

Mustapha Bala Tsakuwa, Xu Wen* and Ibrahim Lamido

A chained metonymic approach to *ídò* ‘eye’ constructional metonymies in Hausa

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Abstract: Unlike previous studies which generally seem to focus more on Hausa metaphorical expressions, this study investigates a wide range of uses of *ídò* ‘eye’ in its constructional metonymy patterns in the language by exploring corpus data that contain over 300 eye-related expressions. We observe that some constructional metonymies maintain a set of fixed words and syntax in activating conceptual shifts and producing eye metonymies while others have semi-fixed patterns and produce the same metonymies. Lexical items like *tsókálě*, *kàn*, *à*, *dà*, and *bàsírà* among others are constant constituents in the constructional metonymies in which they appear. In the metonymic chaining, the basic mapping of eye metonymies occurs via the PART FOR PART relation under E-metonymies and the SUB- FOR SUPERCATEGORY relation under C-metonymies. We also observe that $E \rightarrow E \rightarrow C$ coding has the highest chained metonymic structure in the creation of the eye metonymies. Both attributive and predicative colligates motivate metonymic senses in the language. Finally, our analysis reveals that the eye is metonymically conceptualized and semantically extended to various target domains and produces metonymic conceptualizations that make the eye stand for vision, desire, envy, control, attention, perception, person, meeting, brain, intelligence, and so on.

Keywords: approach; chained metonymy; constructional metonymy; Hausa; *Ido*

1 Introduction

It is a common and firm conviction in cognitive linguistics that metonymy, like metaphor, is an important avenue for relating peoples’ cognition with their social

***Corresponding author: Xu Wen**, College of International Studies, Southwest University, Chongqing 400715, China, E-mail: xuwen@swu.edu.cn

Mustapha Bala Tsakuwa, College of International Studies, Southwest University, Chongqing, China; and Department of Arts and Social Science Education, Faculty of Education, Gombe State University, Gombe, Nigeria, E-mail: education2214@gmail.com. <https://orcid.org/0000-0001-9394-8973>

Ibrahim Lamido, Department of Language and Linguistics, Federal University of Kashere, Kashere, Gombe State, Nigeria, E-mail: lamidoibrahim52@gmail.com

practices, beliefs, and daily activities. For almost 40 years now metonymy has received attention from cognitive linguists. The interest in metonymy has increased over the decades, especially after publications such as Kövecses and Radden (1998), Radden and Kövecses (2007[1999]), Panther and Radden (1999), Ruiz de Mendoza and Otal Campo (2002), Barcelona (2000b), and Niemeier (2003) within the cognitive-linguistic domain. While metonymy has therefore been well researched within cognitive linguistics, metonymy research as applied specifically to Hausa remains in its infancy (Gwarzo 2015; Shehu 2020).

First, our study is triggered by Batic's (2006) and Gwarzo's (2015) argument that in the present-day booming of linguistic studies, there is a need for more investigations on semantic or figurative usage of African languages particularly Hausa, which is one of the most spoken African languages. Batic (2006: 17) asserted that "concerning the Hausa language, only a few attempts have been made to investigate the body paradigm and its metaphorical (and metonymical) renderings".

Second, most cognitive linguistic studies that were comprehensively and authoritatively conducted on the Hausa language paid attention to metaphor alone or, in a few instances, metaphor and metonymy. Even in the latter studies, metonymy was given very little attention. Therefore, the previous studies either ignored metonymy or touched on it superficially. The studies treated it as a second-class citizen in the cognitive linguistic circle (Ruiz de Mendoza and Otal Campo 2002). Such studies include Pawlak (2005), McIntyre (2006), Batic (2006), Jaggar and Buba (2009), Azare (2011), Bunza (2012), Gwarzo (2015, 2017), Almajir (2013, 2016), Koki (2017), Lamido and Abdul-Qadeer (2019), and Shehu (2020). Hence, these studies left a gap, which the present study attempts to bridge, especially concerning the metonymic conceptualizations of *ídò* 'eye', a very important body part in the Hausa language.

In particular, the present study attempts to give an in-depth analysis of eye metonymic usage by widening the source and scope of data related to the eye and discussing some eye metonymic conceptualizations that were either not discussed at all in Gwarzo's (2017) and Shehu's (2020) studies or received only minimal attention. Unlike Gwarzo's (2017) study, our study also explores the syntactic and lexical patterns that are regularly associated with eye metonymies in the language. Furthermore, the study attempts to establish what metonymic extensions are found in eye metonymic conceptualizations via the chained metonymy approach (which was not employed by Shehu [2020]) with the classification of E-metonymies and C-metonymies as used in Hilpert (2005, 2006). Thus, this study gives a more in-depth discussion of the chained *metonymization* process of the eye concept in the Hausa language through *constructions* or *constructional metonymies*, in the sense of Hilpert (2005, 2006).

To achieve the objectives of our study, our investigation is guided by the following research questions: (a) How do *ídò* 'eye' constructional metonymies syntactically produce their metonymic senses in Hausa? (b) Which chained metonymic

mappings and colligates occur frequently in activating eye metonymic conceptualizations in the language? And (c) which metonymic conceptualizations are related to the eye in the Hausa language?

This study aims to contribute to the ongoing discussion on Hausa body part metonymies through the lens of cognitive linguistics. The study will also be useful in Hausa lexicographic documentation, especially in making English-Hausa bilingual dictionaries.

The rest of this article is structured as follows. Section 2 highlights the theoretical framework in which the paper is anchored: metonymy and chained metonymy in cognitive linguistics. Section 3 discusses the Hausa language and the concept of the eye. Section 4 describes the research methodology, while Section 5 presents the analysis. The paper ends with findings in Section 6 and a conclusion in Section 7.

2 Theoretical framework: metonymy and chained metonymy in cognitive linguistics

The cognitive linguistic account of metonymy goes well beyond the traditional account, which takes it as a rhetorical device. Metonymy is a cognitive mechanism that underlies human daily thoughts and activities, which is a “predominantly referential shift phenomenon within one domain” (Lakoff and Johnson 2003[1980]; Panther and Thornburg 2012: 5). In support of this notion, Barcelona (2002) redefined metonymy as a conceptual mapping of conceptual entities (the source and the target domains) that are within the same domain, and are connected by a pragmatic or associated meaning. Kövecses (2002) also explained that metonymy is characterized by a cognitive process that allows conceptual entities to be accessible to one another within the same conceptual domain or idealized cognitive models (ICMs). Lakoff (1987) and Kövecses (2002, 2005) asserted that the organization of our human knowledge is done through the ICMs. Kövecses (2002), furthermore, argued that in the conceptual domain, or ICM connection, metonymy may emerge in the form of a part that stands for another. With this, Radden and Kövecses (2007[1999]) categorized the conceptual patterns for metonymic-mapping relationships into *WHOLE ICM AND ITS PART(S)* and *PARTS OF AN ICM* which could be understood through a metonymic conceptualization. The ICMs have an impact on metonymic transfer and they exist in all conceptualizations of things, processes, and events, and their meanings could be appreciated through a conceptual or semantic shift or extension.

Conceptual shifts can occur in multiple cognitive processes of domain expansion within a single conceptual domain. This process is called *chained metonymy* (Gwarzo 2017; Hilpert 2005). This is a cognitive process whereby a semantic shift or an

extension involves various metonymic mappings which can be conceptualized by both speaker and listener of a given utterance. For instance, as cited in Hilpert (2005: 2), an expression like “You’ll find better ideas than that in the library” involves several metonymic mappings that make both the speaker and the listener of this utterance conceptualize that ideas are put in words, which are printed on book pages and the books are found in the libraries. This serialization that involves various metonymic mappings (ideas → words → pages → books) is referred to as chained metonymy (Hilpert 2005, 2006). Chained metonymy is usually used when a single metonymic mapping appears to be insufficient in accounting for the meaning that is conceptualized from an utterance. It can provide both diachronic change of meaning and synchronic polysemous meaning of concepts (Hilpert 2005).

There are two types of metonymy in chained metonymization put forward by (Seto 1999), and used by Hilpert (2005, 2006) and Gwarzo (2017). These are E-metonymy and C-metonymy which serve as the basic classification system and are used to distinguish between the basic metonymic mappings. According to Hilpert (2005: 6), E-metonymy covers all relations (metonymic mappings) between an entity and its parts; these relations can be PART FOR WHOLE, WHOLE FOR PART, OR PART FOR PART mapping. This means that under E-metonymy, a particular subpart stands for a whole entity and vice versa, and a part of a domain substitutes another part. C-metonymy, on the contrary, covers the metonymic mappings that can be obtained between categories and subcategories. Their relations can be SUB- FOR SUPERCATEGORY, SUPER- FOR SUBCATEGORY, OR SUB- FOR SUBCATEGORY. Thus, under the C-metonymy, a subcategory stands for a supercategory and vice versa, and a subcategory stands for another subcategory within a larger category that is common to both.

None of the previous studies (e.g., Almajir (2013), Gwarzo (2015, 2017), Will (2019), and Shehu (2020)) researched chained metonymies, except Gwarzo (2017), but his study did not include eye conceptualizations. Shehu (2020) studied eye conceptualizations; however, he did not give attention to the chained metonymy of the eye. Therefore, there has been no empirical study on Hausa metonymy that examined the serial structure of chained metonymies in the language. Hence, the present study analyzes eye metonymic conceptualizations in the language via the chained metonymy. We concentrate on eye metonymies that were not treated by previous studies, and those metonymies on which we have different arguments even if they were covered by the studies. This is, in a way, to fill the research gap left by the studies, complement their analysis on the concept of the eye in the Hausa language and culture, and argue against their stances and claims. Also, our study explores the syntactic and lexical patterns that are regularly associated with eye metonymies in the language. The study, furthermore, attempts to establish what metonymic extensions are found in eye metonymic conceptualizations via the chained metonymy approach with the classification of E-metonymy and C-metonymy as used in Hilpert (2005, 2006).

3 Hausa language and the concept of *ídò* ‘eye’

With more than 50 million native speakers, Hausa language has the largest population of native speakers in the Chadic language (Kabakawa 2013; Robinson 2014). The language is found to be spoken as a first language in Nigeria, Niger Republic, Benin, Sudan, Chad, Togo, Cameroon, and Ghana (Caron 2013; Kabakawa 2013; Koki 2017). Hausa is one of the three dominant languages spoken in Nigeria; it is a lingua franca in the whole of northern Nigeria and is spoken in some parts of the country (Crysmann 2010; Newman 2000). Hausa is spoken by millions of non-Hausas as a second language within and outside Nigeria (Inuwa 2017; Shehu 2020).

Hausa has a grammatical gender distinction of ‘eye’, i.e., the eye(s) can either be a male or female person; *ídò* is the masculine form and *ídáníyà*¹ is the feminine form. In Standard Hausa,² the eye is a paired body part that is considered mostly as a singular organ, which has at least five different plural forms; these are *idànù*, *idànùwà*, *idád-dùná*, *idándùná*, and *idándàní*. These variants are said to emerge because of dialectal differences, particularly between the western and eastern Hausa dialects (CSNL 2006; Robinson 2014; Shehu 2020). Sometimes, even the singular form, *ídò*, can mean the plural form, especially in expressions like *ingà idònkà* which can mean ‘let me see your eyes (or let me see your face)’. All five different plural forms are used in modern Hausa, and they can be used in all of the metonymies discussed in this paper.³ However, the paper adopts *idànù* as the plural form of *ido* because it is the most commonly used.

As a bodily organ, the eye has several physical characteristics in terms of shape, size, color, and function, which make it to be used figuratively by Hausa speakers. They conceptualize themselves and the world around them with the eye conceptual images they form. They use eye metonymic conceptualizations normally to express their thoughts and depict their entire way of life, which includes their cognition, values, norms, attitudes, worldview, cultural heritage, politics, and religion, among others. Thus, metonymy serves as an indispensable tool in expressing and appreciating the Hausa people’s socio-cultural practices, issues, behaviors, language use, and human adaptations via their embodiment.

Almajir (2013) argued that every language has a very rich semantic extension relating to body-part terms and word meaning extensions are stimulated by

1 This is mostly used by aged people who live in villages. *Idáníyà* can be applied to all of the metonymies described in the paper. However, there may be some differences in grammatical structures and constituents of the expressions, and, the application is not common among the Hausa native speakers of today. This may be because of a generational gap or because Hausa culture and language use favor masculine forms (Pawlak 2014: 6).

2 Based on Kano variety that is mostly used by media and understood by many Hausa speakers.

3 It is only that the expressions may not be common, but they can evoke the intended metonymies.

cognition. Therefore, before any word meaning is extended to another concept, certain parameters of semantic or conceptual shift and metonymic mapping have to be included. Radden and Dirven (2007[1999]) attempted to explain the conceptual shift as the modification and movement of word meaning, or sense to another category or item. The conceptual shift can be in multiple chained metonymic processes (perhaps from E-metonymy and C-metonymy) within a single conceptual domain (Hilpert 2005, 2006). When the conceptual shift is motivated within the same domain, it is considered to be metonymic, but if the shift operates across two different domains, it is viewed as metaphoric (Radden and Dirven 2007[1999]).

4 Methodology

The sources of our data are twofold: intuition and literature. The intuition includes the researchers' native speaker-intuition, observation, and interviewees' intuition, while the literature includes a Hausa monolingual dictionary published by the Centre for the Study of Nigerian Languages (CSNL 2006) and a trilingual Karekare-English-Hausa dictionary by Tikau et al. (2009), and Hausa-English bilingual dictionaries by Robinson (2014[1913]), Skinner (2007), and Newman (2012). The use of dictionaries helped in identifying both the literal and non-literal meanings of the eye lexeme. The eye-related expressions collected for this study were validated intuitively by two of the authors who are Hausa native speakers as did in Jaggar and Buba (2009) and Almajir (2013).

From these sources, we compiled a mini-corpus of 2,674 words which we call 'Idò Hausa Corpora (IHC)'.⁴ These corpora reflect present-day Hausa usage. The corpora contain 323 eye-related expressions on different topics related to typical Hausa people's lifestyles on culture, religion, politics, education, and health, among others. Hence, our analysis exclusively relies on the developed IHC. About 25 of the expressions denote literal meaning, and 298 expressions convey a non-literal sense; 162 are metaphors while 136 are metonymies. Therefore, from the built eye expressions dataset, only *fixed* and *semi-fixed* patterns that produce eye metonymic conceptualizations and occur within a single domain with conceptual entities, with which one provides mental access to the other are considered and discussed. Such patterns are treated as *constructions* or *constructional metonymies* as proposed in Hilpert (2005, 2006).

We agree with Hilpert (2006) that corpus analysis, including ours on mini-data, produces some insight into body part terms like eye lexeme via chaining of metonymies in languages. Whereas corpus analysis reveals a state of synchronic polysemy, this study is focused on the Hausa eye constructional metonymies only. Therefore,

⁴ Available in the TROLLing repository at <https://doi.org/10.18710/KE6780>.

only eye constructions that evoke multiple semantic shifts are considered; the eye receives conceptual extension by the virtue of the construction in which it occurs.

To present our arguments and conclusions, we employ the chained metonymy classification of E-metonymy and C-metonymy as used in Hilpert (2005, 2006) and Gwarzo (2017). We also apply metonymic mapping and coding style (like $E \rightarrow C$, $E \rightarrow E \rightarrow E$, etc.) to allow us to make valid arguments on the internal structure of the chained metonymies on the eye conceptualizations as used by Nerlich and Clarke (2001), Hilpert (2005, 2006, 2007), Yeou (2016), and Gwarzo (2017). However, we present Tables 1 and 2 in the Supplementary Materials summarizing the details of the entire metonymic links, conceptual shifts, metonymic mappings, and coding styles in the chained metonymization of the eye in the Hausa language, and the constructional metonymies, their grammatical constituents and meanings.

5 Analysis of *ídò* ‘eye’ metonymic conceptualizations in the Hausa language

In our analysis, the eye metonymies are categorized based on various domains which include attention, perception, religion, person, personality, contact, and knowledge. There are fifteen different segments under these domains that are presented and discussed as follows.

5.1 Eye in the domain of attention

Conceptualizing the eye as an object metaphorically gives the basis for using the eye in the domain of attention which is important in viewing, looking, and/or seeing things around us. This understanding provides the ground for chained metonymies in which the eye stands metonymically for vision, desire, envy, control, and attention in the Hausa language through a chaining process as we discuss below (1–5).

- (1) *Tsáyà, bá tà gání án tsókálě mātà ídò!*
 Stop NEG she see 4N jabbed 3SGF eye
 ‘Wait, her eyes were jabbed/Her vision is interrupted.’

In example (1), the eye is mentioned to have been poked. Usually, when the eye is poked, there is an obstruction of the eyesight and attention of the person that suffers from the poking. Although it is only a particular point, like the pupil, iris, eyeball, etc. (referred to as “active zone” in Langacker [1991]) that is jabbed in the eye. The eye, however, is mentioned because the jabbed area has a figurative value that makes us

think that the entire eye is jabbed. This is also the metonymic conceptualization that is normally in the mind of the encoder and the decoder of the utterance. Therefore, this conceptualization allows the coding of the eye as an inherently salient syntactic entity (instead of the active zone) in the Hausa culture. We argue that this Hausa cultural cognition instantiates a PART FOR PART metonymy, i.e., the jabbed area is represented by the eye. This is because Langacker's explanation of the 'active zone' concept has been "extended to cover what is normally known as metonymy" (Zhang 2020: 62).⁵ In the Hausa language, this expression is not as literal as *An nàushě tà à kàn idò* 'She was punched on the eye' or *'A kàn idò àkà nàushě tà* 'It was on the eye that she was punched' where the whole eye is hit and referred to literally. Thus, mentioning the eye instead of the specific area in the eye triggers the metonymic understanding by both the speaker and listener of the utterance that the whole eye has been poked and vision has been interrupted or affected.

Deducing from (Ruiz de Mendoza and Diéz Velasco 2002) and Herrero-Ruiz's (2004: 141) submission, we argue that the jabbed area has been extended to mean the entire eye, but the eye is still narrowed down to mean eyesight/vision, which is one of the functions of the eye. These conceptual interactions can be argued, therefore, to have both domain extension and reduction in the chaining of the metonymy within a single conceptual domain and produces EYE FOR VISION metonymy. Here, there is a conceptual link as 'jabbed area → eye → vision' (the jabbed area stands for the eye while the eye stands for the vision), i.e., there is E(PART FOR PART) in the E-metonymy which feeds C(SUPER-FOR SUBCATEGORY) in the C-metonymy in the metonymic structure. The grammatical constituents of (1), *tsókálě* NP *idò*, are semi-fixed. In realizing the metonymic meaning, the VP constituent (*tsókálě*)⁶ is attributively constant in Hausa. If it is changed or substituted, the expression may yield a metaphoric or non-figurative meaning in the language.

The same structure, *tsókálě* NP *idò* in the Hausa language connotes various culturally motivated semantic shifts (like desire in 2a, and envy in 3a) via chained metonymization.

- (2) a. *Agógó-n nǎn yá tsólě mǎtà idò.*
 Watch-ART DET it jabs 3SGF eye
 'The watch/clock attracts her attention/She loves the watch/clock.'

In the Hausa sociocultural setting, *tsólě* NP *idò* in (2a) means the NP's vision has been attracted, and the NP, for this reason, pays attention to the thing that supplies the

5 Some linguists argue that Langacker's active-zone over-extension "has given rise to controversies" (Zhang 2020: 62) and that the distinction between active zone and metonymy is "considerably blurred in cognitive literature" (Anonymous 2009: 1).

6 Or contracted form, *tsólě*.

attraction. And since people pay attention to what they desire (Science Daily 2017), it is implied here that the NP's vision, attention, and desire are attracted by the watch/clock. Hence, in (2a), the eye is depicted as being pulled towards the object which attracts the NP's attention. This example is motivated by the SOURCE-PATH-GOAL image schema. The eye can be seen to have a particular trajectory which causes the eye to move from the eye socket, along some imaginary path, and ends at the object that is the goal of the attention.

To support our argument here, we apply a chained metonymy prediction or *rule* proposed by Hilpert (2007: 5), stating that “if a language has a meaning extension of the body part term eye to the concept (of) ‘desire’, the body part term should also have been extended to the meanings of ‘vision’ and ‘attention’”. To activate the conceptual shift from eye, vision, and attention to desire, the grammatical structure should be (VP(constant *tsólé*)+NP+eye). Some other semi-fixed constructional metonymies that produce EYE FOR DESIRE metonymy in Hausa are presented in (2b–d):

- (2) b. *Idò-nà ná kàn fàrá-r mótá-rnân.*
 Eye-1SGPOSS PCTM LOC.white-POSL car-ART DET
 ‘My desire is on this white car./I love this white car.’
- c. *Idò-nsà yànzir bá yà kàn-tà.*
 Eye-GEN POSS now NEG he LOC.her
 ‘He doesn’t love her as before’/‘His attention(interest) is no longer on her now’
- d. *Inà tá sá ídò-n gání-n kì.*
 I PCTM.AUX put eye-ART seeing-POSL 2SGF
 ‘I have been wanting to see you.’

In example (2b), the desire is appreciated via the subject's watching and attention which he gives to the car. To stimulate the semantic shift of watch, attention, and desire, the constructional metonymies maintain a semi-fixed pattern *ídònà ná kàn* NP (eye+POSS+PCTM+Prep.(constant *kàn*)+NP). Likewise, in (2c), the eye stands for love or desire that a particular male person doesn't have for a particular female person. This implies that he is no longer interested in her or he doesn't pay attention to her as before. In the constructional metonymy, only the lexical items of POSS and NP can be substituted, while ‘Adv’ is an optional constituent in the grammatical structure of *ídòn*+POSS±Adv+NEG+NP+Prep.(constant *kàn*)+NP.

In (2d), the eye stands for the want or wish that the subject of the sentence has in seeing or meeting someone. Grammatically, in *inà tá sá ídòn gánín* NP, PCTM(constant *nà*)+AUX+VP+eye+VP+NP, it is only NP's and VP's lexical items that can be replaced, but the structure remains *fixed*. However, the expression can also be (re)structured as *nà sá ídòn gánín* NP (PCTM(constant *nà*)+VP+eye+VP+NP), i.e., with the omission of the AUX(*tá*). The conceptual metonymy remains intact because all the basic grammatical constituents are positioned.

In (2a–d), the concept of ‘desire’ can serve as a hypernym to words like love, interest, want, wish, etc. that have related senses. With reference to Hilpert’s (2007: 5) prediction or rule stated above, the metonymic chain is eye → vision → attention → desire. That is, in the first E-metonymy, the human EYE STANDS FOR VISION in a PART FOR PART relation because vision is one of the eye’s functions. Whereas in the second E-metonymy, VISION STANDS FOR ATTENTION in a PART FOR WHOLE relation, i.e., the vision is a part of the attention. In the final C-metonymy, ATTENTION STANDS FOR DESIRE, in a SUB- FOR SUPERCATEGORY relation, in which attention, as a kind of love/desire, stands for the love (desire). Thus, in the chained metonymization, an E-metonymy is extended by another E-metonymy, which is also extended by C-metonymy.

As mentioned earlier, *tsólè* NP *ídò* can also mean envy in the Hausa culture. We discuss this below (3a).

- (3) a. *Yá tsólè mātà idò.*
 He jabs 3SGF eye
 ‘He envies her.’

Like the previous examples, expression (3a) conforms to Hausa SVO basic word order. The cultural perception here is that the subject pays attention to the object, especially regarding her daily activities or achievements. The expression implies that the subject has his vision on the object’s life. Such vision and attention which he gives to her life are culturally translated to mean loving/desiring or envying her life progress or personal possession. Here, we take ‘desire’ as a strong wish or feeling to have or do something (Oxford online dictionary, n.d). ‘Envy’ shares similar semantic senses with desire, only that in the Hausa culture, envy is viewed as a person’s strong feeling, wish or want to have exactly what someone else owns or achieves, or wish that another person loses what they have, or that both of them lose it. Unlike Harries’s (2012: 129) general perception of envy in African societies, in the Hausa culture, envy can occur even when a person has the same or more than the other person’s “(perceived) superior quality, achievement, or possession” and envy is not traditionally considered as “the root and powerhouse of witchcraft”.

So, the constructional metonymy, *tsólè* NP *ídò*, is polysemous, conveying ‘jab’ in (1), ‘desire’ in (2a), and ‘envy’ in (3a). Apart from *tsólè* NP *ídò* in Hausa, some constructions also motivate the same semantic shifts to mean envy metonymically in the language. Some of them are as follows (3b–d):

- (3) b. *Sà idò sàñá’à-r bānzà*
 Putting eye business-POSL stupid
 ‘Envy (paying attention to) peoples’ life is a useless business/Envy is bad.’

- c. *Ká sàkà mìn ídò.*
 2SGM put 1SG eye
 'You are seeing (envying) my personal life/You are intruding in my personal life.'
- d. *Sǎ wà mútàně ídò bá kyáu.*
 Put Prep. People eye NEG good
 'Envyng (paying attention to) peoples' life is not good/Envyng is wrong'.

Expression (3b) is a Hausa proverb. Its syntactic structure (N.V+eye+NP+Adj) and metonymic semantics (Envy is bad) are totally fixed in the language. But, *sàkà* NP *ídò* (VP+NP+eye) in (3c) and *sà* NP *ídò* (VP+Prep.+eye+NP) in (3d) are semi-fixed. Thus, to produce the target domain of envy metonymy here, the lexical items in VP and NP constituents can be replaced. However, the VP+Prep and N.V. can only take 'sǎ', 'sǎ-wà', or 'sàkà-wà' while the NP position can take any noun.

To properly account for the envy metonymy, we still need to apply the chained metonymy rule suggested in Hilpert (2007: 5) cited above. As mentioned earlier, people usually put their eyesight or vision on things (e.g., someone's possession, achievement, etc.) that attract them, and because they become attentive to those things, they feel pangs of envy. Hence, expressions (3a–d) imply that having eyes on peoples' personal life is envy. Since chained metonymization naturally motivates polysemantic moves, we conclude that the conceptual shifts (eye → eyesight → watching → attention → envy) provide a basis for motivating EYE FOR ENVY metonymy. The mapping for this metonymy is that in the first E-metonymy, the EYE STANDS FOR EYESIGHT in a PART FOR PART relation. The same relation is maintained in the second E-metonymy, where the EYESIGHT STANDS FOR WATCHING. Watching, on the other hand, feeds attention in the third E-metonymy (WATCHING STANDS FOR ATTENTION) in a PART FOR WHOLE relation, i.e., watching is a part of the attention. Attention is extended by envy in the C-metonymy (ATTENTION STANDS FOR ENVY) via a metonymic mapping of SUB- FOR SUPERCATEGORY relation in which the attention serves as a kind of envy.

Similar constructions of (3b–d) are used metonymically to conceptualize the eye as an instrument of control in the Hausa language. See (4a–d):

- (4) a. *An sá ídò à kàn máháukàci-n mátùká.*
 4Npfv put eye Prep. LOC. mad-ART Adv
 'The madman is under serious watch.'
- b. *Kí sàkà ídò à kàntà.*
 2SGF putting eye Prep. LOC.her
 'Put control on her [life].'
- c. *Kà kàrà sà wá dǎn-kà ídò.*
 2SGM add put Prep. son-your eye
 'Keep more control on your son.'

- d. *Sàkà wà yàrà idò yá-nà dá kyáu.*
 Put Prep. children eye it-AUX Prep. good
 ‘Controlling (paying attention to) children’s life is good.’

In (4a), *sá idò à kàn* NP, the control is understood as preventing possible actions by the NP. The NP is being prevented or stopped from harming anyone or doing unwanted things. In contrast, in (4b–d), the eye(control) is more of protection that comes via paying attention and intruding on the NPs’ life. Therefore, *sàkà idò à kàn* NP in (4b) connotes keeping an eye on the NP’s life to make the NP do what is expected of her, or the NP does not harm anybody, and no harm befalls the NP. The same meaning is expressed by (4c–d). Both (4c) and (4d) have the same grammatical structure, VP+Prep.+NP+eye, in their constructional metonymies. In all (4a–d), the constructions and grammatical constituents are semi-fixed. The VP+Prep. hardly takes any other word except *-sá, sàkà, sa-wà*, or *sàkà-wà* attributively as in (3b–d), if not, the conceptual shift will produce a different semantic sense, instead of control. So, we can argue that *sá* is constant in the constructional metonymy of EYE FOR CONTROL. It is worth knowing that in all (4a–d) contexts, the control is expected to be intermittent, not all the time in the Hausa culture.

The conceptual relation in this metonymy, going by the chained metonymic process, is that the eye represents eyesight in the first E-metonymy via the E(PART FOR PART) relation. In the second E-metonymy, the eyesight represents the watch also via the E(PART FOR PART) relation, and the watch, in turn, represents attention in another E-metonymy through the E(PART FOR WHOLE) relation. From this, attention extends its meaning to control in C-metonymy through a C(SUB-FOR SUPERCATEGORY) relation. Thus, this serial metonymic process can be summarized as follows: eye → eyesight → watch → attention → control. The chained metonymization activates EYE AS AN INSTRUMENT FOR CONTROL STANDS FOR THE CONTROL, and the chaining operates in PART FOR WHOLE metonymy with security ICM that has EVENT ENDING FOR WHOLE EVENT.

In some other metonymic conceptualizations, the eye evokes the meaning of attention, without desire, envy, or control. Consider examples (5a–d).

- (5) a. *Bá-n(i) idò-nkà à nǎn.*
 Give-me eye-GEN.2SGM Prep. DET
 ‘Let me have your attention here.’
 b. *Sà idò-nkà á cán ká gá wání àbù.*
 put eye-GEN.2SGM Prep. LOC 2SGM see some thing
 ‘Pay your attention over there to see something.’
 c. *Ká cire idò-nkà á kái-nà.*
 2SGM remove eye-GEN 2SGM Prep. LOC.me
 ‘Take your attention off me.’

- d. *Ká kúrà ídò á ráml-n zómô-n.*
 2SGM put eye Prep. hole-POSL rabbit-ART
 ‘Put your attention to the rabbit underground coop.’

Hausa speakers use (5a) expression [literally, ‘Give me your eye’], or expressions like ‘*Bá dà ídònkà*. ‘Give out your eye’ or ‘*Káwò ídònkà*. ‘Bring your eye/sight’ to mean let me have your ‘attention’. Attention here is represented by the ‘eye/sight’ and is mapped to watching and paying attention. This creates the EYE FOR ATTENTION metonymy in Hausa. This metonymy is also reported in Almajir (2013: 103) and Shehu (2020: 259), although these two studies did not discuss the chained metonymic process and the essential or optional nature of its structural constituents. For the expression (5a) to provide the metonymic mapping properly, there should be the presence of VP+NP+*ídòn*+NP in the grammatical structure; although the VP and NP lexical items can be substituted.

The expression in (5b), *sá ídòn* NP ‘put your eye there’ also implies ‘attention’ which is represented by ‘see/watch’. In (5c) too, the clause, *cire ídònkà à kai* NP ‘Take your attention off me’ means that the addressee should have their sight or sense of observation off the affairs of the *addresser*. The attention in this context is somewhat negative. Thus, the speaker is saying to their listener that ‘you should stop paying a lot of attention to my personal life, or stop intruding on my life’. In (5d), the phrase *kúrà ídò á* NP (VP+*ídòn*+Prep.(constant *á*)+NP) connotes paying intense attention to a particular place or item in anticipation that something will happen. In this also, VP and NP lexical items can be changed.

In all (5a–d), the metonymic shift is from the concrete domain of the eye to an abstract domain (see/sight) in the first E-metonymy, this motivates EYE FOR SEE metonymy. This conceptual shift moves to a bit more physical domain (watch) in the second E-metonymy and produces a SEE FOR WATCH metonymy as in *ídònsà nà kàn TV* ‘His eyes/watch is on the TV.’ The ‘watch’ here feeds attention, i.e., WATCH FOR ATTENTION metonymy in the third E-metonymy. Hence, in the chained metonymization, THE EYE STANDS FOR ATTENTION which happens through the semantic shifts (eye → see → watch → attention), and the chained metonymic structures and relations of E(PART FOR PART) → E(PART FOR PART) → E(PART FOR WHOLE) with E → E → E chained metonymic coding.

5.2 Eye in the conceptualization of perception

Human face-to-face interactive behaviors involve eye contact and gaze. In the Hausa language, the eyes metonymically stand for the perception of human behaviors as in (6a–c) and for the qualities that we perceive or believe to be possessed by individuals (7a–g).

- (6) a. *A idò-nà kai mútùm nè mái mútùmcì.*
 Prep. eye.1SGPOSS 2SGM man COP POSS integrity
 ‘In my view, you are a man of integrity.’
- b. *Mùtùmiyà-r bānzà cẽ kě à idò -ntà.*
 Woman-POSL stupid COP 2SGF Prep. eye-GEN.her
 ‘She (her mind) believes that you are a *stupid/irresponsible woman.’
- c. *A idòn dùniyà kai bá kà dā kírki.*
 Prep. eye world 2SGM NEG 2SGM Prep. kindness
 ‘In the public opinion, you are not kind enough.’

Perception is believed to be based on what people personally experience through their interactions (Lakoff 1987). In each of the (6a–c) sentences, there is an expression of what an individual (the speaker) sees, interprets, and believes (in his/her heart/mind) about the person that is being addressed in the sentences. Such expressions emerge from the peoples’ views, perceptions, or experiences which they have had during their interactions. Each of the constructions, *à idò-nà*, *à idòntà*, and *à idòn dùniyà* in (6a), (6b), and (6c) respectively can refer to the view/perception held by the person speaking (6a), or by another individual (6b–c).

There seems to be a series of semantic shifts involved in activating the EYE FOR PERCEPTION metonymy. The first in E-metonymy is based on PART FOR WHOLE relation, i.e., the eye stands for the person metonymically, then, in the second E-metonymy, the person stands for the heart/mind as one of their parts via a WHOLE FOR PART relation. Such metonymies occur in many contexts in Hausa. For instance, one can romantically say, *Innà tunà kɪ sai inji dādi* ‘When I remember you, I feel happy’. Here, the speaker represents his mind in doing the work of ‘remembering’ and ‘feeling of happiness’. But in *A rai nà kě sarāuniyyà cẽ* ‘In my mind you are a queen/You are a queen to me’, the mind represents the speaker as a person. The mind, based on contiguity relation, stands for mindset in a C-metonymy through a SUPER- FOR SUBCATEGORY relation. Mindset is semantically related to opinion, belief, and view, hence, in another C-metonymy, the mindset is extended to mean ‘perception’ (mindset for perception) still via a SUPER- FOR SUBCATEGORY relation. This kind of serial contiguity relations (eye → person → mind → mindset → perception) instantiates instrument for perceiving stands for perception and motivates EYE FOR PERCEPTION metonymy. The treatment of perception metonymy in our study is based on the sequence of semantic shifts of people’s mindsets, opinions, beliefs or views. This is different from the analysis given by Shehu (2020: 258), where the expression *Idòn sà yà dushe* ‘He got bad sight’ instantiated perception metonymy.

In (6a–c), each of the constructional metonymies follows a relatively straightforward pattern (having a preposition, eye, and a noun) to make the source domain,

'eye' to map the target domain, 'perception'. The target domain is directly evoked by the preposition, *à*. The constructional metonymies have the same grammatical structure of *à ídò(n)NP* (Prep.(constant *à*)+*ídò(n)*+NP).

In some Hausa expressions, the eye stands metonymically for some qualities (of beauty and ugliness) that can be seen physically in the human body. These are exemplified as follows (7a–g):

- (7) a. *Yárínyà-r tá-nà dà ídò*
 Girl-ART she.POSS Prep. eye
 'The girl is attractive (Lit.: The girl has eyes).'
- b. *Yárínyà-r tá-nà dà ídò dárà-dàrà.*
 Girl-ART she POSS Prep. eye bold
 'The girl is beautiful (Lit.: The girl has big eyes).'
- c. *Akwái tà dà ídò kàm.*
 There-is she Prep. eye Adv
 'She is beautiful (Lit.: She has eyes).'
- d. *Yárínyà-r ídò-ntà f ári nẽ wálláhi.*
 Girl-ART eye-GEN.her white COP swear
 'The girl is beautiful indeed (Lit.: The girl's eyes are white (I) swear).'
- e. *Ammà yárínyà -r ídò-ntà kánánà nẽ.*
 But girl-ART eye-GEN.her small COP
 'The girl is ugly (Lit.: But the girl has tiny eyes).'
- f. *Gàskíyá ídò-ntà jájàyẽ nẽ wálláhi.*
 Truly eye-GEN.her red COP swear
 'The girl is ugly indeed (Lit.: Honestly her eyes are red (I) swear).'
- g. *Gà yárínyà kàm sái dái bà tà dá ídò.*
 Here girl Adv Conj Conj NEG she Prep. eye
 'The girl is physically attractive but, she is facially ugly.'

Traditionally in Hausa, the quality of beauty or ugliness is seen as part of a person that is usually represented or displayed by the eyes. For this reason, the Hausas believe that a girl or woman that is attractive by her eyes is beautiful as in (7a–d), especially if her eyes are big as indicated in (7b), and are not reddish (Shehu 2020). But, if the eyes are either tiny as expressed in (7e) or somehow ruddy as in (7f), she is usually considered as not having eyes as in (7g), therefore, she is ugly. In all (7a–d), the beauty we talk about is of physical attractiveness or facial beauty that is perceptible; so, it is neither the beauty of social character nor good behavior [*kɣan hali* in Hausa] that is also found in most African cultures (Ibanga 2017).

The point(s) of mapping that motivate the perceived quality is the eye in the female person (7a), (7c), and (7g), the size of the eye (7b) and (7e), and the color of the eye (7d)

and (7f). In the Hausa cultural realities, the eye seems to be the most important part of the face which the Hausas use metonymically to represent some parts of the face or even the whole face. In (7a–g), the eye stands for the face, while the face represents the quality (particularly, the size or color of the eye) which displays its attractiveness or ugliness that is perceived to be possessed by the person. These provide a chained metonymic process of EYE FOR FACE in the E-metonymy. The face is reduced to quality (of beauty and/or ugliness). This gives the activation of FACE FOR QUALITY metonymy in the C-metonymy via a metonymic relation of C(SUPER-FOR SUBCATEGORY).

Here, we can see an aesthetic ICM that includes the physical/facial appearance of the person and the aesthetic quality of the appearance. Following Kövecses and Radden (1998), we argue that this ICM does not only include the Hausa people's encyclopedic knowledge of appearance or quality domain, but also their cultural models which are part of their embodiment. The metonymic conceptualization of the eye as attraction or otherwise is very common among Hausas. However, the physical qualities of ugliness, beauty, or attraction are subjective in the Hausa culture; they are mostly based on the speaker's aesthetic sense of evaluation (Slavianova 2016). Thus, ascribing them to a particular individual can be controversial in certain contexts. This is because they are qualities representing cognitive perceptions which can go in line with the English proverb that says 'Beauty is in the eyes of the beholder.' So, like in some languages (Wei 2010), the eye in Hausa serves as a significant socio-cognitive instrument for perceiving the abstract world of beauty and ugliness. The Hausas' mental cognition makes us understand their conceptualizations as a PERCEPTION FOR THING PERCEIVED metonymy, i.e., EYE STANDS FOR THE PERCEIVED QUALITY of beauty or ugliness.

In the grammatical structures of (7a–b), NP *nà dá ídò* is basic. The NP lexical item can be substituted while the rest of the lexical items remain intact. Also, in the adjective constituent in (7b), only *dàrqà-dàrà* and *mǎnyà-mǎnyà* can give the beautiful image of the NP metonymically. We argue here that any adjective that is used with 'eye' besides these two will either produce a non-figurative meaning, make the NP ugly, or make the NP horrific in the Hausa culture. Syntactically, *àkwàì tà dà ídò kàm* in (7c) can be restructured as *àkwàì tà dà ídò*, *àkwàì ídò kàm*, or *àkwàì ídò*. Each of these can produce the same metonymy of beauty quality in the language. Constructional metonymies of (7d–f) have the same grammatical elements, (*ídòn*+NP+Adj+COP). What marks the difference between them is their adjective, i.e., 'white' for beauty in (7d), 'tiny' for ugly in (7e), and 'red' for ugly in (7f), which all can appear attributively and predicatively. The ugliness quality of the NP in (7e–f) is conceptualized in semi-fixed patterns while that of (7h) is conceptualized in an absolute, fixed pattern, which is euphemistically expressed as *'bà tà dà ídò* [which literally means she has no eye(s)].

5.3 Eye in the religious domain

The eye in the religious domain in the Hausa language stands for a set of human body parts. For instance, in (8)

- (8) *Bà-n wánkẽ ídò-nà bà yáú dà sáfẽ.*
 NEG-1SG wash eye.1SGPOSS NEG today Prep. morning
 ‘I have not washed my face today in the morning.’

In the Hausa socio-religious life, the phrase *wánkẽ ídò* [wash eye] is an activity or event that is done mostly in the morning. The activity includes performing ablutions and saying prayers. However, only *wánkẽ ídò* is used and, through chained metonymy, people understand that there is a conceptual shift passing through many stages or processes that possibly include waking up from sleeping, getting out of bed, heading for a bathroom, making ablution (by washing the face and some other body parts like mouth/teeth, nostrils, eyes, chin, forehead, head, ears, hands, fingers, feet, and toes), and observing the early morning (*subhi*) prayer.⁷

These processes can be seen as a Hausa people’s socio-religious ICM that has several activities or events which motivate the understanding of a sub-event (washing the eye) to stand for the whole complex of events metonymically (Littlemore 2017; Radden and Kövecses 2007[1999]). The activities also evoke a metonymic conceptualization of A MEMBER OF A CATEGORY FOR THE CATEGORY, i.e., the eye (a category member) stands as one of the most salient parts of the face/body that culturally represents the whole category mentioned above because of its prominence in the category (Littlemore 2017; Radden and Kövecses 2007[1999]).

In the metonymic process in (8), the eye stands for the facial parts in the first E-metonymy through a PART FOR PARTS relation. In the second E-metonymy, the facial parts represent the aforementioned body parts through PARTS FOR PARTS metonymy. However, the body parts do not represent the whole person culturally in this context. This can be elaborated by expressions like *Ná wánkẽ jíkí nà* ‘I washed my body’, which culturally means ‘I washed some parts of my body’. It does not mean that I took a shower or a bath. Therefore, the conceptual chain (eye → facial parts → body parts) gives us the ground to conclude that the eye stands for the body parts only, not the whole person. This is surely a unique metonymy produced by the exceptional characteristics of the eye in the Hausa culture, unlike other facial/body parts, which in most cases, may not be so prominent or relevant to perform any metonymic role in this context. Thus, the metonymic conceptualization is that of PART FOR PARTS metonymy and has a semi-fixed pattern.

⁷ It is an act of worship that is observed at the dawn by Muslims.

5.4 Eye in the conceptualization of person

In the following contexts (9a–d), the eye stands for a person in the Hausa language.

- (9) a. *Bà-n gá idò -nkà bà à gín bíkì-n bà*
 NEG-1SG see eye-POSS2SGM NEG Prep. Plc event-ART NEG
 ‘I didn’t see you during my ceremony.’
- b. *Ná hángí idò -ntà tá-nà wúrcèwà dàzú.*
 I sighted eye-GEN.she 3SGF PCTM passing moment ago
 I saw her passing by a few minutes ago.’
- c. *Bà-n gá idò-n sání bà à gàrì-n dá ná kè*
 NEG-1SG see eye-GEN know NEG Prep. town-ART Prep. I COP
à Cànà.
 Prep China
 ‘I have not seen any familiar person in the city.’
- d. *Idò-n kì kè nân?*
 Eye-GEN 2SGF COP here
 ‘Is it you?’

Unlike in some languages (e.g., English), in Hausa, the eye is more salient and frequently used to metonymically conceptualize people as in (9a–d). Relying on Barcelona’s (2000a: 5) argument that the domain of person can include sub-domains (like face, head, eye, etc.) which can be mapped to the whole matrix domain of the person, in (9a–d), the eye is mapped to the person. The expressions instantiate a part-for-whole metonymy, i.e., EYE FOR PERSON metonymy. In accounting for the semantic extensions in (9a–d), the eye stands for the face in the first E-metonymy, while the face, in another E-metonymy, represents the body via PART FOR WHOLE relation, which in turn, the body gets an extension to mean a ‘person’ in the C-metonymy through SUB- FOR SUPERCATEGORY relation. Thus, the chained metonymy, as argued by Hilpert (2007: 77), involves several conceptual shifts of eye → body part → person. This metonymy is activated by the overarching PART FOR WHOLE OR BODY PART FOR PERSON metonymy (Barcelona 2000a: 6), i.e., the eye, which is the source domain, stands for the entire person by a semantic extension within a single conceptual domain.

The expressions (9a–d) are semi-fixed patterns. While (9c) is hyperbolic, (9d) is a *direct* metonymy and it is expressed in a rhetorical question. In each of the constructional metonymy in (10a), (10b) and (10d) below, the NP slot can contain any human noun or pronoun to activate a metonymic conceptualization. But in (9c), the N.V cannot take any word in producing the metonymic conceptualization except *sání*⁸ in the Hausa language.

⁸ The word *sání* should start with a small letter, otherwise it will give a different meaning in Hausa (e.g., ‘Sani’ of ‘Muhammad Sani’, which is a male personal name).

5.5 Eye in the conceptualization of personality

In the Hausa culture, the eye stands for the personality traits as construed through different character traits (see 10a–d).

- (10) a. *Kówà yá gà ídò-nkà yá gà mtumi-n kirkì ai.*
 Every he seeing eye-GEN.2SGM he see man-ART upright COP
 'From your attribute, you are an upright person.'
- b. *Dàgà gánín ídò-n shúgàbà-n kàsà sái kówá yá tsáyà*
 Prep. seeing eye-GEN president-POSL land Adv. everybody he stood
 'Seeing the face (personality) of the President, everyone stood (on his feet).'
- c. *Idòn mútàně yá hánà shí mágàná à táro-n*
 Eye people he prevent he talk Prep. meeting-ART
 'Peoples' faces (charisma) prevented him from talking at the meeting.'
- d. *Idò nē káwàì yá sà tá kùkà á cán gúrín bíkì-n.*
 Eye COP Adv it put her cry Prep. Adv. Plc event-ART
 'It is peoples' body charisma that made her cry at the event.'

Our chained metonymic analysis of the eye in the domain of personality traits can be seen as a kind of complement and/or extension to Shehu's (2020) metaphorical analysis of the eye under the same domain. In the Hausa socio-cultural setting, personality traits like honesty, dishonesty, kindness, respect, ability, and integrity, among others, are also used for *social control* (Barkow 1974) and can be represented and dictated by the eye(s) as conceptualized in (10a), or the whole face as in (10b).

In accounting for the chained metonymization of the (10a–d), the eye, as one of the principal parts of the face, represents the face. In the first E-metonymy, EYE STANDS FOR FACE in PART FOR PART metonymy. The semantic shift moves to a bigger entity, the body. So, the face stands for the whole body as in (10c) in the second E-metonymy via PART FOR WHOLE relation. The body, being a physical entity that mostly contains or displays the characteristics, quality, and state of being of a person, becomes what we can call a 'personality-reflector' of the person. Therefore, the body is reduced to the personality traits of the person in the C-metonymy through SUPER FOR SUBCATEGORY relation. Thus, the whole body represents or displays the personality traits as in (10d). These conceptual shifts (eye → face → body → personality) motivate the conceptualization of EYE FOR PERSONALITY metonymy in the Hausa language and provide E → E → C metonymic coding.

In building up the metonymic sense of personality, the constructions *gà(nín)* *ídòn* NP (VP+eye of NP) in (10a–b) and *ídòn mútàně yá* (*ídòn*+NP+(constant *yá*) in (10c) are semi-fixed. In the structures, only NP lexical words can be changed or substituted. In fact, in (10d), the grammatical constituents of *ídò nè káwàì yá* (eye+COP±Adv+ (constant *yá*) have an ellipsis of the NP (e.g., *mútàně*). However, it still evokes metonymy. While the adverb (±Adv) is optional in the construction, the pronoun (*yá*) is predicatively constant in making the metonymic conceptualization.

5.6 Eye in contact domain

Being the dominant frontal part of the body, the eyes normally look in the direction in which people typically face, meet, and/or communicate with others. In the contact domain, contact can occur when someone looks another person in the eyes as in (11a–e) or they see some unfolding events in front of them as in (12a–c). We discuss the Hausa people's conceptualizations of the eye in the contact domain and its conceptual shifts below.

- (11) a. *Mú-n yí ídò dà ídò.*
We-pfv did eye Conj eye
'We met each other.'
- b. *Dàlibà-n dà màlámá-n sù-n ídò dà júnà.*
Students-ART Conj teachers-ART they-pfv eye Prep. conjointly
'The students and the teachers met one another.'
- c. *Bàn gá ídò-n kòwá bà à gùñ áurě-nà.*
NEG-1SG see eye-GEN everybody NEG Prep. Plc. wedding-1SG.POSS
'I have not seen/met anybody at the place of my wedding ceremony.'
- d. *Dà sáfě bà-n sà kà à ídò-nà bà.*
Prep. morning NEG-1SG put you Prep. eye-1SG.POSS NEG
'I did not meet you in the morning.'
- e. *Sù-n yí ídò bíyùr dà dán-tà à kásíwà.*
They-pfv did eye two Prep. son-her Prep. market
'She did meet with her son at the market.'

The (11a–e) expressions in the Hausa language usually narrate or confirm a moment of seeing/sighting, or facing/eye contact with someone in a non-distant place, which can mean a meeting. We would like to argue that in the contact domain, for a meeting to fulfill the 'traditional meeting requirements' in the Hausa culture, there should be some stepwise process that includes seeing/sighting, facing/eye contact, and a (minimal) distance. These points are very important in the understanding of meeting

in the Hausa cultural sense. However, the proximity of the distance is relative. Contextually, each of the constructions in (11a–e) fulfills and portrays the presence of these traditional requirements.

In metonymic chaining, the eye stands for a related activity, 'seeing/sighting'. This produces a metonymy EYE FOR SEEING/SIGHTING via a PART FOR PART mapping. Seeing/sighting stands for facing/eye contact in the second E-Metonymy via a PART FOR PART mapping again. Going by the meeting requirements we proposed above, the facing/eye contact stands for a meeting in C-metonymy through a SUB- FOR SUPERCATEGORY metonymic link. An expression like *Ná gá idònsà dāzú* 'I saw his eyes some minutes ago' can shed light on the semantic shifts between the concepts. The expression culturally means 'I physically had *face-to-face* contact with him or met him a few minutes ago.' The conceptual extension of 'face/eye contact' to 'meeting' is in order based on the Hausa semantics. The serial metonymy can be summarized as eye → seeing → eye contacting → meeting. In this contact domain, the Hausas metonymically conceptualize seeing or having eye contact with someone, especially at a close distance as meeting the person physically for verbal or nonverbal communication. Here, the end of the ICM is used to represent the whole process of the meeting which starts with seeing/sighting, facing/eye contacting at a close distance and ends at the meeting physically. These expressions instantiate INSTRUMENT USED IN AN ACTIVITY STANDS FOR THE ACTIVITY, i.e., EYE STANDS FOR A MEETING metonymy. Here, we take a different stance from Shehu's (2020: 257–258) analysis which claims EYE FOR PERSON metonymy; we argue that the metonymy is EYE FOR A MEETING as shown by our examples (11a–e) and Shehu's examples (5a–d). This metonymy is also found in Almajir (2013).

In (11a), the constructional metonymy has a fixed set of words (*ídò dà idò*) with fixed grammatical constituents that can be preceded by a VP(yi) and be followed by an adverb or a preposition.⁹ And in this context, (11a) can figuratively be translated as eye contact or meeting. Expression (11b) *ídò dà júnà* also refers to meeting one another. It is also fixed and can be preceded by VP(yi) constituent. Conceptualization (11c), *gá idòn* NP, is somehow an overstatement in its context. Such an utterance is used when the speaker think that they are supposed to have seen or met a particular person or group of persons at an event or venue mentioned. Furthermore, in narrating about (not) meeting someone, (11d) is usually used by an elderly (adult) person when talking to or about a younger person. In this construction, a semi-fixed structure, with or without adverb(s) of place, time, or duration is used. In Hausa culture, an expression like (11e) *yí idò bíyù dà* NP has the same grammatical structure as its sister expression *yí idò húdùr dà* NP; the only difference is in their numerical

9 Adverb of time or place, while preposition must be either *dà*(with) +NP, or *dàgà*(from) +Adv.

lexical item.¹⁰ They are both used in narrating about having a physical meeting with someone who is usually at a close distance.

Like (6a–c) constructional metonymies, some sub-patterns also have *àidò(n)* NP in the Hausa language, which their conceptuality views the eye as an eyewitness in the domain of contact. See (12a–c):

- (12) a. *Shí nè wándà ábú-n yà fàrú à idò-nsà.*
 He COP who thing-ART it happened Prep. eye-GEN.his
 ‘He is an eyewitness when the event happened.’
- b. *À kàn idò-nà yá zò.*
 Prep. LOC eye-1SG.POSS he came
 ‘I was around when he came.’
- c. *Yá yí hákàn à gàbàn idòn jàmà’à.*
 He did Adv Prep. LOC eye people
 ‘He did so in front of people.’

In the eye contact domain, the act of eye-witnessing can occur when events unfold before or in front of the eye of an onlooker. ‘Eye-witnessing’ can also have some simple criteria that we can take into account to derive chained metonymization. Such criteria may include the use of spatial terms (like on, before, in front of, etc.), presence, seeing, etc. Having these in mind, the use of *à idò* ‘in front of’, *à kàn idò* ‘in front of’, and *à gàbàn idòn* ‘before/in front of’ in (12a–c) suggests the occurrence of an event in the presence of an onlooker.

The eye, as an entity and a source domain, stands for and is mapped to the target domain, eye-witnessing, within a single conceptual domain via the chained metonymization. In the conceptual chaining, the eye stands for a spatial term, ‘in front of/ before’ in the first E-metonymy (EYE FOR IN FRONT OF). This is considered as a PART FOR ORIENTATION metonymy (Hilpert 2007). The spatial term feeds ‘seeing’ of events in the second E-metonymy (IN FRONT OF FOR SEEING). This can be exemplified further by an expression like *À idòna* or *À kàn idòna à kàyi hàtsàrin* ‘It was before my eye/It was in front of me that the accident occurred/I witnessed the accident.’ This expression clearly shows that ‘before/in front’ can stand for ‘seeing’. Here, seeing an event is conceptually linked with eye-witnessing it. Hence, ‘seeing’ is broadened to ‘eye-witnessing’ in another E-metonymy (SEEING FOR EYE-WITNESSING). This serialization of metonymies (eye → in front of → seeing → eye-witnessing) evokes the understanding OF THE INSTRUMENT USED IN AN ACTIVITY STANDS FOR THE ACTIVITY, i.e., THE EYE STANDS FOR THE EYE-WITNESSING.

10 *Yí idò biyù dà* NP (Lit.: We did **two eyes** with NP), while *yí idò hùdùr dà* NP (Lit.: We did **four eyes** with NP). NB: The latter expression is a humorous way of saying the former, but it has become very common among people of the same age bracket in the Hausa culture.

In the Hausa grammatical structures of (12a), there is an ellipsis of either *kàn* ‘on’ or *gàbàn* ‘before/in front of’. For instance, sentence (12a) can be *Shí nẽ wándà ábín yá fàrí à (kàn/gàbàn) idónsa* which literally means ‘He is the person on or in front of whose eyes the event happened’. Expressions (12b–c) contain the complete grammatical structures of the semi-fixed constructional metonymy, *à kàn idò* NP (Prep.(constant *à*)+LOC.(constant *kàn*)+eye+NP) in (12b) and *à gàbàn idòn* NP (Prep.(constant *à*)+LOC.(constant *gàbàn*)+eye+NP) in (12c).

5.7 Eye in the domain of knowledge

Though it is an organ for seeing, the eye also provides the basis for many metonymies related to the domain of knowledge. In some semi-fixed structures, the eye stands metonymically for the faculty of sense and reasoning, namely, the brain (See 13a–b).

- (13) a. *Kà kállì lámàrì-n dà idò-n básirà.*
 2SGM look issue-ART Prep. eye-GEN sense
 ‘Think critically and reasonably/think about it.’
 b. *Bà kà dà idò nẽ kà tákà mì-n(i) àbíncí?*
 NEG 2SGM Prep. eye COP 2SGM stepped 1SG-POSS food?
 ‘Don’t you have a sight/sense (of reasoning) you stepped on my food?’

In the Hausa culture, when people are asked to do things with ‘*idòn básirà* [eye of sense/wisdom, literally]’ as in (13a), they are required to use their brains in doing things. They are expected to be sensible in their doings. Usually, the Hausas use the expression in (13b) when talking to someone that did something wrong, or intend to do so. The construction of such expression mostly happens in a rhetorical question like ‘*Bà kà dà idò nẽ ...?*’ (literally: ‘Don’t you have eye/sight ...?’) which connotes ‘don’t you have sense ...?’

To account for a chained metonymy from (13a–b), we would like to argue that there seems to be a number of conceptual shifts, in which the first begins with the human eye standing for sight, i.e., there is EYE FOR SIGHT metonymy in the E-metonymy. Sight is one of the functions of the eye and it is considered to be a part of the eye. The sight gets extension by a conceptually related concept, the ‘sense’ in the chain via the use of SUB- FOR SUPERCATEGORY relation in C-metonymy. Sight can be seen here as a miniature or a kind of sense because people usually begin to direct their sight to something before they get any sense from it. In this case, they put the sight for a longer period of time on the item and then begin to have or develop sense from it. In Hausa, for instance, people can say *Yákámátà kàsà idònkà kàn zánèn kà fàhimcè shì*, which roughly means ‘You have to put your eye/sight/sense on the design and understand it.’ It can also mean ‘You have to put your eye/sight on the design and

make sense(meaning) from it.’ This expression implies that sight and sense are interrelated conceptually. The sense, in another C-metonymy, is broadened to mean the brain. On this, the Hausas have a saying, ‘*Kà nà dà idò kuwà?*’ ‘Do you really have sense/brain?’ Here, the conceptual link between the human sense of sight and the faculty of intellect/reasoning provides the ground for extending the sense to the brain via SUB- FOR SUPERCATEGORY relation again.

This process of grammaticalization is an instance of a more general process whereby the eye, through chained metonymization (eye → sight → sense → brain), is mapped to the brain. Thus, in the chained metonymy, THE EYE STANDS FOR THE BRAIN via a PART FOR PART relation. To motivate the EYE FOR THE BRAIN metonymy, (13a–b) constructions maintain a fixed pattern of grammatical structures and components (*idòn bàsirà* (eye+NP(constant *bàsirà*)) in (13a) and a semi-fixed pattern (*dà idò* (Prep.(constant *dà*)+eye)) in (13b).

Another set of eye expressions related to the brain in the knowledge domain is exemplified in (14a–c), in which the eye stands for intelligence.

- (14) a. *Yá-nà sà idò à kàn álkálúmá-n cútá-r kánjàmàu.*
 He-PTM put eye Prep. LOC pens-ART disease-POSL AIDS
 ‘He studies the statistical records of HIV/AIDS.’
- b. *Yá yì idò à kàràtun yànzìr.*
 He did eye Prep. studies now
 ‘He knows (by making progress in his studies) now.’
- c. *Idò-nsà yá búḍē à hárkà-r yànzìr.*
 Eye-GEN.3SGM.POSS he opened Prep. deal-ART now
 ‘He mastered the business now.’

Generally, the eyes are windows for information to reach into the heart, and the heart processes the information and turns it into knowledge and wisdom (Almajir 2013). In Hausa, the constructions *sà idò* ‘put eye’, *yì idò* ‘do eye’, and *yá búḍē* ‘open eye’ in (14a), (14b), and (14c) respectively connote the activity of vision, which is a productive process in developing a mental capacity and intellectual skill. The eye and its bodily function of ‘seeing/visualizing’ are connected to the domain of knowledge through the development of mental ability.

Through metonymic chaining, the eye provides a conceptual structure that is mapped to the intellectual domain which relies largely on vision to the brain and intelligence. This means that the eye stands for one of its functions, ‘vision’ (EYE FOR VISION) via a PART FOR PART relation in the first E-metonymy. The conceptual link between vision and the faculty of intellect (the brain) provides the basis for extending the vision to the brain (VISION FOR BRAIN) via SUB- FOR SUPERCATEGORY relation in a C-metonymy. An expression that can show an intermediate shift between vision and the brain in the Hausa culture is *Yá kàrà ábu kàmàr wàndà báshì dà idò* ‘Why do you do things as

someone who doesn’t have vision/brain’ or ‘Why do you behave as if you don’t see or understand.’ This kind of expression is used to encourage one to use their vision to see or use the brain to understand a situation. The brain, in this chained metonymy, is narrowed down to intellectual prowess, namely intelligence (BRAIN FOR INTELLIGENCE) in the second C-metonymy. The brain, as a super-category responsible for so many things in the human body, stands for its sub-category, intelligence. These polysemantic shifts (eye → vision → brain → intelligence) produce EYE FOR INTELLIGENCE metonymy.

The (14a–c) expressions evoke a metonymy of OBJECT INVOLVED IN THE ACTION FOR THE ACTION. For instance, in constructional metonymy (14a), *sà ídò à NP* [keeps an eye on NP] means that he ‘pays attention to or studies NP’. This connotes that the subject of the sentence uses his eye (brainpower or intellectual ability) to understand and interpret records related to HIV/AIDS cases. While (14b) shows that the eye stands for the knowledge or skill gained by the person, (14c) implies that the person has learned a particular business. All (14a–c) conceptualizations have to do with cognitive dexterity in the language and instantiate an EYE FOR INTELLIGENCE metonymy.

In the conceptualization of the eye metonymically, Hausa people do have a set of belief systems that considers the eye as awareness. See (15a–b).

- (15) a. *Ídò nà gànìn ídò yà mārè tà à dāki.*
 Eye PCTM seeing eye he slapped her Prep. room.
 ‘He slapped her intentionally in the room.’
 b. *Ídò-ntá ná gànì tá áikàtā ...*
 Eye-GEN.3SGF PCTM seeing she did ...
 ‘She is aware/she knows but she did it/She intentionally did (so).’

In (15a–b), the eye performs its bodily function of ‘seeing’ while carrying out a particular activity. When an expression like *ídò nà gànìn ídò* in (15a) or *ídòntà nà gànì* in (15b) is uttered in the Hausa language, it indicates that any action mentioned in the complete sentence is done intentionally by the doer of the action; the doer is fully aware of his/her action. Hence, the actions mentioned in the full sentences (15a–b) are done deliberately. The doers are fully aware of doing the actions. We argue that Almajir’s (2013: 105) argument that the clause *ídò nà gànìn ídò* means ‘Publicly, in the sight of people’ may not always be the case. We believe that the action can be done either in the public glare or secretly. Therefore, we contend that primacy is placed more on the deliberateness of the action mentioned than its ‘public-ness’ in the Hausa language.

In chained metonymies of (15a–b), firstly, the eye as a part of the human body stands for its function, ‘seeing’, i.e., EYE FOR SEEING with a metonymic mapping of PART FOR PART relation. Seeing, in the second metonymy, stands for another action, ‘knowing’. This evokes the SEEING FOR KNOWING metonymy. The concept of ‘seeing’ can be argued to be related conceptually to ‘knowing’. This is because people mostly come to know things through seeing the things. For instance, the Hausa have a popular saying: *Gànì*

yá kori jí ‘Seeing expels hearing, literally’ which means ‘Seeing is better for knowing things than hearing about the things.’ Knowing things, on the other hand, is being aware of the things. And, people usually do some actions when they are aware of what they (should) do. Therefore, they do them deliberately. Having this in mind, knowing, as a sub-category, stands for its super-category, namely, ‘awareness’. This activates a KNOWING FOR AWARENESS metonymy in the conceptual chaining of C-metonymy. Thus, the conceptual links (eye → seeing → knowing → awareness) in carrying out the actions evoke the EYE FOR AWARENESS metonymy.

In activating the EYE FOR AWARENESS metonymy, (15a–b) constructional metonymies have the following basic grammatical structures: eye+VP+eye+NP in (15a) and eye+NP+VP+NP in (15b). It is only the NP lexical item that can be substituted in each of them; if any of the grammatical structural elements changes, the metonymic link and meaning will absolutely change.

6 Findings

In answering the research question raised earlier in (a), we observe that some constructional metonymies activate their conceptual shifts and produce metonymies when they maintain a set of fixed words and syntactic structures like *Sà idò sáná’àn bànzà* (N.V+eye+NP+Adj), *idò dà idò* (eye+Conj(constant dà), etc. These constructional metonymies evoke the target domains without addition, subtraction, or substitution of any lexical items or grammatical constituents. However, some constructional metonymies maintain semi-fixed patterns; they have constructional metonymic slots where an NP, VP, Adj, or Adv lexical item can be changed or substituted, and still produce the metonymies. Some examples include *Sàkà NP idò* (VP+NP+eye), *cire idònkà ... NP (VP+idòn+NP ...)*, etc.

Generally, the eye is a constant lexical item/constituent in all constructions. In the semi-fixed constructional metonymies, there are certain lexical items like *tsókálè*, *kàn*, *à*, *dà*, and *básirà*, among others, that are also constant in the constructions in which they appear; they cannot be changed or substituted in their slots. Their removal can render the constructions as either metaphoric or non-figurative. Also, there are a few lexical items/constituents that are optional in the constructional metonymies. Their optional nature does not affect the activation of the target metonymy. The plus or minus sign (\pm) is used before them. E.g., *sà idò à kàn NP* (VP+eye \pm Prep.(constant *a*)+LOC.(constant *kàn*)+NP), *idò nè káwàì yá* (eye+COP \pm Adv+(constant *yá*), etc. Furthermore, constructions like *tsókálè NP idò*, *sà NP idò*, *sàkà NP idò*, *sá-wà NP idò*, and *à idò NP* can connote two or more culturally motivated perceptions or metonymies in the Hausa language.

In responding to research question (b), our study discovers that in motivating eye metonymic conceptualizations in the Hausa language, PART FOR PART relations occurred most frequently (23 times) and SUB- FOR SUPERCATEGORY relations occurred most frequently (9 times) under E-metonymies and C-metonymies respectively. Our study supports the assertion made by Hilpert (2005, 2006) that a chained metonymy generally begins with E-metonymies and ends with C-metonymies, particularly in body part chained metonymies; in offering chained metonymic links, the E-metonymies are extended further by the C-metonymies. Differently from Gwarzo's (2017) coding, the set of metonymic coding recorded in our study is as follows: $E \rightarrow E \rightarrow C$ (occurred 5 times); $E \rightarrow C$, $E \rightarrow E \rightarrow E$, $E \rightarrow E \rightarrow E \rightarrow C$, and $E \rightarrow C \rightarrow C$ (each occurred 2 times); and $E \rightarrow E \rightarrow C \rightarrow C$, and $E \rightarrow E$ (each occurred 1 time). Also, the eye for 'see' (e.g., *ídò dà ídò*), 'vision' (e.g., *sà ídò*), and 'face' (e.g., *gà ídò*) are the most common metonymic senses on the side of E-metonymy, which mostly feed eye for 'meeting', 'control', and 'person' on the side of C-metonymy.

This study finds out that some lexical items (like nouns, verbs, adverbs, conjunctions, and prepositions) occur immediately before the lexeme 'eye' in the eye constructional metonymies; we call these *attributive colligates*. There are some nouns, possessive pronouns, descriptive and numerical adjectives, adverbs, conjunctions, prepositions, verbs, and copulas that occur immediately after the lexeme 'eye' in the eye constructional metonymies; we tag these *predicative colligates*. Verbs and prepositions are the most frequently used attributive colligates in the data we studied. Their frequency makes them form collocation with the eye, like: *tsólè ídò*, *kírà ídò*, *hàngí ídò*, *à ídò*, *kàn ídò*, etc. Possessive pronouns are the most used predicative colligates. However, they do not form collocation with the eye.

Further, from our data, NP (nouns and possessive pronouns) can appear as both attributive and predicative colligates, but they cannot motivate metonymic sense without the presence of verbs or prepositions in the constructional metonymies. Examples: *tsókálè mātà ídò*, *sà ídòn kà*, etc. Adj (descriptive and numerical adjectives) can appear as both predicative and attributive colligates and they can motivate metonymic sense without the presence of any other word in the constructions. Examples: *fàrin ídò/ídò fàri*, *dàrà-dàrán ídò/ídò dàrà-dàrà*, *ján ídò/ídò jáyáyè*, etc.

To answer the research question (c), under various domains, our study identifies fifteen broad metonymic conceptualization groups; each of them containing some eye-related expressions in the Hausa language. From the constructional metonymies we cite above and the conceptual shifts we discuss, eye as an organ of perception metonymically stands for vision, desire, envy, control, attention, perception, meeting and eye-witnessing; and for perceived personality traits, quality of beauty, or ugliness. The eye also, through its role as an object for sight, is being extended to the conceptualization of person, brain, intelligence, and awareness.

7 Conclusion

This paper argues that the eye in the Hausa language is frequently used with non-literal meanings, and the non-literal meaning should be attributed to the patterns as a whole, not to the isolated lexical items. Our study analyzes eye constructional metonymies with their grammatical structures. It demonstrates that syntax and semantics collaborate and are inseparable in meaning-making related to eye metonymic conceptualizations in the language (Bedu 2020). We suggest the application of *constructional metonymy* in the study of body parts like the eye in other African languages.

The present study investigates eye constructional metonymies in Hausa through chained metonymy in a developed 2,674-worded database. Thus, the eye-related expressions we exemplified and analyzed above are not exhaustive. We recommend that Hausa language specialists should develop a robust body of information or a massive electronic collection of Hausa text (which can be called Nigerian Hausa Corpus) to help in having a very large corpus for Hausa linguistic research. We equally recommend that further studies on metonymy should be carried out by linguists in other African languages through chained metonymization to further our understanding of languages and cognition in African languages and cultures.

Data availability statement

Supporting data are available as Supplementary Materials. The ‘*Idò* Hausa Corpora (IHC) is available in the TROLLing repository at <https://doi.org/10.18710/KE6780>.

Abbreviations used

ART	Article
Prep.	Preposition
NEG	Negation
1SG	First person singular
2SG	Second person singular
3SG	Third person singular
4N	Impersonal pronoun with nonspecific referent
POSS	Possessive marker
COP	Copula
M	Male
F	Female
Conj	Conjunction

Adv	Adverb
AUX	Auxiliary
PFV	Perfective
PCTM	Present Continuous Tense Marker
Plc	Place
POSL	Possessive Link -n/-r
NP	Noun phrase
GEN	Genitive
N.V	Verbal Noun

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