**CAROLINE GIRARDI FERRARI**[1]          DOI: 10.15290/CR.2023.43.4.04
Federal University of Rio Grande do Sul, Brazil
https://orcid.org/0000-0003-3853-3673
**MAITY SIQUEIRA**[2]
Federal University of Rio Grande do Sul, Brazil
https://orcid.org/0000-0002-8775-4563

# Where there's a proverb, there are many conceptual mappings

**Abstract.** This paper explores how metaphorical and metonymic mappings are recognised as part of proverbs' meanings in Brazilian Portuguese. Six proverbs were analysed from the perspective of Conceptual Metaphor Theory. The underlying conceptual mappings of these proverbs were suggested and categorised into primary metaphorical, complex metaphorical, and metonymic. Two psycholinguistic tasks were conducted with 112 adults aiming at determining to what extent these mappings were identified as part of the proverbs' meanings. Results suggest that underlying conceptual mappings were well identified and associated with the proverbs' meanings. For some items, complex mappings generated lower identification rates as compared to primary and metonymic ones. Statistical differences in participants' judgments were found when contrasting the three types of mappings. Our results support the idea that participants can identify conceptual mappings and associate them with their meanings in proverbs when prompted to do so. However, their judgments vary across different types of mappings.
**Keywords:** primary metaphor, complex metaphor, metonymy, proverb understanding.

## 1. Introduction

Picture two friends engaged in a conversation about their busy professional lives. One of them confides in the other about feeling overwhelmed by work. In response, the second friend offers a well-known English proverb: "I'm sure you can do it. *Where there's a will, there's a way.*". With a simple sentence, the friend manages to convey more than

---

its literal meaning, suggesting that determination can pave the way to problem-solving and achieving one's goals.

Here, we define proverbs as figurative fixed sentences, which usually communicate morals, cultural beliefs, and communal wisdom. Proverbs are, in essence, a cultural figurative device within our cognitive-linguistic system, encapsulating a traditional and usually complex belief in a simple sentence. Beyond guiding actions and behaviours in life, proverbs also point to schemes that may be at the foundations of language, thought, and action (Gibbs 2001: 168). They serve indeed as vehicles for organising societal values and morals.

Gibbs & Beitel (1995) suggest that metaphorical and metonymic mappings underlie and motivate proverbs. For instance, the proverb "Where there's a will, there's a way" could be motivated by the conceptual metaphor LIFE IS A JOURNEY. It treats problems in life as obstacles, and their solutions as open routes in the metaphorical path of life. Gibbs & Beitel (1995) argued that proverbs are typically motivated by conceptual metaphors and metonymies in the sense that they might help with the formation of proverbs' meanings. In a later work, Gibbs (2017: 6) expands on claiming that "significant parts of abstract thinking are partly motivated by metaphorical mappings between diverse knowledge domains [...]". Both works imply that proverbs, being a linguistic phenomenon that requires abstract thinking, are partially motivated by conceptual mappings. Consequently, their work could lead to the idea that individuals also need to engage with these conceptual mappings when interpreting proverbs.

Given the complexity of proverbs and the possibility of underlying conceptual mappings in proverbs, this paper aims to analyse how Brazilian Portuguese speakers associate hypothesised conceptual mappings with the meanings of six popular proverbs. Alongside the examination of these underlying conceptual mappings, we also analyse dimensions such as comprehension, familiarity, and conventionality of the proverbs themselves, as well as the conventionality of the underlying conceptual mappings. In addition, we analysed how mappings of the same type are assessed within the proverbs, aiming to investigate whether there's a tendency to identify mappings based on their types (metonymic, primary metaphorical, or complex metaphorical).

We begin our study by analysing underlying conceptual mappings in six Brazilian Portuguese proverbs. In most cases, we were able to identify primary metaphors, complex metaphors, and metonymies. Based on the assumption that complex metaphors are more challenging to identify relative to primary metaphors and metonymies, we carried out two tasks: one to assess proverbs' familiarity, conventionality, and comprehension, and another to gauge how individuals perceive the conceptual mappings as part of the proverbs' structure.

Our main hypothesis hinges on the complexity level of the identified mappings: Brazilian Portuguese speakers are expected to better identify and associate primary metaphors and

metonymies with the proverbs' meanings, given their foundation in bodily experiences. Complex metaphors, on the other hand, would not be as readily identified because of their more cultural motivations. In simpler terms, as the complexity of the mappings increases, the measures of identification and association decrease. Our second hypothesis regards mapping types (primary, complex, and metonymic): mappings of the same type are expected to receive similar evaluations, with no significant differences, independent of the specific mapping and proverb they motivate. This would support the assumption that conceptual mappings of the same type are identified and associated with their intended meaning in a consistent manner, given their theoretical classification. Confirmation of both hypotheses would lend support to the idea that proverbs are a complex figure of speech, shaped by different cognitive-linguistic mechanisms, and further clarify the role of metaphorical and metonymic mappings in interpreting proverbs.

As follows, we briefly present some theoretical background of our study, centred on the Cognitive Linguistics framework. Subsequently, the third section outlines the methodology adopted in our study, detailing our sample, materials, and procedures. Moving on to the fourth section, results are introduced. We begin by analysing the underlying conceptual mappings in proverbs, followed by participants' ratings of comprehension, familiarity, and conventionality of both the proverbs and mappings. Later, we explore differences among these mappings to verify if mappings of the same type receive consistent judgments.[3]

## 2. Theoretical background

Proverbs, when examined through the Cognitive Linguistics approach, stand as one of the most intricate metaphor-related phenomena, as they are shaped by linguistic, cognitive, and cultural aspects. Gibbs & Beitel (1995: 134) define proverbs as "familiar, fixed, sentential expressions that express well-known truths, social norms, or moral concerns". Proverbs may be seen as a pervasive phenomenon, shaping not only our language and thought but also offering insights into diverse human cultures and behaviours.

As a complex phenomenon, proverbs are not always easily comprehended and are typically acquired later in development (Nippold & Haq 1996; Nippold et al. 1998; Nippold et al. 2000; Yoon et al. 2016; Nippold et al. 1997; Duthie et al. 2008; Ferrari & Siqueira 2020; Ferrari 2020), as compared to other figurative language phenomena. Proverbs also involve distinct cognitive phenomena in their processing, like conceptual mappings (Gibbs & Beitel 1995; Siqueira et al. 2017). According to the Conceptual Metaphor Theory, metaphor and metonymy play central roles in conceptualising abstract ideas, being an essential part of our conceptual system. Thus, the presence of metaphorical

---

3   This project was evaluated and approved by the Federal University of Rio Grande do Sul Research Ethical Board, under report number 2.469.701.

and metonymic motivations in proverbs would demonstrate the pervasiveness of such phenomena within a specific aspect of language formation — the formulation of speech formulas in figurative language.

Lakoff & Johnson (1980) define metaphor as a mechanism that allows us to understand one conceptual domain in terms of another. When one says *I am boiling with rage*, one instantiates the mapping INTENSITY OF EMOTION IS HEAT, using experiential and physical knowledge to grasp the abstract concept of emotion. The same happens when people say *she needs to keep her eyes on the ball to pass the test*, for example; they instantiate the conceptual metaphor LIFE IS A GAME, applying a game metaphor to conceptualise a life situation.

Metaphors are likely to give rise to potentially universal knowledge, usually more accessible to our bodily perception, as in INTENSITY OF EMOTION IS HEAT, or more culturally rooted, as in LIFE IS A GAME. Metaphors that are potentially universal, acquired through embodied experiences, are termed *Primary Metaphors* (Grady 1997; Lakoff & Johnson 1999). For being dependent on embodiment, they are usually common in different languages and are less influenced by sociocultural factors. In contrast, metaphorical mappings that are composed of other mappings, often culturally motivated, are called *complex metaphors*. They are usually more creative and less universal, depending on the socio-cultural experiences of given communities. Overall, determining if a metaphor is complex or primary is not a clear-cut process. In Cognitive Linguistics, we tend to consider a *continuum* of figurative language, moving from more potentially universal mappings like primary metaphors, to the most culture-dependent ones, like complex metaphors.

This continuum of figurative language is not restricted to metaphors, being expanded to other figurative phenomena such as proverbs, which are strongly dependent on culture, and metonymies, which are usually more potentially universal. According to Siqueira et al. (2017), to gain a comprehensive understanding of each phenomenon and figurative language as a whole, it's essential to analyse them interdependently, as they can often intersect and influence one another.

Metonymies, for example, are akin to metaphors, but differ in the number of domains involved. Littlemore (2015) and Lakoff and Johnson (1980) define metonymy as a figure of language and thought that uses one entity to refer to another typically related entity, usually within the same domain. While metaphors deal with a domain in terms of another, metonymies are based on relations within a single domain (Radden & Kövecses 1999). For instance, when you call someone by one of their characteristics, as in the phrase *Hey, blond hair!*, you are instantiating the metonymic mapping PART FOR THE WHOLE, representing the person as a whole through one of their salient parts, in this case, their hair colour. In this example, the mapping is built under a large Person domain, which encompasses the two faces of the mapping (*hair*, as a salient part of the person, and *person*, as a whole).

Both metonymies and metaphors are likely to be embedded in the figurative meaning of proverbs. Lakoff & Turner (1989) analyse proverbs through the use of a general conceptual metaphor, which would underlie all proverbs: GENERIC IS SPECIFIC. This metaphor allows specific sayings like proverbs to be employed, abstracted, and generalised in the most varied contexts. Consequently, the GENERIC IS SPECIFIC metaphor could be a generic-level schema for all proverbs, motivating, along with other mappings, the meanings of these widely recognised sayings[4]. For Gibbs & Beitel (1995: 135), the specificity of a proverb's usage is built when its meaning is formed, reflecting human truths in the context in which they are applied. Thereby, people tend to use proverbs based on their experiences, conceptualising them through popular sayings. The proverb *The early bird catches the worm,* for example, draws from the specific scenario of a bird finding food by rising early, but we abstract and generalise this situation in order to apply it to any context that aligns with the proverb's generic schema. This proverb could further be motivated by the metaphor PEOPLE ARE ANIMALS, as the bird in the proverb may represent a person or a person's action. Proverbs seem to encapsulate a range of individual and social experiences, partially motivated by their underlying conceptual mappings. While generic mappings are identified as the motivation for the use of proverbs in discourse, specific mappings may help concretise and particularise a proverb's meaning, helping to build the meaning of proverbs in the most diverse contexts (Lakoff & Turner 1989; Gibbs & Beitel 1995).

Considerable research has shown that conceptual mappings, whether metaphorical and/or metonymic, motivate most proverbs in different languages and cultures. Some studies explore common conceptual mappings in proverbs within the same language, focusing on specific domains such as *animals, food, colour,* and *natural phenomena* (Kobia 2016; Muhammad & Rashid 2014; Moreno 2005; Sameer 2016; Liu 2013; Idegbekwe 2017; Lu 2012; Faycel 2012; Aliakbari & Khosravian 2013; Mele 2013). Others compare the conceptual mappings in proverbs across different languages, examining similarities and differences influenced by culture (Muhammad & Rashid 2014; Moreno 2005; Sameer 2016; Liu 2013; Fonseca 2017; Buljan & Gradečak-Erdeljić 2013). These studies consistently underscore the critical role of culture in shaping proverbial meanings.

Particularly in Portuguese, our review identified only three studies: one in European Portuguese (Lanović & Varga 2015) and two in Brazilian Portuguese (Fonseca 2017; Siqueira et al. 2017). Lanović & Varga (2015) examined the motivations behind idioms and proverbs about the sea, through their underlying metaphorical mappings. They observed that

---

4   We acknowledge that the GENERIC IS SPECIFIC metaphor forms part of a more extensive generic schema for the comprehension of proverbs known as the Great Chain Metaphor (Lakoff & Turner 1989). However, our paper focuses on the analysis of the GENERIC IS SPECIFIC metaphor and does not delve into the exploration of other facets within the Great Chain Metaphor.

most of the sayings are motivated by the metaphor LIFE IS A SEA JOURNEY. Note that this result is culture-dependent, as sea journeys hold significant historical and cultural importance in Portugal. In Brazilian Portuguese, Fonseca (2017) reviewed phraseological units such as idioms and proverbs and their metaphorical motivations about animals both in Portuguese and French. Her findings indicate that certain characteristics of animals, such as their shape and lifestyle, strongly influence the construction of these phraseologies and their underlying metaphorical mappings. She also highlights that those choices are not random, but are firmly grounded in cultural elements. Additionally, Siqueira et al. (2017) delved into the exploration of the underlying metaphorical and metonymic mappings of the same six proverbs that form the core of the current paper, all part of a larger proverbs comprehension task in Brazilian Portuguese. The results from this investigation suggest that most proverbs are motivated by both generic and specific metaphors and metonymies, which have served as a motivation for the current study.

In our literature review, only one theoretical study was found addressing how people comprehend conceptual mappings within proverbs. In this study, Lemghari (2017) discussed and demonstrated the effect of conceptual mappings in the polysemy of proverbs, considering specific contexts. Drawing from existing literature, the author associated proverbs' polysemy with their underlying conceptual mappings, positing that these mappings play a partial role in motivating polysemy. In Lemghari's view, proverbs are stable in their meanings, as they are deeply embedded within a culture's collective understanding. However, they exhibit polysemy in their application to different contexts. Building upon the mappings proposed by Siqueira et al. (2017), we aim to elucidate how underlying conceptual mappings are perceived by Brazilian Portuguese speakers in a group of widely recognised proverbs. In the following sections, we outline the methodology and present the results of this study.

## 3. Method

This study employs a within-participants design, structured into two different steps. In the first step, which is basically theoretical, proverbs were selected, and their conceptual mappings were identified. In the second step, we experimentally examined the proverbs' familiarity, conventionality, comprehension, and identification of metaphorical and metonymic mappings underlying the items. We also looked for differences in figurative language comprehension based on geographical region (urban or countryside) and the type of conceptual mapping (metonymic, primary metaphorical, and complex metaphorical). In this context, our independent variables were geographical region and mapping type, while our dependent variables were participant ratings for familiarity, conventionality (of both proverbs and underlying conceptual mappings), and proverbs' comprehension.

For clarity, familiarity is operationally defined as the extent to which participants are familiar with the proverbs. Conventionality denotes how common it is for participants

to associate specific expressions with certain figurative meanings in discourse. Finally, comprehension gauges participants' ability to explain what each proverb means. Our analytical approach encompassed both qualitative and quantitative analyses to investigate how our sample perceives conceptual mappings. In the following sections, we detail our sample, data collection procedures, and the instruments employed.

## 3.1 Sample and stimuli

At first, our stimuli consist of six highly popular and familiar proverbs in Brazilian Portuguese. Each of these proverbs forms an integral component of a Proverb Comprehension Task in Brazilian Portuguese, which, in turn, constitutes a broader figurative language comprehension test, named COMFIGURA. Those proverbs are:

1. *Em boca fechada, não entra mosca.* [A closed mouth catches no flies];
2. *Filho de peixe, peixinho é.* [Son of fish is little fish];
3. *Quem vê cara não vê coração.* [Those who see the face don't see the heart];
4. *Onde há fumaça, há fogo.* [Where there's smoke there's fire].
5. *Quem não chora não mama.* [Those who don't cry don't get breastfed];
6. *Cachorro que late não morde.* [Dogs who bark don't bite].[5]

As for the second step, our study sample comprises 112 adult participants aged between 18 and 68 years old (*M* = 34.1 years, *SD* = 12.9 years), selected via convenience sampling. Participants were invited to participate through social media platforms using the snowball sampling method. As an inclusion criterion, only native speakers of Portuguese could take part in this study.

At the outset, the sample was categorised into two groups: 39 participants (*M* = 34.7 years, *SD* = 14.1 years) from the metropolitan (urban) area of Porto Alegre, the capital of Rio Grande do Sul — a southern Brazilian state; and 73 participants from the *Serra* (countryside) region within the same state (*M* = 33.8 years, *SD* = 12.4 years). This division was undertaken to control for cultural effects in our study's outcomes. *Serra* is a region strongly characterised by European immigration in Brazil, while the metropolitan area of Porto Alegre boasts a more diverse cultural landscape. As both regions have different sociocultural characteristics and proverbs are profoundly influenced and shaped by culture, the introduction of this control variable may enhance the study's reliability.

## 3.2 Instruments

In the first step, which involved a theoretical analysis of underlying conceptual mappings, no instruments were necessary. In the second step, we employed two instruments for data collection: a proverbs' familiarity and comprehension task and a conceptual mappings' conventionality and identification task. All mappings in the latter task had been

---

5   All translations of Brazilian proverbs presented here are literal word-for-word translations.

identified as underlying mappings in the proverbs studied here. Both tasks were designed based on the six proverbs that compose COMFIGURA's proverb comprehension task.

The proverbs' familiarity and comprehension task comprises six items. Each of them features a different proverb, a 5-point Likert scale (ranging from 1 = totally unfamiliar, 5 = totally familiar), and an open-ended question regarding the proverb's meaning. The answers to the open-ended questions were categorised as expected or unexpected, aligning with the expected answers of COMFIGURA's proverb comprehension task. Expected responses were those in accordance with predefined guidelines established based on findings from a prior psycholinguistic study employing this task (Ferrari 2020). For that matter, 204 adults were interviewed about selected proverbs' meanings. For instance, in the case of the proverb 'A shut mouth catches no flies', answers were considered expected if they touched upon concepts such as 'keeping a secret', 'keeping in silence', 'not speaking too much', 'not being intrusive', 'being aware of what one says'.

The second task, focusing on conventionality and identification of proverbs' underlying conceptual mappings, was developed based on the conceptual mappings identified in the first step. The task items featured questions about the proverbs and the conventionality of their mappings. These questions consistently utilised elements from the mappings' source domain to inquire about elements from the mappings' target domain. In essence, we sought to gauge the extent to which people perceived that concrete elements in the proverb's wording (the source domain) represented an inferential meaning within the proverb (the target domain). An example of those questions is available in Figure 1, Task 2, questions 2 and 3.

To enhance the instruments' validity, the identified conceptual mappings, along with both tasks, underwent rigorous evaluation and received approval from six expert judges. Before commencing formal testing sessions, a pilot study involving two participants was conducted. With their feedback, the tasks were considered ready to be tested.

In the following figure, we provide an example of both tasks, for the same proverb, *Em boca fechada não entra mosca* [A closed mouth catches no flies]. It's worth mentioning that the items were presented in a decontextualised manner, in Brazilian Portuguese.[6]

---

6 The complete versions of the tasks in Portuguese and English are available at `https://osf.io/xvduz/`.

**Proverb 1:** *Em boca fechada não entra mosca* [A closed mouth catches no flies]

Task 1: Familiarity and comprehension

**1)** From 1 to 5, how familiar are you with the expression '*Em boca fechada, não entra mosca* [A closed mouth catches no flies]'?

    1 - Totally unfamiliar; 2 - Unfamiliar; 3 - Somewhat familiar; 4 - Familiar; 5 - Totally familiar.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| ◯ | ◯ | ◯ | ◯ | ◯ |

**2)** What does the expression '*Em boca fechada, não entra mosca* [A closed mouth catches no flies]' mean?

. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

Task 2: Proverbs' and conceptual mappings' conventionality

**1)** From 1 to 5, how common is it to use the proverb '*Em boca fechada não entra mosca* [A closed mouth catches no flies]' to mean that 'keeping quiet avoids unpleasant consequences?

    1 - Totally uncommon; 2 - Uncommon; 3 - Somewhat common; 4 - Common; 5 - Totally common.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| ◯ | ◯ | ◯ | ◯ | ◯ |

**2)** From 1 to 5, how much do you think that 'insects' represent 'unpleasant consequences' in this proverb?

    1 - Nothing; 2 - A little; 3 - Moderately; 4 - A lot; 5 - Totally.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| ◯ | ◯ | ◯ | ◯ | ◯ |

**3)** From 1 to 5, how much do you think that 'a shut mouth' represents 'silence' in this proverb?

    1 - Nothing; 2 - A little; 3 - Moderately; 4 - A lot; 5 - Totally.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| ◯ | ◯ | ◯ | ◯ | ◯ |

Figure 1. Tasks examples

## 3.3 Procedures

In order to identify proverbs' underlying conceptual mappings, we initiated our process with a brainstorming session involving our research group. Based on the proverbs' meanings, we embarked on an analysis and suggested underlying conceptual mappings

that could motivate these expressions. To suggest the mappings, our approach sought to delineate connections between the proverbs' elements and their moral or ethical facets. Thus, by elucidating these connections, we could suggest conceptual domains and mappings for each proverb. It is important to note that this step was also based on previous findings from a prior study (Siqueira et al. 2017) examining the same set of proverbs. After that, in another brainstorming session, we categorised each identified mapping into one of three types: metonymic, primary metaphorical, and complex metaphorical. It is worth acknowledging that complex metaphors often arise from a fusion of two or more primary mappings. However, it is important to clarify that this paper does not delve into the detailed process through which these metaphors are formed.

In the second step, experimental methods were conducted. Data collection was carried out via *Google Forms* in July 2019. Participants were sent invitations along with the link to participate in the study. Prior to engaging with the tasks, participants provided their consent and some demographic information (i.e., age, languages spoken, city of residence). Subsequently, they proceeded to undertake the familiarity and comprehension task. Lastly, participants responded to the task on proverbs and underlying conceptual mappings' conventionality. All task items were presented in the same predetermined order. Participants had the flexibility to follow their own pace, but they were unable to look ahead or return to previous questions to modify their answers. On average, participation in the study consumed approximately 15 minutes per participant. In the following section, we detail and discuss our results.

# 4. Results and discussion

Results will be presented and discussed in two distinct sections. In the first one, we unveil and analyse the underlying conceptual mappings of the proverbs, alongside participants' ratings of comprehension, familiarity, and conventionality of both the proverbs and the mappings themselves. In the second section, we delve into an analysis of statistical differences among the identified mapping types. This exploration aims to shed light on the role of the types of conceptual mappings in proverbs, verifying whether mappings of the same type elicit uniform judgments.

## 4.1 Proverbs and conceptual mappings' identification and judgement

In this section, we will present our analysis and identification of conceptual mappings within the six proverbs studied here. It is worth reminding that this segment of our study builds upon a previous investigation conducted by our research group (Siqueira et al. 2017). Thus, some of the mappings identified here have already been identified in that previous study. After discussing each proverb and its associated mappings, we bring descriptive findings on participants' identification of conceptual mappings. We also furnish a statistical analysis that compares the mappings' judgments, aiming at finding

differences between the mappings in the same proverbs. In this analysis, we employ the Wilcoxon-Mann-Whitney test. Data were analysed using RStudio version 4.2.2, and the significance level of 5% ($p < 0.05$) was established.

Prior to going deeper into the results, we conducted an initial statistical analysis to verify whether there were significant differences in judgments based on participants' geographical regions. We analysed their responses concerning the familiarity, comprehension, and conventionality of proverbs, as well as the conventionality of the underlying conceptual mappings. Our analysis revealed no significant differences in proverbs' familiarity and comprehension. In proverbs' conventionality, one significant difference was observed in Proverb 5 (*Quem não chora não mama* [Those who don't cry don't get breastfed]). As for underlying conceptual mappings, out of the 15 mappings we identified, only one exhibited significant differences based on geographical region, also in Proverb 5. Given that only two out of 33 results showed significant differences across regions, we decided to consider that, in general, both participant groups have a similar level of comprehension, familiarity, and conventionality with regard to proverbs and their underlying mappings. Consequently, data from all participants were grouped and analysed without the interference of the *region* independent variable. In the following sections, we provide a comprehensive breakdown of the results found for each of the analysed proverbs.

### 4.1.1 Proverb 1: *Em boca fechada, não entra mosca* [**A closed mouth catches no flies**]

In Brazilian Portuguese, the proverb *Em boca fechada, não entra mosca* is a commonly used expression, meaning that it's often wiser to remain silent than to speak unnecessarily, thereby avoiding unwanted or unpleasant consequences. In other words, this proverb means that we should speak only when necessary. Our analysis identified two conceptual mappings underlying this proverb: UNPLEASANT CONSEQUENCES ARE INSECTS, characterised as a complex metaphor (Siqueira et al. 2017), and THE STATE FOR ITS EFFECT, characterised as a conceptual metonymy. In our analysis, the metaphor arises from the notion that *the consequences of the things we say* are meant instead of *flies*, while the metonymy lies in the use of the idea of *a closed mouth* (the state) for *silence* (the effect).

Within our sample, this proverb was considered highly familiar and well-comprehended. An overwhelming 88% of participants rated the proverb as highly familiar (which means they received ratings of 4 and 5 on the familiarity Likert scale), while 94% of participants demonstrated a clear understanding of the proverb by elucidating its meaning. In terms of conventionality, 81% of participants highly agreed that it is common to employ this proverb to convey the idea that *maintaining silence avoids unpleasant consequences*.

Concerning the conventionality of the conceptual mappings, 60% of respondents could well identify (4 = a lot and 5 = totally in the Likert scale) the relationship established by the complex metaphor (*insects* representing *unpleasant consequences*), while a striking 96%

recognised a high degree of metonymic association (*closed mouth* for *silence*). We believe that both findings corroborate the idea that metonymies are typically more accessible for perception than other phenomena, involving fewer inferential processes. Conversely, complex metaphors may pose greater complexity due to their derivation from a combination of metaphors, potentially requiring more inferential processing. Statistically, our analysis, utilising the Wilcoxon-Mann-Whitney test, uncovered a significant difference ($p < 0.05$) between the comprehension of the mappings. This suggests that participants did not uniformly evaluate both mappings, with metonymy being more readily perceived than the complex metaphor.

### 4.1.2 Proverb 2: *Filho de peixe, peixinho é* [Son of fish is little fish]

The proverb *Filho de peixe, peixinho é* is a commonly used expression in Portuguese to mean that there are resemblances and similarities, whether physical, behavioural, or in personality, between parents and their children. Within this proverb, three complex metaphors could be identified: PATERNITY IS SIZE, SIMILARITY IS KINSHIP, and HUMANS ARE ANIMALS. The metaphor PATERNITY IS SIZE is evoked through the usage of *size*, entrenched in the suffix *-inho*, to indicate a position within the *family relationship*. In Portuguese, the *-inho* suffix is employed to mean *little* or *small* in nouns (e.g., *peixe* [fish]; *peixinho* [little fish]). It is not a random choice, but rather a metaphorically motivated one, representing the little one as the offspring while the 'regular one' denotes the parent. The SIMILARITY IS KINSHIP mapping is instantiated to illustrate the idea that a *familial relationship* embodies *similarities*, which is the core notion of the proverb. Finally, the HUMANS ARE ANIMALS mapping is instantiated when the proverb, conveying *human characteristics and behaviours*, employs *animals (fish)* to portray these same characteristics (Siqueira et al. 2017).

This particular proverb scored remarkably high in terms of familiarity, with a striking 95% of participants rating it as highly familiar (4 and 5 on the scale). Regarding comprehension, an impressive 97% of respondents provided expected answers to the question "What does the proverb mean?", which was the highest rate among all six proverbs. On the topic of conventionality, 93% of our sample strongly concurred that the proverb means that children are similar to their parents.

Given the presence of three complex metaphors in this proverb, we expected that their identification rates would be uniform. For SIMILARITY IS KINSHIP, 86% of responses exhibited a high level of identification among participants. Similarly, the mapping HUMANS ARE ANIMALS yielded 88% of ratings 4 and 5 on the scale. However, in the case of the mapping PATERNITY IS SIZE, 68% of participants highly identified *size* as a representation of *one's position within a family relationship*. Our statistical analysis revealed significant differences between the two highest-rated mappings and the lowest-rated one: HUMANS ARE ANIMALS and PATERNITY IS SIZE ($p < 0.05$); PATERNITY IS SIZE and

SIMILARITY IS KINSHIP ($p < 0.01$). The comparison between HUMANS ARE ANIMALS and SIMILARITY IS KINSHIP, which garnered better recognition, did not exhibit a statistical difference. Since the lowest ranked mapping (PATERNITY IS SIZE) is expressed morphologically in this proverb, through the use of the suffix *-inho*, its identification may be potentially less transparent than the other mappings, which operate at the word level and are more noticeable in the saying.

### 4.1.3 Proverb 3: *Quem vê cara não vê coração* [Those who see the face don't see the heart]

The proverb *Quem vê cara não vê coração* is commonly used in Brazilian Portuguese to convey the message that we should not judge people solely based on their appearances. Instead, it emphasises the importance of evaluating individuals based on their personality and character. Within this proverb, we identified four conceptual mappings. The metonymy PART FOR WHOLE is instantiated when referring to their *face* for their *appearance* and the *heart* for the *personality* (Siqueira et al. 2017). Additionally, we identified two primary metaphors: ESSENTIAL IS INTERNAL, instantiated when we indicate that somebody's *feelings and personality* are more important by mentioning the *heart*, an internal and essential organ; and KNOWING IS SEEING, when we say *see the heart* to mean that we *know someone better*. Furthermore, a complex metaphor, JUDGING IS SEEING, was also identified when we say *see the face* to represent *judging someone* (Siqueira et al. 2017).

Regarding familiarity, this proverb garnered 89% of ratings at levels 4 and 5, underscoring its popularity among our sample. In terms of conventionality, 91% of the participants rated it as *common* or *totally common* to express the idea that one *should not judge people based on their appearance*. When it comes to comprehension, 94% of the sample demonstrated an understanding of the proverb on the terms previously mentioned.

In our conceptual identification task, the metonymy PART FOR WHOLE was associated with the idea that *a part of a person* stands for *a person as a whole* by 71% of participants. The primary metaphor ESSENTIAL IS INTERNAL was identified in the relation of the *heart* representing *our character and personality* by 91% of respondents. The other primary metaphor, KNOWING IS SEEING, was identified in the relation of *seeing the heart* to represent *knowing someone* by 83% of participants. Finally, the complex metaphor JUDGING IS SEEING was identified by 84% of participants in the context of *seeing someone's face* as *judging someone*. It is noteworthy that the relationships established by the primary metaphor ESSENTIAL IS INTERNAL were widely recognised, possibly due to the metaphor's high level of conventionality in Portuguese, where it is customary to discuss somebody's personality in terms of their "inside". However, it was surprising to find that the relationships associated with the other primary metaphor and the metonymy were less recognised than those of the complex metaphor. Unexpectedly, the metonymy presented the lowest rate of high answers. Upon analysing the task materials, we observed that the question about the metonymy in this proverb was more generic than the questions about

the other mappings in the same proverb. In the other questions, we explicitly referred to the elements present in the proverb, such as *cara* [face] and *coração* [heart]. In contrast, the metonymic question presented a more general inquiry concerning *a person's specific part* representing *a person as a whole,* when the proverb does not present equivalent lexical units. This generality in the question may have created some vagueness for participants, requiring more inferences compared to the other questions, which explicitly pointed to the lexical units present in the proverb.

Statistically, only one combination of mappings did not exhibit a significant difference: the complex metaphor JUDGING IS SEEING and the primary metaphor KNOWING IS SEEING. Despite not being of the same metaphorical type, both were recognised similarly by the sample in this study. This could be attributed to their shared domain, SEEING, which is a basic bodily experience, and the fact that both questions in the task complemented one another. One question related to *judging someone by their face,* while the other represented *knowing someone by their heart, their personality.* All other combinations of metaphors were significantly different ($p < 0.05$), contradicting our hypothesis of a similar perception based on mapping type.

### 4.1.4 Proverb 4: *Onde há fumaça, há fogo* [Where there's smoke there's fire]
The proverb *Onde há fumaça, há fogo* encapsulates the prototypical meaning that the presence of evidence or signs indicates the occurrence of something. Within this proverb, we identified two primary metaphors (KNOWING IS SEEING and EXISTENCE IS VISIBILITY) along with one metonymy (EFFECT FOR CAUSE). The metaphor KNOWING IS SEEING motivates the idea that *seeing smoke* represents *knowing something* (Siqueira et al. 2017). The metaphor EXISTENCE IS VISIBILITY is intricately connected to the former, suggesting that *existence* is attributed only to *what is seen*. In the proverb, *seeing smoke* motivates *the existence of evidence concerning something.* Due to their close interconnection, we treated both metaphors operationally as a single primary metaphor. The metonymy EFFECT FOR CAUSE embraces a consequence of fire – *smoke* – for its cause – the *fire* itself. In the intended meaning of the proverb, the *evidence* takes the form of *an effect,* which represents its *origin,* or the *cause*.

This proverb was ranked as the third most familiar among our sample, with 92% of respondents indicating either *familiar* or *totally familiar* responses. Regarding conventionality, 97% of the participants strongly associated the proverb with the meaning that *if something is happening, there will be signs of it*. Out of all six proverbs, this one demonstrated the most conventional alignment between proverbs and their intended meanings. This item was also well comprehended, with 89% of responses matching the expected answers.

Given the close similarity and intertwining nature of both primary metaphors, we formulated a single question that encompassed both aspects. In relation to the question

concerning the link between *seeing smoke* and *knowing about the existence of something*, 94% of the participants identified a strong relationship. Likewise, in the metonymy EFFECT FOR CAUSE, the percentage of 4 and 5 ratings on the scale was also high, reaching 96%. In this proverb, both the metaphorical and metonymic mappings were acknowledged as closely related to their conceptual domains. However, the statistical analysis unveiled a significant difference between these mappings *(p* < 0.01). This partially corroborates our hypothesis, as both mappings were highly recognised by the sample but statistically exhibited varying identification rates.

### 4.1.5 Proverb 5: *Quem não chora não mama* [**Those who don't cry don't get breastfed**]

When we employ the proverb *Quem não chora não mama*, we convey the idea that those who do not express their desires or do not persist in pursuing what they want are less likely to get what they wish for. Within this proverb we identified two conceptual mappings: the primary metaphor DESIRE IS HUNGER, and the metonymy MEANS OF ACTION FOR THE ACTION. The metaphor DESIRE IS HUNGER is derived from the notion that the act of *having something one wishes for* is instantiated in the proverb through the concept of *breastfeeding*, that is, *satiating hunger* (Siqueira et al. 2017). On the other hand, the metonymy MEANS OF ACTION FOR THE ACTION comes into play when the act of *asking or requesting something* stands for one of its possible means (i.e., *crying*).

Within our sample, this proverb, while still highly familiar, was ranked as the least familiar among the items, with 86% of respondents indicating strong familiarity on the scale. On conventionality, 91% of participants strongly associated the proverb with the idea that *those who do not ask do not receive what they desire*. Lastly, 93% of the sample demonstrated a good comprehension of the proverb.

Upon analysing the results for the conventionality of the conceptual mappings, the metonymy was identified by 89% of respondents in the relationship between *crying* and *asking for something*. For the primary metaphor, 88% of the participants identified a strong connection between *breastfeeding* and *attaining one's desires* in the proverb. Both sets of ratings indicate a strong relationship between the domains outlined for these mappings, which aligns with our expectations since they are based on a metonymy and a primary metaphor. In our statistical analysis, no significant differences were observed, suggesting that these mappings were identified and associated similarly with their intended meanings in the proverb.

### 4.1.6 Proverb 6: *Cachorro que late não morde* [**Dogs who bark don't bite**]

The proverb *Cachorro que late não morde* is commonly employed in everyday conversation to convey the idea that individuals who make frequent verbal threats or promises often fail to follow through with their actions. In essence, it suggests that those who talk a lot about what they intend to do but take little or no action are akin to 'barking dogs that

do not bite'. In terms of mappings, we could find a complex metaphor, HUMANS ARE ANIMALS, and a metonymy, MEANS OF ACTION FOR THE ACTION. The metaphor arises from the figurative use of *dogs* to represent *humans*. The metonymy, on the other hand, is instantiated when discussing the *action of doing something* through one of its methods, such as *biting* (in the case of dogs).

Interestingly, this proverb emerged as the most familiar among our participants, with 96% of them indicating that the proverb is *familiar* or *totally familiar*. On conventionality, it yielded 93% of responses rated at 4 and 5 on the scale. On comprehension, 94% of the sample provided responses that aligned with the expected interpretation of the proverb.

In the mappings identification task, the metonymy MEANS OF ACTION FOR THE AC-TION received 86% of high answers on the scale, while the complex metaphor HUMANS ARE ANIMALS got 88%. Both types of mappings received favourable ratings from the sample. However, the complex metaphor was slightly more readily identified than the conceptual metonymy, refuting our hypothesis. Statistically, no significant difference was found between these mappings, indicating that they were judged similarly by our sample and, once again, refuting our hypothesis.

### 4.1.7 All proverbs considered

We conducted an analysis of six widely recognised proverbs in Brazilian Portuguese, uncovering a total of 16 underlying conceptual mappings that motivate these proverbs. Our classification revealed that these mappings could be categorised into 5 metonymies, 5 primary metaphors, and 6 complex metaphors. In formulating the questions for the tasks, one primary metaphor (EXISTENCE IS VISIBILITY) was omitted, as it was in-herently intertwined with another metaphor in the same item. In total, we presented participants with 6 proverbs and 15 mappings: 5 metonymies, 4 primary metaphors, and 6 complex ones.

All the proverbs under examination were highly familiar and conventional among the sample, with a strong comprehension of their intended meanings. Their underlying conceptual mappings were also generally perceived as conventional concerning their intended meanings in the proverbs.

Regarding the underlying conceptual mappings, our study aimed to test two specific hypotheses: (i) primary metaphors and metonymic mappings are more strongly associ-ated with their intended meanings compared to complex mappings, and (ii) there are no significant differences between the evaluation of primary metaphors and metonymies, while there are in the evaluation of complex metaphors (measured by Likert scales). Our findings partially corroborated these hypotheses. Primary metaphors and metonymies indeed exhibited the highest conventionality rates on the mappings, whereas complex metaphors had the lowest rates. However, not all primary metaphors and metonymies were rated as the most conventional, and not all complex metaphors were rated as the

least conventional. Some of our results also appeared to be influenced by the wording of certain questions, particularly those that incorporated more abstract words, which received lower ratings for mapping identification.

Combining mappings for each proverb, we observed that our second hypothesis was also partially corroborated. While significant differences were found in some instances when comparing different kinds of mappings based on their complexity, it was not always the case. In Proverb 1, for example, a significant difference was found when comparing a complex metaphor and a metonymy. The same happened in Proverb 3, between a metonymy and a complex metaphor, and a primary metaphor and a metonymy. However, significant differences were also found (i) between the same type of mapping, as in Proverb 2, with two complex metaphors; (ii) and between metonymies and primary metaphors, as in Proverb 4. In both cases, we did not expect significant findings. Further, contrary to our hypothesis, we did not consistently observe expected differences in expected cases, as in Proverbs 3 and 6 between metonymies and complex metaphors.

Overall, our first analyses suggest that accurately predicting the results of conceptual mapping identification may not solely depend on mapping types but rather on the specific relationships between mappings within their respective proverbs. Our findings demonstrate that individuals are capable of recognising smaller meaning components within larger figurative expressions, such as proverbs. In the next section, we present a comprehensive analysis that considers all mappings examined together, categorised by type.

## 4.2 Relations within conceptual mappings

In addition to examining relationships among mappings within the same proverbs, we also analysed the interrelations among all identified mappings, regardless of the proverbs they were associated with. If differences were not found, we could state that mappings of the same type are evaluated similarly by our sample, allowing a deeper analysis and a possible influence of the mapping type on their evaluation.

In this analysis, we assessed a total of 105 combinations of mappings, encompassing all 15 mappings in the study (5 metonymies, 4 primary metaphors, and 6 complex metaphors). Out of these combinations, 58 resulted in significant differences ($p < 0.05$), while 47 did not. Significant differences imply that, statistically, those mappings were not identified at similar rates by the participants. We then analysed which combinations showed more similar or dissimilar identifications. The data are organised in the following table, according to the mapping type comparisons.

Table 1. Results from the analysis of mapping combinations

| Mapping combination | Significant differences ($p < 0.05$)* | | Non-significant differences* | | |
|---|---|---|---|---|---|
| | Absolute number | Percentage | Absolute number | Percentage | Total number of combinations |
| *Metonymy — Metonymy* | 8 | 80% | 2 | 20% | 10 |
| *Primary metaphor — Primary metaphor* | 2 | 33.33% | 4 | 66.67% | 6 |
| *Complex metaphor — Complex metaphor* | 9 | 60% | 6 | 40% | 15 |
| *Metonymy — Primary metaphor* | 10 | 50% | 10 | 50% | 20 |
| *Metonymy — Complex metaphor* | 20 | 66.67% | 10 | 33.33% | 30 |
| *Primary metaphor — Complex metaphor* | 9 | 37.5% | 15 | 62.5% | 24 |

*Wilcoxon-Mann-Whitney test.

Interpreting our findings, some results corroborate our hypothesis regarding the influence of mapping types, while others refute it. Two out of the three first combinations listed in Table 1, which combine mappings of the same type, exhibit a higher percentage of significant differences, refuting our hypothesis. Primary metaphors are the only mapping type that yielded fewer significant differences. Given the essence of primary metaphors, which are potentially universal and based on embodied experiences, it is expected that people may judge and evaluate their inferences similarly. In contrast, complex metaphors, often rooted in culture, may allow for inferences across a broader range of contexts and ideas than those presented in the questions. Finally, metonymies also refuted our hypothesis, with a higher percentage of significant differences in their judgments. We noticed that some questions related to metonymic inferences were more abstract than others, potentially affecting participants' abstract thinking and contributing

to this higher number of significant differences (see section 4.1.3). It is also worth mentioning that metonymies, probably due to being more lexicalised, are usually challenging to identify and judge as figurative in everyday discourse. This factor may have also influenced our sample's judgments, yielding unexpected results.[7]

Contrasting different types of mappings, we expected that complex metaphors would be less identifiable than primary metaphors and metonymies due to their complexity. Results from the comparison between metonymies and complex metaphors corroborated our hypothesis, with a higher percentage of significant differences in ratings. However, the comparison between metonymies and primary metaphors contradicted our hypothesis, as half of the results were statistically different. This is noteworthy considering the prevalence of metonymies, which are as pervasive, if not more than, primary metaphors. In this study, most primary metaphors were rated as strongly conventional, whereas some metonymies did not receive similar strong conventional ratings. Again, this may result from the challenge of identifying and discussing metonymies. Combinations of complex and primary metaphors also refuted our hypothesis, exhibiting more similarities in participants' judgments for both mapping types than expected.

Overall, the results partially supported our hypotheses. As in the previous section, we could see that abstract thinking, required for comprehending proverbs, does not necessarily depend on the identification of conceptual mappings, based on their types. While some types of combinations corroborated our hypotheses, such as primary x primary metaphors and metonymies x complex metaphors, others did not yield expected results.

Significant differences in combinations involving metonymies and metaphors are intriguing results. As mentioned earlier, metonymies are prevalent in language and thought but challenging to schematise and assess (Siqueira et al. 2023: 24), depending on several complex factors (Gibbs & Colston 2012: 152), such as linguistic expression familiarity and the presence of highly abstract structures, like PART FOR WHOLE (Gibbs & Colston 2012: 161). Contrasting metonymies with the other mappings presented here, we noted that combinations within this phenomenon produced more significant differences in ratings than comparisons with other phenomena. This may suggest that metonymies, as approached in our task, may require more metalinguistic ability. However, this may not accurately reflect the processing of proverbs or metonymic speech but underscores important considerations in metonymic assessment.

Results also raise theoretical issues about metaphors. We initially hypothesised that primary metaphors and metonymies would be identified at similar rates, while primary and complex metaphors would not. While primary metaphors and metonymies exhibited similar judgments in half of our results, primary and complex metaphors were more

---

7  The absence of an established metonymy identification procedure in Cognitive Linguistics is not coincidental.

often judged similarly (62.5% of the time). We acknowledge that complex metaphors are formed by a combination of primary mappings, often enriched with cultural influences. In this context, our findings may indeed support the theoretical understanding of how complex metaphors are constituted. If complex metaphors are composed of other metaphors, some of which are fundamentally primary, it is reasonable to find that many complex mappings can be judged similarly to primary metaphors. After all, primary metaphors can be both embodied and cultural (Winter & Matlock 2017), which means that both primary and complex metaphors are experientially grounded.

# 5. Conclusions

In this paper, our objective was to explore how individuals associate the underlying conceptual mappings of proverbs with their overall meanings. We conducted two different analyses to achieve this aim. In the first analysis we identified and suggested conceptual mappings within proverbs and examined their familiarity, comprehension, and conventionality, both for the proverbs themselves and their respective mappings. We also assessed potential differences in participants' judgments of mappings within the same proverb. In the second analysis we sought to determine whether there were variations in the conventionality judgments of mappings based on their types, exploring three types of mappings (primary, complex, and metonymic). The results allowed us to analyse and discuss the role of underlying conceptual mappings in proverbs, suggesting some of their meaning components, motivated by conceptual mappings in bigger expressions.

By analysing underlying conceptual mappings in proverbs, we were able to disentangle proverbs' meanings into several smaller components: conceptual metaphors and metonymies. All proverbs in our study were highly familiar, conventional, and well comprehended by the sample. As for the underlying conceptual mappings, most of them were judged as highly conventional with respect to their intended meaning components within the proverbs. Our hypotheses proposed that simpler mappings, such as metonymies and primary metaphors, would exhibit stronger associations with their intended meanings compared to complex metaphors, given their different natures. We also hypothesised that significant differences in participants' judgments would be found when evaluating combinations of simple and complex mappings. Our results partially corroborate our hypotheses, as such patterns were observed only for some mappings, in some proverbs. Analysing descriptive data, we noticed a higher association rate for primary metaphors and metonymies, albeit not consistently across all instances. In cases where all types of mappings coexisted within the same proverb, our hypothesis was not corroborated. Statistical analysis showed significant differences between mappings, attesting that they do not uniformly adhere to the same pattern of answers across all items. Out of all the mappings, primary metaphors were the only ones that consistently aligned with expected judgments. Conversely, results on metonymies and complex metaphors exhibited distinct

patterns compared to primary metaphors in our assessment. All of these findings suggest that the interpretation of conceptual mappings could be more closely linked to the proverbs they motivate and to other variables than to their mapping types.

Our findings align with Conceptual Metaphor Theory, illustrating proverbs' complexity and the interdependence on different figurative language phenomena (Siqueira et al. 2017; Gibbs & Colston 2012). According to Gibbs & Beitel (1995: 136), conceptual mappings, among cultural effects, motivate and form proverbs' overall meaning. All of this would happen unconsciously, without the need for the metalinguistic abilities employed in the psycholinguistic tasks described here. This means that, most probably, when interpreting a proverb in everyday speech, one does not consciously think about isolated conceptual inferences. In our study, participants engaged in a metalinguistic analysis of proverbs' meanings, which prompted them to reason about smaller pieces that constitute the proverb as a whole. We acknowledge that this approach may lack ecological validity, as it deviates from the natural process of proverb interpretation in everyday conversation. Another limitation of our study pertains to the fact that participants were not further asked about their recognition of the mappings, nor were they queried about their ability to identify metaphorical and metonymic mappings without explicit prompts. Conducting experimental tasks to investigate both aspects would prove challenging, given the abstract structural scaffolding inherent in figurative interpretation. We also acknowledge the existence of intricate links between mappings, such as metaphoric and metonymic chains and metaphtonymies (Goossens 1990), which were not explored here but could offer valuable insights to further elucidate our results.

This study also demonstrates that such constitutive units, the conceptual mappings, may not be comprehended similarly based on their mapping type. This suggests that other variables, such as the methodology employed, prior exposure to the proverb, and contextual elements, may also play pivotal roles in the processing of underlying conceptual mappings in bigger abstract units in discourse. These results should be further investigated in future research, utilising different paradigms for online processing of proverbs and assessments of conceptual mappings. Overall, our results corroborate the idea that proverbs are constituted by different conceptual mappings and that individuals may realise that when prompted to do so. Summing up, our study enabled us to gain insights into participants' perceptions of proverbs and their underlying conceptual mappings.

## Acknowledgements

this study. Finally, we wish to express our gratitude to the participants who dedicated their time to take part in this research.

# References

Aliakbari, M., & Khosravian, F. 2013. A corpus analysis of color-term conceptual metaphors in Persian proverbs. *Akdeniz Language Studies Conference* 70: 11–17. `https://doi.org/10.1016/j.sbspro.2013.01.033`

Buljan, G., & Gradečak-Erdeljić, T. 2013. Where cognitive linguistics meets paremiology: a cognitive-contrastive view of selected English and Croatian proverbs. *Explorations in English Language and Linguistics* 1(1): 63–83. `https://hrcak.srce.hr/117776`

Duthie, J. K., Nippold, M. A., Billow, J. L., & Mansfield, T. C. 2008. Mental imagery of concrete proverbs: A developmental study of children, adolescents, and adults. *Applied Psycholinguistics* 29(1): 151–173. `https://doi.org/10.1017/S0142716408080077`

Faycel, D. 2012. Food Metaphors in Tunisian Arabic Proverbs. *Rice Working Papers in Linguistics* 3(1): 1–23. `https://scholarship.rice.edu/handle/1911/64168`

Ferrari, C. G. 2020. *Evidências de validade de uma tarefa de compreensão de provérbios.* [Master's Dissertation, Federal University of Rio Grande do Sul]. `http://hdl.handle.net/10183/230076`

Ferrari, C. G., & Siqueira, M. 2020. Água mole em pedra dura tanto bate até que fura: uma comparação entre a compreensão de provérbios por crianças e adultos. *DELTA: Documentação de Estudos em Linguística Teórica e Aplicada* 36(2): 1–29. `http://dx.doi.org/10.1590/1678-460X2020360204`

Fonseca, H. C. 2017. Motivação metafórica em unidades fraseológicas zoônimas. *Cadernos de Estudos Linguísticos* 59(2): 317–332. `https://doi.org/10.20396/cel.v59i2.8650227`

Gibbs Jr, R. W. 2001. Proverbial themes we live by. *Poetics* 29(3): 167–188. `https://doi.org/10.1016/S0304-422X(01)00041-9`

Gibbs Jr, R. W. 2017. *Metaphor Wars: Conceptual Metaphor in Human Life.* New York: Cambridge University Press. `https://doi.org/10.1017/9781107762350`

Gibbs Jr, R. W., & Beitel, D. 1995. What proverb understanding reveals about how people think. *Psychological Bulletin* 118(1): 133–154. `https://doi.org/10.1037/0033-2909.118.1.133`

Gibbs Jr, R. W., & Colston, H. L. 2012. *Interpreting Figurative Meaning.* Cambridge: Cambridge University Press. `https://doi.org/10.1017/CBO9781139168779`

Goossens, Louis 1990. Metaphtonymy: The Interaction of Metaphor and Metonymy in Expressions for Linguistic Action. *Cognitive Linguistics* 1(3): 323–342. `https://doi.org/10.1515/cogl.1990.1.3.323`

Grady, J. E. 1997. *Foundations of Meaning: Primary Metaphors and Primary Scenes* [Doctoral dissertation, University of California, Berkeley]. ProQuest Dissertations and Theses database. `https://www.proquest.com/openview/5ef8adc96c68b2748706a1d8a4d4208a/`

Idegbekwe, D. 2017. Anthropomorphisms and the Nigerian Pidgin proverbs. *EBSU Journal of Social Sciences and Humanities* 5(2): 71–84. https://www.researchgate.net/profile/Destiny-Idegbekwe/publication/340938680_ANTHROPOMORPHISMS_AND_THE_NIGERIAN_PIDGIN_PROVERBS_A_LINGUISTIC_CONCEPTUAL_METAPHORICAL_ANALYSIS/links/5ea6428045851553fab2cefc/ANTHROPOMORPHISMS-AND-THE-NIGERIAN-PIDGIN-PROVERBS-A-LINGUISTIC-CONCEPTUAL-METAPHORICAL-ANALYSIS.pdf

Kobia, J. 2016. A Conceptual Metaphorical Analysis of Swahili Proverbs with Reference to Chicken Metaphor. *International Journal of Education and Research* 4(2): 217–228. http://ijern.com/journal/2016/February-2016/19.pdf

Lakoff, G., & Johnson, M. 1980. *Metaphors We Live By*. Chicago: University of Chicago Press.

Lakoff, G., & Johnson, M. 1999. *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought*. New York: Basic Books.

Lakoff, G., & Turner, M. 1989. *More Than Cool Reason: A Field Guide to Poetic Metaphor*. Chicago: University of Chicago Press.

Lanović, N., & Varga, D. 2015. Conceito de mar na fraseologia portuguesa: a Metáfora de viagem marítima. *Studia Romanica et Anglica Zagrabiensia: Revue publiée par les Sections romane, italienne et anglaise de la Faculté des Lettres de l'Université de Zagreb* 60: 3–37. https://hrcak.srce.hr/168201

Lemghari, E. M. 2017. Conceptual Metaphors as Motivation for Proverbs Lexical Polysemy. *International Journal of Language and Linguistics* 5(3): 57–70. https://www.sciencepublishinggroup.com/journal/paperinfo?journalid=501&doi=10.11648/j.ijll.20170503.11

Littlemore, J. 2015. *Metonymy: Hidden Shortcuts in Language, Thought and Communication*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9781107338814

Liu, J. 2013. A comparative study of English and Chinese animal proverbs from the perspective of metaphors. *Theory and Practice in Language Studies* 3(10): 1844–1849. https://doi.org/10.4304/tpls.3.10.1844-1849

Lu, C. 2012. Eating Is Not an Easy Task. Understanding Cultural Values via Proverbs. *Japanese Studies Journal* 29(1): 63–79. http://www.asia.tu.ac.th/journal/J_Studies55/11_vol29special_Chiarung%20Lu.pdf

Mele, M. L. 2013. Kanuri proverbs: metaphoric conceptualization of a cultural discourse. *Journal of African Cultural Studies* 25(3): 333–348. https://doi.org/10.1080/13696815.2012.749783

Moreno, A. I. 2005. An analysis of the cognitive dimension of proverbs in English and Spanish: The conceptual power of language reflecting popular believes. *SKASE Journal of Theoretical Linguistics* 2(1): 42–54. http://www.skase.sk/Volumes/JTL02/04.pdf

Muhammad, N. N., & Rashid, S. M. 2014. Cat Metaphors in Malay and English Proverbs. *Procedia - Social and Behavioral Sciences* 118: 335–342. https://doi.org/10.1016/j.sbspro.2014.02.046

Nippold, M. A., & Haq, F. S. 1996. Proverb comprehension in youth: The role of concreteness and familiarity. *Journal of Speech, Language, and Hearing Research* 39(1): 166–176. https://doi.org/10.1044/jshr.3901.166

Nippold, M. A., Allen, M. M., & Kirsch, D. I. 2000. How adolescents comprehend unfamiliar proverbs: the role of top-down and bottom-up processes. *Journal of Speech, Language, and Hearing Research* 43(3): 621–630. https://doi.org/10.1044/jslhr.4303.621

Nippold, M. A., Hegel, S. L., Uhden, L. D., & Bustamante, S. 1998. Development of proverb comprehension in adolescents: Implications for instruction. *Journal of Children's Communication Development* 19(2): 49–55. https://doi.org/10.1177/152574019801900206

Nippold, M. A., Uhden, L. D., & Schwarz, I. E. 1997. Proverb explanation through the lifespan: A developmental study of adolescents and adults. *Journal of Speech, Language, and Hearing Research* 40(2): 245–253. https://doi.org/10.1044/jslhr.4002.245

Radden, G., & Kövecses, Z. 1999. Towards a theory of metonymy. In: K. U. Panther & G. Radden (eds.), *Metonymy in Language and Thought,* 17–60. Amsterdam: John Benjamins Publishing. https://doi.org/10.1075/hcp.4.03rad

Sameer, I. H. 2016. A cognitive study of certain Animals in English and Arabic Proverbs: A Comparative Study. *International Journal of Language and Linguistics* 3(5): 133–143. https://ijllnet.com/journals/Vol_3_No_5_November_2016/16.pdf

Siqueira, M., Pereira, L. B., Ferrari, C. G., & Lopes, N. 2017. Mapeamentos metafóricos e metonímicos em provérbios do português brasileiro. *ReVEL* 15(29): 159–175. http://www.revel.inf.br/files/3cd6f1594c564f8a72950c7b79a87996.pdf

Siqueira, M., Melo, T., Duarte Júnior, S., Baiocco, L., Ferrari, C. G., & Lopes, N. 2023. Many hands on this study: Development of a metonymy comprehension task. *DELTA: Documentação de Estudos em Lingüística Teórica e Aplicada* 39(3): 1–28. https://doi.org/10.1590/1678-460X202339350607

Winter, B., & Matlock, T. 2017. Primary metaphors are both cultural and embodied. In B. Hampe (Ed.), *Metaphor: Embodied Cognition and Discourse,* 99–116. Cambridge University Press. https://doi.org/10.1017/9781108182324.007

Yoon, H., Schwarz, I., & Nippold, M. A. 2016. Comparing proverb comprehension in Korean and American youth. *Speech, Language and Hearing* 19(3): 161–170. https://doi.org/10.1080/2050571X.2016.1164938

**∗∗∗**

**Caroline Girardi Ferrari** is a PhD student in Language Studies – Psycholinguistics at the Federal University of Rio Grande do Sul (UFRGS). Her research focuses on figurative language comprehension assessment, based on the Cognitive Linguistics framework and on Psycholinguistic methods. In her current work she is adapting a figurative language comprehension test from Brazilian Portuguese to English and analysing figurative

language comprehension and acquisition in Brazilian Portuguese and British English native speakers.

**Maity Siqueira** is a full professor in the department of Linguistics, Philology and Literary Theory at the Federal University of Rio Grande do Sul (UFRGS). She obtained a PhD in Linguistics from the Pontifical Catholic University of Rio Grande do Sul (PUCRS) and did her postdoctoral research in the department of Cognitive Psychology at the University of California Santa Cruz (2014). Her main research focuses on Psycholinguistics and Cognitive Linguistics, with interests in figurative language comprehension and acquisition, and in the development of a psychometric test on figurative language comprehension.