (2011) on metaphors of FACE in Modern Greek, we found that also JA FACE is used as a container of emotions and used to conceptualize emotions and different aspects of one's character as in JA. However, FACE in JA is not used as in Modern Greek for spatial orientation.

Such similarities in HAND and FACE metaphorical conceptualizations across different languages and cultures can be ascribed to the universal aspects of human embodiment, such as using body parts to represent abstract concepts such as character traits, cultural values, and emotion. As pointed out by Kövecses (2010), there appear to be nearly universal conceptual metaphors in which people conceptualize and formulate human thoughts, bodily and emotional experiences, and cognitive processes similarly regardless of the language they speak. On the other hand, differences are attributable to cultural variations of HAND and FACE shared by members of different speech communities. Cultural variations stem from different cultural experiences, beliefs, and characteristics found among a particular socio-cultural group (Zibin & Hamdan, 2019). This conclusion is also consistent with the findings of Sharifian (2017), who argued that human cognition is embodied and grounded in culture. In a nutshell, we agree with the conclusions of Kövecses (2010) who maintained that metaphors are to some degree universal, but also vary across different cultures and within the same culture. For instance, a culture might make use of different source domains to conceptualize a particular target domain, or conversely, a culture might make use of a particular source domain to conceptualize different target domains. Yet another case of variation is that the same conceptual metaphor for a particular target domain is used in two languages/cultures, but one language/culture shows a preference for some of the conceptual metaphors that are used. Finally, there are cases of conceptual metaphors that may be unique to a given language/culture.

In sum, in this paper we have investigated the metaphors and metonymies of two body parts, namely, HAND and FACE in JA, showing aspects of both universal and culture-specific embodiment. It seems that HAND as a source domain is more productive in terms of the host of CHARACTER TRAITS and STATES that it conceptualizes compared with FACE. In particular, HAND is used to conceptualize four different character traits in JA, both positive and negative, five cultural values, six states, and one emotion, whereas FACE is used to conceptualize three character traits in JA, and seven emotions. Both HAND and FACE are used in a PART-WHOLE metonymy in which HAND stands for A PERSON and FACE stands for A PERSON. There are certain similarities across languages in relation to HAND and FACE metaphorical conceptualization, which is related to the universality of human embodiment, whereas differences are ascribed to cultural variations. One major limitation of the study is the small size of the corpus. Accordingly, future research might investigate the metaphors and metonymies of HAND and FACE in a larger corpus. Future research might also be conducted on the metaphors and metonymies of other body parts in JA, such as EYE, HEART, HEAD, TONGUE, BACK, MOUTH, etc.

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References

- Abumathkour, H. (2022). Conceptualizations of hand in Jordanian Spoken Arabic: A cognitive perspective. In T. E. Gráczki & Z. Ludányi (Eds.), *Doktoranduszok tanulmányai az alkalmazott nyelvészet köréből* (pp. 23-30). Budapest: Nyelvtudományi Kutatóközpont.
- Abu Rumman, R., Haider, A. S., Yagi, S., & Al-Adwan, A. (2023). A corpus-assisted cognitive analysis of metaphors in the Arabic subtitling of English TV series. *Cogent Social Sciences*, 9(1), 2231622.
- Ahn, H., & Kwon, Y. (2007). A study on metaphor and metonymy of hand. *Journal of Language Sciences*, 14(2), 195-215.
- Allan, K. (2007). The pragmatics of connotation. *Journal of Pragmatics*, 39(6), 1047-1057.
- Ansah, G. (2014). Culture in embodied cognition: Metaphorical/metonymic Conceptualizations of FEAR in Akan and English. *Metaphor and Symbol*, 29 (1), 44-58.
- Barnden, J. (2006). Artificial intelligence, figurative language and cognitive linguistics. In G., Kristiansen et al. (Eds.), *Cognitive linguistics: Current applications and future perspectives* (pp. 431–459). Berlin: Mouton de Gruyter.
- Bergen, B. (2015). Embodiment. In E. Dąbrowska & D. Divjak (Eds.), *Handbook of cognitive linguistics* (pp. 10-30). Berlin: De Gruyter Mouton.
- Collins Online Dictionary. (n.d.). Retrieved from <https://www.collinsdictionary.com/>
- Deignan, A., & Potter, L. (2004). A corpus study of metaphor and metonyms in English and Italian. *Journal of Pragmatics*, 36(7), 1231-1252. <https://doi.org/10.1016/j.pragma.2003.10.010>
- Derki, N. (2022). The representation of Hands in Jordanian Spoken Arabic: A Cognitive Study. *International Journal of Applied Linguistics & English Literature*, 11(3), 23-30. <https://doi.org/10.7575/aiac.ijalel.v.11n.3p.23>
- Drummond, P. (1994). The effect of anger and pleasure on facial blood flow. *Australian Journal of Psychology*, 46, 95-99. <https://doi.org/10.1080/00049539408259479>
- Drummond, P., Shapiro, G., B., Nikolić, M., & Bögels, S. M. (2020). Treatment options for fear of Blushing., *Current Psychiatry Reports*, 22, 28.
- Encyclopedia of the Quran. (n.d.). Retrieved from <https://referenceworks.brillonline.com/browse/encyclopaedia-of-the-quran>
- English Idioms and Idiomatic Expressions. (n.d.). Retrieved from <https://www.learn-english-today.com/idioms/idiom-categories/body/hands2.html>
- Evans, V., and Green, M. (2006). *Cognitive Linguistics: An Introduction*. Edinburgh: Edinburgh University Press.
- Fauconnier, G., & Turner, M. (2003). Conceptual blending, form and meaning., *Recherches en Communication* 19, 57-86. <https://doi.org/10.14428/rec.v19i19.48413>
- Gibbs, R. (1994). *The poetics of mind-figurative thought, language, and understanding.*, Cambridge: Cambridge University Press.
- Gibbs, R. (2008). *The Cambridge handbook of metaphor and thought*. New York: Cambridge University Press.
- Gibbs, R., & Cameron, L. (2008). The social-cognitive dynamics of metaphor performance. *Journal of Cognitive Systems Research*, 9(1-2), 64-75.
- Goossens, L (1990). 'Metapronymy: The interaction of metaphor and metonym in expressions for linguistic action'. *Cognitive Linguistics*, (1) 3, 323–40.
- Gibbs, R. (2006). *Embodiment and cognitive science*. Cambridge: Cambridge University Press.
- Johnson, M. (1987). *The body in the mind: The bodily basis of meaning, imagination, and reason*. Chicago: University of Chicago Press.
- Johnson, M. (2017). *Embodied mind, meaning, and reason: How our bodies give rise to understanding.*, Chicago: University of Chicago Press.

- Kesten, P. (2016). Red in the face: The science of blushing., Retrieved from <https://www.scu.edu/illuminate/thought-leaders/phil-kesten/red-in-the-face-the-science-of-blushing.html>.
- Kövecses, Z., & Radden, G., (1998). Metonymy: Developing a cognitive linguistic view. *Cognitive Linguistics*, 9(1), 37-78. <https://doi.org/10.1515/cogl.1998.9.1.37>
- Kövecses, Z. (2000). The concept of anger: Universal or culture specific? *Psychopathology*, 33(4), 159-170.
- Kövecses, Z. (2002). *Metaphor: A practical introduction*. Oxford: Oxford University Press.
- Kövecses, Z. (2005). *Metaphor in culture: Universality and variation*. Cambridge: Cambridge University Press.
- Kövecses, Z. (2010). *Metaphor: A practical introduction*. Oxford: Oxford University Press.
- Kövecses, Z. (2011). Recent developments in metaphor theory: Are the new views rival ones? In F. González-García, M. S. Peña-Cervel, & L. Pérez-Hernández (Eds.), *Metaphor and metonymy revisited beyond the contemporary theory of metaphor: Recent developments and applications* (pp. 11-25). John Benjamin: Netherland
- Kövecses, Z. (2020). *Extended conceptual metaphor theory*. Cambridge: Cambridge University Press.
- Kövecses, Z. (2021). Standard and extended conceptual metaphor theory. In W. Xu & J. Taylor (Eds.), *The Routledge handbook of cognitive linguistics* (pp. 191-203). New York: Routledge.
- Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago: University of Chicago Press.
- Lakoff, G. (1987). *Women, fire, and dangerous things: What categories reveal about the mind*. Chicago: University of Chicago Press.
- Lakoff, G., & Kövecses, Z. (1987). The cognitive model of anger inherent in American English. In D. Holland & N. Quinn (Eds.), *Cultural models in language and thought* (pp. 195-221). Cambridge University Press.
- Lakoff, G. (1993). *The contemporary theory of metaphor*. In A. Ortony (Ed.), *Metaphor and thought* (pp. 202-251). Cambridge: Cambridge University Press.
- Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to western thought*. New York: Basic Books.
- Littlemore, J. (2015). *Metonymy*. Cambridge: Cambridge University Press.
- Maalej, Z., & Yu, N. (Eds.). (2011). *Embodiment via body parts: Studies from various languages and cultures*. Amsterdam & Philadelphia: John Benjamins.
- Maalej, Z. (2014). Body parts we live by in language and culture: The raas 'head' and yidd 'hand' in Tunisian Arabic. In M. Brenzinger & I. Kraska-Szlenk (Eds.), *The body in language: Comparative studies of linguistic embodiment* (pp. 224–259). Boston: Brill.
- Macmillan Online Dictionary. (n.d.). Retrieved from <https://www.macmillandictionary.com/>
- Marmaridou, S. (2011). The relevance of embodiment to lexical and collocational meaning: The case of *prosopo* 'face' in Modern Greek. In Z. Maalej & N. Yu (Eds.), *Embodiment via body parts* (pp. 23-40). Amsterdam: John Benjamins Publishing Company.
- Matsukawa, K., Endo, K., Ishii, K., Ito, M., & Liang, N. (2018). Facial skin blood flow responses during exposures to emotionally charged movies. *Physiol Sci*, 68(2), 175-190.
- Pragglejaz Group. (2007). *MIP: A method for identifying metaphorically used words in discourse*. *Metaphor and Symbol*, 22(1), 1-39.
- Rabab'ah, K., & Al-Saidat, E. (2014). Conceptual and Connotative Meanings of Black and White Colours: Examples from Jordanian Arabic. *Asian Culture and History*, 6(2), 255-260. <https://doi.org/10.5539/ach.v6n2p255>
- Scott, M. (2012). WordSmith tools version 7. Stroud: Lexical Analysis Software.
- Sharifian, F. (2017). *Cultural Linguistics*. Amsterdam & Philadelphia: John Benjamins.
- Sharifian, F. (2017). *Cultural linguistics: Cultural conceptualisations and language*. John Benjamins Publishing Company.
- Steen, G. (2007). Finding metaphor in discourse: Pragglejaz and beyond. *Cultura, Lenguajey Representación/Culture. Language and Representation*, 5, 9-25.

- Steen, G. (2008). The paradox of metaphor: Why we need a three-dimensional model of metaphor. *Metaphor & Symbol* 23. 213–241. <https://doi.org/10.1080/10926480802426753>
- Steen, G. (2011). What does 'really deliberate' really mean?: More thoughts on metaphor and consciousness. *Metaphor & the Social World* 1. 53–56. <https://doi.org/10.1075/msw.1.1.04ste>
- Taghian, M. (2023). Conceptualization of hand idioms and proverbs in Egyptian Colloquial Arabic (ECA) into English: A Cognitive Approach. *Journal of Scientific Research in Arts (Language & Literature)*, 24(1). <https://doi.org/10.21608/jssa.2023.172731.1447>
- Tognini-Bonelli, E. (2001). *Corpus Linguistics at Work*. Amsterdam: John Benjamins.
- Yu, N. (2015). Embodiment, culture, and language. In F. Sharifian (Ed.), *The Routledge handbook of language and culture* (pp. 227–239). London: Routledge
- Vega Moreno, R. E. (2007). *Creativity and convention: The pragmatics of everyday figurative speech*. John Benjamins Publishing Company.
- Wilson, D., & Carston, R. (2008). Metaphor and the 'emergent property' problem: A relevance theoretic approach. *Baltic International Yearbook of Cognition, Logic and Communication*, 3. <https://doi.org/10.4148/biyclc.v3i0.23>
- Wu, X. (2016). A contrastive study on the associative meanings of basic color terms in English and Chinese. *International Conference on Education, Management and Computer Science*, 889-896. <https://doi.org/10.2991/icemc-16.2016.178>
- Zlatev, J., Devylder, S., Defina, R., Moskaluk, K., Andersen, L. (2023). Analyzing polysemiosis: Language, gesture, and depiction in two cultural practices with sand drawing. *Semiotica* 253, 81–116. <https://doi.org/10.1515/sem-2022-0102>
- Zhang, M. (2021). A cognitive research on hand metaphors in English. *Open Access Library Journal*, 8, e7436. <https://doi.org/10.4236/oalib.1107436>
- Zibin, A., & Altakhaineh, A. A. (2018). An analysis of Arabic metaphorical and/or metonymical compounds: A cognitive linguistic approach. *Metaphor and the Social World*, 8(1), 100–133. <https://doi.org/10.1075/msw.16023.zib>
- Zibin, A. (2021). Blood metaphors and metonymies in Jordanian Arabic and English. *Review of Cognitive Linguistics*, 19(1), 26–50.
- Zibin, A. and Hamdan, J. (2019). The Conceptualisation of FEAR through Conceptual Metonymy and Metaphor in Jordanian Arabic. *International Journal of Arabic-English Studies* 19 (2): 239–262. <https://doi.org/10.33806/ijaes2000.19.2.1>

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