COGNITIVE STUDIES | ÉTUDES COGNITIVES, 24
Warsaw 2024
Article No.: 3126
DOI: 10.11649/cs.3126
Citation: Altakhaineh, A. R. M., & Zibin, A. (2024). Filial construct states in Arabic: Exploring metaphtonymies and embodied cultural cognition. *Cognitive Studies | Études cognitives*, *2024*(24), Article 3126. https://doi.org/10.11649/cs.3126

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Filial Construct States in Arabic: Exploring Metaphtonymies and Embodied Cultural Cognition

Abstract

This study explores a specific category of construct states in Arabic, which involves the use of filial words to form the construct head, producing what we refer to as "filial construct states", e.g., *bana:t llajl*, which literally translates to "daughters of the night" meaning "dreams". Using a manually collected specialized corpus, and adopting Conceptual Metaphor Theory as based on main meaning focus (Kövecses 2010, 2011) as a theoretical framework, we argue that the way Arabic-speaking individuals perceive family and society may influence linguistic constructs leading to the development of filial construct states. Additionally, we propose that these constructs arise from the interaction between two cognitive processes: metaphor and metonymy, and as such they are of a metaphtonymic nature. We maintain that cognition is profoundly influenced by embodiment and cultural context. Thus, in order for cognition to be considered cultural, it needs to encompass and reflect the cultural knowledge that arises and develops from interactions and communication within a specific speech community.
Keywords: cognitive linguistics; morphology; metaphor; metonymy; embodied cultural cognition

1 Introduction

The Construct State (CS), known as *'iḍāfah* in Arabic, is a productive syntactic structure (Sadler, 2021). It combines two noun phrases to establish a relationship between a head and a non-head, resulting in different semantic connections (Sadler, 2021, p. 65). In Arabic, a construct state is formed by merging two nominal expressions into one construction (Altakhaineh, 2017). The first term, also referred to as the construct head or possessor, is a noun that lacks any morphological indicators of definiteness or nunation in text-citation to Fassi-Fehri (2012). This is known as *muḍāf* in Arabic, which translates to "that which is added or annexed." The second expression, called the inner NP or possessee, constitutes a fully formed noun phrase. The genitive case is marked immediately after the construct head (Hoyt, 2008).

Altakhaineh (2019) argued that construct states or synthetic genitive constructions can be divided into two types of constructions, compounds and phrases, based on two criteria, namely, adjacency and referentiality. Unlike compounds, the semantic relationship between the components in phrases is a possessive one. Adjacency refers to the idea that the components of the compounds cannot be separated, meaning that no element can come between them (see Lieber & Štekauer, 2009, pp. 11–12). On the other hand, referentiality refers to selecting specific entities in the physical world. In other words, the right-hand components of compounds typically do not have a specific referent. Thus, Altakhaineh (2016, p. 245) suggested that a compound is "a complex word that consists of at least two adjacent elements, where the non-head is normally non-referential. Each of these elements is either a word, combining form or a phrase, so that the whole compound is

a combination of these elements". This is the definition adopted to identify compounds that have the form of a construct state in this study.

The presence of construct states in Arabic, particularly filial construct states involving the construct heads *ʔibn* "son", *bint* "daughter", and *bana:t* "daughters", reveals both the cultural significance of familial connections in the Middle East and their linguistic expression. This linguistic phenomenon is closely linked to grammatical gender in Arabic, which influences the interpretation of phrases like بنت العين *bint lʕajn* "daughter of the eye", which means "a tear", as inherently feminine. Including *ʔibn* "son" and *bint* "daughter" in construct state structures demonstrates the cultural importance given to familial connections and demonstrates how the morphosyntactic characteristics of the language can shape users' understanding of the world. In Arab countries, it is customary to refer to someone as *ʔabu fula:n* "father of X", *bint fula:n* "daughter of X", or *ʔibn fula:n* "son of X". This practice holds significant cultural value and serves as the basis of filial construct states, which is the main focus of this study. This phenomenon has not been extensively explored in linguistic research. This study is driven by two primary objectives: firstly, to uncover the metaphors and metonymies that underlie the formation of filial states in Arabic, thereby revealing the metaphtonymic nature of this language phenomenon; and secondly, to investigate the cultural significance embedded within these structures. In particular, the aim of this investigation is to address the following research questions:

1. What metaphors and metonymies contribute to the metaphtonymic nature of filial construct states in Arabic?
2. In what ways do filial construct states in Arabic reflect embodied cultural cognition?

This study aims to explore how the perception of family and society in the Arabic-speaking world influences linguistic manifestations, specifically, filial construct states. The results of this study will contribute to the broader field of metaphor and metonymy studies, as they provide a unique case study on how these cognitive processes are influenced by embodied cultural cognition within a specific linguistic context. Beyond being linguistic phenomena, these construct states also reflect deeply ingrained cultural values related to family and relationships. Therefore, this study holds significant implications for cultural studies, offering insights into how language not only reflects but also actively shapes cultural norms, revealing the importance of familial relationships within Arabic culture.

2 Literature Review

Since the 1980s, scholars have acknowledged that metonymy and metaphor are not only figures of speech, but also distinct cognitive processes (Jin et al., 2021; Lakoff & Johnson, 2003; Zibin & Altakhaineh, 2023). These two ways of understanding the world often intersect, resulting in the term "metaphtonymy" coined by Goossens (1990). Metaphtonymies are particularly abundant in literature, where they have the power to enhance poetic quality, evoke aesthetic appeal, and stimulate readers' imaginations.

2.1 What is Metaphtonymy?

Goossens (1990) defines metaphtonymy as the interaction between a metaphor and a metonymy, which Geeraerts (2002) further discusses. According to Naghiyeva (2016, p. 13), metaphtonymy is a hybrid concept that emerges from the metonymic reinterpretation of neighboring elements in one domain and the metaphorical interaction with the conceptual indicators of another domain. Ruiz de Mendoza Ibáñez (2017, p. 307) argues that this interaction of concepts results in more complex conceptual structures known as metaphtonymies. There are two primary forms of this interaction. The first form involves the presence of both a metaphor and a metonymy in the same language utterance, without any visual or non-textual elements involved (Barcelona, 2003).

The most notable aspect of this scenario is the metonymic conceptual motivation of metaphor and the metaphorical conceptual motivation of metonymy. In this case, the metaphor relies on a metonymy, such as when anger is compared to the intensity of a fluid's heat, as seen in phrases like "she reached boiling point" (Alazazmeh & Zibin, 2023). This metaphorical representation is driven by several metonymies, in which the unique physiological effects of anger serve as symbols for the emotion, including restlessness, heightened internal tension, and increased body temperature. The second form, known as metaphorical conceptual motivation of metonymy, refers to metaphorical expressions that can only be interpreted as metonymy when they occur within a metaphorical mapping. An example of this is the phrase "he caught the president's ear and told him about the project" (Barcelona, 2003, p. 244). In this context, the metaphor lies in ATTENTION IS A MOBILE PHYSICAL ENTITY, while the metonymy is the use of a body part to symbolize a function or the way in which that function is carried out. In this case, the term "ear" represents the act of paying attention. Detecting this metonymy can only be achieved by analyzing the metaphorical mappings that involve attention as the target domain. Data analysis will show that the relationship between metaphor and metonymy is present in most of the collected examples.

2.2 Theoretical Framework

Conceptual Metaphor Theory (CMT) posits that metaphors are not only a linguistic phenomenon, but rather an integral element of human cognition; our life experiences serve as the foundation for understanding metaphors (Gibbs, 2011). In Conceptual Metaphor Theory (CMT), Lakoff and Johnson (2003) argued that metaphors are conceptual in origin (Gibbs, 2011, p. 530). Lakoff and Johnson suggested that metaphors are ingrained in our cognitive frameworks. Embodiment is a key concept in CMT. It suggests that our cognitive processes, including abstract thinking and language, are shaped by our physical experiences and interactions with the world (Gibbs, 2006; Lakoff & Johnson, 1999; Littlemore, 2019). Embodied cultural cognition is the concept that our mental processes, such as perception, understanding, and decision-making, are significantly shaped by both our physical experiences and the cultural environment in which we exist. This demonstrates how culture influences embodied cognition (Sharifian, 2017). Our cultural heritage, which includes our ideas, values, and customs, has a significant influence on our cognitive processes (Sharifian, 2017).

Kövecses (2010, p. 137) introduced the concept of the "main meaning focus" as a further explanation of CMT. This framework illustrates that every source is associated with a distinct meaning focus or foci, which are subsequently projected onto the target. This meaning focus is conventionally established and universally acknowledged within a speech group. It usually represents the majority of cases of the original idea and is uniquely characteristic of the original itself (see Zibin, 2021). The target concept crucially acquires the main focus or foci of meaning from the source domain. According to Kövecses (2010), a source domain provides pre-established conceptual elements that have been universally accepted by a group of speakers to be used in various target domains. Kövecses (2010) indicated that the primary meaning focus encompasses essential knowledge related to a source domain, which is widely disseminated among the speech community and accurately reflects the core of that source.

An illustration of the primary semantic focus can be seen in the arrangement observed in the analogy of SYSTEMS-AS-BUILDINGS (Kövecses, 2010). The key mappings of the ARGUMENT IS A BUILDING metaphor, as described by Lakoff and Johnson (1980), can be observed in phrases such as "we've got the framework for a solid argument." In this example, the main focus is on the structure of the argument, which is derived from the structural integrity of a building. Buildings, encompassing their substructure and superstructure, function as a reservoir of information that is seen as essential, pivotal, and universally acknowledged within the linguistic community.

Metonymy is a cognitive device that is commonly used in relation to metaphor. It involves using one object or item to represent or provide insight into another entity (Kövecses, 2010, p. 172). In the metonymical term "I'm reading Shakespeare," the name Shakespeare is employed as

a way to mentally access one of Shakespeare's literary works. This demonstrates the conceptual metonymy of utilizing the author's name to represent the work (see Zibin et al., 2020).

Metaphor and metonymy, although separate cognitive devices, can sometimes overlap, resulting in metonymy-based metaphors (Alazazmeh & Zibin, 2023; Kövecses, 2011). According to Kövecses (2011), the metaphorical statement "that a surgeon is a butcher" can be classified as a metonymy-based metaphor, based on the idea of the main meaning focus. The metaphor SURGERY IS BUTCHERY is based on the similarity between the two practices. Looking at this similarity, it appears that surgery may be seen as the underlying principle of butchery, suggesting that the butcher performs their task in a haphazard and negligent manner. The meaning of "butcher" in this context is derived from the use of the entire category to symbolize a specific quality of that category, known as metonymy (Kövecses, 2011, p. 21).

The current study utilizes Kövecses' (2010, 2011) Conceptual Metaphor Theory as based on main meaning focus, as the theoretical framework for analyzing the data.

2.3 Previous Studies

Studies on construct states in Arabic have focused mostly on syntactic aspects, without paying attention to their social or cultural significance (see Azaz, 2017; Boutabia & Dkhissi, 2021; Ouwayda, 2012). However, there have been several studies on the relation between metaphtonymy and culture. For example, Kövecses (2010) suggests that metaphors can exhibit variations, both between different cultures and even within the same culture. These variations can be attributed to a range of factors, including social, regional, historical, ethnic, religious, stylistic, and individual differences, among others.

One of the studies that focused on the relationship between metaphtonymies and culture was conducted by Naghiyeva (2016), in which the idea that metaphtonymy is most prominently evident in various sectors (notably everyday life, culture, politics, social services, economics, and business) is emphasized. It was also demonstrated that at the core of this metaphtonymic activity lies the generation of novel terms, primarily arising through indirect secondary nomination processes. Conceptual metaphtonymy is intertwined with a multitude of nominative acts, including compounding, fusion, affixation, reduction, and conversion.

Similarly, Alazazmeh and Zibin (2023) conducted a contrastive study on the conceptualization of ANGER through metaphors, metonymies and metaphtonymies in Jordanian Arabic and English, and they used CMT and cultural linguistics to analyze the target metaphors and metonymies. They demonstrated that similarities in the conceptualization of ANGER through metaphor and metonymy existed in both languages, suggesting a connection to cross-linguistic embodied cognition. However, differences were also noted between the two languages, particularly in their use of culture-specific source domains and the incorporation of metaphtonymies, and this may reflect cultural beliefs linked to the conceptualization of ANGER.

With regard to the morphosyntactic features of Arabic, previous research has examined the unique feature of grammatical gender in Arabic. It is a notable characteristic of the language in which every noun, whether animate or inanimate, is assigned either a masculine or feminine gender. Consequently, second language (L2) learners can easily determine the gender of nouns that align with natural gender. Nevertheless, they encounter difficulties when dealing with nouns exhibiting formal gender, such as inanimate objects, particularly when these nouns lack clear morphological gender indicators (Alkohlani, 2016). Moreover, gender assignment in Arabic is deeply ingrained in the linguistic traditions and cultural norms of Arabic-speaking communities (Abdel-Raheem & Goubaa, 2021). In addition, it was found by Clarke, Losoff, Dickenson McCracken, and Still (Clarke et al., 1981) that adults who speak Arabic categorize objects and concepts considered "essentially asexual" differently from their English-speaking counterparts, illustrating how gender associations in Arabic shape the perceptions of Arabic speakers regarding these objects and concepts. The notion of grammatical gender in filial construct states will be made clear in section 4.

Numerous scholars have argued that a strong relationship exists between language, cognition, and culture, particularly concerning metaphorical frameworks and expressions (see Alnajjar & Altakhaineh, 2023; Khalifah & Zibin, 2022). Metaphors and metonymies hold significance and influence in various forms of discourse, while also potentially mirroring the cultural beliefs of specific societies (Younes & Altakhaineh, 2022; Zibin, 2022). Therefore, the differences between interpreting metaphors and metonymies are due to the role of culture, which filters universal conceptualizations, reflecting human experiences that are more prominent within specific sociocultural groups (Alazazmeh & Zibin, 2023). Consequently, the shared conceptualizations among individuals within the same community support the idea that cognition can be perceived as a commonality within cultural groups, asserting the undeniable influence of culture on human cognition (Alazazmeh & Zibin, 2023).

The proposed study focuses on filial construct states in Arabic, a concept that has received no attention in previous research. The investigation of how family-related terms are constructed and expressed in Arabic contributes to a deeper understanding of the language's cultural and conceptual differences, especially as Arabic culture places a major emphasis on family, lineage, and relationships. The family holds a central position in Arab society and the Arabic language is a reflection of these cultural values, with linguistic expressions often embodying the importance of kinship and social bonds. Hence, this study aims to explore the cultural significance of filial constructs in Arabic and investigate their metaphtonymic nature.

3 Methodology

In this study, a type-based account approach was employed to collect relevant data (see Kövecses et al., 2019). Instead of focusing on quantity, the type of linguistic expressions used was prioritized. Thus, this approach involves examining phrases and expressions associated with the concept under investigation. These may encompass synonyms, closely related terms, idiomatic expressions, and phrases commonly used together, among others. In our case, the focus was on construct states in Arabic that are compounds rather than phrases. Such information is readily available in dictionaries or compilations of words and phrases related to the concept. In order to build the study's corpus, which is a manually collected specialized corpus containing filial construct states that represent Standard Arabic (see Ammari & Al-Ahmad, 2023; Zibin, 2021), the "*Almaany*" dictionary was consulted. It is an online Arabic dictionary that provides translations, definitions, and examples for a wide range of words and phrases in Arabic. The researchers used the following key words to collect filial construct states: *ʔibn* "son", *bint* "daughter", *ʔabna:ʔ\banu:* "sons", and *bana:t* "daughters". The search yielded 50 expressions with repetitions, of which we present the following filial construct states that are of a metaphtonymic nature:

(1) بنت\بنات العين

bint \bana:t	l-ʕajn
daughter \daughters	DEF-eye.F

Lit. Daughter(s) of the eye

"A tear or tears (feminine)"

(2) ابن الحرب

ʔibn	l-ħarb
son	DEF-war.F

Lit. Son of the war

"A man who is brave or valiant."

(3) ابن النَّار

ʔibn	n-na:r
son	DEF-fire.F

Lit. Son of fire

"A man who is hot-tempered."

(4) ابن البحر

ʔibn	l-baħr
Son	DEF-sea.M

Lit. Son of the sea

"A man who is adventurous or has a free spirit."

(5) بنت الحلال

bint	l-ħala:l
daughter	DEF-lawful.M

lit. Daughter of the lawful

"A good lady."

(6) ابن الحلال

ʔibn	l-ħala:l
Son	DEF-lawful.M

Lit. Son of the lawful

"A decent man who adheres to strong moral principles."

(7) بنات الأفكار

bana:t	l- ʔafka:r
Daughters	DEF-thoughts. F

Lit. Daughters of thoughts/ideas

"The small ideas that arise from contemplating one of life's subjects (feminine)"

(8) بنت\بنات الدهر

bint \bana:t	d-dahr
Daughter \Daughters	DEF-time.M

Lit. Daughter(s) of time

"Hardships; disasters, tribulations; calamities (feminine)"

(9) بنت\بنات النفس

binit \bana:t	n-nafs
daughter \daughters	DEF-self.F

Lit. Daughter of the self

"Unwanted thoughts, ideas, or impulses (feminine)"

(10) بنات الصدور

bana:t	sˤ-sˤudu:r
daughters	DEF-chests.F

lit. Daughters of chests

"Worries or concerns (feminine)"

(11) بنت اليمن

bint	l-jaman
daughter	DEF-Yemen.M

lit. Daughter of Yemen

"Coffee (feminine)"

(12) بنت\بنات العقل

bint \bana:t	l-ʕaql
daughter \daughters	DEF-mind.M

lit. Daughter(s) of intellect/mind

"An idea or ideas (feminine)"

(13) بنات الليل

bana:t	l-lajl
daughters	DEF-night.M

lit. Daughters of the night

"Dreams (feminine)"[1]

(14) ابن السبيل

ʔibn	s-sabi:l
Son	DEF-road.M

Lit. Son of the road

"The traveler who is cut off, wanting to return to his homeland but finds no means to do so (masculine)."

(15) ابن الحرام

ʔibn	l-ħara:m
Son	DEF-unlawful.M

Lit. Son of the unlawful

"A bastard (masculine)"

(16) بنات التنانير

bana:t	t-tana:ni:r
Daughters	DEF-ovens. F

lit. Daughters of ovens

"Bread loaves (feminine)"

[1] Note that this compound could mean 'female prostitutes' in some spoken Arabic dialects.

(17) بنات اللهو

bana:t	l-lahu:
Daughters	DEF-entertainment.M

Lit. Daughters of amusement/entertainment

"Musical instruments (feminine)"

(18) ابن الليالي

ʔibn	l-laja:li[2]
Son	DEF-nights.F

Lit. Son of the nights

"The moon (masculine)"

(19) ابن الليل

ʔibn	l-lajl
Son	DEF-night.M

Lit. Son of the night

"Thief (masculine)"

(20) ابن الغمد

ʔibn	l-ɣimd
Son	DEF-sheath.M

Lit. Son of the sheath

"Sword (masculine)"

(21) بنات الصحراء

bana:t	sˤ-sˤaħra:ʔ
daughters	DEF-desert.F

lit. Daughters of the desert

"Female camels"

(22) بنات الأرض

bana:t	l-ʔard
Daughters	DEF-earth.F

Lit. Daughters of the earth

"Streams (feminine)"

(23) بنت الشفة

bint	ʃ-ʃiffah
Daughter	DEF-lip.F

Lit. Daughter of the lip

"A word (feminine)"

[2] Note here that the plural can change the meaning of the expression (son of the night vs. son of the nights). Bauer and Renouf (2001, p. 116) emphasize that employing the plural form serves not only to provide clarity but is at times essential, as seen in terms like "drugs-induced," "forms-compatible," "savings rate," and "singles-only." In "drugs-induced," the term "drugs" is utilized to distinguish between legal and illicit substances.

(24) بنات الهوى

bana:t	l-hawa:
Daughters	DEF-passion.M

lit. Daughters of passion

"Female prostitutes."

(25) بنات البحر

bana:t	l-baħr
Daughters	DEF-sea.M

lit. Daughters of the sea

"Ships (feminine)"

(26) بنات طارق

bana:t	tˤa:riq
daughters	star.M

lit. Daughters of stars

"The daughters of the distinguished lords; they were likened to stars for the elevated status of themselves and their fathers, with the intention of pride and honor"

To identify metaphors and metonymies, the Metaphor Identification Procedure (MIP) and metonymy identification procedure, as outlined in Pragglejaz Group (2007) and Littlemore (2015), were used. Then, in order to extract conceptual schema from the linguistic evidence, we employed Steen's (2007) five-step procedure. The following example demonstrates this process:

(27) بنت\بنات العقل

bint\bana:t	l-ʕaql
daughter\daughters	DEF-mind.M

Lit. Daughter(s) of intellect/mind

"An idea or ideas (feminine)"

The first step is to identify the metaphorical expression and the words *bint\bana:t* can be identified as metaphorical, since the birth here is not literal. Secondly, cross-domain mappings between two domains are established, i.e. DAUGHTER OF THE MIND and IDEA. Step three is to transform the single proposition with the concepts into a comparison between two propositions, $SIM\{\exists F \exists a[F(\text{IDEA})]t[\text{DAUGHTER OF THE MIND}(a)]s\}$. In this step, it is established that there is similarity between a state F in the target domain (IDEA) and an entity a in the source domain (DAUGHTER OF THE MIND). The fourth step is to transform the open comparison into a closed comparison, having the formal structure of an analogy. This step provides an explanation for the open values in step 3, clarifying the relationship or similarity between the two domains. This metaphor draws an analogy between the nurturing and protective role a parent plays for their child, and the way our intellectual faculties generate, nurture, and develop ideas. The term "daughter" implies a sense of care, growth, and development, which is also how ideas are conceived, nurtured, and matured within the mind. Step five involves transforming the analogical structure into a mapping structure between the two conceptual domains, i.e. THE IDEA IS THE DAUGHTER OF THE MIND. The metonymy is found in the association between ideas or concepts and the broader concept from which they originate, i.e., one's intellectual faculties.

4 Results and Discussion

Cognitive linguistic analysis uncovers a significant relationship between the metaphors and underlying metonymies found in filial construct states (Barcelona, 2003). Specifically, in the instances studied, the notion of birth takes on a metaphorical dimension; the references to "sons" and "daughters" are not literal, as they do not have a physical birth from the construct's elements; thus, the main meaning focus is creation or emergence (see Kövecses, 2010; Zibin, 2021). A metonymic connection comes into play. For example, in the case of *بنت العين* "daughter of the eye", which is repeated below for the reader's convenience:

(28) بنت\بنات العين

bint \bana:t	l-ʕajn
daughter \daughters	DEF-eye.F
lit. Daughter(s) of the eye	
"Tears (feminine)"	

This expression is employed metaphorically to denote a tear, as tears originate from the eyes, i.e. THE TEAR IS THE DAUGHTER OF THE EYE. This association is direct and immediate. Thus, in this context, "daughter of the eye" takes on a metonymic quality, directly alluding to something (tear) closely linked with the eye. This interplay between metaphor and metonymy reflects the embodied cultural cognition at work in the CSs examined in this study.

Another example which is repeated here for the reader's convenience is:

(29) بنات الليل

bana:t	l-lajl
daughters	DEF-night.M
lit. Daughters of the night	
"Dreams (feminine)"	

In example (29), *bana:t* "daughters" implies creation or emergence (metaphor of birth which is the main meaning focus), while "night" is metonymic for mystery, darkness, and the unconscious. Here, "daughter" is used metaphorically to suggest the birth, emergence, or creation of something associated with the night (main meaning focus). In Arab culture, dreams can be seen as a kind of creation of the mind during the night. They can be thought of as "born" from the unconscious, which is a characteristic shared with the idea of a daughter being born. One may wonder here why speakers say "daughter of the night" rather than "son of the night" to denote dreams. In Arabic, the word for "dreams" (أحلام) *ʔaħla:m* is feminine, which is why the construct بنات الليل "daughters of the night" is used to metaphorically refer to dreams. This linguistic choice aligns with the grammatical gender of the word for "dreams" in Arabic. This is an illustrative example of how linguistic and cultural factors come together to shape metaphors and construct states in a language.

Another example is:

(30) ابن الليل

ʔibn	l-lajl
Son	DEF-night.M
Lit. Son of the night	
"Thief (masculine)"	

In example (30), the CS "son of the night" ابن الليل is employed to characterize a thief by suggesting that thieves typically carry out their activities in darkness or at night. This concept is metaphorically expressed by comparing a thief to a nocturnal offspring, emphasizing that it should not be interpreted literally. Thus, there are three metaphors: the birth metaphor, the metaphor DARK IS BAD, and the metonymic use of night to symbolize nocturnal activity, particularly illicit actions like robbery.

As an additional illustration:

(31) بنات الصدور

bana:t	sˤ-sˤudu:r
daughters	DEF-chests.F
lit. Daughters of chests	
"Worries or concerns (feminine)"	

In example (31), the metaphor compares anxieties or concerns to "daughters of chests". This metaphor suggests that anxieties are akin to progeny that arise within an individual, much like daughters are regarded as offspring that develop from a person's body (main meaning focus). This metaphor illustrates the correlation between anxieties and an individual's internal feelings. The metonymy in this statement is based on the connection between the actual position of the chest and the emotional core or source of emotions, namely the heart. In Arab culture, the heart is frequently associated symbolically with emotions (see Alazazmeh & Zibin, 2023). The CS "daughters of the chests" is used to convey the idea that worries are closely tied to one's emotions. This word successfully portrays the emotional burden and personal significance of worries, highlighting their strong association with an individual's deepest emotions and concerns.

Overall, examining these metaphtonymic filial CSs not only provides insights into the complexities of language but also reflects the cultural importance of familial connections in Arab countries. In countries characterized by the common practice of children living with their parents until they get married, familial connections are of utmost importance. It is worth mentioning that in Arab culture there is a predominant custom of not institutionalizing elderly parents. Typically, family members either live near their parents in order to physically take care of them, or have them live in the same household to ensure that they receive adequate care and attention. These linguistic constructs, although not meant to be interpreted literally, reflect the significant value attributed to familial ties in the Middle East. The metaphorical concept of "sons" and "daughters" does not stem from biological birth, but rather from a more profound comprehension of ancestry and familial connections. This exemplifies the cultural conviction that family in the Middle East is the cornerstone of one's identity and support system. Just as the metaphors emerge from the construct's elements without a literal birth, children in these societies grow and develop within the embrace of their families.

The connection between embodied cultural cognition and filial construct states in Arabic lies in the recognition that these linguistic constructs are not solely abstract linguistic events, but rather that they are firmly grounded in the embodied experiences and cultural environment of Arabic speakers. In Arabic, filial CSs are rooted in the embodiment that arises from the basic physical experience of birth, which is universally shared by humans across different cultures. The act of giving birth is a universally shared and deeply rooted bodily experience that is inherent in human biology and culture. The selection of filial CSs in Arabic exemplifies the universal human experience of childbirth and its pivotal influence on the formation of family bonds. Thus, culturally significant notions can impact the selection and employment of specific filial constructs in respect to culture. For example, a CS such as *ʔibn lħarb* "Son of war" which signifies a courageous individual, may be associated with historical or cultural events pertaining to conflicts or battles. The Arab world has had numerous instances of conflict throughout its history, encompassing territorial disputes,

tribal fighting, and contacts with external powers. Such conflicts have significantly influenced the cultural, social, and political environment of the Arab world.

Furthermore, filial CSs can provide insights into other cultural elements, including prominent body parts within Arab culture, as discussed by Alazazmeh and Zibin (2023). These metaphors may originate from physical experiences, i.e. embodied. For instance, the figurative application of body parts like "eye" or "heart" in these CSs may pertain to culturally meaningful sensory perceptions or emotions (Zibin & Hamdan, 2019). The analysis also shows that the use of filial CSs in Arabic presupposes a mutual cultural comprehension among speakers. This shared knowledge arises from the collective experiences and cultural values that individuals have internalized (refer to Sharifian, 2017). The metaphtonymic nature of these constructs reflects both embodied experiences and cultural context; it illustrates the use of linguistic devices to convey complex cultural meanings.

The linguistic structures of filial relationships in Arabic similarly mirror the notion of grammatical gender in the language. When it comes to filial CSs, the assignment of gender to these metaphorical entities is not random; it conforms to the grammatical gender rules of Arabic. When discussing a concept or object that represents feminine attributes, it is linguistically denoted using a noun with feminine gender, such as *bana:t lbaħr* meaning "daughters of the sea", instead of *ʔabna:ʔ* meaning "sons", because it results in the word *sufun* 'سفن' meaning "ships" which is feminine.

An analysis of filial CSs in Arabic, taking into account both their metaphorical and morphosyntactic aspects, offers insights into the interconnectedness of language and culture. Linguistic expressions provide a perspective through which we can understand the interaction between cultural values, gender assignment, and linguistic representation. This emphasizes the unbreakable connection between language and culture in influencing our understanding and communication.

5 Conclusion and Recommendations

This study has examined the connection between embodied cultural cognition and filial construct states in Arabic. In particular, we have argued that language is inseparable from the physical and cultural experiences of its speakers. We have explored how these linguistic constructs act as mirrors, reflecting the shared embodied experiences and cultural values of Arabic speakers. The selection of specific filial constructs, which are based on metaphors and metonymies, has revealed a web of cultural understanding surrounding familial and societal relationships in the Middle East. The study has demonstrated that language, particularly in the form of filial construct states, is a source of cultural information. These constructs go beyond mere linguistic expressions; they encapsulate the collective experiences and values of a community. Viewing these linguistic phenomena through the lens of embodied cultural cognition has revealed their depth. For example, the metaphorical use of body parts such as "eye" or "heart" in these CSs relate to culturally significant sensory experiences or emotions.

In future studies, it is crucial to further explore the relationship between embodied cultural cognition and linguistic expression, not only in Arabic but also in other languages. Such studies will not only deepen our understanding of language but also foster a broader appreciation for human diversity and expression.

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The publication was financed at the authors' expense.

The authors declare that they have no competing interests.

All the authors participated equally in preparing conception and academic editing of this article.

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Publisher: Institute of Slavic Studies, Polish Academy of Sciences, Warsaw, Poland

Publishing history: Received 2023-10-14; Accepted 2024-09-17; Published 2024-12-22.