Università
Ca'Foscari
Venezia

Corso di Dottorato di ricerca

in Lingue, Culture e Società
Moderne e Scienze del Linguaggio

ciclo 38°

Tesi di Ricerca

Idioms in Italian Sign Language (LIS)

Theoretical framework and empirical analysis

SSD: GLOT-01/A Glottodidattica e linguistica

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A chi c'è sempre stato,
e a chi avrebbe voluto esserci

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List of abbreviations

Sign Language Acronyms

ASL	American Sign Language
Auslan	Australian Sign Language
BSL	British Sign Language
DGS	German Sign Language (Deutsche Gebärdensprache)
LGK	Lithuanian Sign Language (lietuvių gestų kalba)
LIS	Italian Sign Language (lingua dei segni italiana)
LSC	Colombian Sign Language (lengua de señas colombiana)
LSF	French Sign Language (langue des signes française)

Gloss abbreviations

ADJ	adjective
DEF	definite article
DEM	demonstrative
F	feminine
INF	infinitive
INDF	indefinite article
M	masculine
PL	plural
PRS	present tense
PST	past tense
PTCP	participle
REFL	reflexive
SG	singular
TNS	transitive

General abbreviations

CMT	Conceptual Mapping Theory
FEI	fixed expressions and idioms
H1	dominant hand

H2	non-dominant hand
IE	idiomatic expression
IF	inherent feature
MWU	multi-word unit
NMM	non-manual marker
OBJ	object
POA	point of articulation (or location)
PF	prosodic feature
SBJ	subject

Introduction

Idiomatic expressions (IEs) have consistently been a recurrent focus of linguistic research, particularly within the study of spoken languages, where extensive descriptions and analyses have established robust frameworks for understanding these complex constructions across diverse linguistic systems (a.o. Nunberg et al., 1994; Casadei, 1995; Cacciari, 1997; Burger, 1998; Čermak, 2007). The investigation of idioms in spoken languages has led to the development of various theoretical models and methodological approaches, each proposing different identifying criteria. Nonetheless, there is broad agreement in considering non-compositionality (and thus opacity), institutionalization, and conventionality as core features of idiomatic phenomena.

Recent academic attention has increasingly extended to examining these linguistic phenomena within sign languages, representing a substantial expansion in our understanding of idiomatic constructions across different communicative modalities. Concerning Italian Sign Language (LIS), various descriptive and analytical attempts have emerged in recent years (Pasin, 2021, 2023; Rigo, 2022; Marrocu, 2023), yet the topic of idioms has consistently lacked comprehensive theoretical frameworks capable of effectively analyzing these constructions from both cross-linguistic and modality-specific perspectives. No robust theoretical models have been proposed that facilitate comparison with idioms in Italian – or other spoken or sign languages – while accounting for the distinctive characteristics of IEs that exploit the visual-manual channel inherent to LIS. Moreover, certain signs have been categorized as idioms despite apparent inconsistencies in their classification, indicating fundamental problems within existing categorization systems; in particular, under the umbrella of IEs, a variety of language- and culture-specific signs are often grouped together. This highlights the need for a more refined analysis to ensure that the signs considered truly qualify as idioms. The theoretical gap regarding LIS IEs represents a significant limitation in our understanding of how idiomatic meaning is constructed and conveyed within visual-manual linguistic systems, specifically LIS. The challenge is further complicated by the very modality of sign languages and their features, i.e., their predominantly simultaneous nature (Klima & Bellugi, 1979; Meier, 2002; Aronoff et al., 2005), high degree of iconicity (Taub, 2001; Russo, 2004), and the unique affordances of three-dimensional signing space for representing abstract relationships through phonological parameters (Wilcox, 2000).

The motivation for this dissertation is thus driven by three main factors. First, the investigation stems from a personal scholarly journey that began with a master's thesis examining the interpretative challenges of rendering IEs from LIS into Italian. During that initial research, persistent theoretical inconsistencies became increasingly apparent, revealing fundamental gaps in our understanding of idiomatic phenomena in LIS. The difficulties encountered were not limited to interpretative or translation challenges; they also arose in the data review itself, due to missing information and discrepancies between existing theoretical frameworks and empirical observations. These observations highlighted the need for a comprehensive linguistic investigation into LIS IEs and, more broadly, into non-compositional and language-specific phenomena within the language system. As a result, this thesis also emerged from the need to establish clear distinctions among various categories of signs that are frequently labeled idiomatic due to the absence of previous references or specialized studies. The second motivation driving this study stems from the growing interest in LIS research, particularly following the enactment of Law 69 of May 21, 2021, which officially recognizes LIS and LIS interpreters as a professional category, integrating linguistic and interpreting programs also into university curricula. This legal recognition emphasizes the critical importance of advancing LIS linguistics not merely as a theoretical matter, but across all practical domains where the language is employed. This consideration is linked to the third motivation for this thesis. In fact, such research could directly benefit LIS interpretation training programs and, consequently, translating/interpreting services, enhancing the linguistic preparation and awareness of professionals who utilize LIS in their professional contexts. This includes certified LIS instructors, interpreters, and communication assistants working within educational and institutional settings.

To do so, the present investigation addresses three primary research questions that guide the theoretical and empirical analysis presented in subsequent chapters:

1. What is the frequency of idiom production in (semi-)naturalistic signed conversations?
2. Which typological categories of idioms emerge most prominently in LIS usage?
3. Do idioms and other culture-specific signs in LIS display comparable production patterns?

The first question examines the actual occurrence of IEs in (semi-)spontaneous LIS discourse, aiming to provide quantitative data on their prevalence within conversational contexts and

contributing to our understanding of their role in everyday communication among signers. The second research question investigates the distribution of different idiom types – specifically calques from Italian, borrowings from Italian with cultural adaptations, and expressions typical of LIS – to determine which categories are most productive and frequently employed by signers, thereby advancing the study of the cross-linguistic relationship between LIS and Italian. Finally, the third question explores whether genuine IEs exhibit similar usage frequencies and distribution characteristics as other culturally specific signs – namely language-specific lexical items and number-incorporated signs – thereby clarifying the boundaries and relationships between these linguistic categories. These three research questions form the foundation of the present pilot investigation. To address them systematically, the thesis is organized as follows.

Chapter 1 provides essential foundational knowledge about LIS as a linguistic system. Specifically, this chapter presents a comprehensive linguistic description of LIS, examining its phonological parameters through the Prosodic Model (Brentari, 1998) framework. The discussion continues by addressing the fundamental concepts of iconicity and arbitrariness within the language, while exploring the interplay between simultaneity and sequentiality that distinguishes signed from spoken languages. This theoretical grounding establishes the necessary context for understanding how IEs function within the LIS linguistic system.

Chapter 2 describes the broader theoretical context necessary for understanding figurative expressions across languages. The chapter is essential for defining figurative language and examining the cognitive mechanisms underlying figurative expression formation, with particular attention to Conceptual Mapping Theory (CMT) and associated mapping constraints. Consequently, various types of figurative expressions that often originate IEs are analyzed, including metaphor, metonymy, synecdoche, and hyperbole, along with their interactions. The relationship between iconicity and arbitrariness is reintroduced, this time within the domain of figurative language, providing a crucial theoretical framework for subsequent analysis of LIS idioms.

Chapter 3 provides a comprehensive examination of IEs from multiple theoretical perspectives across both spoken and sign languages. The chapter is divided into two main parts: the first part presents an extensive review of the literature on idioms in spoken languages, discussing various definitions and characteristics of idioms – incorporating Langlotz's (2006) pattern of figuration

framework – and examining idiom processing mechanisms and classification systems for IEs. The second part then shifts focus to sign languages, providing an extensive review of research on sign language idioms across multiple languages to establish comparative context. The chapter concludes with an analysis of idioms across modalities and a theoretical framework specifically applicable to sign language IEs.

Following this, Chapter 4 presents initial research findings on LIS idioms, building upon previous investigations in the field. Particularly, the chapter establishes a classification system distinguishing calques from Italian idioms, borrowings from Italian with cultural adaptations, and expressions typical of LIS. Crucially, fundamental distinctions are drawn between idioms and other culture-specific signs, including language-specific lexical items and number-incorporated signs. Origins and transmission patterns of LIS idioms are also explored, along with analysis of monorematic idioms – namely, idioms composed of a single lexical item – and the concept of polysemy in relation to idiomaticity. Lastly, detailed phonological analysis of non-compositional compounds, particularly HEAD^[X] constructions, provides insight into the structural properties of LIS idiomatic (and monorematic) compounds.

Finally, Chapter 5 documents the methodology and findings of the empirical research conducted for this thesis. This pilot study represents an initial exploration into LIS idiomatic usage, establishing foundational data and methodological approaches that can inform future (large-scale) investigations. The chapter begins by presenting the recording procedures, interview protocols, and elicitation methods that were employed to gather (semi-)naturalistic data on LIS idiom usage, as well as a detailed description of participant characteristics and data annotation procedures. The chapter then presents a comprehensive analysis of the results, with findings that address frequency patterns of idiom occurrence and various sociolinguistic and idiolectal influences. The qualitative analysis examines the collected IEs across the established theoretical categories, with the aim of contributing to the general theoretical framework developed in Chapters 3 and 4.

To conclude, it is necessary to clarify some terminological choices and resources employed. In this thesis, the capitalized form “Deaf” is used, rather than “deaf”, in accordance with the established convention in signing communities. This graphic convention, originating from Anglo-Saxon academic tradition, differentiates between the medical condition of hearing loss (deaf) from the sociocultural identification with a community (Deaf). Thus, the capitalized form refers to

individuals who know and use sign language and participate in Deaf culture and community practices, highlighting the important difference between hearing status and cultural-linguistic identity (Sala, 2021:248).

Some methodological notes are also relevant regarding the selection of sign language examples. In particular, Spreadthesign (https://www.spreadthesign.com/it.it/search/) has been chosen as the primary reference dictionary due to its extensive coverage, providing a large number of lexical items. All signs in Spreadthesign are presented on a recognizable background, with signers dressed in black, making accessible and easy to watch. Moreover, it is possible to view each sign in its entirely through the reference links provided under each example in this thesis, or by searching the lemma directly – an option not always available in linguistic corpora, as many are not open access yet. For some examples, it was necessary to include signs from other sign languages, and Spreadthesign offers a particularly rich catalogue of various sign languages. This choice ensures that the examples used are both accessible and verifiable by any reader.

It is also important to clarify the researcher's position and the ethical considerations related to the analysis. The data collection and subsequent analysis were carried out by the author of this dissertation, a hearing Ph.D. student and professional interpreter, drawing on his own LIS competence. To ensure accuracy and respect for Deaf cultural knowledge and LIS, the meanings of all IEs were systematically verified with Deaf participants after data collection.

Chapter 1

Theoretical and phonological foundations of Italian Sign Language (LIS)

Sign languages, including Italian Sign Language (LIS), are fully-fledged natural languages, displaying the same grammatical properties attested in spoken languages. The two systems differ fundamentally by utilizing two different modalities. While spoken languages operate through an acoustic-vocal channel, sign languages rely on a visual-manual channel. Signs are produced through manual and non-manual articulators and are perceived visually. The distinctive modality characterizing all sign languages allows for the simultaneous and visual encoding of concepts, offering insights into different realizations of linguistic phenomena and broadening our understanding of how languages function. Although sign languages display some gestural components, they are very different from mere gestural systems, contrary to mainstream belief (Goldin-Meadow & Brentari, 2017); rather, they are complex and structured linguistic systems. In addition, to support the linguistic value of sign languages, research has studied and demonstrated that they are primarily processed by the very same cerebral regions responsible for spoken languages (Poizner, Klima & Bellugi, 1987; Emmorey, 2021), and psycholinguistic studies reveal that Deaf children progress through the same stages of language acquisition as hearing children acquiring a spoken language (Campbell, MacSweeney & Waters, 2007; Chen Pichler, 2012).

This chapter aims to introduce the reader to some important notions of LIS phonology, by presenting the fundamental background of sign language linguistics. It also establishes key concepts that will be discussed throughout this thesis: a phonological analysis is the most relevant level of description for this work, since it focuses on the way signs (specifically idioms) are formed, organized, and structured. For this reason, the following sections do not offer an extensive analysis of LIS morphology and syntax. These domains, while crucial to a full linguistic description of the language, are not strictly required for the analytical purposes of this dissertation. Selected morphological or syntactic observations are introduced only where necessary to clarify specific phenomena and to highlight the overall linguistic complexity of LIS.

The chapter is structured into five main sections: § 1.1 discusses the linguistic status of LIS and offers an introduction to sign language linguistics; § 1.2 examines the phonological framework of

LIS, focusing on its formational parameters (§ 1.2.1), which will serve as a basis for sign descriptions all throughout this work. § 1.3 is dedicated to the Prosodic Model (Brentari 1998), outlining its features (§ 1.3.1 and § 1.3.2) and demonstrating its application in describing the underlying phonological structure of signs. The last two parts address distinctive features of sign languages: § 1.4 examines the interplay between iconicity and arbitrariness, while § 1.5 introduces the concepts of simultaneity and sequentiality in sign languages.

1.1 Introduction to LIS

LIS is the primary language of the Deaf community in Italy, exhibiting a complex structure that is linguistically autonomous from spoken Italian.[1] LIS has evolved over centuries, shaped by the sociocultural experiences of the Deaf community in Italy. Early records of this sign language date back to the 18th century, with the establishment of schools for the Deaf playing a pivotal role in the formalization, preservation, and dissemination of LIS (Zattini, 1997; Branchini & Mantovan, 2020). The 60's and the 70's led to significant advancements, starting with the linguistic recognition of LIS as a legitimate language. After a decades-long struggle, including campaigns, sit-ins, petitions, projects, conferences, and studies, LIS was legally recognized on May 19th, 2021, through Article 34-ter of the "*Decreto Sostegni*", along with some linguistic rights of Deaf individuals (Branchini & Mantovan, 2022: 86).

Understanding the structural complexity of LIS requires examining its fundamental characteristics. As a visual-manual language, LIS utilizes the three-dimensional space to convey meaning through manual and non-manual articulators (manual signs, facial expressions, and body movements). So, just like any spoken language, LIS has its own phonology, morphology, syntax, and semantics. Moreover, linguistic research on LIS has highlighted its rich variation, both diachronic and synchronic, which reflects the dynamic nature of its user community.

The linguistic structure of LIS demonstrates sophisticated organization at multiple levels. From a phonological point of view, like other sign languages, LIS signs are composed of discrete, combinational units (phonological parameters). These include handshape, movement, orientation,

[1] The acronym LIS might lead one to believe it stands for "*lingua italiana dei segni*", suggesting a manual representation of the Italian language. This interpretation stems from an early misconception, as reflected also in the 1987 Volterra's publication. The title was later updated in the 2004 edition to "*La lingua dei segni italiana*" to more accurately convey its linguistic independence.

point of articulation (POA), and non-manual markers[2]. The systematic combination of these parameters creates signs, much like the way phonemes combine in spoken languages.

LIS exhibits a rich morphology as well, including both sequential and simultaneous morphological processes, from nominal inflection, verbal agreement, and aspect marking to noun modification, compounding (Bertone, 2011).

The syntax of Italian Sign Language (LIS) encompasses various sentence types, including declarative, interrogative, imperative, and exclamatory sentences. These syntactic structures are characterized by specific manual and non-manual articulators, such as body orientation, facial expressions, and eye gaze, which contribute to determining the meaning and function of the utterance. Additionally, LIS employs mechanisms of coordination and subordination to combine clauses, enabling the construction of complex sentences. The word order within a sentence can vary depending on pragmatic factors and the focus of the information, highlighting the flexibility and expressive richness of LIS syntax.

Without delving into the details of all the linguistic domains, the next section presents the sophisticated phonological structure of LIS as revealed by research. As demonstrated for other sign languages (Stokoe, 1960; Battison, 1978; Baker-Shenk, 1983), it was shown that signs result from the combination of both manual and non-manual phonological parameters.

1.2 Phonological description of LIS

One of the defining characteristics of language is the possibility to break words down into smaller symbolic components (Valli et al., 2011:19). Phonology, the branch of linguistics dedicated to the study of the smallest contrastive units within a language, focuses on how these elements contribute to the structure and organization of language. In spoken languages, these units are phonemes, and phonologists analyze their patterns and interaction within the linguistic system.

In sign languages, however, phonology represents a fascinating area, as it differs significantly from the phonological system of spoken languages due to the different modality through which it is

[2] §1.2 is entirely dedicated to the description of the phonological system of LIS.

expressed. Despite these superficial differences, linguistic research on sign languages[3] (Stokoe, 1960; Wilbur, 1987; Brentari, 1998; Sandler & Lillo-Martin, 2006) attests that signed systems have some elements similar to phonemes of spoken languages. These elements form the core entities that compose the internal structure of a sign, and they can be systematically decomposed and analyzed, just like phonemes in a spoken language.

The following sections outline the main features of LIS phonology as described in Branchini & Mantovan (2020:107-167), establishing a set of key concepts that will be used consistently throughout this thesis to describe and analyze the phonological phenomena and functions of signs and idioms. In addition, in §1.3 I will introduce the Prosodic Model developed by Brentari (1998), which provides a framework for analyzing phonological functions and phenomena in sign languages.

1.2.1 Phonological parameters of LIS

As any other sign language, LIS is composed of a finite set of phonemic units grouped into five distinct phonological parameters. Four classes are related to the manual features: *i)* handshape; *ii)* orientation; *iii)* location, and *iv)* movement. In addition, one class refers to non-manual articulators, also called non-manual markers (NMMs), which encompass facial expressions, head and/or body movements.

To see how these five classes of phonemes interplay with each other, an example of a LIS sign is provided in (1).

(1) FAT

(Branchini & Mantovan, 2022:184)

[3] The linguistic research on sign languages started in the 1960s with William Stokoe for ASL.

Before delving into the details for every parameter, this two-handed sign can be first decomposed into the following phonemes: i) handshape: A[4]; ii) orientation: palm directed downward; iii) location: neutral space; iv) movement: repeated straight setting change; v) NMM: puffed cheeks.

Even though signs in LIS are expressed by two primary active articulators, namely the two hands (Branchini & Mantovan, 2020:110), they do not function equally. One hand, known as the dominant hand, takes on the more active role during signing production, typically being the hand with which the signer is most comfortable. Some LIS signs are articulated using only the dominant hand, while others require both hands. An example of the first case is the sign for DOG in (2), where only the dominant hand performs a repeated movement under the chin. In contrast, in (3), SCHOOL is an example of the second case, as both hands are required to articulate the sign, but the dominant hand moves on the non-dominant, which does not produce any movement.

(2) DOG

(Branchini & Mantovan, 2022:169)

[4] In this dissertation, handshapes will be described utilizing the manual alphabet (fingerspelling) and the numeric system of LIS. The choices made in this regard adhere to the conventions outlined in Branchini & Mantovan (2022). For instance, in this case, A indicates the fist configuration with the thumb bent over the other fingers (exactly like the letter A in the LIS manual alphabet).

(3) SCHOOL

(https://media.spreadthesign.com/video/mp4/17/201241.mp4)

In addition, two-handed signs can either be symmetrical or asymmetrical. In symmetrical signs, both hands perform identical movements, orientation and handshapes in any independent location specification, as in (4) CLOTHES.

(4) CLOTHES

(Branchini & Mantovan, 2020:157)

In asymmetrical signs, the dominant hand moves while the non-dominant hand serves as a place of articulation, as seen in (3) SCHOOL.

In some cases, two-handed signs can be articulated using only the dominant hand. This phenomenon, referred to as "weak hand drop", is characterized by the suppression of the non-dominant hand and is typical of rapid or relaxed signing.

The next sections will provide a general examination of each phonological parameter of LIS to better understand the complexity of this language.

1.2.1.1 Handshape

Handshape, one of the most visually distinct parameters, can be described as the shape(s) assumed by the hand during the production of the sign. More specifically, to describe the handshape parameter, it is important to distinguish between finger selection and finger configuration. The former refers to which finger/s are active during sign articulation, while configuration describes the position assumed by those finger/s. The selection of fingers can range from one to five, and the possible combinations are limited. Common configurations in LIS include extended fingers, flat open or closed (when the joints are flexed at the base and non-base and thumb and fingers have no

contact or have contact), curved open or closed (when the joints are flexed at the base and non-base and thumb and fingers have no contact/have contact), and fully closed shape (when joints are fully flexed, both at the base and at non-base).

So, two signs can differ from one another by only the handshape, as in (5) PIZZA and (6) CITY. The first sign is characterized by the set of features [+ thumb] and [+ pinky], also referred as Y handshape; the second can be described [+ thumb] and curved open [+ index], conventionally called curved open L[5].

(5) PIZZA

(https://media.spreadthesign.com/video/mp4/17/444945.mp4)

(6) CITY

(https://media.spreadthesign.com/video/mp4/17/497268.mp4)

Additionally, some of these configurations can have spread [+S] or unspread [-S] fingers.

[5] In these pages, handshapes will be described utilizing the manual alphabet (fingerspelling) and the numeric system of LIS. The choices made in this regard adhere to the conventions outlined in Branchini & Mantovan (2020; 2022).

The distinction between finger selection and finger configuration is extremely relevant since the set of selected fingers and their configuration can be phonologically contrastive, creating minimal pairs. For instance, the minimal pair (7) MAY and (8) UNEMPLOYED demonstrate this contrast.

(7) MAY

(https://media.spreadthesign.com/video/mp4/17/444352.mp4)

(8) UNEMPLOYED

(Branchini & Mantovan, 2020:122)

1.2.1.2 Movement

In LIS, this parameter can be divided into primary (or path) movements and secondary (or local) movements. Primary movements involve the entire hand moving from one location to another, whether on the body or in neutral space (see §1.2.1.4). These movements can follow straight, arched, or circular paths and occur in various directions, such as upward, downward, inward, outward, or diagonally. Secondary movements involve changes in handshape, including opening, closing, flattering, bending, and wiggling fingers, or orientation. The latter can occur through wrist rotation, pivoting, or nodding.

If the movement of a sign is symmetrical, it occurs toward the same direction, and is referred to as a simultaneous movement, as seen in the sign in (9) PLASTIC. Conversely, when the movement is unsynchronized and alternates between the hands, it is called alternating, as in (10) DRUM.

(9) PLASTIC

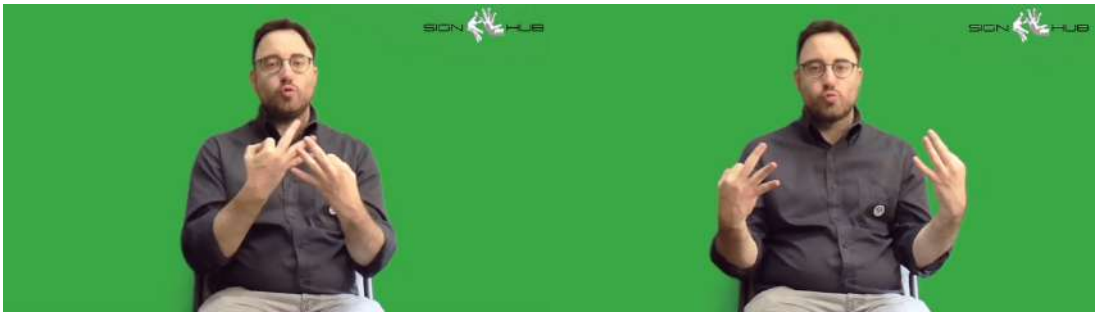
(https://media.spreadthesign.com/video/mp4/17/468384.mp4)

(10) DRUM

(https://media.spreadthesign.com/video/mp4/17/206452.mp4)

1.2.1.3 Orientation

Orientation defines which part of the hand faces the place of articulation. This could involve the palm, back of the hand, ulnar side, radial side, wrist, or fingertips. Orientation changes depending on whether the sign is produced on the signer's body, on the non-dominant hand, or in neutral space. As for the other parameters, orientation can be phonologically distinctive, as in the signs CORRECT and MEASURE, respectively presented in (11) and (12).



(11) CORRECT

(12) MEASURE

(Branchini & Mantovan, 2020:126)

1.2.1.4 Place of articulation (or location)

The place of articulation (POA), or location, specifies where the sign is produced. The possible POAs are located on the signer's body and are distributed within a limited area named signing space. This space extends vertically from just above the head to the waistline; horizontally from elbow to elbow; and sagittally from the signer's body to the area in front of the torso. The extension of the signing space is not strictly fixed, as it can vary among signers (i.e., depending on age) and depending on certain signs. A small number of signs are produced outside the conventional locations particularly those referring to specific body parts or items of clothing. For example, the signs for LEG or BACK are articulated respectively below the waistline and behind the signer's body.

The most common locations for sign articulation in LIS are the head, trunk, non-dominant hand, and neutral space (which is the area in front of the signer, where there is no contact between the

hands and the body). Additionally, within these major areas, more sub-locations can be distinct, like the head, which has the highest number of distinct locations (e.g., cheek, mouth, forehead, temple, ear, etc.).

POA changes can create minimal pairs, like in the signs in (13) MOTHER and (14) SORRY, where the only parameter that changes is the location.

(13) MOTHER

(Branchini & Mantovan, 2020:205)

(14) SORRY

(https://media.spreadthesign.com/video/mp4/17/203015.mp4)

1.2.1.5 Non-manuals

Non-manuals (NMMs) are a broad category that refers to facial expressions and body movements that complement the manual signs and are integral to the structure of sign languages. These components are not merely supplementary, rather they play a crucial role in conveying the meaning of signs, expressing lexical, morphological, syntactic, prosodic and emotional information. NMMs

include facial expressions (for example eyebrow raises), head and body movements, and mouth gestures. NMMs can be divided into two main categories (Woll, 2001): mouth actions and other non-manuals (movements of the body, head, eyes and brows). Although NMMs are crucial at all levels of the grammar, here the focus will be on mouth actions, given their significant relevance in the phonological and lexical description within the scope of this dissertation.

Specifically, many LIS signs are accompanied by mouth features, which can be mouth gestures or mouthings.[6] Mouth gestures refer to mouth movements that are not connected to spoken Italian, while mouthings are mouth movements that visually represent Italian words. Both mouth gestures and mouthings can be phonologically distinctive, as demonstrated in many minimal pairs. For instance, the signs FRESH in (15) and NOT_YET in (16) are manually the same sign, articulated with the F handshape and a repeated movement in the neutral space. They differ solely in their non-manual components:

(15)
'fresco'
FRESH
'fresh' or 'recent'

(16)
[sss]
NOT_YET
'not yet'

FRESH is accompanied by mouthing (the mouth reproduces the equivalent word in spoken Italian, *fresco*), and NOT_YET involves a specific mouth gesture [sss] (where the mouth releases air like a sibilant [s] combined with a light lateral head shake). However, for the sign FRESH, it is possible to see some mouthing variation: it can occur with *(i)* a full mouthing of the Italian word *fresco*, *(ii)* a partial mouthing such as [fre], or *(iii)* a marked mouth gesture like [fff] - characterized by a gradual release of air through partially rounded lips - as shown in (17).

[6] Boyes Braem & Sutton-Spence (2001) proposed these terms for British Sign Language (BSL).

[fff]

(17) FRESH

(https://media.spreadthesign.com/video/mp4/17/461762.mp4)

Following the brief examination of the various phonological parameters and how they can be described, the next section introduces the Prosodic Model (Brentari, 1998). This Model will be employed throughout this dissertation to describe signs from a phonological perspective, illustrating how all parameters combine simultaneously to form a sign. Brentari's model is conceived as a broadly applicable framework for sign language phonology, regardless of the specific language under investigation, although certain components may exhibit language-specific variation (Geraci, 2009). This model has already been applied to the analysis of LIS in several studies (a.o., Geraci, 2009; Aristodemo, 2013; Fornasiero, 2020), as it allows for the representation of the different features of signs within a unified structure. For these reasons, this thesis adopts Brentari's model as a theoretical reference to outline the general mechanisms through which sign phonology can be represented. More specifically, the model may offer a principled way to distinguish between classes of signs (i.e., multi-sign idioms and single-sign idiomatic compounds[7]), as it can account for the interaction between stems in sequential formations – such as reduction and assimilation.

[7] Multi-sign idioms will be discussed in Chapter 3 and 4, whereas single-sign idiomatic compounds will be described in §4.5.

1.3 Prosodic Model (Brentari, 1998)

The first insight of the Prosodic Model is that phonological features can be divided into two groups based on their phonological properties, as shown in Table 1.

Inherent Feature (IF)	*Prosodic Feature (PF)*
Features that do not alter their status during the articulation of the sign.	Features that change their status during the production of the sign.
(handshape, orientation, POA)	(movement)

Table 1. Features of the Prosodic Model (Brentari, 1998)

The IF branch includes handshape, location, and orientation.[8] The PF branch, on the other hand, encodes movement, which can be realized through changes in handshape, orientation, or location. Further examination of the structure will be conducted in the following lines. Figure 1 illustrates how the parameters are generally captured in the model.

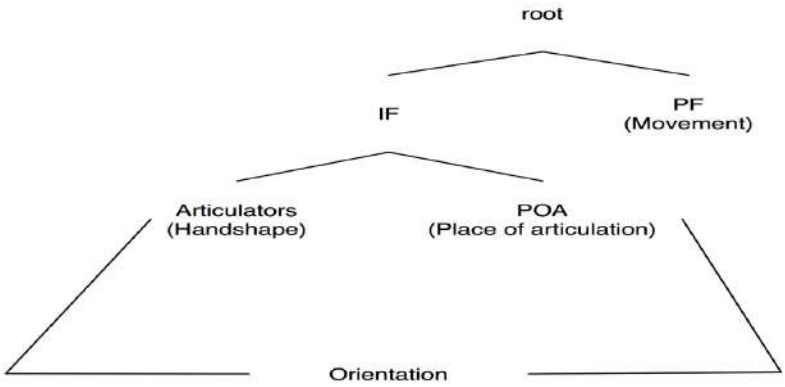


Figure 1. Parameters in the Prosodic Model (Geraci, 2009:8)

For instance, in a sign like FAT (1), features such as handshape, palm orientation, and place of articulation remain constant during the sign, making them part of the IF tier. Movement features,

[8] It is evident from the model that orientation derives from the interplay between handshape and location.

due to their intrinsic dynamic nature, change during the articulation of the sign, and are therefore included in the PF tier. One of the main advantages of this model is that the parameters can be described within a schema that illustrates the interactions happening among certain sets of features.

As mentioned before, despite the simultaneous nature of sign articulators (see §1.5), sign language phonology recognizes the crucial insight that the phonological structure of signs is not entirely simultaneous (Sandler, 1986; Liddell & Johnson, 1989; Geraci, 2009). Instead, it encompasses a sequential aspect, temporally linked to the articulation of the movement. The Prosodic Model identifies the sequential component of a sign in the starting and ending points of its movement.

1.3.1 The Inherent Feature tier

The Inherent Feature (IF) tier hosts the features that do not change during the production of the sign and provides distinct and independent levels for Articulator (which includes both manual and nonmanual components) and Place of Articulation features. In Figure 2, the overall IF branch is shown:

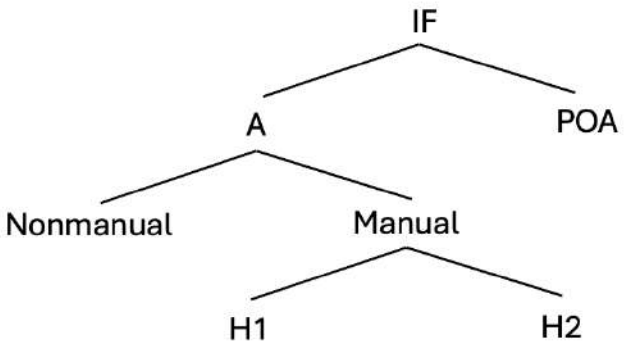


Figure 2. IF branch overall structure (Aristodemo, 2013:13)

The Articulator (A) node branches into *non-manual* (mainly encoding facial expressions at the lexical level) and *manual* nodes which dominate inherent handshape features, further splitting into *dominant hand* (H1) and *non-dominant hand* (H2).

The Place of Articulation (POA) branch encodes the specific feature related to the physical space where signs are articulated. As signs are produced in a three-dimensional space, three planes (x, y,

and z) are identified as possible locations for signs. These planes are technically defined as sets of points that are perpendicular to one of the three dimensions, as outlined below.

Definition for the planes used as POA (from Brentari 1998:120 and Geraci 2009:9)

x-plane: the points in the frontal plane

y-plane: the points in the horizontal plane

z-plane: the points in the midsagittal plane

Given this distinction, the area in front of the signer (neutral space) is now divided into three planes. Each of these planes may be utilized for signs articulated in neutral space. The specific portion of neutral space involved in the articulation is determined by the relation between the hand-part specified in the hand node and the plane facing it. An example of a sign articulated in the neutral space and its representation is provided in Figure 3 with the sign (18) MONEY.

(18) MONEY

(https://media.spreadthesign.com/video/mp4/17/198343.mp4)

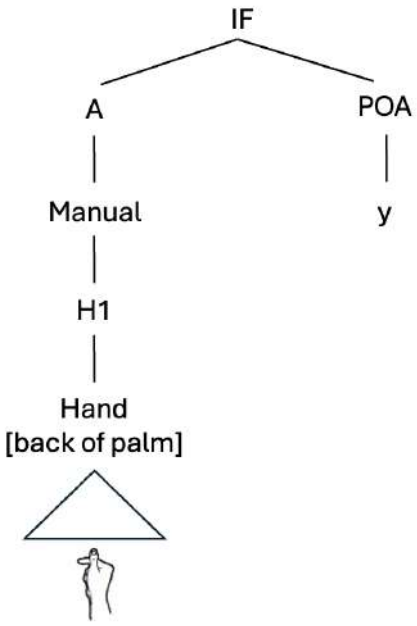


Figure 3. IF branch for MONEY (from Geraci, 2009:10)

Apart from plane specification, no additional feature is required to define neutral space as place of articulation (Geraci, 2009:11).

Other than the neutral space, signs can be produced in several parts of the body. Usually, in LIS three primary body parts and their specific location can be distinguished as follows:

i) *head*: whole face, upper face, ears, eyes, nose, cheeks, mouth, chin, neck.

ii) *body*: shoulders and upper torso, chest, lower torso, non-dominant arm and wrist.

iii) *non-dominant hand*: palm, tips, radial, back.

(Branchini & Mantovan, 2022:151)

For this chapter, the location [arm] will be a separate body part[9], resulting in:

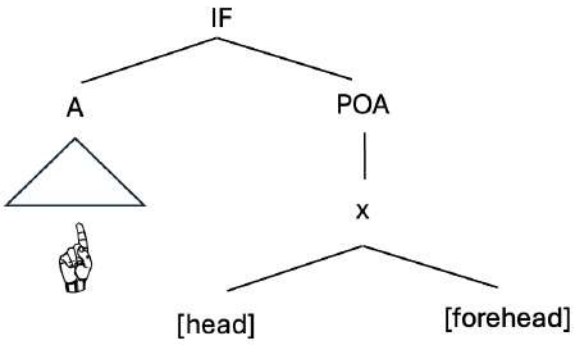
i) *head*: whole face, upper face (forehead and temple), ears, eyes, nose, cheeks, mouth, chin, neck.

ii) *body*: shoulders and upper torso, chest, lower torso.

iii) *non dominant arm*: upper arm, elbow, forearm, wrist.

iv) *non-dominant hand*: palm, tips, radial, back.

Signs like (19) HEAD/KNOW and (20) EAR/HEAR represent a minimal pair, articulated in the same body part [head], but in two different regions (respectively, forehead and ear), as shown in Figures 4 and 5.

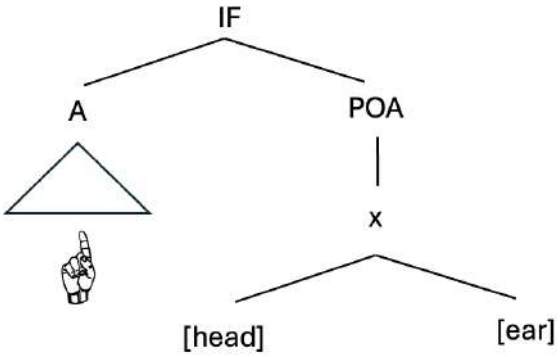


[9] As in Brentari (1998) and Geraci (2009).

(19) HEAD/KNOW

(Branchini & Mantovan, 2022:234)

Figure 4. IF branch for HEAD/KNOW



(20) EAR/HEAR

(Branchini & Mantovan, 2022:154)

Figure 5. IF branch for EAR/HEAR

In these representations, there is no movement feature described yet.

1.3.2 The Prosodic Feature tier and the representation of movement

As mentioned in section 1.3, the Prosodic Feature (PF) tier hosts features that change during the production of a sign. The movement features in the PF tier are hierarchically organized in different nodes, as in Figure 6, in order to describe the traits of articulative production.

PF

[arc], [circle], [straight], [trilled movement]

|

nonmanual

|

setting change

[ipsi], [contra], [distal], [proximal], [bottom], [top]

|

path

[pivot], [repeat], [tracing], [direction]

|

orientation

[extension], [flexion], [supination], [pronation], [abduction]

|

aperture

[open], [close]

|

IF

Figure 6. PF tier hierarchy (Brentari, 1998:130)

The nodes in the PF branch above are ordered from the most proximal joint (i.e., the shoulder) to the most distal active joint (i.e., fingers). Depending on which node(s) are active - and thus on which joint is involved in the movement - four kinds of movement can be realized:

Class node	**Active joint**
Setting Change	Shoulder and elbow
Path movement	Elbow
Orientation change	Wrist
Aperture change	Finger joints

Table 2. Class nodes and corresponding joints (adapted from Geraci 2009:13)

In addition, it is possible for simple movements to combine in the lexicon, generating signs with two simultaneous movements. In this case, two nodes are activated and specify the features for each (simultaneous) movement. For example, in the sign for DARK/DARKNESS (21), an aperture change (hand closure) co-occurs with a straight path movement in the z-plane, as illustrated in Figure 7.

(21) DARK/DARKNESS

(https://media.spreadthesign.com/video/mp4/17/671511.mp4)

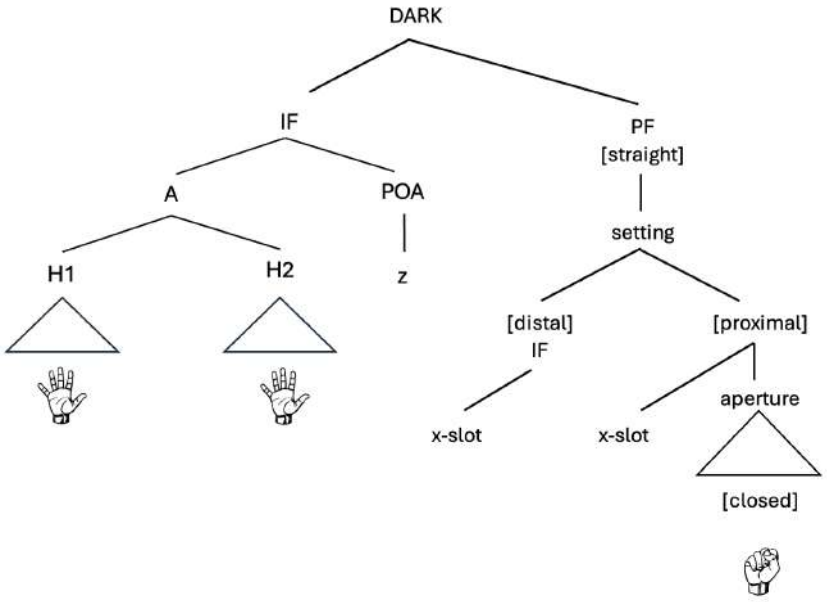


Figure 7. IF branch for DARK/DARKNESS

Moreover, there are cases where signs can involve two sequential repeated movements. The repetition can alter the angle of the second movement, which can produce a 90° angle change. Movement affects the structure of the sign by modifying handshape, orientation, or place of articulation. Since these parameters are independently specified in the IF tier, inherent features interact with the prosodic features. Without going into extensive detail, the Prosodic Model proposes that movement generates at least two timing units (x-slots), roughly corresponding to the initial and final stages of the signs. If the movement of a sign induces a change in one of the three parameters, IFs are associated with the first x-slot, while the PFs are associated with the second time slot.[10]

Additionally, the [repeated] feature contributes to the production of two identical sequential path movements in signs like (22) WHO or DOCTOR, to name a few examples. To better capture this notion, the structure of signs with repeated path movement is illustrated by the following representative example.

(22) WHO

(https://media.spreadthesign.com/video/mp4/17/203834.mp4)

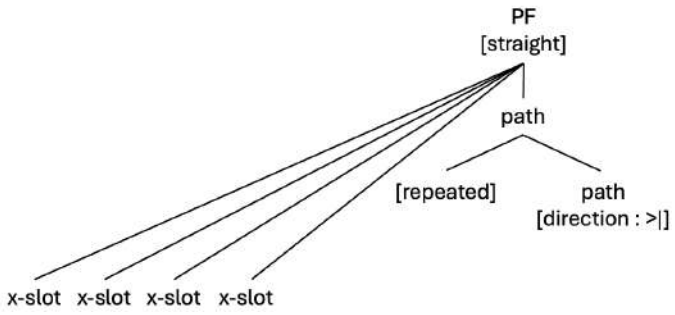


Figure 8. PF branch for WHO (from Geraci, 2009:19)

The [repeated] feature will not be further analyzed in this article, since it seems that there is no idiomatic compound with this kind of movement.[11]

[10] To explore more this concept, see Brentari (1998:184), where she presents in detail this concept and introduces a new constraint in terms of Optimality Theory (Prince & Smolensky, 1993) for a phonological analysis.
[11] Repeated path movements can also produce minimal pairs, when [±repeated] feature can be the only difference between two signs (Geraci, 2009:19-20).

1.3.3 Movement epenthesis

The brief overview in the previous sections showed that the formational parameters in sign language phonology can be distributed over two sets of features. One category captures those parameters of a sign that remain stable throughout the articulation; while the other accounts for the dynamic components of signs, which may affect any of the other parameters (handshape, place of articulation, and orientation).

Movement itself is not represented as an independent tier; instead, its characteristics and properties are spread throughout the PF branch. However, several analyses recognize a significant role in the parameter of the movement, not only because it produces phonological contrast, but also because it plays a role in domains higher than the segmental one. The fundamental premise in analyzing the distinctive role of movements in sign language phonology stems from the fact that signs must involve at least one movement (Wilbur, 1987; Stack, 1988, Brentari, 1990, 1998; Geraci, 2009; Branchini & Mantovan, 2022). In other words, a sign without a movement represents a phonotactic violation, hence an ill-formed sign. This notion has led to the study of several phonological and morphological phenomena like epenthesis and compounds.

Brentari (1998) for ASL and Geraci (2009) for LIS propose that certain signs have no movement in their underlying forms. Hence, a [repeated] epenthetic movement is produced in the output to fix the ill-formed sign. Specifically for LIS, most instances of epenthetic movements consist of the insertion of a repeated path movement in a sign that lacks a movement component in its underlying structure. Movement epenthesis repairs this issue, ensuring that signs conform to the general constraint that requires signs to have at least one movement. Epenthetic signs can be detected by examining compound forms, and the behavior of the stems composing them (Geraci, 2009:38). For this analysis, examples will be provided for compounds whose meanings are not compositional in relation to the stems composing them.

As previously mentioned, when articulated in isolation, signs with an epenthetic movement do lack an independent feature specification for movement in their underlying form. This implies that the underlying (input) form does not include a Prosodic Feature branch in the representation of the sign. To illustrate this point, the case of HEAD/KNOW is presented below. The complete input structure for HEAD is given in Figure 9:

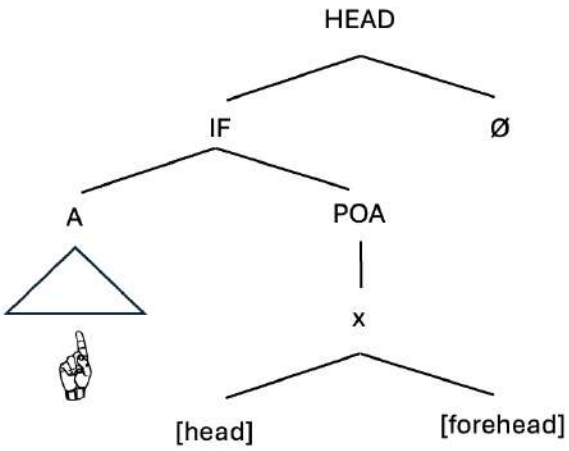


Figure 9. Underlying structure for HEAD

Following the structure for HEAD in Figure 9, it is evident that the output of this LIS sign is not well-formed, since it lacks the movement component. By adding an epenthetic movement, the PF branch and the timing slots are generated, as illustrated by the structure in Figure 10.

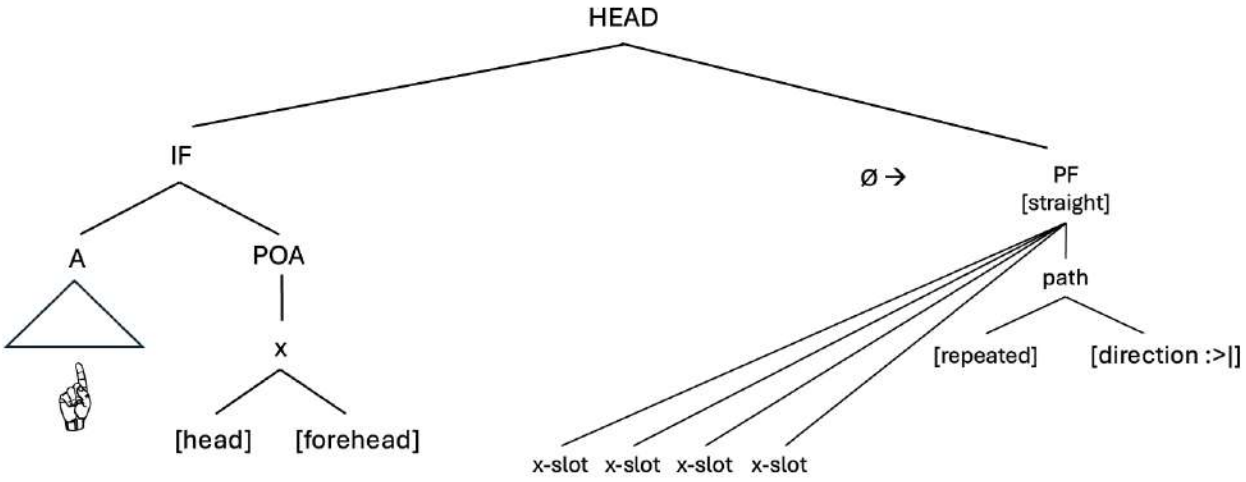


Figure 10. Output form of HEAD

Geraci claims that the typical features of the epenthetic movement in LIS are a straight, repeated trajectory accompanied by repeated contact with the body (2009:39). Two nodes are involved in

determining the final structure of the PF tier: the PF node and the Path node. Firstly, a specific feature ([straight] for the case of HEAD) at the PF node specifies the kind of movement trajectory. Then, the epenthetic features specified at the Path node are [direction] feature ([direction :>|] in HEAD), which specifies whether the hand touches the place of articulation at the end of the trajectory. Lastly, the [repeated] feature specifies that two instances of the same movement are required.

Having examined the formal composition of signs through the Prosodic Model (Brentari, 1998), it is now relevant to shift focus from the structural parameters to the ways in which signs can acquire and convey meaning. The following section explores how sign languages encode meaning, highlighting the interplay between iconicity and arbitrariness in shaping how a sign can represent concepts or entities in the visual-manual modality.

1.4 Iconicity and arbitrariness in sign languages

All languages, spoken or signed, have examples of iconic and arbitrary forms. In sign languages, the interplay between iconicity and arbitrariness acquires particular prominence, as the visual-manual modality allows for unique representations, especially important for the study of sign language structure and phenomena.

The relationship between iconicity and arbitrariness in sign languages offers a unique lens through which to explore the structure and meaning of linguistic symbols. A symbol is considered arbitrary when its form bears no direct connection to the characteristics of the concept, object, or activity it represents (Valli et al., 2011:5). Conversely, an iconic symbol reflects some aspect of the entity or action it symbolizes. In the realm of sign languages, the role of iconicity seems to become markedly significant in the formational processes of signs. Iconicity can reveal the derivative origin of a sign and the physical characteristics to which it refers in expressing a specific subject, action, or object. As demonstrated by numerous studies in phonology and lexicon (Russo, 2004; Volterra, 2004; Bertone, 2011; Lersoe, 2012; Volterra et al., 2019; Branchini & Mantovan, 2022), often the formal features of signs can be iconically associated with precise semantic domains. Specifically, the formational parameters of signs often exhibit iconic traits, with each parameter being selected to visually represent specific semantic features of the referent. These are often selected to visually

allude to a specific characteristic linked to the meaning of the sign, establishing shared traits among signs belonging to the same semantic field. For example, concepts related to cognitive activities are typically produced near the signer's head, like the sign(s) for THINK.

(23)

LIS

BSL

LGK

ASL

(www.spreadthesign.com)

It is essential to note that sign languages may employ different formal properties to indicate the same referent. The intrinsic iconic characteristics of signs are influenced by linguistic and cultural elements (Klima & Bellugi, 1979; Boyes-Braem, 1981), making them also arbitrary. Consequently, understanding the manual form of a sign is generally insufficient as a cue to its interpretation, posing challenges for individuals learning a sign language as a second language, particularly in interpreting the meaning of a sign. Conversely, proficient signers of different sign languages often find better mutual understanding compared to speakers of different spoken languages (Corazza & Volterra, 1988).

Russo (2004:18) characterizes iconicity as the "depictive power of words concerning the things signified", where the depictive trait corresponds to the alignment between the form and the

meaning of the sign. The formational parameters of a sign, as previously presented, may be linked to visual metaphors[12] that collectively invoke identifiable (and iconic) features of one or more characteristics linked to the meaning. To better understand the concepts discussed so far, and as examined particularly by Boyes-Braem (1981) regarding the visual metaphors underlying the parameters of handshape and place of articulation, several examples of the use of a specific handshape in LIS will be provided in the lines below.

In (24), the B handshape - named after the second letter of the manual alphabet - is shown. This handshape can be used to represent flat surfaces (e.g., (25) TABLE), solid or impenetrable surfaces (e.g., (26) WALL), and sharp objects (e.g., the blade component of the sign (27) SALAMI). It is also frequently used to define the boundaries of certain objects or spaces, such as (28) ROOM or (29) ROAD.

(24) B handshape

(25) TABLE

(26) WALL

(27) SALAMI

(28) ROOM

(29) ROAD

(Rigo, 2022:30)

A second aspect related to sign language iconicity is the use of classifiers. The details will not be explored extensively, but it seems important to mention a few key aspects and briefly outline how classifiers are realized in sign language.

[12] The concept of metaphor in sign languages is presented in §2.3.1.

After being at the center of research for some time (Corazza, 1990; Mazzoni, 2008; Pizzuto, 2009; Fornasiero, 2020), the term 'classifier' is used to refer to morphological categories that can denote both animate and inanimate entities, representing significant properties expressed by dedicated handshapes that become integral part of signed discourse. Since sign languages are iconically and visually based, classifiers are selected according to the physical-geometric properties of the referent, its abstract semantic category, or its use or handling (Branchini & Mantovan, 2020:431). They are also described as 'Highly Iconic Structures' (HIS) by Cuxac (2007) and Cuxac & Sallandre (2007) because they can be categorized as linguistic elements distinguished by highly iconic traits, both manual and non-manual. However, while classifiers belong to the productive lexicon of sign languages (Fornasiero, 2020), they differ from traditional lexical signs as they are semantically underspecified, denoting entities by considering only specific properties rather than having intrinsic meaning. For this reason, in Volterra et al. (2019:41), these elements are also referred to as "transfer units" that, in continuity with lexical and citation units, are used to illustrate or specify in more detail what is being signed. To illustrate this with an example, in LIS, the B handshape, as seen earlier in (24) is used to indicate and classify objects such as a sign hanging on a wall, a parked car, the arrangement of a table in a room, and so on.

However, there is no universal iconicity: the transparency of a sign depends on linguistic and cultural factors as well. The selected parameters can be used differently to describe the iconic traits of a referent, depending on the culture and linguistic conventions within the language itself (Russo, 2004). So, access to the meaning of a sign and the culturally determined criteria for selecting its iconic aspects might facilitate a better understanding of a language - but only of that specific language. Studies on this subject are hereby crucial for revealing the pervasive presence of visual metaphor and iconicity in sign languages. So, in the visual-manual channel, it is possible to map abstract concepts into concrete ones[13] (Calderone in Branchini & Mantovan, 2022:841).

Despite the prevalence of iconic representations within the lexicon of sign languages, some research (for LIS, Pietrandrea, 2002) found that signs are deeply influenced by arbitrariness. One argument supporting this perspective is the phonological status of the iconic elements, meaning that iconic features of a sign must adhere to specific phonological constraints and can only be expressed through the phonological inventory allowed in that sign language. Additionally, the

[13] This topic will be addressed in more detail later in Chapter 2, §2.2.1.

articulatory components of a sign that are considered linguistically salient are selected arbitrarily. For example, there is no predictable one-to-one correspondence between phonological features (such as handshape) and semantic features, meaning that the same handshape may appear in signs with completely unrelated meanings, as seen in the signs presented below:

(30) SUITCASE

(https://media.spreadthesign.com/video/mp4/17/178928.mp4)

(31) STONE

(https://media.spreadthesign.com/video/mp4/17/183840.mp4)

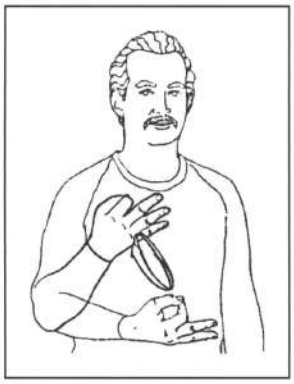
(32) DOCTOR

(https://media.spreadthesign.com/video/mp4/17/201207.mp4)

(33) LAWYER

(https://media.spreadthesign.com/video/mp4/17/633217.mp4)

This principle extends to other phonological parameters and their underlying iconic metaphors. As a result, it is not possible to predict which aspect of the formational parameters will be employed for iconic or expressive purposes, making it equally unpredictable to infer the meanings they convey. Finally, as shown by Pietrandrea (2002), many instances of handshape and place of articulation in sign languages can be entirely arbitrary or, at least, lack clear iconic motivation. For example, the handshape used in the LIS sign ALWAYS in (34) does not appear to be semantically motivated and offers no evident iconic connection to its meaning.



(34) ALWAYS

(Pietrandrea, 2002:315)

To sum up, in sign creation, the selection of parameters and features is not universal across all sign languages; each language can convey a concept differently (Pietrandrea, 2002). The key aspect is the relationship between the standardized form of a sign and its meaning (Valli & Lucas, 1998). Iconicity in sign languages can also refer to the tendency for signs to exhibit recognizable elements that correspond to the concept they represent. However, recent research has challenged the traditional view of iconicity as an objective, inherent property of signs. Occhino-Kehoe et al. (2017) argue that iconicity is not a transparent form-meaning mapping that can be objectively evaluated, but rather emerges from individual signers' construal of both form and meaning, shaped by their linguistic experience and cultural background. This perspective suggests that iconicity is subjectively mediated by the signer's interpretation rather than being an external, verifiable characteristic. Empirical evidence supporting this view shows that native signers consistently rate signs in their own language as more iconic than foreign language signs, even when the signs have similar forms or meanings, indicating that iconicity perception is language-specific rather than universal. Therefore, while sign languages can exhibit recognizable elements that correspond to the concepts they represent, the perception of these iconic relationships depends fundamentally on the individual signer's linguistic experience and cultural construal of form-meaning mappings.

While iconicity and arbitrariness highlight the ways in which signs can represent meanings, they primarily concern the selection and interpretation of formal parameters in relation to the concepts. Beyond these semantic considerations, the visual-manual modality also allows sign languages to organize linguistic information in ways that differ from spoken languages. Specifically, the simultaneous use of multiple articulators enables signs to convey complex information within a

single temporal unit. The next section explores this aspect of sign languages, examining how simultaneity and sequentiality interact to structure the sign itself.

1.5 Simultaneity vs sequentiality

As mentioned previously, the phonology of sign languages presents a distinct feature that differentiates them from spoken languages, specifically in their simultaneous nature. This topic has been extensively studied (a.o. Sandler & Lillo-Martin, 2006; Vermeerbergen et al., 2007), and only a brief introduction will follow in the next lines to aid in understanding the concept of simultaneity in sign languages and its comparison to spoken languages. This section aims to provide the necessary background without delving into excessive details, ensuring clarity for the subsequent analysis.

The phonology of spoken languages mainly relies on the sequential production of the segmental material, meaning that one sound follows another, for example in strings of phonemes. This sequential nature extends to the morphological level as well, favoring processes - such as affixation (e.g., prefixation and suffixation) - that build on the linear ordering of morphemes (Pinker & Bloom, 1990; Loos et al., 2022). Spoken languages are indeed predominantly linear, but various analyses suggest that some do incorporate some simultaneous organized structures, like tonal morphology (Myers, 2024). In these systems, for example, patterns of tone distribution play a significant role in the phonological system, operating simultaneously with segmental material and closely intertwining with their morphology and syntax (Welmers, 1973; Clements, 1978; Hyman et al., 1987; Pak, 2008; Kremers, 2012; Marlo et al., 2015). This simultaneous organization of tonal features demonstrates that even spoken languages can exploit non-sequential structures for grammatical purposes. Tonal morphology has been studied in many African languages (Odden, 1995), as well as some Mesoamerican languages like Rarámuri[14] (Caballero and German, 2021). For instance, in this language some verb forms are distinguished by the tone:

(35) (a) *tisô*
‘walk with a cane’ (bare stem)

(b) tisò

[14] Rarámuri language is a Mexican Indigenous language of the Uto-Aztecan linguistic family.

‘walk with a cane’ (imperative singular)

(Caballero & German, 2021:160)

The phonology of sign languages operates differently, employing a form of articulation that is mainly simultaneously layered, thanks to the use of multiple articulators, both in their phonology and morphology (Klima & Bellugi, 1979; Meier, 2002; Aronoff et al., 2005). This simultaneity can be seen as an outcome of the constraints of the manual articulators, the availability of multiple articulators, and/or the capacities of the visual system (Klima & Bellugi, 1979; Meier, 2002).

Sign languages, articulated and perceived in the visual-manual modality, utilize multiple manual and non-manual articulators that can move independently (or semi-independently) at the same time. These articulators simultaneously encode various types of linguistic information, from phonological contrasts to spatial relations and information structure. This multilayered system, or multilinearity, therefore allows sign languages to convey more information within a single temporal unit compared to spoken languages (a.o. Aronoff et al., 2005; Loos et al., 2022).

Without exploring the specifics of how simultaneity functions in LIS phonology, morphology, or syntax, a few examples will illustrate the differences between LIS and spoken Italian. The following sentences highlight how LIS can simultaneously convey more information with fewer linguistic utterances. In particular, the discussion focuses on the verb and adverb, and how Italian and LIS can convey this information.

(36) ITA (a) Il ragazzo corre velocemente

LIS (b) YOUNG_a IX_a RUN FAST

fe
sq
(c) YOUNG_a IX_a $\text{RUN}_{[\text{fast}]}$

‘The boy runs quickly’

(Branchini & Mantovan, 2020:302)

LIS offers the possibility of transmitting information both simultaneously and sequentially - like spoken Italian. In LIS, simultaneity can be used to express modification, where adverbial meaning is conveyed not through separate elements but through non-manual markers and/or by modifying manual parameters, such as movement. In the example in (36c), the verb RUN is performed with

an increased rapid movement and through specific mouth gestures. This demonstrates how LIS can integrate multiple pieces of information into one utterance, reflecting simultaneity in a way that spoken Italian, which requires separate lexical items for each component, cannot. However, this is not the only option, as seen in (36b), where verb and adverb can correspond to two separate signs.

As for phonology, this simultaneous nature of LIS is, as previously shown, not absolute.[15] Despite the simultaneous articulators, studies have shown that sign language phonology incorporates a sequential component as well. This kind of phenomena becomes apparent in the articulation of signs, particularly in the movement components. Studies highlight that, while the structure of signs is predominantly simultaneous, it also relies on a sequential dimension that is temporally linked to the movement component (Sandler, 1986; Lidell and Johnson, 1989; Geraci, 2009). The Prosodic Model (see §1.3) suggests that signs are organized according to their movement's starting and ending points, which creates a rhythm and sequence within the sign. Crucially, movement plays a central role in the syllabic structure of signs, functioning as the prosodic nucleus around which the sign is built (Brentari, 1998; Geraci, 2009).

1.6 Summary of Chapter 1

This chapter has introduced the fundamental concepts related to sign languages, with a specific focus on LIS. While spoken languages operate through the acoustic-vocal channel, LIS relies on a visual-manual channel. This different modality profoundly influences how linguistic information is structured and conveyed, shaping the phonological, morphological, and syntactic characteristics of the language.

To provide a clear framework, the phonological architecture of LIS has been outlined. It consists of five distinct parameters: four manual (handshape, orientation, movement, and POA) and one non-manual (NMMs). Furthermore, the application of the Prosodic Model (Brentari, 1998) has provided a systematic framework for describing how these parameters interact and how signs are

[15] Clearly, there are sequentially organized constructions in sign languages as well (Loos et al., 2022).

formed. This model will later be used in the thesis to describe how compounds are formed and to support a hypothesis on idioms and idiomatic compounds in LIS.

Building on the phonological foundation, the chapter explored the complex interplay between iconicity and arbitrariness in LIS. The visual-manual modality allows for unique representational possibilities, where formational parameters of signs can be iconically associated with precise semantic domains. However, as demonstrated by numerous studies, these iconic traits are deeply influenced by linguistic and cultural elements and must conform to specific phonological constraints within the language system.

Furthermore, another important feature of LIS has been presented: its predominant simultaneous nature. Unlike spoken languages, which rely on sequential production of linguistic elements, the visual-manual channel and multiple articulators can convey various types of linguistic information simultaneously.

These theoretical foundations set the stage for a more detailed analysis of specific linguistic phenomena and formal descriptions for the following chapters, particularly focusing on LIS idioms and their characteristics.

Chapter 2

Linguistic foundation of figurative language

Figurative language plays a fundamental role in shaping human communication across cultures, languages, and modalities, serving not merely as ornamental flourish but as a fundamental cognitive mechanism through which we conceptualize and express complex ideas (Wilcox, 2000; Gibbs, 2008; Kövecses, 2010). Within this broad domain, the linguistic mechanisms employed to convey non-literal meanings are known as tropes[16]. Tropes are defined as figures of speech in which words are used in non-literal manner (Manning, 1979), such that their intended meaning does not coincide with the literal meanings of the words (or signs) and sentences that are used (Glucksberg, 2001). Put differently, according to Perrine (1977), a trope is a technique for attributing new meanings to words, thereby generating figurative language. Figurative language is not peripheral, rather its various forms constitute essential components of everyday communication, enabling speakers and signers to convey abstract concepts, emotional nuance, and implicit meanings that literal language alone cannot efficiently capture (Kövecses, 2010; Dancygier & Sweetser, 2014). Moreover, figurative language – such as metaphors and idioms[17] – has traditionally been considered derivate from and more complex than transparent literal language. A more contemporary perspective, as exemplified across psychological, linguistic and philosophical research, posits that figurative language is processed through the same linguistic and pragmatic operations that are used for ordinary, literal language (Glucksberg, 2001). In essence, understanding any type of discourse involves both fundamental linguistic operations (such as lexical recognition and syntactic parsing) and broader pragmatic inferencing mechanisms. Literal language, therefore, demands just much cognitive effort and use of these mechanisms as figurative language. This perspective challenges traditional linguistic models predicated on referential

[16] A trope is a figurative or non-literal use of language in which words are used to convey meanings beyond their usual definitions, often through comparison, substitution, or exaggeration. For more information on this term, see §2.3.
[17] The concepts of metaphor and idiom will be discussed in more detail in §2.3.1 and throughout Chapter 3, respectively.

transparency and strict compositionality[18], suggesting instead the need for theoretical frameworks that account for the cognitive, cultural, and semiotic dimensions of language.

This chapter explores the linguistic foundations of figurative language across five main interrelated sections. It begins with an examination of the definition of figurative language (§2.1), discussing its contrast with literal meaning and the theoretical shift from rhetorical deviation to cognitive centrality. The following section (§2.2) investigates the cognitive mechanisms underlying figurative expressions – such as conceptual mapping, image schemas, and metaphor-metonymy interactions – highlighting how these processes are shaped by both embodiment and cultural convention. Section §2.3 categorizes the principal types of figurative expressions, including metaphor, metonymy, synecdoche, and hyperbole, and analyzes how these operate both in spoken and sign languages. Special attention is paid to the visual-manual modality and the unique affordances of sign language in representing figurative meaning. Section §2.4 analyzes how different tropes interact to form hybrid or layered expressions, focusing on the permeability of boundaries between metaphor, metonymy, and synecdoche. The section addresses both competing and complementary views – ranging from strict theoretical distinction to the idea of a tropes continuum – and emphasizes how multimer figures may co-occur within a single expression, especially in idioms. Finally, section §2.5 explores the interplay between iconicity and arbitrariness in linguistic signs, particularly in relation to the formation and interpretation of figurative expressions in sign languages. This chapter is intended to offer the theoretical groundwork necessary for the subsequent analysis of a specific type of figurative expressions: idioms.

2.1 Defining Figurative Language

Figurative language constitutes a fundamental domain within linguistic investigation, characterized by semantic deviation from literal, conventional meaning construction. In contrast to literal language, where meaning is conveyed through direct, transparent, and compositional mechanisms,

[18] The principle of compositionality holds that the meaning of a complex expression is determined by the meanings of its constituent parts and the rules used to combine them. Figurative language challenges this principle by creating meanings that exceed or diverge from strict compositional calculation. The concept will be further analyzed in Chapter 3.

figurative language operates through indirect semantic processes that generate meanings transcending the compositional sum of constituent elements (Cacciari & Glucksberg, 1994).

The demarcation between literal and figurative language has been subject to extensive theoretical contestation. Classical rhetorical traditions conceptualized figurative language as a deliberate deviation from literal meaning—a marked case of language usage primarily reserved for poetic or literary registers (Lakoff, 1986). Contemporary linguistic frameworks (Langlotz, 2006; Prandi, 2021), however, particularly within cognitive linguistics, have systematically challenged this distinction, demonstrating the pervasiveness of figurative mechanisms in everyday communication and their entrenchment within conceptual architecture (Lakoff & Johnson, 1980; Gibbs, 1994).

As Langlotz (2006) articulates in his seminal work on idiomatic constructions, figurative language represents not a marginal linguistic phenomenon but a central aspect of linguistic creativity and meaning-making. His linguistic approach emphasizes that figurative expressions, in particular IEs, are non-literal but motivated linguistic units that emerge from systematic cognitive processes rather than arbitrary convention alone. This perspective reinforces the view that figurative language is fundamentally grounded in general cognitive mechanisms.

Figuration may be characterized as a cognitive-semantic process involving conceptual domain mapping, facilitating the expression of abstract or complex concepts through more concrete, experiential schemata (Fauconnier & Turner, 2002). Prandi (2017, 2021) offers a sophisticated analysis of figurative structures, conceptualizing them as "conceptual conflicts" that are intentionally preserved rather than resolved, thereby generating semantic richness through the sustained tension between incongruous domains.

In the specific context of sign languages, figurative mechanisms assume additional dimensions attributable to the visual-manual modality, which provides distinctive affordances for iconic representation and spatial mapping (Wilcox, 2000; Taub, 2001). The embodied nature of sign articulation constitutes a productive substrate for figurative expression, especially metaphors, establishing complex interrelationships between conceptual structure, linguistic form, and visual imagery (Pietrandrea, 2002; Russo, 2004). By far the most studied kind of figurative language is metaphor (Deignan, 2015:1), which will not be the center of this thesis, but the concept is pivotal for understanding idioms and other tropes (i.e., metonymy and synecdoche). Metonymy is

increasingly recognized as important and will also be mentioned. These two tropes, in particular, often are the fundamentals for the origins of idioms (Moon, 1998).

2.2 Mechanisms of Figurative Expression Formation

The formation of figurative language can be understood as a deeply cognitive and experiential process that – as already mentioned in the previous paragraphs – reflects how humans conceptualize, interpret, and communicate complex or abstract ideas through more concrete or familiar terms. Figurative language – in particular metaphor, metonymy, and IEs – emerges from a cognitively grounded process known as conceptual mapping (Lakoff & Johnson, 1980), a mental operation where elements from one domain or experience (the source domain) are projected onto another (the target domain) to enhance understanding. This mapping is not arbitrary but emerges from embodied experience, as shown by both spoken and sign languages. Crucially, iconicity plays an important role in this mechanism, particularly in sign languages, where body and special representations visually reflect conceptual structures (Perniss et al., 2010). Given the complexity of figurative language, a comprehensive analysis must consider not only cognitive-semantic mechanisms, but also the morphosyntactic constraints that shape how such expressions are formed and interpreted.

2.2.1 Conceptual Mapping Theory (CMT)

The mechanism underlying figurative language formation, as articulated by Conceptual Mapping Theory (CMT), represents a foundational shift in the understanding of metaphor (and, consequently, of other figurative elements): from a merely stylistic or rhetorical device to a central operation in human cognition. CMT posits that figurative expressions are manifestations of deeper conceptual structures whereby knowledge from a concrete, experientially grounded source domain is systematically mapped onto a more abstract target domain (Lakoff, 1993; Johnson, 1987). This process enables speakers to understand and reason about abstract phenomena – such as time, emotion, or morality – through more familiar, embodied experiences. Illustrative examples of these conceptual mappings are further discussed in §2.3.1.

The foundational arguments of CMT can be summarized and termed in three points (Sala-Suszyńska, 2016:168).

(i) The *conventionality argument* asserts that metaphor is not confined to poetic or literary discourse but is pervasive and systematic across everyday language use.

(ii) The *conceptual structure argument* further maintains that linguistic metaphors reflect the way in which concepts are structured in the mind, suggesting that much of our conceptual system is metaphorically constituted.

Central to these claims is (iii) the *embodiment argument*, which holds that source domains typically draw upon sensorimotor and bodily experience, thereby grounding abstract reasoning in the physical environment (Johnson, 1987).

Crucially, metaphorical mappings are not merely linguistic but cognitive phenomena, activated as part of an individual's cognitive environment, informing real-time processing of discourse. These mappings are context-sensitive and guide interpretation by constraining the set of plausible inferences associated with metaphorical utterance (Lakoff, 1993). This understanding aligns with relevance theory's notion of a cognitive environment, wherein background knowledge interacts dynamically with linguistic input.

In sign languages, for example, the conceptual mapping mechanisms proposed by CMT are frequently realized through visual-spatial metaphor-motivated signs. For instance, many LIS signs related to emotions (LOVE, DEPRESSION, EXCITEMENT, etc.) are often produced near the torso or chest; while signs referring to cognitive processes (THINK, UNDERSTAND, REMEMBER, etc.) are typically articulated close to the head and the forehead.[19] Below are some examples from LIS: in (1) LOVE, in (2) one of the signs for DEPRESSION, in (3) THINK, and in (4) REMEMBER.

[19] This mechanism will be described in detail in §2.3.1.

(1) LIS LOVE

(https://media.spreadthesign.com/video/mp4/17/512664.mp4)

(2) LIS DEPRESSION

(https://media.spreadthesign.com/video/mp4/17/178663.mp4)

(3) LIS THINK

(https://media.spreadthesign.com/video/mp4/17/671529.mp4)

(4) LIS REMEMBER

(https://media.spreadthesign.com/video/mp4/17/201069.mp4)

This demonstrates how bodily experience is mapped onto metaphorical (or metonymic) conceptualizations. Many IEs, and other tropes, for instance, are grounded in references to body parts, likely because the human body constitutes a central element in human life and experience (Kövecses, 2000). It is through the body that individuals are able to organize and interpret the surrounding world. As Charteris-Black (2003:32) observes, "the bodily acuities are built into a theory of knowledge that represents metaphor (and other figurative forms) as an extension of the basic fact that the human body deals with the world through adaptation and articulation". From this perspective, the body can serve as a foundation for metaphorical construction, as it enables the expression of sensory experiences or emotions in a way that is accessible to other speakers or signers—who are likely to have undergone similar bodily or sensory experiences.

This phenomenon has been documented in various spoken languages (Lakoff, 1987). For example, in English the idiom "*in the blink of an eye*" refers metaphorically to something happening extremely quickly, drawing on the bodily action of blinking (Tobbi, 2024:125). In Czech, the expression "*být o hlavu větší*" (literally, "*be about head bigger*", meaning "to be a head taller") is used to describe someone who is physically or figuratively superior (Bílková, 2000:36). In Olunyole,[20] the idiom "*n'nomele munwa kwa NP*" (literally, "*I have borrowed mouth of NP*") conveys the idea that the speaker is speaking on someone's behalf or repeating someone's words (Alati, 2015:167). In signed languages, this tendency may be even more pronounced due to the

[20] Known also as Nyole, it is a language spoken by the Luhya people in Vihiga County, Kenya.

visual-manual modality and the intrinsic role of the body in the very structure and use of the language.

In sum, figurative language formation, from the CMT perspective, is a cognitively motivated, embodied process that reflects and structures human thought, extending far beyond rhetorical flourish to constitute a core mechanism of meaning-making.

2.2.2 Mapping constraints

Lakoff (1993) proposed the Invariance Principle (IP) in response to the issue of metaphor overgeneration[21]. IP restricts metaphorical mappings by requiring that the image-schematic structure of the source domain be preserved in the target. Image schemas (Johnson, 1987) are basic cognitive representations of spatial and force-dynamic configurations (e.g., part-whole relations, bounded regions, forces and counterforces). These schemas possess internal structure and logic based on how entities interact within them. Theoretical elaborations, empirical support for the role of image schemas, and the IP can be found in works such as Hampe (2005), Oakley (2007), Peña (2003, 2008), and Peña & Ruiz de Mendoza (2009).

The IP applies to both concrete and abstract conceptual domains, including physical objects, emotions, and event structures, provided these can be constructed through spatial reasoning. For instance, the structural similarity between arms and branches allows for a metaphorical mapping from a tree to a human body. Abstract concepts such as emotions, though lacking inherent topology, can adopt consistent spatial structure through image schemas – for example, conceptualizing love as a bounded region allows for expressions like "falling in love" or "being out of love". Similarly, event structures can be metaphorically mapped using spatial logic, as in the metaphor "states are locations", enabling expressions like "fall in depression" or "get out of depression". These mappings rely on preserving the logical and structural consistency of both source and target domains.

Ruiz de Mendoza (1998) proposed an extension of the IP, termed the Extended Invariance Principle (EIP), which accounts for mappings based not only on image-schematic structure but also on generic-level structures. For example, in a metaphor like "Achilles is a Lion", the mapping involves

[21] For metaphor overgeneration: not anything can be mapped onto anything (Ruiz de Mendoza, 2014: 198).

behavioral abstraction rather than spatial structure, aligning fierce human behavior with that of animals. The EIP thus posits that metaphorical mappings must maintain the logical and structural coherence of the target domain while preserving both image-schematic and generic-level structure from a source domain.

2.3 Types of figurative language

Figurative language encompasses multiple expression categories, each characterized by specific semantic and cognitive operations. While traditional rhetoric identified numerous tropes and figures, contemporary linguistic analysis has focused on several principal categories, particularly relevant to cross-modal investigation. Before examining some of these figures of speech, it is necessary to understand what a trope is and why it has been such a widely studied topic in literature since antiquity. A trope occurs when «an expression is transferred from the meaning it is conventionally associated with (proper o literal meaning) to another, and is applied by extension to different objects, actions, states and so forth» (Mortara Garavelli, 2010:5). The various processes through which these new meanings are generated define the individual figure, which are referred as figurative, meaning any deviation or shift in meaning. For example, the term "star" shifts by extension from its original meaning of "celestial body" to that of a "film actress". Similarly, the Italian word "*mare*" (sea) represents a trope (specifically a hyperbole[22]) when it comes to signify "a large quantity" (Mortara Garavelli, 2010). Moreover, the LIS sign (5) SALAD[23] acquires a non-literal meaning when it does not refer to leafy greens but instead conveys the concept of confusion and chaos.

[22] Hyperbole will be described in § 2.2.4.
[23] The movement recalls the action of tossing a bowl of salad.

(5) LIS SALAD

(https://media.spreadthesign.com/video/mp4/17/671453.mp4)

So, in other terms, any unexpected combination of concepts may constitute a trope, even in cases where it does not correspond to any of the traditional categories typically assigned to figurative uses of language. A trope can thus be understood as a disruption of the expectations prompted by the context. A commonly accepted view has been that a trope refers to a single word - or more precisely, to a shift in the meaning of a single element within an expression - whereas figures are thought to involve constructions composed of multiple words. However, this distinction remains problematic, as figurative utterances frequently involve the co-occurrence of multiple non-literal elements. Furthermore, different tropes may interact and contribute to construct a specific meaning, as will be briefly discussed in §2.4. For this reason, in this thesis, the two terms can occasionally be used interchangeably, depending on the context of analysis.

Specifically, the following sub-sections outline a few key categories of figurative language - namely metaphor, metonymy, synecdoche, and hyperbole - which are especially relevant considering that many idioms are constructed using these very tropes. The illustrative examples presented throughout this section are drawn from different sign languages. Among the tropes considered, metaphor and metonymy have been extensively studied across various sign languages, whereas synecdoche and hyperbole have not yet been examined in comparable depth. Moreover, although idioms and IEs are a major category of figurative speech, they will not be covered in this chapter, as they will be discussed in a dedicated chapter.

2.3.1 Metaphor

Metaphor is the most extensively investigated figurative mechanism, since it serves as a fundamental mechanism in human language that enables the conceptualization of abstract or complex ideas through more concrete or familiar forms. Lakoff and Johnson (1980) introduced the Conceptual Metaphor Theory, according to which understanding is achieved by mapping experiences from a source domain onto a target domain, exemplified by expressions like "time is money" or "argument is war". The relationship is typically represented by the formula *X is Y*, where X is the source domain and Y is the target domain.

$$X \text{ (source)} \Rightarrow Y \text{ (target)}$$

The more concrete domain is the source one (X), and the more abstract domain that is understood in terms of the source is the target one (Y).

Taking the metaphor "time is money" as a reference expression, in which the abstract notion of time is conceptualized in terms of monetary value, various features of the two domains can be combined, leading to expressions such as "spending time" or "investing in the future" (Kövecses, 2010). Therefore, in Figure 11, the X domain (the source) could be interpreted as money, and the Y domain (the target) as time. The internal correspondences – such as earning money/using time productively or wasting money/wasting time – illustrate how metaphor shapes linguistic expression.

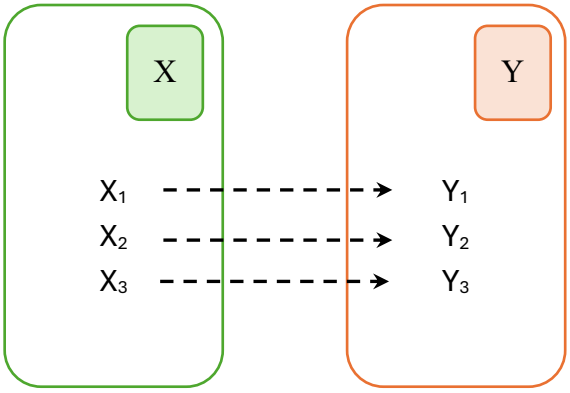


Figure 11. Metaphor mappings (Branchini & Mantovan, 2022:843, recreated from Quer et al., 2017:761)

So, mapping is a series of systematic correspondences established between elements of the source domain and those of the target domain. These mappings are what make the metaphor coherent and allow speakers and signers to draw inferences.

In sign languages, metaphorical mappings are realized through both manual articulators and non-manual elements, frequently exploiting three-dimensional signing space to represent abstract relationships via spatial configurations (Taub, 2001; Russo, 2004). In addition, metaphors are very frequent since in the visual-manual channel it is possible to map abstract concepts to concrete concepts. Taking the example of the metaphorical expression "understanding is grasping" (Meir, 2010), a clear example is the LIS sign UNDERSTAND, in (6), which is realized by the action of grabbing something close to the forehead.

(6) LIS UNDERSTAND

(Branchini & Mantovan, 2022:258)

As mentioned, it is possible to state explicitly the mapping between the two domains, just like in Figure 12.

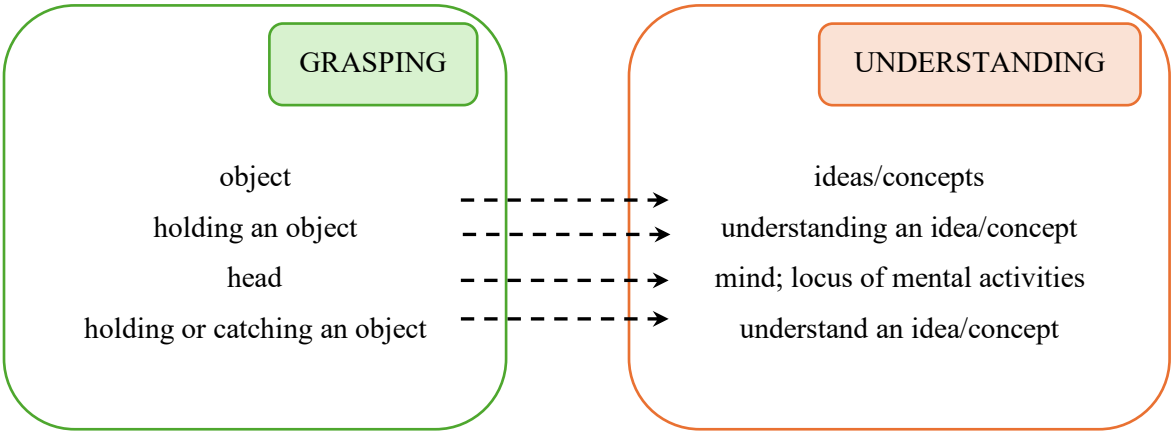


Figure 12. metaphorical mapping for "understand is grasping" (adapted form Meir, 2010:875)

Similarly, the sign for (7) FORGET features a movement away from the head combined with an opening of the fingers, which iconically indicates the loss of information. These examples illustrate how sign languages, especially LIS, utilize spatial structures, specific movements, particular handshapes, and iconic representations to convey metaphorical meanings.

(7) LIS FORGET

(https://media.spreadthesign.com/video/mp4/17/192146.mp4)

However, the iconic nature of sign languages imposes certain constraints on metaphorical extensions. Meir (2010) introduces the Double Mapping Constraint, suggesting that the acceptability of a metaphor in sign language depends on a congruence between the iconic form of the sign and its metaphorical meaning. In other words, a sign that iconically represents a concrete action may not be easily extended to an abstract concept if the visual imagery does not support the metaphorical interpretation. For example, Meir (2010:869) presents the Israeli Sign Language

(ISL) sign FLY[24], which iconically represents flapping wings, that cannot metaphorically convey the passage of time as in the expression "time flies", due to a mismatch between the sign's form and the intended abstract concept.

(8) ISL FLY

(Meir, 2010:869)

These observations underscore that, while metaphor is a universal feature across languages, its manifestation in sign languages is shaped also by the interplay between iconicity and metaphorical mapping and meaning. This interplay will be further discussed in this chapter.

2.3.2 Metonymy

Metonymy is a trope used in everyday conversation in which one conceptual entity is used to refer to another that is closely related to it within the same domain or in a contiguous relationship – whether physical, causal, or conceptual – to the intended referent (Radden & Kövecses, 1999). Unlike metaphor, which is based on a similarity or analogy between two distinct conceptual domains (e.g., "time is money"), metonymy operates through contiguity, or a close associative relationship (Barcelona, 2003). In other words, metaphor operates primarily as a way of conceptualizing one entity in terms of another, and its primary function is understanding. Metonymy, conversely, has primarily a referential function, that allows one entity to signify another through established associations (Lakoff & Johnson, 1980:36). Nevertheless, metaphor and metonymy are not mutually exclusive: they often co-occur and co-structure meaning. Scholars such

[24] Which is the same in LIS.

as Goossens (1990) have described this interplay as "metaphtonymy", where metaphorical and metonymic mappings reinforce or elaborate each other in complex expressions[25].

A typical example of metonymy could be "the White House" used to refer to the U.S. President or the U.S. administration (Radden & Kövecses, 1999:6). This is based on a relationship of spatial and institutional contiguity, as the White House is the official residence and workplace of the President and a symbolic seat of executive power.[26] The link between the source and the target in metonymy is typically grounded in real-world experience such as part-for-whole (synecdoche)[27], cause-effect instrument-for-action, producer-for-product or place-for-institution relations. Therefore, metonymic relations involve two related concepts included in the same semantic sphere, as shown in Figure 13.

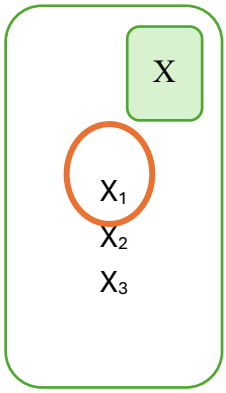


Figure 13. Metonymic relations (Branchini & Mantovan, 2020:764, recreated from Quer et al., 2017:764)

In this sense, metonymy is not only a rhetorical device but also a cognitive strategy that enables efficient reference and inferencing in communication (Lakoff & Johnson, 1980; Panther & Radden, 1999).

[25] This thesis will not delve into this specific topic. For a detailed discussion of the interaction between metaphor and metonymy, see Goossens (1990) who describes the interplay between the two tropes.
[26] This is a widely attested case of metonymy. In Italian, a comparable example is "Montecitorio," which is used to refer to the Chamber of Deputies. In expressions such as "*notizie da Montecitorio*" ("news from Montecitorio"), the building stands metonymically for the institution and its members.
[27] This trope will be further analyzed in § 2.3.3.

In sign languages, metonymy plays a significant role in how meaning is constructed and interpreted in a visual-manual channel. Due to this modality, metonymic representations are often iconic, directly depicting the associated object, attribute, or action.

A distinction can be made between different types of metonymic processes. In some cases, metonymy functions as a lexical formation strategy, giving rise to fully conventionalized signs that retain their inherently metonymic character. For instance, in ASL, the image selected to represent the concept ‘degree’ is a diploma (Taub, 2001:53). This reflects a metonymic relation between the object and the abstract concept it stands for.

(9) ASL DEGREE

(from spreadthesign.com)

In other cases, metonymy operates as a pragmatic strategy for reference. For example, as already mentioned, the producer-for-product relation is well-documented in several languages: the LIS sign for the Italian writer Dante can be used metonymically to refer to his intellectual product ‘Divina Commedia’ (Branchini & Mantovan, 2020:765-766).

(10) 

IX$_1$ DANTE READ

'I read Dante ('s 'Divina Commedia')'

(Branchini & Mantovan, 2020:766)

Unlike the example in (9), this is an optional substitution and strategy, as one could still sign DIVINA COMMEDIA explicitly instead of using DANTE metonymically.

2.3.3 Synecdoche

Frequently classified as a metonymic subtype, synecdoche occurs when "a term normally referring to part of an entity is used to stand for the whole entity" (Deignan, 2005:56) or the whole represents a part of the entity. While certain linguistic traditions treat synecdoche as distinct from metonymy, others subsume it within broader metonymic relations (Nerlich, 2006). A clear example of a synecdoche is in the sentence "I only live a few doors down the road from…" (example from the BNC, Ädel, 2014), in which the word *door* is used for "house".

As for the previous tropes, synecdoche can be found also in sign languages and, just like metonymy, can produce conventionalized signs. Such signs can be derived from classifiers displaying a part-for-whole relationship; for example, a steering wheel stands for a car, and a roof represents a house[28] (Meir, 2010:873), as presented below with two LIS signs.

[28] Also in some spoken languages, the term "roof" can function to represent the entire house (Mortara Garavelli, 2010). In Italian, for instance, the expression "*avere un tetto sopra la testa*" (to have a roof over one's head) conveys the notion of having a place of residence or shelter.

(11) LIS CAR

(https://media.spreadthesign.com/video/mp4/17/444358.mp4)

(12) LIS HOUSE

(https://media.spreadthesign.com/video/mp4/17/453051.mp4)

2.3.4 Hyperbole

Hyperbole is a figure of speech that involves the use of expressions so extreme that they surpass what is ontologically plausible (Burgers et al. 2016). According to some scholars (Aljadaan, 2016), the definition of hyperbole generally rests on three fundamental elements: *i)* exaggeration, *ii)* the distinction between literal and intended meaning, and *iii)* the existence of a referent. Exaggeration refers to the amplification of a certain aspect or quantity, typically used to express a strong emotional attitude. It can occur both quantitatively and qualitatively, and the evaluation may be positive or negative (Cano Mora, 2009; Ferré, 2014). In addition, the stronger the discrepancy between the literal and figurative meaning, the more effective the hyperbole (Claridge, 2010; Carston & Wearing, 2015). In other words, the most typical hyperboles are utterances that are either

false, or even incoherent, and thus do not permit a literal interpretation. Moreover, some of these hyperboles display a *fuoco* ("focus"), that is the given information presented as new (Prandi, 2021:217).

However, for the figurative meaning to be interpreted as hyperbolic, it must share the same evaluative dimension as the intended meaning; otherwise, the expression might be taken literally or even interpreted ironically. In addition, as for any trope, contextual factors and the interlocutor's background knowledge play a crucial role in identifying hyperbolic meanings (Aljadaan, 2016). To exemplify this trope, below the sentence in (13b) is a hyperbole of the sentence in (13a):

(13) a. It is extremely hot

b. It is boiling

(Aljadaan, 2016:3)

These examples illustrate how hyperbole operates by taking a basic concept (such as high temperature) and intensifying it through exaggerated figurative language: presumably, the temperature is not at the level to boil water, but it feels extremely uncomfortable to the speaker.

Research specifically addressing this topic in sign languages remains limited. However, it is discussed in Fedeli (2015) where hyperbole is identified as a linguistic strategy employed to create new (often slang) signs by exaggerating or emphasizing a concept associated with a given referent. One example of this phenomenon is the slang sign ESSAY in (14), which functions as a critique directed at someone who talks excessively.

(14) ESSAY

(Branchini & Mantovan, 2022:868; based on Fedeli, 2015:94)

2.4 Interaction between tropes

Figurative language often seems to operate not through isolated tropes or figures but through their interaction, giving rise to hybrid or layered constructions that cannot be reduced to a single underlying mechanism. In literature, particular attention has been devoted to the permeability and indistinctness of the boundaries between metonymy and synecdoche, as well as the overlaps between these two figures and metaphor. Rhetorical labels often appear interchangeable, especially considering the overlapping among traditional taxonomies, which frequently diverge (Mortara Garavelli, 2010). For instance, naming the material to refer to the object ("*i ferri*" in Italian, which can refer both to tools of a profession and to knitting needles) is variously interpreted as a case of metonymy or synecdoche,[29] depending on the theoretical framework adopted. Metonymy and synecdoche may therefore be understood as two substitution mechanisms that operate through the use of related elements – such as naming the cause for the effect, the part for the whole, or vice versa – and are grounded in a semantic proximity or dependence between elements (Mortara Garavelli, 2010; Prandi, 2021).

While metonymy and synecdoche are generally distinguished from metaphor, they frequently appear to converge with it. For instance, hyperbole is often conceptualized as an intensification (or a sub-category) of metaphor, wherein exaggeration is employed not merely for emphasis but as a strategic expansion of metaphorical domains (Mortara Garavelli, 2010). Similarly, the interplay between metaphor and metonymy can be observed in expressions such as "keep the wolf from the door", which is an IE that exhibits a rich interaction of tropes. It is metonymic in the use of "door" as the concept of "home", but also metaphoric in the concept "wolf is danger". In addition, Oswick, Putnam and Keenoy (2004) emphasize that in organizational and social discourse, tropes function dialogically and interdependently, shaping how individuals construct reality and negotiate meanings. They argue that tropes such as metaphor, irony, and metonymy frequently overlap within discourse, and are interrelated.

This overlap can also be observed in the visual-manual channel. In sign languages, the simultaneous layering of the tropes can be encoded at the phonological level particularly within the formational parameters of the sign, due to the high degree of iconicity inherent in these languages. For example, the LIS sign UNDERSTAND (6) combines a metaphor (grasping is

[29] Without counting polysemy.

comprehending) expressed through handshape and movement, with the positioning of the sign near the forehead, which reflects the widespread visual-spatial metaphor in which the head represents the locus of cognitive activities. This location, however, may also carry a metonymic nuance, as it draws on the physical and functional association between the anatomical head and the mental process (palace for activity) (Radden, 2020).

However, an alternative position maintains that the distinction between metaphor and metonymy can, and should, be preserved (Prandi 2021:93). This view suggests that when complex meanings involve conflicting constraints, the contrast between metaphor and metonymy becomes clearer: the directionality of conceptual mapping in metaphor (cross-domain) is fundamentally different from the intra-domain shifts characteristic of metonymy, as shown in Figure 11 and Figure 13.

Nonetheless, the dominant view in cognitive linguistics argues for a continuity between metaphor and metonymy. According to this perspective, the two figures can be part of a continuum, with many intermediate cases resisting neat classification. As Radden (2003:93) observes, «the distinction between the notions of metonymy and metaphor is notoriously difficult, both on a theoretical and an empirical level […]. Rather than insisting on separating the two notions, it is preferable to think of a metonymy-metaphor continuum». In this model, metaphor and metonymy occupy opposite poles, while a broad middle ground accommodates hybrid or indeterminate cases.[30]

Regardless of one's theoretical stance on the potential overlap between rhetorical figures such as metaphor and metonymy, it remains evident that these figures may occur in close proximity – if not within the same expression – and may interact synergistically to generate a figurative meaning that is both intensified and more semantically salient (Prandi, 2021). For this reason, these very tropes (metaphor, metonymy, synecdoche, and hyperbole) are described in this thesis: it will be discussed how idioms and IEs can be constructed around different figures of speech, showing how these elements can combine and form other figurative expressions.

[30] An example of this phenomenon is metaphtonymy (Goossens, 1990), already cited in § 2.2.2.

2.5 Iconicity and Arbitrariness in Figurative Language

In the last twenty years, research on the relationship between iconicity and arbitrariness in figurative language has increased; however, despite this growing interest, many facets of their interplay remain underexplored in current research.[31] Although § 1.4 addressed the roles of iconicity and arbitrariness specifically within the context of sign language, this paragraph will provide a concise definition of these concepts and examine their relevance and applicability to figurative language phenomena.

Iconicity denotes a perceived resemblance between linguistic form and meaning, whereby aspects of the signifier reflect properties of the signified (Peirce, 1931-1958; Fischer & Nänny, 1999). While traditional linguistic theory, following Saussurean principles (1916), emphasized the arbitrary relationship between form and meaning, contemporary approaches recognize that languages – both spoken and signed – exhibit varying degrees of iconicity across phonological, morphological, and syntactic levels (Dingemanse et al., 2015).

Sign languages have frequently been characterized by their substantial iconic potential, attributable to the visual-manual modality that permits direct imagistic representation of spatial, temporal, and kinetic properties of referents (Taub, 2001; Wilcox, 2004). However, as Klima and Bellugi (1979) demonstrated in their seminal analysis of ASL, sign languages balance iconic motivation with arbitrary convention, establishing systematic linguistic structures that cannot be reduced to pantomimic representation or gestural communication.

As previously mentioned, while traditional linguistics emphasizes the arbitrariness of the linguistic sign, contemporary semiotic and cognitive approaches have reintroduced iconicity as a central mechanism in meaning-making, also in figurative language (Westbury, 2005; Perniss et al., 2010) Without intending to take sides, these next lines aim to provide an overview of the limited research conducted on the topic to date. Hu (2010) argues that figurative expressions – such as metaphors and idioms – in Chinese frequently rely on iconic principles, where the structure or form of the linguistic sign resembles conceptual or perceptual features of the referent, thereby facilitating comprehension through motivated resemblance rather than arbitrary convention. This is further corroborated by Hiraga (2002), who explores how metaphor and iconicity intersect in poetic texts:

[31] Particularly within sign languages, even though iconic representation occupies a prominent position in signed linguistic structure.

iconic configurations (such as spatial or phonological mimicry) often underpin metaphorical mappings, thus blurring the boundary between arbitrary and iconic signification. These studies support the view that iconicity and arbitrariness should be seen not as binary opposites, but as coexisting dimensions that interact dynamically in figurative speech.

This interplay can be particularly salient in sign languages, where visual and spatial features enhance and can make more explicit the iconic correspondences between form and meaning. Iconicity plays a particularly salient role in the formation and interpretation of signs. It often allows for the visual representation of physical characteristics associated with referents – whether objects, actions, or abstract concepts – through formational parameters such as handshape, location, and movement. As already mentioned in § 1.4, numerous studies (Russo 2004; Volterra, 2004; Bertone, 2011; Lerose, 2012; Volterra et al., 2019; Branchini & Mantovan, 2022) have shown that LIS signs within similar semantic fields frequently share iconic features, as exemplified by signs representing cognitive activities that are produced near the signer's head. Despite the presence of iconic motivation, sign formation is not governed by universality. Rather, the formal aspects of signs are shaped by cultural and linguistic conventions (Klima & Bellugi 1979; Boyes-Braem, 1981), introducing a layer of arbitrariness that complicates the transparent interpretation of signs, particularly for second language learners. In other words, the visual motivation of signs may remain perceptible even as the holistic meaning becomes conventionalized and semantically opaque (Boyes Braem, 1981; Wilcox et al., 2005). This generates what Taub (2001) terms "double mapping" – wherein iconic representation intersects with metaphorical mapping to produce multi-layered semantic structures. Below is Figure 14, displaying the double mapping principle.

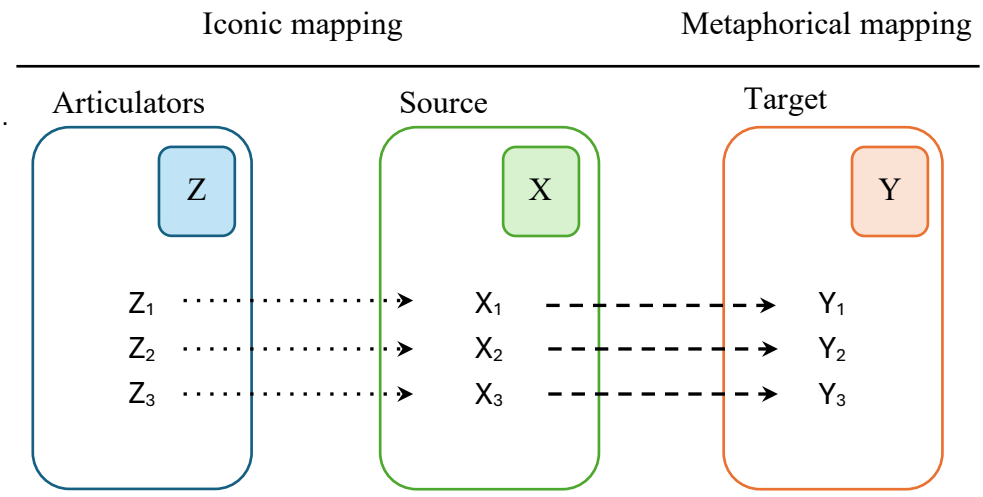


Figure 14. Double mapping

To better understand this principle, in Figure 15 the mapping for the sign UNDERSTAND in LIS is presented to exemplify the metaphor of "understanding is grasping". The dominant hand starts with an open five handshape, it then closes into an S handshape and moves in the contralateral side of the signer, recalling the action of grasping. The imaginary object held in the S handshape represents the information or the concept being understood.

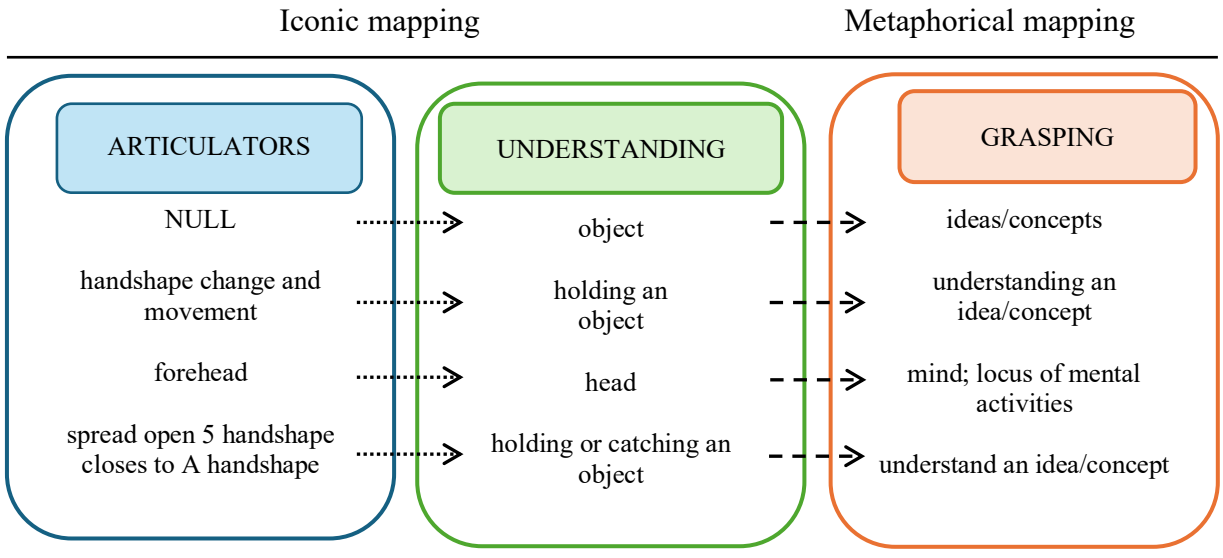
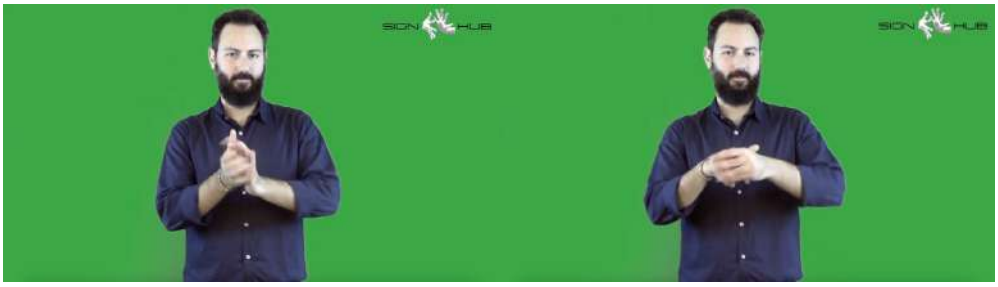


Figure 15. Double mapping for the LIS sign UNDERSTAND and the metaphor "understand is grasping"

Building from this view, while iconicity can facilitate literal interpretation, arbitrariness plays a key role in figurative meaning, especially in idiomatic meanings (Rigo, in print). In idioms, for example, iconic mappings may highlight the literal interpretation, while culturally bound conventions determine the idiomatic reading. This duality suggests that idiom comprehension in sign language – such as LIS – relies on both compositional and non-compositional processes, often mediated by familiarity with Deaf cultural frameworks (Pierrot, 2020; Rigo, 2022). The general concept is that it is possible to map abstract concepts onto concrete ones. The figurative meanings are mapped through metaphorical and metonymic mechanisms, in both spoken and sign languages. However, the visual-spatial nature of sign languages allows for more direct, iconic, and embodied mappings between abstract and concrete domains. (Calderone in Branchini & Mantovan, 2022). In sign creation, the selection of parameters and features is not universal, and each sign language may convey a concept differently (Pietrandrea, 2002). The crucial aspect lies in the relationship established between standardized form and meaning (Valli & Lucas, 1998).

As already mentioned, iconicity in sign languages refers to the frequent possibility of recognizing the elements that signs represent. The idea is that iconicity could be significant not only in the creation but also in the literal interpretation of idiomatic signs: the relationship between the form and what is being presented can therefore be perceived more transparently through visual modality (Pierrot, 2020), as exemplified in WASH_HANDS in (15).



(15) WASH_HANDS
'to wash one's hands of'

(Branchini & Mantovan, 2022:282)

This sign is a calque from the spoken Italian idiom "*lavarsene le mani*" (wash one's hands of something), meaning to "refuse responsibility" or "disengage oneself from a matter". The expression originates from the biblical episode in which Pontius Pilate washes his hands before the

crowd, symbolically absolving himself of responsibility for Jesus's fate. While the parameters forming this sign might be easy to grasp in a compositional, literal reading – namely, actually washing one's hands – this may not lead to the overall idiomatic interpretation, especially for signers or observers unfamiliar with LIS linguistic and Italian[32] cultural conventions. Therefore, while a similar idiom exists in English, the corresponding sign in ASL typically retains only a compositional, literal interpretation – referring to the physical act of handwashing – without conveying the same figurative meaning unless contextualized or supported by other signs (personal communication, June 2025). This contrast illustrates how figurative signs may derive from culturally specific sources and how their figurative interpretation can vary significantly across sign languages despite surface-level similarities in form.

Thus, the interplay between iconicity and arbitrariness can be relevant in understanding figurative meanings in sign language, revealing that while iconicity can guide the literal interpretation, the full figurative meaning is ultimately institutionalized and conventional, in other words, arbitrary.

2.6 Summary of Chapter 2

This chapter has examined the linguistic foundations of figurative language by tracing its theoretical development, typological diversity, cognitive underpinnings, and modality-specific features – especially within the context of sign languages. Figurative language, far from being a marginal or ornamental aspect of communication, emerges as a central cognitive and semiotic mechanism through which abstract, complex, and affective content is conceptualized and conveyed. Drawing from cognitive linguistics, the chapter has emphasized how processes such as conceptual mapping, image-schematic structuring, and domain interaction contribute to the formation and interpretation of figurative expressions across languages and modalities.

An overview of major tropes – including metaphor, metonymy, synecdoche, and hyperbole – has shown that these mechanisms are not only structurally diverse but often interrelated, forming layered or hybrid expressions that defy rigid taxonomic classification. The section on tropes

[32] The term "Italian" is used here not in reference to the spoken language, but to the sociocultural and geographical context of Italy, where the Italian Deaf signing community lives.

interaction has illustrated how boundaries between figures are permeable, allowing for synergy between mechanisms such as metaphor and metonymy, particularly in idiomatic constructions.

In addition, the chapter has foregrounded the interplay between iconicity and arbitrariness in sign language, a dynamic particularly salient in the visual-manual modality. It has proposed how iconic features may guide literal interpretation, while conventionalized and culturally embedded components determine idiomatic or figurative readings. The notion of double mapping – the co-occurrence of iconic and metaphorical structures – has emerged as especially relevant in accounting for complex signs whose meanings exceed their surface interpretation.

Taken together, these insights from the theoretical groundwork for the analysis of idioms, which represent a highly conventional yet deeply figurative layer of language. By drawing from multiple figurative mechanisms and often operating at the interface of form and meaning, idioms provide a fertile site for investigating how figurativity is constructed, constrained, and interpreted across languages and modalities – particularly in sign languages such as LIS. These issues constitute the core focus of the following chapters, where the discussion will expand on the cross-linguistic and modality-specific features of IEs.

Chapter 3

Idioms: Theoretical Background

Idioms, or idiomatic expressions (IEs), are abundant in everyday communication and appear in every language (Bobrow & Bell, 1973:343), and every language presents a set of crystallized expressions (Scotti Jurić et al., 2016:25) that can be broadly categorized as figurative, or idiomatic. IEs are linguistic elements that have been extensively studied in the literature (a. o. Burger et al., 1982; Larson, 1984; Cacciari, 1989; Casadei, 1994, 1995a, 1996; Moon, 1998; Langlotz, 2006) across various disciplines - from linguistics and psycholinguistics to translation and interpreting studies – and have long posed challenges for scholars, primarily due to their anomalous linguistic nature. The complexity of these expressions hinders both the formulation of clear definitional criteria and their classification within a systematic linguistic framework. To begin with, one main issue is that scholars have described IEs with a wide array of terminological labels, that include – but are not limited – to: formulaic expressions, sayings, multi-word expressions (MWEs), fixed expressions, phraseological units, routines, collocations, etc. (Fraser, 1970; Makkai, 1972; Pawley & Syder, 1983; Cacciari and Tabossi, 1988; Nunberg et al., 1994; Kövecses, 1996; Wood, 2002; De Caro & Edith, 2009; Leah, 2014; Cacciari & Corradini, 2015; Newman, 2015; Wood, 2019; Carrol & Conklin, 2020). The abundance of overlapping terminology mirrors the wide range of theoretical frameworks – syntactic, semantic, pragmatic, and cognitive – through which idioms have been examined. This plurality of perspectives has contributed to a persistent lack of consensus on how to define, classify, and explain the grammatical and structural behavior of IEs (Moon, 1998; Langlotz, 2006). The diversity of these expressions and the absence of clear definitional boundaries, consequently, have fostered a proliferation of descriptive terms, each attempting to capture specific facets of idiomaticity. Although several scholars have sought to bring order to this conceptual ambiguity (see, e.g., Burger et al., 1982; Moon, 1998), no universally accepted taxonomy has emerged. As a result, navigating this terminological complexity remains a significant challenge for researchers attempting to offer a systematic account of idioms.

One core feature of idioms is the fact that the global meaning cannot be inferred from the meanings of their individual lexical components. This property, known as “non-compositionality”, lies at the

heart of scholarly interest, as it challenges the traditional assumptions of compositional semantics. Because idioms frequently defy compositional analysis, they have often been treated as linguistic anomalies – arbitrary, opaque, and marginal to the systematic study of language. To introduce this concept, common examples[33] of IEs are provided below:

(1) ITA essere al verde (Milioni, 2016:25)
be.INF at.the.M green
'to be broke'

(2) vuotare il sacco (Milioni, 2016:25)
empty.INF the.M.SG sack
'to spill the beans'/'to tell the truth'

(3) essere in gamba (Milioni, 2016:25)
be.INF in leg
'to be clever/capable'

(4) tirare le cuoia (Milioni, 2016:25)
pull.INF the.F.PL hides/leather
'to kick the bucket'/'to die'

(5) ENG kick the bucket (Squillante, 2014:34)

(6) FRA casser sa pipe (Mejri, 2005:187)
break.INF his/her pipe
' kick the bucket'/'to die'

(7) SPA tirar la toalla (García-Page Sánchez, 2020:19)
throw.INF the.F.SG towel
'to throw in the towel'/'to give up'

As illustrated by the examples, one common aspect to all these expressions is their non-compositionality: they convey a figurative meaning that cannot be fully understood by analyzing the literal meaning of its components.

[33] The Italian examples are drawn from Milioni (2016:25). As the original text does not provide glosses, they have been added in this dissertation.

Although the topic has long been subject of linguistic debate, most research has focused almost exclusively on spoken language. Only recently have scholars begun to focus their attention to such linguistic phenomena in sign languages (Sutton-Spence & Woll, 1999; Wilcox, 2000; Taub, 2001; Johnston & Schembri, 2010; Johnston & Ferrara, 2012; Pierrot, 2020). The analysis of these languages has challenged traditional definitional parameters of IEs and has contributed to refine new areas of study (Santiago & Barrick, 2007:3).

Despite their diversity, these expressions are generally subsumed under the umbrella of IEs, a notion addressed from both semantic and pragmatic perspective. This chapter aims to provide a comprehensive theoretical foundation for understanding IEs across both spoken and sign languages, establishing the definitional criteria and analytical frameworks necessary for systematic investigation of this linguistic phenomenon. The chapter is structured into six main sections that progressively build from traditional spoken language perspectives to innovative cross-modal analyses. Section §3.1 examines definitions and characteristics of idioms, comparing theoretical perspectives from various scholars (§3.1.1) and identifying key properties such as non-compositionality, institutionalization, compositeness, conventionality, and frozenness (§3.1.2), before introducing Langlotz's (2006) pattern of figuration as a framework for understanding literal-idiomatic meaning relationships (§3.1.3). Section §3.2 provides a brief overview of psycholinguistic approaches to idiom processing, offering an introductory survey of major theoretical models including the Configuration Hypothesis and key empirical findings regarding comprehension mechanisms, though this topic is not the primary focus of this thesis. Section §3.3 presents systematic classification schemes for organizing idiomatic constructions in spoken languages, drawing on taxonomies from several scholars, mainly Makkai (1972) and Fernando (1996). The chapter then shifts focus to the visual-manual modality, with Section §3.4 providing a comprehensive cross-linguistic survey of idiom research in various sign languages, including detailed analyses of ASL (§3.4.1), BSL (§3.4.2), LSF (§3.4.3), LSC (§3.4.4), and DGS (§3.4.5). Section §3.5 synthesizes findings from both modalities, proposing theoretical frameworks for understanding idioms across spoken and sign languages (§3.5.1) while establishing origin-based classification systems specific to sign languages (§3.5.2). This chapter is intended to offer the theoretical groundwork necessary for the systematic investigation of IEs in LIS, which will be the main focus of the next chapter.

3.1 Definition and characteristics of idioms

Within linguistics, more specifically in the context of spoken languages, idioms have traditionally been defined as word strings – or MWEs – whose meaning cannot be derived from the compositional meanings of their elements (a.o. Chafe, 1968; Katz, 1973; Fernando, 1978; McGlone, Glucksberg & Cacciari, 1994; Langlotz, 2006). Before turning to specific definitions proposed by linguists over time, it is worth considering the etymology of the term idiomatic. Derived from the Greek *ἰδιωματικός* (*idiōmatikós*), meaning "peculiar" or "particular", the term refers to language that is characteristic of a specific nation, region, community, or individual (see Treccani).[34] Moreover, idioms are not marginal phenomena, but rather pervasive elements of natural languages.[35]

Numerous scholars in the field of phraseology have observed that the linguistic structure of idioms cannot be fully accounted for without drawing on multiple definitional dimensions (cf. Fernando & Flavell, 1981; Burger et al., 1982; Burger, 1989; Barkema, 1996; Fernando, 1996; Moon, 1998). The following section (§3.1.1) outlines a selection of definitions of idioms proposed by various scholars over the years. By examining points of convergence and divergence across these definitions, the aim is to identify recurring descriptive traits and ultimately propose a comprehensive account that synthesizes the major theoretical perspective. The subsequent section (§3.1.2) will then focus on the key features and defining properties of IEs as identified within the theoretical framework adopted for this study, which draws primarily on Langlotz (2006) and contributions from scholars such as Casadei (1995, 1996).

3.1.1 Definitions of idioms: comparing theoretical perspectives

The main point of disagreement in defining IEs lies in the heterogeneity of the phenomenon itself. Initially, expressions peculiar to a language and difficult to translate literally - due to their cultural specificity or semantic opacity - were broadly considered idiomatic (Hajiyeva, 2025). Subsequent

[34] https://www.treccani.it/vocabolario/idiomatico/

[35] IEs have been examined across various contexts – for example, in spontaneous conversation (Pollio et al., 1977) and in televised and political debate (Graesser et al. 1989).

definitions have progressively narrowed the field of investigation by focusing on specific properties of the phenomenon. Linguists have traditionally defined IEs as linguistic constructions composed of two or more elements. Battaglia (1961), emphasizing their grammatical aspect, argues that they consist of a group of multiple words having lexical autonomy, although they cannot be considered a complete sentence. Katz and Postal (1963) specify that IEs possess an institutionalized (semi-)phrase structure characterized by constructive idiosyncrasy. From the aforementioned authors, the first features of IEs can be deducted: particularity, lexical autonomy, and institutionalization. Fraser (1970) identifies IEs as constituents or series of constituents for which the semantic interpretation is not a compositional function of the constituents themselves. Similarly, Casadei (1995:12) defines IEs as "multi-word expressions with a fixed signifier, whose meaning is non-compositional [...]", identifying non-compositionality as their principal characteristic. In other words, again, the meaning of an IE is not deducible from the sum of the meanings of the individual components of the expression. This includes phenomena of semantic non-predictability or non-literality and encompasses a wide range of constructions such as *clichés*, proverbs, sayings and formulas (Bačíková, 2008). Later, Cacciari (1989), Casadei (1995), and De Mauro (2003-2005) add that the constituents present in idiomatic forms are not functional for semantic interpretation, resulting in the pairing of a fixed form with a non-compositional meaning.

Guiraud (1982) argues that idiomaticity possesses such a marked expressive value as to encompass both spontaneous extralinguistic associations and socio-contextual functions, intrinsic aspects of these linguistic elements. The various idiomatic forms that have developed over time originate from the daily use within a linguistic community and consequently become an integral part of the language. Their historical development, sociolinguistic variation, and pragmatic functions remain topics of ongoing debate and research.

Other approaches have explained and refined the definitional perspective. Lewis (1993) defines IEs as routinized expressions with idiomatic and figurative valence. In her work, Moon (1998) considers IEs a subgroup within the broader set termed fixed expressions (FEIs): within this class are included idioms, fixed collocations, proverbs, routine formulas, and sayings. Specifically, FEIs are described as typically semi-transparent and/or opaque expressions of a language whose meaning does not derive from the sum of their parts but from their figurative nature.

Langlotz (2006) describes them as institutionalized constructions composed of multiple elements with phrase-like structure that may exhibit constructive idiosyncrasy. They are conventional units of words that are semantically opaque and structurally fixed. IEs belong to the grammar of the language and perform ideational discourse functions, possessing figurative meaning – their semantic structure is non-compositional. Squillante (2014) analyzes IEs in terms of their character, generally identifying them as MWEs that form units and appear crystallized in use. Squillante also highlights the heterogeneous nature of the class, describing the definitional boundaries as blurred and including within idiomatic phenomena not only IEs but also proverbs, collocations, and sayings.

Idioms can thus be defined as polylexical (or polirematic) expressions which show resistance to syntactic and lexical variation. In most cases, it is not possible to substitute one of the constituent lexemes without compromising the overall idiomatic meaning. For example, in the Italian expression reported in (8), replacing [cuoia] (hide/lether) with [pelle] (skin) produces a grammatically acceptable phrase but devoid of the original idiomatic meaning (Casadei, 1996). This is what Fraser (1970) calls frozenness. This concept will be further described in §3.1.2.

(8) ITA tirare le cuoia (Casadei, 1995a:335)
pull.INF the.F.PL hides/leather
'to kick the bucket'/'to die' **(+idiomatic)**

(9) tirare la pelle (Casadei, 1995b:4)
pull.INF the.F.SG skin
'to pull the skin' **(-idiomatic) literal**

Idioms, such as "grasp the nettle" or "*andare a gonfie vele*" ("to go at full sails", to go great or grandly), have traditionally been characterized as conventional MWEs that exhibit semantic opacity and some degree of structural fixity or frozenness (Langlotz, 2006). As such, IEs tend to display a range of distinctive features, including:

a. semantic idiosyncrasies;

b. syntactic irregularities or peculiar internal structures;

c. lexicogrammatical constraints that derive from the standard rules governing the grammar of the language.

Nevertheless, idioms are:

d. conventionalized elements of a linguistic system;

e. units that serve specific communicative and discourse-related functions.

In short, IEs can be broadly characterized as complex symbolic units defined by a set of formal, semantic, pragmatic, and sociolinguistic properties. Table 3 provides a synthesis of these defining features, drawing on Langlotz's model (2006:3) and incorporating insights from multiple theoretical frameworks. It aims to offer a comprehensive overview of the main patterns used to describe idiomaticity across different approaches of linguistic analysis. Throughout this thesis, these defining features will serve as diagnostic criteria for identifying and analyzing IEs in sign languages, specifically in LIS, providing a consistent framework for their examination and description.

Semiotic dimension	**Defining feature**	**Term**
Grammatical status	Degree of conventionalization or familiarity	*institutionalization*
Form	Formal complexity of construction	*compositeness*
	Degree of invariability	*frozenness*
Use	Recognition and use in a community	*conventionality*
Meaning	Meaning cannot be derived from constituent words; it is extended to a figurative interpretation	*non-compositionality*

Table 3. Parameters for a definition of idiom

Building upon this framework, a more systematic approach is proposed, by organizing these five definitional features along four specific semiotic dimensions.[36] The Grammatical status dimension focuses on institutionalization, capturing the degree of familiarity within a given linguistic community through a sociolinguistic process that transforms novel expression into established linguistic units. The Form dimension encompasses two key aspects: compositeness, referring to the multi-word nature and formal complexity of IEs consisting of two or more lexical constituents,

[36] For further details, see §3.1.2.

and frozenness, a comprehensive term that captures lexicogrammarical restrictions affecting both constituent variability and grammatical behavior. The Use dimension, highlights conventionality, understood as the extent to which "the association between the particular configuration of words and a specific idiomatic meaning is highly overlearned" (Titone & Connine 1999: 1667), thereby ensuring that such expressions are reliably recognized and appropriately used within a linguistic community. Finally, the Meaning dimension centers on non-compositionality, whereby the overall semantic interpretation represents an extension from the literal compositional result of constituent meanings. This non-compositionality, however, is not absolute. As Nunberg et al. (1994) argue, idioms vary along multiple dimensions, including syntactic flexibility, semantic transparency, and degrees of fixedness, making the analysis of IEs more challenging, creating what Langlotz terms a "pattern of figuration" (2006:4), which will be presented in detail in §3.1.3.

Crucially, none of these definitional features operates as a clear-cut binary distinction. Rather, institutionalization, frozenness, and non-compositionality function as continua or clines along which different constructions can be positioned. This gradient nature of idiomatic properties means that constructions exhibit varying degrees of idiomaticity rather than simply being classified as 'idiomatic' or 'non-idiomatic'. This recognition of scalar properties provides a more nuanced understanding of idiomatic phenomena and explains why definitional boundaries remain problematic in phraseological research. Only by considering the full spectrum of all these dimensional properties can researchers obtain a comprehensive picture of a construction's specific idiomatic nature and its degree of belonging to the class of IEs.

Drawing from this multidimensional analysis, Langlotz proposes a comprehensive definition that synthesizes these various aspects:

> An idiom is an institutionalized construction that is composed of two or more lexical items and has the composite structure of a phrase or semi-clause, which may feature constructional idiosyncrasy. An idiom primarily has an ideational discourse-function and features figuration, i.e. its semantic structure is derivationally non-compositional. Moreover, it is considerably fixed and collocationally restricted. (Langlotz, 2006:5)

This definition acknowledges the complexity of idiomatic phenomena while providing clear criteria for identification and analysis, recognizing that idiomaticity emerges from the interaction of multiple linguistic dimensions rather than from any single defining property.

3.1.2 Characteristics and properties of idioms

As illustrated in Table 1, to qualify as idioms, expressions are typically expected to meet specific criteria and exhibit a range of distinctive features that set them apart from fully compositional constructions. Beyond these general constraints, however, many idioms display what Langlotz terms "constructional idiosyncrasy" (2006:4) – the presence of idiosyncratic and irregular lexical items or grammatical patterns that deviate from standard linguistic norms. This phenomenon is particularly evident in expressions containing unique or archaic lexical constituents, such as the English idiom "blow the gaff" or the Italian expression "*tirare le cuoia*". In these cases, lexical items like [gaff] and [*cuoia*] represent a lexical item with extremely limited distribution outside this specific idiomatic context. Similarly, idioms may exhibit unusual grammatical structures that would be unacceptable in regular compositional construction, further contributing to their distinctive linguistic profile. In any case, in this section the semiotic dimensions and the defining features will be presented and described.

Institutionalization refers to the degree of familiarization and formalization of an idiom within a particular linguistic community (Fernando, 1996). According to Langlotz (2006), this feature can be conceived as the grammatical status of the expression: an idiom is considered institutionalized when it becomes an integral part of a language's grammar as a single complex unit, rather than as a collection of independent words. Consequently, since IEs constitute institutionalized forms, their meaning remains fixed within the lexicon of a given language.

This feature encompasses a sociolinguistic aspect: the social process through which IEs gain acceptance and recognition within a linguistic community (Hohenhaus, 2005; Langlotz, 2006). This phenomenon operates on multiple levels of social organization, from individual speaker recognition to community-wide adoption. Institutionalization involves collective agreement among speakers (and signers) regarding both form and meaning of IEs, establishing them as part of the shared linguistic repertoire. Unlike a purely linguistic process, sociolinguistic institutionalization requires social consensus and cultural transmission across generations. As demonstrated in studies of language ideology (a.o. Woolard & Schieffelin, 1994), the degree of institutionalization can vary significantly across different social groups within the same linguistic community, reflecting factors such as age, education, social class, and regional origins. Some IEs may be highly institutionalized

within specific subgroups while reimaging marginal in the broader community, or vice versa. Without delving into details, the temporal dimension of institutionalization also merits attention, as expressions progress through various stages of social acceptance. Initially, novel idioms may circulate within limited social networks before gaining wider recognition. The institutionalization process involves gradual diffusion through the linguistic community, with some expressions achieving full acceptance while others remain ephemeral or restricted to particular context or subgroups (Bauer, 1983).

Compositeness refers to the poliremathic nature of IEs, which consists of at least two lexical elements – when considering exclusively spoken languages. The English idiom "bite the bullet", for instance, comprises the verb [bite], the definite article [the], and the noun [bullet]. Moreover, the concept of compositeness is closely related to the notion of frozenness or fixity, introduced by Fraser (1970), which defines the lexicogrammatical restrictions of IEs. For this reason, both are classified under the semiotic dimension of Form.

Regarding the degree of frozenness, an idiom cannot undergo modifications. Casadei (1995) identifies four types of fixity:

i. fixity in the order of constituents

ii. transformational fixity for a given structure

iii. fixity of grammatical categories

iv. fixity in the inventory of components

Langlotz (2006) further refines the concept of frozenness by distinguishing between two types of lexicogrammatical constraints. Fixedness refers specifically to syntactic and morphosyntactic restrictions that prevent standard grammatical operations. For instance, the Italian idiom in (8) cannot undergo passivization without losing its idiomatic interpretation, as shown in (10).

(10)

le	cuoia	sono	state	tirate
the.F.PL	*hides/leather*	*AUX.3PL.PRS*	*AUX.PST.PTCP*	*pull.PST.PTCP.PL*

'the hides have been pulled' **(-idiomatic) literal**

Restricted collocability, on the other hand, captures paradigmatic constraints on the selection of lexical items within the idiom. This is exemplified by expressions like "trip the light fantastic"[37] (Langlotz, 2006:4), where neither [trip] can be replaced by [walk] nor [light] by [heavy] without destroying the idiomatic meaning. This distinction proves crucial for understanding the varying degrees of structural flexibility that different idioms exhibit.

However, there are cases in which adding lexical elements does not compromise but rather strengthens the idiomatic value: Italian expressions like (11a, b) and (12a, b) maintain their figurative meaning despite greater specification (Casadei, 1994).

(11) a. togliersi un peso dalla coscienza (Casadei, 1994:62)

remove-REFL INDF.M.SG weight from-DEF.F.SG conscience

'to get something off one's chest' **(+idiomatic)**

b. togliersi un grosso peso dalla coscienza (Casadei, 1995b:4)

remove-REFL INDF.M.SG big weight from-DEF.F.SG conscience

'to get a big burden off one's chest' **(+idiomatic) non-conventional**

(12) a. prendere due piccioni con una fava (Montinaro, 2022:340)

take-INF two pigeons with INDF.F.SG broad.bean

'to kill two birds with one stone' **(+idiomatic)**

b. prendere tre piccioni con una fava (Casadei, 1995b:4)

take-INF three pigeons with INDF.F.SG broad.bean

'to kill three birds with one stone' **(+idiomatic) non-conventional**

This suggests that, while exhibiting a high degree of conventionality and internal frozenness, IEs do not entirely annul the semantic value of the individual components and can be, at least partially, semantically analyzable and modified.

Another property of IEs is conventionality, which is related to institutionalization and indicates the association between a particular configuration or order of words and a specific idiomatic meaning

[37] Which means to move or dance gracefully and lightly, often with joy or elegance.

(Titone & Connine, 1999). In other words, speakers (or signers) of a given language recognize idioms as typical expressions, even though idioms contrast with ordinary speech or signing. Therefore, a linguistic community recognizes and collectively agrees upon the idiomatic meaning while simultaneously being able to interpret each element in isolation with a different meaning – the literal one (Casadei, 1995a). Conventionality plays an essential role not only in the definition of idioms but also in their processing: conventionalization provides the basis for the direct stipulation of the idiomatic meaning. Since many idioms can be regarded as highly conventionalized units, their meaning is very likely to be activated by direct stipulation regardless of whether the string is decomposable, transparent or non-decomposable (Giora & Fein, 1999; Langlotz, 2006).

Lastly, non-compositionality denotes the impossibility of deriving the meaning of the entire expression through simple understanding of its individual constituents (Katz & Postal, 1963). Idioms therefore violate the Principle of Semantic Compositionality, also known as Frege's Principle.[38] Traditionally, this feature has been the primary property of identifying or defying an idiom. From this perspective, though, idioms are seen as exceptions to compositional semantics (Katz, 1973:358), since if an idiom is treated as "if it were compositional, false prediction are made about its semantic properties and relations" (*ibid*), violating the principle and instead requiring unitary semantic interpretation (Katz & Postal, 1963; Katz, 1973). The English idiom in (5) "kick the bucket", for example, does not mean to physically strike a pail but has an idiomatic-figurative reading as the concept of dying.

In line with this foundational view, early generative accounts – particularly those of Katz and Postal (1963) – introduced a distinction between lexical idioms and phrasal idioms:

i. **lexical idioms**: idioms that function syntactically as simple lexical items, which often are compounds[39] (e.g., "telephone", "redneck", or Italian "*portaborse*", which indicates a subordinate assistant to a powerful person, often a politician)

ii. **phrasal idioms**: idioms that exhibit internal syntactic complexity (e.g., "shoot the breeze")

[38] "The meaning of a sentence is determined by the meaning of its component parts and the manner in which they are arranged in syntactic structure." (O'Grady et al. 1997: 260)

[39] Compounds are often considered idioms because their meaning is not always fully compositional or predictable from their parts alone, and they behave as fixed lexical units with a specific cultural or pragmatic significance. This concept will be explored and discussed in more detail in the following pages.

While lexical idioms could be incorporated into syntactic derivations in the same way as standard lexical items, phrasal idioms pose a challenge due to their apparent syntactic regularity combined with semantic opacity. Langlotz (2006:30-33) revisits these accounts and highlights the tension between the grammatical behavior of idioms – which may conform to syntactic and inflectional rules – and their semantic non-compositionality, which resists literal analysis.

In relation to these features, the connection established between the overall meaning of an idiomatic construction and the set of meanings of its constituents is defined as the pattern of figuration (Langlotz, 2006:4).

3.1.3 Pattern of figuration (Langlotz, 2006)

Central to this framework is the recognition that idiomatic constructions operate on two distinct semantic levels. The literal meaning represents the compositional sum of the meanings of individual constituents, while the idiomatic meaning constitutes the lexicalized extended meaning of the entire construction. The relationship between these two levels is called pattern of figuration: a systematic semantic extension that has become conventionalized within a given language. The degree of discrepancy between literal and idiomatic meanings determines the construction's opacity: the greater the semantic distance, the more opaque the idiom becomes. This dual-level analysis explains why some idioms like "spill the beans" maintain a certain degree of semantic transparency (where the notion of 'spilling' relates to 'revealing'), while other like "kick the bucket" exhibit complete semantic opacity with no discernible connection between literal and figurative meaning.

Compositional reading Sum of the meanings of the individual components	vs	**Non-compositional reading** Institutionalized meaning of the expression
Literal meaning (-idiomatic) (+literal)		*Idiomatic-figurative meaning* (+idiomatic) (-literal)

Table 4. Pattern of figuration

Moreover, idioms serve different communicative purposes, fulfilling district discourse functions that can be categorized according to Halliday's (1978) functional framework: *i)* Ideational functions represent the primary role of prototypical idioms, where expressions like "grasp the nettle" communicate specific experiences or events (in this case, "tackle a difficult problem"); *ii)* Interpersonal functions are fulfilled by idioms that primarily serve social interaction purposes, such as greeting formulas – like "good morning" – or expressions of politeness; *iii)* Textual functions are performed by idioms that support discourse organization and coherence, such as transitional expressions or summarizing formulas like "in a nutshell". This functional diversity explains why idioms cannot be treated as a homogeneous class but must be understood as fulfilling different communicative needs within discourse contexts. To further refine the concept of idiom, Langlotz (2006:1-2) characterizes IEs as linguistic units that, although seemingly analyzable, often display considerable complexity at various structural levels – lexical, morphosyntactic, syntactic, semantic, and pragmatic. In addition to this structural intricacy, IEs serve distinctive functions in discourse and, more broadly, in communicative interaction. The heterogeneous nature of this phenomenon poses a significant challenge that falls under this label. This conceptual ambiguity has led to a proliferation of linguistic terminology used to describe and categorize idiomatic phenomena, as discussed, for instance, by Gonzales-Ray (2002).

3.2 Processing idioms

Contemporary psycholinguistic research establishes that IEs demonstrate superior recognition efficiency relative to semantically equivalent novel phrasal constructions. Empirical evidence consistently supports the position that formulaic sequence undergoes accelerated cognitive processing compared to compositionality transparent alternatives (Carrol & Conklin, 2020:98). This processing advantage was first systematically documented by Swinney and Cutler (1979), whose foundational work demonstrated measurable latency differences between the recognition of conventionalized idioms such as "break the ice" and their literal counterparts including "break the cup" (Cacciari & Tabossi, 1988; Titone & Connine, 1999; Conklin & Schmitt, 2012; Cacciari & Corradini, 2015; Van-Lancker Sidtis, 2015; Newman, 2015).

The facilitated processing of idiomatic constructions has been attributed primarily to frequency effects and familiarity parameters within speakers' mental lexicons (Van-Lancker Sidtis, 2004, 2015). Titone and Connine (1999) posit that high-frequency formulaic sequences benefit from enhanced accessibility due to repeated exposure and consolidated memory representations. However, theoretical divergence emerges regarding the interaction between semantic decomposability and processing efficiency. While Titone and Connine (1999) maintain that familiar phrases universally demonstrate processing advantages over decomposable idioms – defined as expressions whose constituent elements contribute systematically to holistic meaning – competing theoretical frameworks propose that decomposability itself constitutes a facilitative factor in rapid idiom processing (Gibbs, 1989, 2001). The theoretical construct of decomposability represents a fundamental dimension in contemporary idiom research, operationalized as the degree of systematic correspondence between figurative interpretations and the literal semantic properties of constituent lexical items. Wood's (1981) taxonomic framework establishes a binary distinction between compositional and non-compositional IEs, wherein the latter category encompasses constructions whose holistic meanings resist derivation through additive semantic analysis of component parts. Non-compositional idioms, such as "by and large", exemplify semantic opacity, as their figurative interpretations remain inaccessible though systematic analysis of individual morphemes, a phenomenon that receives further elaboration in Titone and Connine's (1999) analysis of "kick the bucket", whose idiomatic meaning ("to die suddenly") demonstrates complete semantic disjunction from its literal interpretation involving physical action upon a container (Gobbato, 2023:20-21). The absence of semantic overlap between literal and figurative domains characterizes what Fowler (1996, cited in De Caro & Edith, 2009) describes as the definitional property of IEs: phrasal units whose collective semantic content diverges fundamentally from the dictionary specifications of individual constituent words. Nevertheless, empirical evidence suggests that constituent lexical items preserve their inherent lexico-semantic properties within larger idiomatic configurations, as demonstrated in the neuroimaging research conducted by Molinaro, Carreiras and Duñabeita (2012, cited in Cacciari & Corradini, 2015), indicating that literal semantic content continues to exert influence during idiomatic processing and challenging strictly modular approaches to figurative language comprehension.

Even though this is not the principal topic of this thesis, the following part is an overview of key psycholinguistic accounts addressing the cognitive mechanisms involved in idiom comprehension.

The psycholinguistic literature presents several competing theoretical frameworks attempting to account for the cognitive mechanisms underlying idiom comprehension. The literal processing model, as articulated by Titone and Connine (1999), proposes a serial processing architecture wherein speakers maintain discrete mental repositories of IEs accessible through specialized retrieval mechanisms, positing that comprehension processes initially attempt compositional interpretation construction, and following the failure of literal analysis, dedicated idiomatic processing modules activate to retrieve pre-stored figurative meanings from long-term memory. An alternative theoretical position emerges from the lexical representation model, grounded in Swinney and Cutler's (1979) empirical findings, which conceptualizes IEs as extended lexical units subject to processing mechanisms analogous to those governing morphologically complex words. This model proposes that both literal and figurative meaning activation commences immediately upon presentation of the initial constituent word, with figurative interpretations achieving temporal precedence over compositional alternatives through enhanced accessibility parameters. Gibbs's (1980) direct access model advances a more radical theoretical position, asserting the categorical primacy of figurative meanings in idiomatic processing and contending that constituent words within established idioms do not undergo standard compositional analysis for literal meaning construction, effectively eliminating the cognitive availability of literal interpretations during normal processing conditions.

Cacciari and Tabossi (1988) contribute a significant theoretical advancement through their Configuration Hypothesis, which addresses whether the temporal dynamics of idiom recognition processes by proposing that idiom identification initiates at sequence onset and proceeds in parallel with standard compositional meaning computation, creating competitive processing conditions between literal and figurative interpretations. The Configuration Hypothesis, at the end, advances the critical theoretical claim that idiomatic meanings achieve cognitive availability prior to literal interpretations. This temporal advantage results from the specialized nature of idiom processing mechanisms that can operate on partial lexical input once threshold conditions for idiom identification have been satisfied. Empirical support for the Configuration Hypothesis derives from systematic analysis of recognition points within idiomatic sequences, with the model identifying the penultimate constituent as the typical locus of idiom recognition, as exemplified in the expression "kick the bucket", where identification occurs at the determiner [the]. This recognition point enables predictive processing mechanisms, allowing speakers to anticipate sequence

completion from fragmentary input such as “kick the”, with the predictive capacity documented in the Configuration Hypothesis depending critically on speakers’ metalinguistic awareness of idiomatic conventions and their ability to categorize partial sequences as instantiations of known formulaic expressions. The predictive dimension introduces questions regarding the role of statistical learning and pattern recognition in idiom acquisition and processing, suggesting potential connections to broader theories of probabilistic language processing and anticipatory comprehension mechanisms that operate across multiple levels of linguistic analysis.

3.3 A classification of idioms

The systematic categorization of idiomatic contractions represents a persistent challenge in phraseological research, prompting Kövecses and Szabcó (1996) and Kövecses (2002) to characterize these formulaic sequences as constituting a taxonomical “mixed bag” due to their inherent classificatory complexity. The theoretical difficulties surrounding idiom classification were first comprehensively addressed by Makkai (1972), who established a foundational binary taxonomy distinguishing between lexemic and sememic idiomatic categories. According to Makkai’s stratificational approach (1972:135), lexemic idioms derive their classification from lexemic structural properties, while sememic idioms are categorized according to their sememic characteristics, with this distinction reflecting the stratification model of grammatical organization wherein IEs depend upon distinct grammatical strata. Contemporary scholars have refined this definitional framework, with Fernando conceptualizing idioms as “conventionalized multi-word expressions often, but not always non-literal” (1996:1) while Gramely and Pátzold extend this characterization by defining idioms as “complex lexical items which are longer than a word form but shorter than a sentence” (2004:44). The lexemic category encompasses morphemic sequences containing multiple minimal free forms capable of occurring in alternative environments as realizations of monorematic units, functioning as unified syntactic constituents (Makkai, 1975:76) that incorporate conventional word classes including verbs, nouns, adjectives, and prepositions. Conversely, sememic idioms represent syntactic strings that exhibit unified semantic behavior, functioning as single semantic units despite their multi-word composition.

While Makkai (1972) established pioneering taxonomical frameworks for idiom classification, subsequent scholars have contributed additional theoretical perspectives, notably McCarthy and

O’Dell (2002), whose definitional contributions have achieved widespread adoption in contemporary phraseological research, alongside classificatory systems proposed by Fernando (1996) and Kövecses & Szabcó (1996). The development of phraseological theory has been significantly influenced by both Eastern and Western European linguistic traditions, with the field establishing itself systematically in German linguistics from the late 1960s and subsequently developing in English linguistics through the contributions of Weinreich (1969) and Lipka (1992), while the phraseological approach advanced by proponents such as Cowie (1994) and Howarth (1998) emphasizes semantic principles in identifying collocational patterns. The lexemic classification encompasses several distinct subcategories, including phrasal verbs, which when interpreted non-literally constitute idiomatic constructions comprising verbal elements combined with particles functioning as adverbs or prepositions (Makkai, 1976), exemplified by expressions such as “rake off” and “come down with”.

The taxonomical framework further incorporates irreversible binomials, systematically theorized by Makkai (1972) and subsequently elaborated by McCarthy and O’Dell (2010), which constitute fixed-order combinations of two lexical elements connected by conjunctions, exemplified by “rain cats and dogs” (meaning profuse rainfall), “sixes and sevens” (indicating confusion), and “cash and carry”, with McCarthy and O’Dell (2002) providing parallel definitional parameters describing these constructions as combinations maintaining fixed sequential order through conjunctive elements, typically [and], as demonstrated in “black and white” (referencing moral clarity) and “black and blue” (indicating bruising). Moreover, phrasal compound idioms encompass nominal constructions combining adjective-noun (“blackmail”, “hot dog”), noun-noun (“bookworm”), or adverb-preposition configurations (Makkai, 1976), while pseudo-idioms constitute compound expressions containing "cranberry morphs" – meaningless constituent elements – or "banned" lexemes, exemplified by “chit-chat”, “hanky-panky”, and “helter-skelter”, wherein [chit], [hanky], and [helter] represent the non-meaningful morphemic components (Makkai, 1972, 1976).

The lexemic category accommodates additional subcategorizations including euphemisms, which serve politeness functions by avoiding potentially offensive terminology and mitigating sensitive topics (McCarthy & O’Dell, 2010:28), exemplified by “passed away” (died) and “powder my nose” (toilet visit), while similes constitute comparative idiomatic constructions such as “as sly as

a fox" (crafty behavior), "as cold as ice" (extreme coldness or insensitivity), and "cool as a cucumber" (calmness). Kövecses & Szabcó (1996) and Kövecses (2002) contribute additional lexemic subcategories including *it*-constructions (e.g., "live it up") and metaphorical expressions that describe abstract concepts through concrete imagery, such as "spit fire" (referring to quick-tempered individuals). Fernando's (1996) tripartite classification system introduces:

i. pure idioms: non-literal, conventionalized expressions exhibiting opacity (such as "spill the beans")

ii. semi-idioms: partially transparent constructions containing both literal and non-literal constituents (exemplified by "foot the bill", meaning to pay the cost of something)

iii. literal idioms: transparent, potentially variable expressions whose interpretation derives from constituent meanings (including "of course *and* for certain")

Sememic idioms, as conceptualized by Makkai (1972), encompass syntactic units functioning as unified semantic entities capable of constituting complete sentential structures independently, subdivided into proverbs, familiar quotations, institutionalized understatements, and hyperbolic expressions, with additional categories identified by McCarthy and O'Dell (2002) including clichés and fixed statements. Proverbial idioms represent morally instructive, non-literal expressions such as "too many cooks spoil the broth", "don't count your chickens before they are hatched", and "birds of a feather flock together", with McCarthy and O'Dell (2010:26) characterizing proverbs as experientially-based advisory or cautionary statements exemplified by "where there is a will there is a way". Hyperbolic constructions represent exaggerated statements requiring non-literal interpretation ("he won't even lift a finger", "I could eat a horse") (Makkai, 1972, 1976), while clichés constitute unoriginal expressions frequently appearing in commercial or journalistic contexts ("plenty more fish in the sea") and fixed statements serve pragmatic conversational functions, particularly in directive speech acts ("get your shoes on!") (McCarthy & O'Dell, 2010:30).

The comprehensive analysis of formulaic language demonstrates that fixed and semi-fixed multi-word sequences undergo rapid cognitive processing due to their storage as unified lexical units in long-term memory, facilitating enhanced discourse fluency and organizational coherence through various linguistic mechanisms. Contemporary research recognizes idioms as fixed MWEs that

conceptually encode non-compositional meaning, constituting linguistic units that raise fundamental questions regarding lexical storage, syntactic properties, conventional usage patterns, and processing mechanisms relative to regular compositional expressions (Lattey, 1986). The taxonomical diversity of IEs, again, reflects their pervasive presence in conversational interaction, with formulaic sequences serving crucial communicative functions in greeting, apologizing, thanking, requesting, complaining, and emotional expression, demonstrating their fundamental role in everyday linguistic practice.

3.4 Sign language idioms

As mentioned, the existing literature on IEs largely stems from analyses of spoken languages. Research on idioms in sign languages remains limited, and many sign languages are still lacking systematic descriptive or theoretical studies in this domain. One possible reason for this scarcity is the taxonomic confusion between idioms and other signs specific to a particular sign language, as well as the inherent difficulty in identifying IEs within signed discourse (Lepic, 2019; 2025).

Like many previous studies that have attempted to establish unified definitions of idioms, the framework outlined in the preceding sections is designed for cross-linguistic comparison. However, the provided definition cannot fully account for all phenomena that might be considered idiomatic within individual languages. Linguistic phenomena are gradient rather than clean-cuts categories (Lepic, 2025:188), and language description must consider the structural patterns specific to each language when defining such categories. Therefore, the challenge involves not only cross-linguistic comparison, but also cross-modal variation and asymmetries.

Similar to spoken languages, sign languages present figurative expressions characterized by non-compositional meaning, that is, not directly linked to the meaning of the constituents that compose them. This phenomenon is significantly facilitated by the intrinsic iconic nature of sign languages. Iconicity (§1.4) is indeed a peculiar feature of sign languages, as they are often represented precisely through the signing of actions, events, physical peculiarities, or the form of the object or people. This iconicity is partly responsible for facilitating cross-linguistic comprehension among Deaf signers to different nationalities (Corazza & Volterra, 1988). Nevertheless, the form of iconic

representation varies arbitrarily across sign languages: each selects its own set of salient visual features to encode particular expressions.

In sign language linguistics, two main perspectives on idioms prevail. These hypotheses, advanced by Lepic (2025) for ASL, can be extended to other sign languages as well, such as LIS. The first, common among many ASL instructors and reflected in their teaching materials, view idioms as signs that are difficult to translate from ASL into English or that require a full English phrase to be adequately expressed (Lepic, 2025:188-189). This perspective tends to conflate idioms with slang, language-specific lexical items, or polysemy. Baker-Shenk and Cokely (1980:119) observed this definitional issue, noting that "most of the expressions which have been called 'idioms' in descriptions of ASL are not really idioms. They do not fit the definition of an idiom".

On the other hand, Lepic (2019:7-8) suggested several sociolinguistic factors that might explain the descriptive lack of idioms in ASL. Firstly, English, as an older language with a long literary (and written) tradition, has had more time to conventionalize idioms and fixed expressions, whereas ASL, being comparatively younger and lacking a standardized or widely used writing system, might naturally show less idiomatic conventionalization (see also Cutler, 1982; Corson, 1997). Secondly, the patterns of language transmission differ significantly between sign languages and nationally dominant spoken language. While, for example, American English permeates many domains of everyday life in the US, including media, education, and work, ASL is a minority language with more restricted social exposure. Many Deaf individuals acquire ASL later in childhood or adolescence, often outside of familiar environments where ASL is the native language (cf. Mitchell & Karchmer, 2004; Morford & Hänel-Faulhaber, 2011; Chen Pichler et al., 2019). These differing transmission dynamics likely impact the emergence and use of idioms among sign language users. Additionally, it may be that some spoken language relies more heavily on idiomatic and "prefabricated" expressions (Lepic, 2025:188) than other languages for reasons not yet fully understood. However, it is not possible to conclude that sign languages – like ASL – lack idioms altogether, as systematic efforts to identify and document them remain limited.

As a result, it is particularly difficult to establish a general framework capable of capturing the full range of idiomatic phenomena in the visual-manual modality. In what follows, the focus will be on a selection of studies conducted on individual sign languages, in order to identify the features and patterns that have thus far been recognized and described by researchers on idioms in sign

languages. In particular, the following studies have been taken into account for this analysis, as they either focus explicitly on IEs or describe figurative constructions relevant to the discussion. In American Sign Language (ASL), relevant contributions include Wilcox (2000), Taub (2001), Johnston & Schembri (2010), and Lepic (2019; 2025). For British Sign Language (BSL), see Sutton-Spence & Woll (1999). Studies on French Sign Language (LSF) include Martin (2011) and Pierrot (2020), while idioms in Colombian Sign Language (LSC) have been explored by INSOR Educativo Colombia, the official digital platform of the in Istituto Nacional para Sordos (INSOR).[40] In German Sign Language (DGS), Clauss (2010) provides a comparative analysis of phraseological units. Studies on LIS have been carried out by Romeo (1997), Russo (2004), Vian (2015), Branchini & Mantovan (2020), Pasin (2021), Rigo (2022), and Marrocu (2023). Finally, Spanish Sign Language (LSE) has recently been addressed by González Montesinos & Vera Villaverde (2024).

3.4.1 Research on ASL idioms

As previously mentioned, there is a limited number of studies on sign languages specifically regarding IEs; conversely, for American Sign Language (ASL), several research studies focused on metaphorical and idiomatic aspects are available. Johnston and Schembri (2010) argue that IEs in ASL are formed exactly as occurs in all spoken languages, according to the parameters presented previously in this chapter in §3.1.1. Specifically, a common property is non-compositionality, whereby the literal meaning of the elements that compose the idiomatic phrase does not allow for comprehension of the figurative meaning. This aligns with what Lepic (2025:188) describes as a gradient and usage-based view of idioms – expressions that are conventionalized and affective, but not necessarily phrasal in the traditional sense. The problem that arises with sign languages is the possibility that some IEs may be monorematic (or monomorphemic), thus presenting an additional issue when categorizing IEs in ASL (and in all sign languages).[41] According to Wilcox

[40] While INSOR functions as the public authority responsible for policy, legal frameworks, and interpreter services for Deaf communities, INSOR Educativo offers educational material – such as bilingual dictionaries, video resources, and live lesion content – specifically focused on the development and dissemination of LSC. (https://www.insor.gov.co/home/)

[41] As analyzed by Johnston & Schembri (2010), a spoken language IE is usually defined as being comprised of at least two words; in sign language idioms can be one single sign. Nevertheless, some scholars of spoken languages also include monomorphemic elements within the category of IEs, such as the lexical idioms described by Katz & Postal (1963), presented in §3.1.2.

(2000) and Taub (2001), the formation of an IE in ASL occurs through mental mapping in which the various phonological components[42] of a sign represent, in an iconic manner, some of the meaning components of that sign; these are subsequently connected to an abstract concept located in a different semantic domain. It would therefore appear that the process of IEs formation in ASL is the same as in spoken languages.

In ASL, IEs can be both idiomatic forms derived from spoken (American) English ones and expressions that have no corresponding form in the spoken language; they can be accompanied by non-manual components (NMMs), in addition to manual signs; they can contain single signs, compounds, or entire phrases. However, it is not possible to translate all IEs from English to ASL (or vice versa), or at least it is not always possible to maintain the figurative meaning of an idiomatic form in the transfer from one language to another (Santiago & Barrick, 2007). An example is the English idiom "under the weather", which is used to indicate the state of feeling unwell; this IE does not exist in ASL (Santiago & Barrick, 2007:20). Moreover, it has been studied that figurative and literal expressions in spoken languages appear in the same form, whereas in sign languages, slight modifications occur in the signs employed, including manual components and NMMs (Meir & Cohen, 2018). Furthermore, it is argued that it is not possible to define the meaning of an idiom from the literal meanings of individual signs, but that there must be intrinsic knowledge of the American Deaf community, just as occurs in all languages. The following section will present some typical examples of IEs in ASL and others translated or adapted from IEs also present in spoken (American) English.

The following lines present a selection of IEs in ASL. One of the probably most widely recognized (Lepic, 2025:190) is TRAIN GO SORRY (with the final sign SORRY less fixed than the other two signs). This expression in (13) can be literally translated as "the train has left, sorry", and is used like the English IE "to miss the boat" or is used to convey the concept of having missed an important opportunity.

[42] Namely handshape, movement, and POA.

(13) TRAIN GO SORRY

'To miss the boat/to miss an important opportunity'

(from Youtube, Signs)

The sign TRAIN is produced by sliding two fingers of the dominant hand back and forth over the corresponding fingers of the non-dominant hand. In this context, the sign GO involves the dominant hand moving away from the non-dominant hand while the fingers close simultaneously. The optional sign SORRY is articulated with a small circular motion with the dominant hand in an A handshape at the center of the chest. A variation of this expression, illustrated in (14), where the articulation is modified due to an assimilation process between the signs TRAIN and GO.

(14) TRAIN_GO

(from Youtube, Signs)

Example (15) presents the expression SWALLOW-FISH, literally meaning "to swallow a/the fish", which is used to describe someone who is gullible, or easily deceived. It is produced with a classifier in a flat B handshape, moving from the throat to the center of the chest.

(15) SWALLOW_FISH

(from Youtube, Signs)

Another expression, particularly interesting due to its degree of iconicity – stemming from the use of highly iconic classifiers – is presented in (16). The sign glossed as TONGUE_SLAP[43] literally refers to the incessant movement of the tongue up and down between the teeth, and it is used to convey the idea of excessive or meaningless speech, both in spoken and sign language contexts. This idiom is produced with the dominant hand in a B handshape repeatedly moving up and down on the C-shaped non-dominant hand. In this expression, the B hand is a classifier of the tongue, while the C handshape represents the speaker's mouth.

(16) TONGUE_SLAP

(from Youtube, Rogan Shannon)

Another frequently used expression is glossed as TRU BIZ (17). ASL signers employ this compound sign in conversation when confirming something incredible or surprising; it can be roughly translated to "literally", "actually", or "seriously".

[43] This sign is glossed in this thesis using this conventional label due to the absence of an established nomenclature in the existing literature.

(17) TRU BIZ

(from Youtube, Chad Shumaker)

The expression in (18), BRAIN^FREEZE, is a loan translation (calque) from spoken language; it derives directly from the same English expression ("to get a brain freeze", or "to freeze up") and denotes a temporary inability to think clearly, recall something, or a state of being shocked.[44]

(18) BRAIN^FREEZE

(from Youtube, Signs)

The sign presented in (19), glossed as IN_ONE_EYE_OUT_THE_OTHER, is peculiar because it represents a cultural adaptation of the IE "in one ear, out the other", typical of spoken English (and also present in spoken Italian as "*entrare da un'orecchio e uscire dall'altro*"). It is used to indicate that someone is not paying attention to the conversation and will not remember the theme of the conversation. What is especially noteworthy is how the cultural element is modified in the transition from spoken to sign language: the message arrives not at the ears but through the eyes, reflecting that vision is the primary sensory channel for perceiving sign language. This modality-specific adaptation underscores the embodied nature of sign language. The topic of cultural adaptation will be further elaborated in §3.5.2.

[44] https://dictionary.cambridge.or g/dictionary/english/brain-freeze

(19) IN_ONE_EYE_OUT_THE_OTHER

(from Youtube, Signs)

The last IE presented for ASL is (20) FINISH TOUCH, meaning “have visited”. The construction FINISH TOUCH [location] is commonly used in ASL conversation to convey whether a person has previously visited a specific location (Lepic, 2025). The sign is produced with both hands in an open 5 handshape, changing orientation from facing the signer to facing the neutral space, and then with the dominant hand’s index finger tapping the back of the non-dominant hand.

(20) FINISH TOUCH

(Lepic, 2025:201)

The corpus of IEs in ASL is clearly very extensive; the examples provided here are only illustrative of the heterogeneity within this linguistic class. Although the issue of categorization remains open in the literature, as evidenced by the examples presented, this thesis proposes a three-way classification of signed IEs: those typical of sign languages, calques from spoken language, and borrowings from spoken language with cultural adaptations, which will be examined in detail in Section 3.5.2. The presented IEs exhibit the typical characteristics of such linguistic forms previously discussed for spoken languages, while displaying parameters unique to sign languages.

The presented IE exhibit the typical characteristics of such linguistic forms previously discussed for spoken languages, while displaying parameters unique to sign languages.

Firstly, also in sign languages, the meaning of idioms is non-compositional: it is therefore impossible to infer the figurative meaning of an expression by understanding the literal sense of its individual components. Secondly, there is a degree of conventionalization, which ties the use of IEs to specific contexts. Context itself is a crucial element, as the correct decoding of the expression is sometimes only possible when they optimally infer and interpret the situational context. Finally, in sign languages, the use of NMMs plays a significant role; these are specific to and accompany IEs, much like vocal tone and, more generally, phonetic domain in spoken languages, which contribute to transmitting certain shades of meaning.

3.4.2 Research on BSL idioms

For British Sign Language (BSL), Sutton-Spence and Woll (1999) provide a detailed study addressing idioms in this language. The linguists observe that IEs in BSL often do not consist of a sequence of signs but rather a single sign. This characteristic complicates the process of discerning the meaning of an idiomatic sign by analyzing its components; similarly, it becomes impossible to observe how the idiomatic meaning as a whole differs from the literal sense derived from the sum of the signs. Some signs considered idiomatic in BSL do not possess any figurative meaning; they are categorized as such because they are fully conventionalized within the language – are specific to BSL – and lack a direct or immediate translation in other languages. From a linguistic standpoint, however, "idioms usually have both a literal meaning and a figurative one" (Sutton-Spence & Woll, 1999:186), and thus these signs cannot be fully classified as idioms, but rather as language-specific lexical items.

The researchers introduce a new criterion for classifying IEs in BSL: signs must be multi-channel,[45] possessing both a literal and a figurative meaning. An example is the sign JAW_DROP,[46] which carries a figurative meaning because "the jaw does not necessarily drop when a person is surprised"

[45] This term was initially used to refer to certain lexical items in BSL that include obligatory non-manual features with the manual production. While this term was initially useful in highlighting the presence of non-manual features, it can be misleading, as it implies that only a limited subset of signs exhibits NMMs. In reality, nearly all signs in BSL involve some form of non-manual components. (Sutton-Spence & Woll, 1999)

[46] Unfortunately, the authors do not provide a visual representation, and thus no illustrative example is available.

(Sutton-Spence & Woll, 1999:186). The literal meaning would apply if the mouth physically dropped open, but generally, this idiomatic sign conveys the notion of "being very surprised".[47]

Idioms in BSL literature are also analyzed as a subgroup of metaphors that, depending on their usage and degree of conventionalization, may or may not enter the everyday vocabulary of the signing community. Similarly to ASL, BSL exhibits both idiomatic signs specific to the language and others borrowed or calqued from spoken (British) English. The latter phenomenon can be explained by the shared cultural worldview between the two languages, rooted in British English culture, or alternatively, as a result of linguistic borrowing typical in situations of close contact between different languages. Below, examples of both classes will be presented.

Some idiomatic signs derived from spoken language include those shown in (21) and (22). In (21), BRAINWASH is used to convey the idea of indoctrination, much like the Italian equivalent "*lavaggio del cervello*". The sign is produced using the configuration of WASH, articulated with an A handshape on the forehead – a semantically motivated location associated with the domain of brain activities.

(21) BRAINWASH

(Sutton-Spence & Woll, 1999:187)

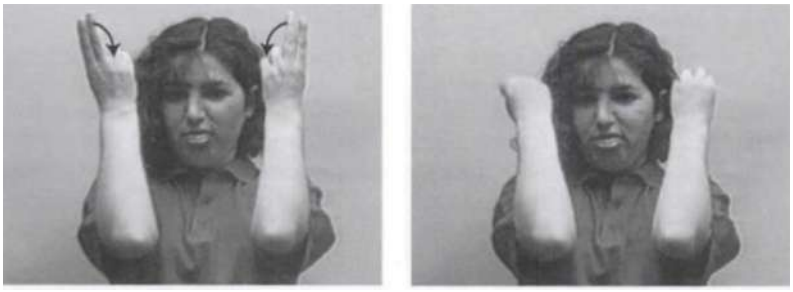
In (22), the sign GRASS_ROOTS is used to indicate one's origins or roots, typically referring to familiar and often social background.

[47] In LIS, there also exists the idiomatic sign MOUTH_OPEN, used to convey the feeling of being extremely surprised.

(22) GRASS_ROOTS

(Sutton-Spence & Woll, 1999:187)

Among the idioms that are considered specific to BSL, one finds examples such as MAKE_ME_ITCH, which expresses strong dislike or aversion towards someone, and PUT_EARS_DOWN, shown in (23), which can be translated as "putting someone in their place".

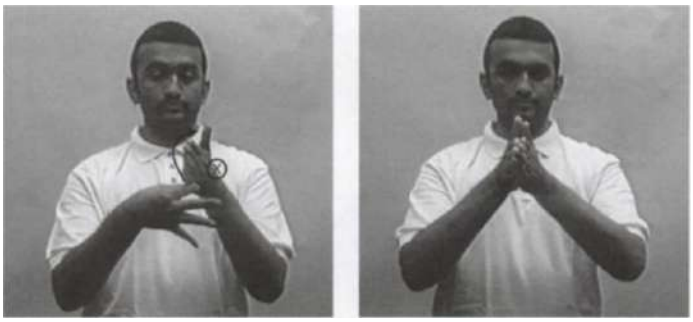


(23) PUT_EARS_DOWN

(Sutton-Spence & Woll, 1999:179)

Some idiomatic signs have been identified that resemble English expressions while incorporating culturally (and sensorily) grounded adaptations. As seen in ASL (§3.4.1), the sign (19) calques the English idiom "in one ear out the other". Another particular example from cross-cultural perspective is the sign (24) MY_HANDS_ARE_SEALED, adapted from the idiom "my lips are sealed". In Italian, there is a similar expression "*le mie labbra sono sigillate*" or "*ho le labbra cucite*". The choice of hands as the central element, rather than lips, reflects once again a meaningful cultural adaptation: in Deaf communities, language is not conveyed through the vocal-

auditory channel, but visually through the hands. Therefore, this idiom signifies the act of refraining from signing or not saying information.[48]



(24) MY_HANDS_ARE_SEALED

(Sutton-Spence & Woll, 1999:188)

3.4.3 Research on LSF idioms

In French Sign Language (LSF), few studies have explored the idiomatic and figurative nature of signs (Martin, 2011; Pierrot, 2020), often through contrastive analyses between LSF and French spoken language. Pierrot (2020:3) argues that IEs are linguistic constructions found in all natural language – both sign and spoken – and are a direct consequence of the intrinsic relationship between language and community, whereby language is shaped and influenced by culture.

In studies focused on LSF, however, the term *pi sourdes* is employed to refer to idiomatic signs and expressions specific to sign language – namely, signs that cannot be translated literally into spoken French (language-specific lexical items). The impossibility of establishing a direct linguistic equivalence between these two languages is attributed not only to the cultural differences between Deaf and hearing communities, but also the distinct physical channel through which language is conveyed. It has already been established in this dissertation that the absence of a direct equivalent between sign and spoken languages does not constitute a defining or discriminating feature in the identification of IEs. In any case, the cited studies will be presented as they could prove useful from a descriptive and theoretical standpoint.

[48] In LIS as well, certain idiomatic signs convey the notion of "sealing" or hiding the hands as a metaphor for withholding communication.

Regarding IEs in LSF, Pierrot (2020) identifies several distinctive characteristics that closely parallel those observed in spoken languages, except for one:

- lack of equivalence: an idiomatic sign in LSF does not always have a direct counterpart in spoken French. This may be since many IEs are deeply embedded in cultural contexts.
- Unpredictability: the meaning of an idiomatic sign cannot be inferred by an inexperienced signer or by someone unfamiliar with that specific idiom.
- Monorematic structure: most IEs in LSF (as in sign languages more broadly) consist of a single sign. This could be explained by the inherently synthetic and simultaneous nature of sign languages.

Of particular theoretical significance is the observation that non-compositionality – traditionally listed as one of the primary defining criteria for IEs in spoken languages – becomes less relevant when examining sign languages. In fact, in LSF (but other examples are provided in other sign languages), most IEs manifest as single signs (monorematic structure), contrasting sharply with spoken languages, which typically present consecutive word strings (Pierrot, 2020:9). Although many IEs in sign languages are not poliremathic, non-compositionality may nevertheless arise from the fact that an idiomatic sign is formed through the simultaneous combination of multiple articulatory parameters (such as handshape movement, location, and NMMs). This simultaneity renders IEs structurally and formally complex from a semantic perspective, challenging traditional frameworks developed primarily for spoken language analysis.

In (25), the sign glossed as EYE^CROSS is presented, which represents a transliteration into sign language of the French expression "*ne pas avoir les yeux en face des trous*" (literally, "not having one's eyes facing the holes"). This IE is employed both in French and in LSF to convey that something has been overlooked due to fatigue or distraction.

(25) EYE^CROSS

(from Youtube, Haut les mains LSF)

Finally, example (26) presents an expression typical of LSF, glossed as EAR^AWARE, used to indicate that one is unaware of something or was not informed about an event. This compound is non-compositional, as the combined meanings of its two stems do not yield the meaning of the expression as a whole.

(26) EAR^AWARE

(from Youtube, Haut les mains LSF)

3.4.4 Research on LSC idioms

Colombian Sign Language (LSC) is a language that, particularly in recent years, has been the focus of several linguistic studies (Oviedo, 1998, 2000, 2001; Clark, 2017). Initial research demonstrates that LSC exhibits significant lexical similarities with Spanish, Peruvian, Bolivian, and Ecuadorian sign languages; in addition, South American sign languages are subject to strong influence from ASL. Regarding IEs, dedicated research on this topic remains lacking; however, some videos addressing this subject are available on YouTube through the INSOR Educativo Colombia channel[49], a portal affiliated with the *Instituto Nacional para Sordos* (National Institute for the Deaf, located in Bogotá) dedicated to dissemination and education on matters related to deafness and sign language.

Specifically, there is a video lesson[50] that introduces what are referred to as *expresiones idiomáticas* (IEs), although not all the signs presented fully align with the definition of idioms as outlined in the theoretical framework adopted in this dissertation. In the video, it is explained that the meaning

[49] https://www.youtube.com/channel/UCgPgI0FiLs8v18146Suwo-w
[50] https://www.youtube.com/watch?v=haTxa7055Gg

of these expressions cannot be inferred from the sum of the meanings of the individual signs – or the image that is recalled by the sign – that comprise them.

From a sociolinguistic perspective, IEs clearly demonstrate that culture – in this case, Deaf culture within the context of sign language – plays a fundamental role in shaping language. The origin and structure of many idiomatic signs, across all the sign languages examined thus far, are intrinsically tied to the way the Deaf communities perceive and engages with the world. Experience, perception, and physical interaction with the surrounding environment are lived in specific ways within Deaf communities, and this expressive modality inherently tends toward iconicity.

According to INSOR, this is precisely why IEs in LSC are often incomprehensible – or at least difficult to grasp – for learners of sign language as a second language, particularly if they are unfamiliar with the visual-manual modality and the perceptual awareness typical of Deaf communicative practices. This phenomenon also accounts for the near impossibility of translating such IEs literally into the corresponding spoken language, which relies on entirely different expressive channels. In addition to non-compositionality and culturally grounded origins, INSOR Educativo highlights another defining parameter of idiomatic signs in LSC: the presence of NMMs. These are specific to each IE and serve to disambiguate meaning between signs that are formally similar or even identical. As such, suprasegmental components appear to be essential not only at the prosodic level but also at the semantic level, creating minimal pairs. Examples in (27) and (28) aim to demonstrate how a complete change in meaning occurs when NMMs are altered. Again, it should be noted that, according to the theoretical framework adopted in this dissertation, these examples cannot be considered idioms since they lack a dual interpretation – a defining characteristic of IEs (pattern of figuration, §3.1.3). However, INSOR classifies them as idiomatic, although they might be more accurately described as language-specific lexical items rather than pure IEs.

(27) POOR_THING

(28) SILLY

(from Youtube, Insor Educativo Colombia)

In both examples cited above, the manual components remain the same, while the determining factor lies in the suprasegmental features. In (27), POOR_THING (corresponding to *pobrecito* in Spanish) expresses sympathy, conveying meanings such as "poor thing" or "I'm so sorry". It is typically used in situations where the interlocutor has been hurt or something unfortunate has happened to them. In contrast, example (28) SILLY (*qué tonto*), features NMMs that imitate laughter or mockery. This expression is employed when witnessing someone do something particularly foolish and can be translated as "what a fool!" or "how silly!". This contrast clearly illustrates the crucial role of non-manual elements in sign language as semantic cues.

Another highly interesting IE, also found in LIS,[51] is example (29) HAND_IN_POCKET, which is culturally bound to the Deaf community that uses it. It is produced in situations where one wants to remain silent and could be translated as "don't comment" or "say nothing." The principle underlying this idiomatic sign is the same as that which gave rise to the Italian idiom "*acqua in*

[51] See §4.1 and §4.3 in the next chapter.

bocca" (literally, "water in the mouth"): although the usage contexts of the two idioms differ slightly, on one hand there is the hearing culture that uses the voice to communicate (thus the mouth as the physical medium), and on the other hand the Deaf culture that mainly uses the hands. To cease communication in spoken language, the vocal flow is stopped by closing the mouth; to halt signed communication, the hands must be stopped (INSOR Educativo Colombia, 2019).

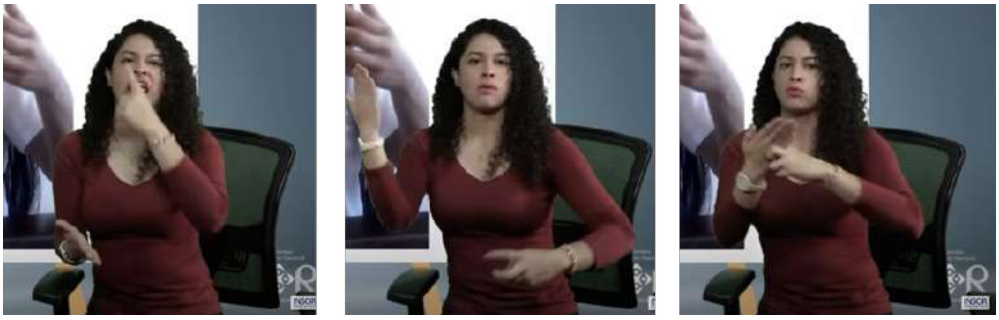
(29) HAND_IN_POCKET

'to not comment'/'to say nothing'

(from Youtube, Insor Educativo Colombia)

Finally, it is not uncommon to find idiomatic signs that are literal translations of IEs from the spoken language. Sign (30) WHAT TICKET[52] exemplifies this phenomenon: it is a calque from the Spanish expression "*qué boleta*", used in both languages to indicate something in poor taste or an embarrassing situation. Notably, the expression is composed of two signs, the second of which corresponds to the lexical sign for 'ticket' (*boleta*) in LSC. This sign, taken in isolation, bears no idiomatic or metaphorical meaning and does not contribute semantically to the overall figurative interpretation of the expression. This reflects a formal borrowing from the spoken language rather than an internal semantic motivation, suggesting that certain idiomatic signs (calques idioms) may preserve the surface structure of the source expression without mapping its figurative meaning.

[52] The sign in (73) is used exclusively in the administrative Department of Meta and clearly originates from hearing culture and spoken language. As such, it is not spread across the Deaf community at the national level.



(30) WHAT TICKET

'how embarrassing!'

(from Youtube, Insor Educativo Colombia)

3.4.5 Research on DGS idioms

Another widely studied sign language is DGS, but unfortunately, the literature specifically dedicated to IEs is still very limited. Clauss's (2010) study is a key reference, as it contrasts spoken German with DGS and attempts to identify defining criteria for idiomatic signs.

As already noted for other sign languages, phraseological units – as Clauss (2010) calls them – are found in all natural languages and represent a phenomenon deeply connected to the culture of the linguistic community. IEs in DGS, referred to by Clauss also as *Spezialgebäde* (special signs), are distinct from lexical signs found in dictionaries due to their uniqueness, especially considering their variability. Furthermore, these IEs are often not directly translatable into the corresponding spoken language due to differences in the modalities and their strong cultural ties within Deaf communities.

IEs consistently demonstrate the possibility to convey complex meanings, often rooted in perceptions or emotions, in a manner that is highly functional within the linguistic community that employs them. Full comprehension of certain idiomatic signs requires not only proficiency in the language but also an intimate understanding of the relevant cultural context, as these signs reflect unique worldviews and experiences (Mally, 1993).

Clauss (2010) highlights the structural distinctions between sign languages and spoken languages, particularly concerning IEs. A key formation criterion for figurative expressions in spoken languages – compositeness or polylexicality – does not generally apply to sign languages. Due to

their simultaneous and synthetic nature, sign languages often encapsulate multiple semantic elements within a single sign. Consequently, most idiomatic signs are monomorphemic, with polylexical idioms being rare exceptions. Studies on DGS further indicate that idiomatic signs are highly fixed; any modification to their formation parameters risks altering or losing their idiomatic meaning. Given that idiomatic signs are predominantly monorematic, changes to manual or non-manual parameters typically result in a shift in meaning.

Regarding idiomaticity, the defining feature in sign languages parallels the concept of non-compositionality found in spoken languages: the overall meaning of an idiomatic sign cannot be straightforwardly inferred from the individual components or iconic elements that comprise it. Specifically, in DGS and other sign languages, idiomatic signs are characterized by meanings that are not transparently deducible from their visual-manual form (Clauss, 2010:86). In addition, also in DGS, IEs may originate either within the Deaf community – thus being typical of the sign language – or as literal translations (calques) from the spoken language.

In example (31), an idiom specific to DGS is presented. The sign ZERO_ON_FOREHEAD is used in situations where one has no knowledge about a given topic.[53] The image evoked is that of a zero on the forehead, a location commonly used in sign languages to represent cerebral or cognitive activities (see Chapters 1 and 2).

(31) ZERO_ON_FOREHEAD
'to know nothing about a topic'

(from Youtube, gebaerdenservice)

[53] The same sign exists also in LIS.

3.5 Idioms across modalities

Idiomaticity in sign languages diverges significantly from traditional conceptions based on spoken languages. It reveals structural and semantic properties that challenge linguistic frameworks and demand a reevaluation of how idioms are understood cross-modally. According to Johnston and Schembri (2010) "[…] lexical signs in sign languages are idiomatic expressions in much the same way are some multi-word constructions are idiomatic expressions in spoken languages". Given this definition, the theoretical framework needs a reconceptualization of where and how idiomaticity emerges within the linguistic system. For this reason, §3.5.1 outlines the theoretical framework surrounding sign language idioms; while §3.5.2 presents the categories of IEs identified in sign language.

3.5.1 Theoretical framework of sign language idioms

The theoretical framework for understanding idiomaticity in sign languages draws heavily from cognitive grammar and construction grammar approaches, particularly Langacker's (1987, 2002, 2005) lexico-grammatical continuum model and Croft and Cruse's (2004) dimensional analysis of symbolic units. Within this framework, all linguistic constructions – from individual morphemes to complex syntactic patterns – can be systematically characterized along two dimensions that together map the entire landscape of linguistic structure.

The first dimension, size or complexity, ranges from atomic to complex and refers to the internal compositional structure of linguistic units. Atomic constructions represent minimal, indivisible symbolic units such as simple morphemes (e.g., [cat], [run]) or basic lexical signs, which represent the minimal meaningful units at the morphological level and are not decomposable into smaller morphemes – though their formational parameters may exhibit semantic motivation or iconicity. At the opposite end, complex constructions consist of multiple integrated symbolic units, such as multi-word phrases ("kick the bucket"), syntactic patterns (the passive construction [SBJ be-TNS VERB-en by OBJ]), or elaborate discourse structures. Between these extremes lie constructions of intermediate complexity, including compound words and phrasal constructions that integrate two or more atomic units.

The second dimension, content specificity, ranges from substantive to schematic and characterizes the degree of semantic and phonological specification within constructions. Substantive

constructions are concrete, fully specified units with fixed lexical content and specific meanings—for instance, the English idiom "spill the beans" or the word [elephant] represent substantive constructions because their forms and meanings are precisely determined. Schematic constructions, conversely, are abstract templates or patterns with variable slots that can be filled by different lexical items, such as the ditransitive construction [SUBJ VERB OBJ1 OBJ2] (as in "give him the book", "send her a letter") or the comparative construction (e.g., in English [X-er than Y]. Schematic constructions provide structural frameworks while allowing for lexical variation in their instantiation.

When these two dimensions intersect, they create a theoretical space that accommodates the full range of linguistic phenomena. Traditional grammatical categories map predictably onto this dimensional space: atomic-substantive constructions correspond to lexical items and morphemes; atomic-schematic constructions represent grammatical morphemes and function words; complex-schematic constructions encompass syntactic rules and grammatical patterns; and complex-substantive constructions constitute the domain of traditional idioms and fixed expressions. Table 5 attempts to exemplify this continuum.

Type of construction	**Definition**
Atomic - substantive	Minimal symbolic units that are fully specified in form and meaning (lexical items and morphemes).
Atomic - schematic	Minimal symbolic units that are abstract and schematic, typically grammatical morphemes or function words.
Complex - schematic	Multi-unit constructions that are abstract templates for grammatical patterns.
Complex - substantive	Multi-unit constructions that are fixed in form and meaning, traditionally called idioms.

Table 5. Constructions along the lexico-grammatical continuum

Langacker (2005) represents these observations on the lexico-grammatical continuum through a two-dimensional graph (Figure 16), with the axes corresponding to the scales of schematicity and complexity.

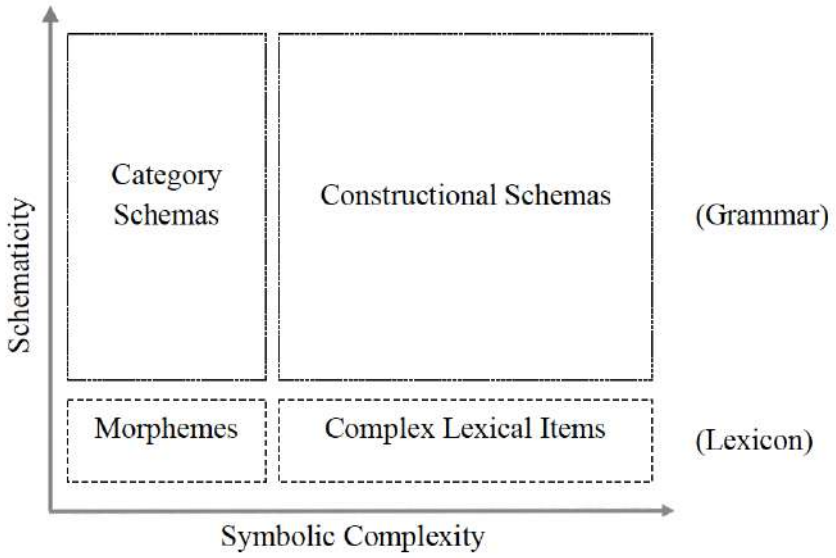


Figure 16. Construction types along the size and content scales (Johnston & Ferrara, 2012:233, reproduced from Langacker, 2005)

As presented in Table 5 and Figure 16, the lexicon occupies the atomic end of the content scale but can range from simple to complex on the size scale. Grammar, on the other hand, consists of constructions that fall on the schematic end of the content scale, yet similarly range from atomic to complex in terms of size (Langacker, 2005). Figure 17 illustrates how Johnston & Ferrara (2012) map Croft & Cruse's (2004) examples and their corresponding traditional grammatical labels onto an adapted version of Langacker's two-dimensional model of content and size.

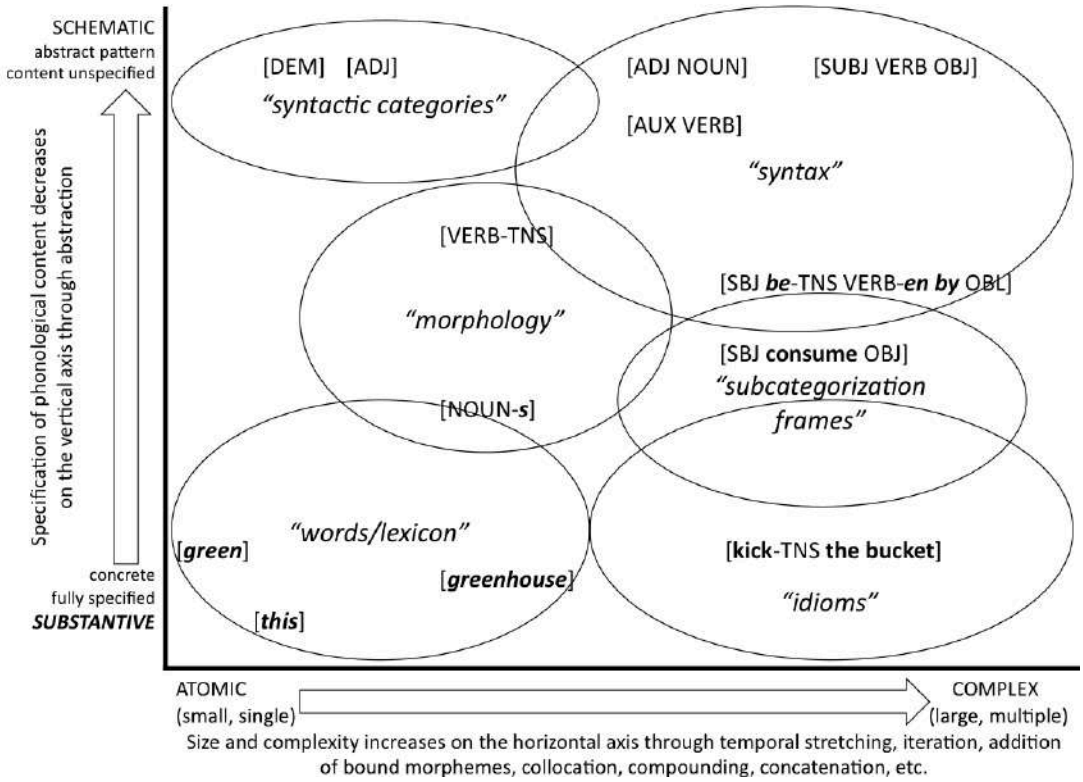


Figure 17. Example of English constructions mapped onto the scales of size and content (Johnston & Ferrara, 2012:233)

Traditional idioms in spoken languages characteristically occupy the complex-substantive quadrant of this continuum, representing multi-word constructions that combine structural complexity with semantic specificity. In particular, they consist of multiple lexical units arranged in specific syntactic patterns (compositeness) while possessing conventionalized meanings that cannot be compositionally derived from their constituent parts (non-compositionality). The semantic opacity of these constructions – their resistance to transparent meaning construction from component parts – represents the hallmark of traditional idiomaticity.

However, in sign languages, this theoretically predicted area of the continuum remains remarkably sparse, with apparently few multi-sign idiomatic constructions that parallel the complex-substantive expressions ubiquitous in spoken languages. Johnston & Schembri (2010) argue that although traditional multi-word idioms are virtually absent in sign languages, idiomaticity plays a central and pervasive role at the lexical level, thereby reshaping our understanding of meaning construction in visual-manual modality. This absence represents a striking typological gap that challenges assumptions about universal patterns of idiomaticity and necessitates a fundamental

reconsideration of how meaning construction and lexicalization processes operate across different language modalities (Johnston & Ferrara, 2012).

The rarity of traditional multi-sign idioms in sign languages is exemplified by the exceptional case of constructions like the ASL IE TRAIN GO SORRY or the LIS IE HEART GOLD. These idioms share the metaphorical extension of its English and Italian counterpart,[54] and the non-compositional nature of this expression is evident in that its overall meaning cannot be derived from the individual signs TRAIN, GO and SORRY or HEART and GOLD in simple combination, thus qualifying them as a genuine multi-sign idioms, despite the borrowed status of the latter.

The virtual absence of native multi-sign idioms in sign languages has led Johnston and Schembri (2010) to propose that idiomaticity in these languages manifests primarily through "lexical idioms" - fully-lexicalized signs that function as atomic-substantive constructions yet retain the semantic unpredictability characteristic of traditional idioms. This phenomenon emerges through the lexicalization process of partly-lexical depicting signs,[55] which initially possess compositional meanings arising from real-space blending operations (Liddell, 2003a, 2003b). Real-space blending, as conceptualized by Liddell, represents a type of mental space blending involving the projection of elements from input mental spaces and the signer's immediate physical environment into a blended space where parts of the signer, surrounding space, and signs themselves can be conceptualized as representing other entities.

[54] Respectively, "to miss an opportunity" and "to be a good and genuine person".
[55] Depictive signs are also called classifiers in other theoretical frameworks.

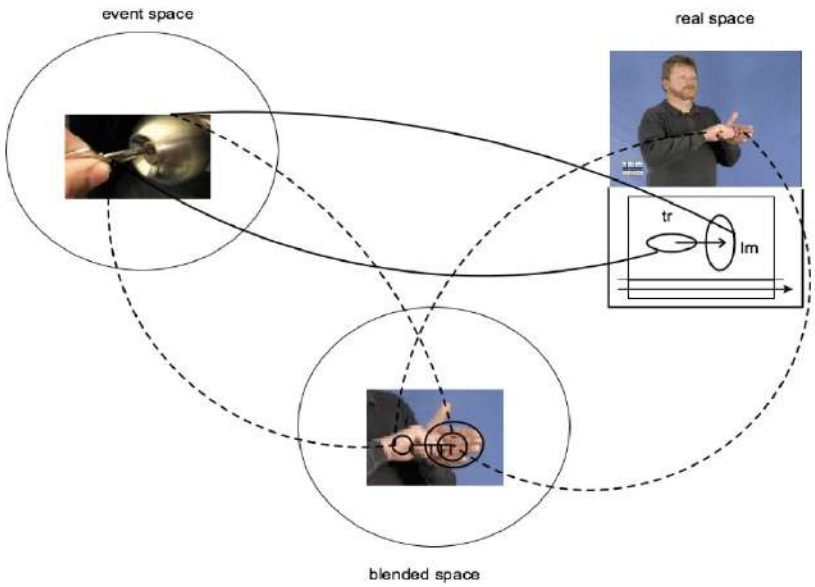


Figure 18. Real space blend structure of "to turn a small object against a flat surface" (Johnston & Ferrara, 2012:238)

The process by which partly-lexical depicting signs become lexical idioms can be illustrated through specific examples from Australian Sign Language (Auslan). Consider the sign that depicts an instance of a person locking a door with a key, where the signer's right hand depicts a small object (or person holding a small object) while the left hand depicts a portion of a flat vertical surface. Through mappings between input mental spaces, real space, and the blend, this configuration prompts conceptualization of a person locking a door with a key. Initially, this sign maintains a general, compositional meaning of "turning a small object against a flat surface", which is predictable from its visual components and context. However, through processes of entrenchment and conventionalization (Langacker, 1987, 2002, 2005), this partly-lexical sign has acquired the more specific lexical meaning "to lock" or "a key". Crucially, while this lexical meaning is motivated by the sign's sub-atomic components, it cannot be predicted solely from them – the sign could equally have lexicalized with meanings such as "unlock", "door", or "screw", making its current meaning essentially idiomatic.

The idiomatic nature of lexicalized signs becomes particularly evident when we observe cases in which two or more unrelated sign languages share a sign with the same literal (partly-lexical) meaning and also the same idiomatic (fully-lexical) interpretation (Johnston & Ferrara, 2012:241). A notable example is the sign MEET, in (32) which appears with similar form and meaning in both

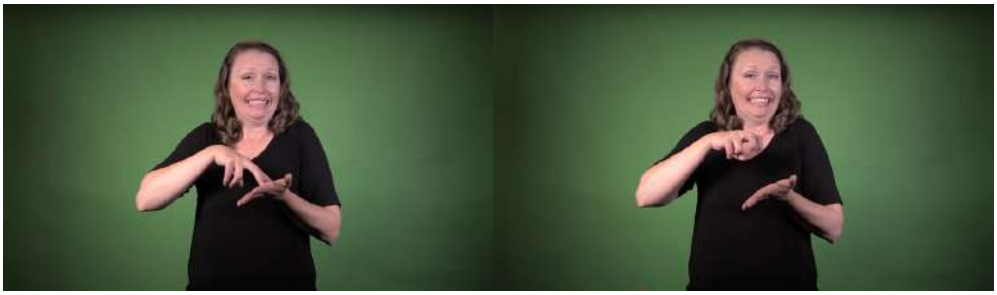
ASL and Auslan. Although this convergence might seem semantically natural, it is not the result of a predictable pattern of meaning extension. In fact, the depicting action underlying MEET – typically conceptualized as “two entities coming together” – could have been lexicalized in various other ways. Possible idiomatic meanings might include “agree”, “couple”, “partner”, or other metaphorically or metonymically related concepts. The fact that both languages independently lexicalized this form with the same idiomatic sense illustrates how metonymic processes can lead to convergent but non-predictable outcomes. This further demonstrates that lexicalized idioms may appear systematic, while in fact reflecting historically opaque or arbitrary developments shaped by cultural or conceptual association rather than by transparent semantic logic.

(32) MEET

(https://media.spreadthesign.com/video/mp4/13/50874.mp4)

As for lexical sign formation, metaphorical and metonymical extensions play significant roles in the idiomatization process, as demonstrated by the Auslan sign THRILLED, in (33).[56] This sign originated as a partly-lexical depicting sign showing a person jumping up and down, but through lexicalization, the depiction became associated with "jumping up and down with excitement," leading to its primary lexical reading “to be thrilled or delighted” (Taub, 2001; Janzen, 2012). In some cases, metonymic chains can become so extended that the resulting fully-lexical sign appears completely arbitrary to language users.

[56] ASL presents the same sign for the same concept.



(33) THRILLED

(from aslinteractive.com)

A crucial aspect of lexical idioms in sign languages is their retention of what Johnston and Ferrara (2012:242) term "two faces" – simultaneously functioning as unitary symbolic units and as constructions in their own right. Unlike spoken languages, where individual components often undergo semantic attenuation or become opaque, fully-lexicalized signs in sign languages typically preserve their internal component structure. Rather than being eliminated, this structure is backgrounded while the idiomatic reading is foregrounded (Langacker, 1987).

This dual nature – not only reflects what Langlotz (2006) terms a pattern of figuration – also enables a unique process called "de-lexicalization", whereby signers can reactivate a sign's underlying component blend structure to prompt literal, compositional readings rather than the conventional idiomatic interpretation. In other words, the sign in (33) could be produced to literally indicate the action of jumping up and down, for whatever reason.

The predominance of lexical idiomaticity in sign languages, contrasted with the rarity of poliremathic IEs, reflects fundamental properties of the visual-manual modality and its interaction with cognitive processes of meaning construction. The shared articulatory and perceptual systems between gesture and sign enable the integration of multiple lexical and gestural elements within single signs (Wilcox, 2004), creating sub-atomic complexity that parallels the multi-word complexity of spoken language idioms. This modality-specific characteristic explains why idiomaticity in sign language can occur at a different level of the lexico-grammatical continuum than in spoken languages. In addition, the prominence of monorematic idioms in sign languages demonstrates that while the lexico-grammatical continuum exists universally across languages, the specific manifestation of idiomaticity can vary systematically according to modality-specific constraints and affordances.

While this analysis provides a useful starting point, it could potentially be applied to a wide range of signs with varying degrees of iconicity. For this reason, the concept should be adopted with caution: it is essential to verify whether the sign under consideration allows for both idiomatic and literal meanings (pattern of figuration), and whether it satisfies the other defining features of idioms before classifying it as idiomatic.

3.5.2 Classification of sign language idioms

As presented earlier in this dissertation, the study of IEs in sign languages has increasingly gained scholarly attention, yet it remains an underdeveloped area when compared to spoken language research. As shown across the analyses of various sign languages – such as ASL, BSL, LSF, DGS, and LSC – idioms in sign language present a number of unique features that challenge traditional, spoken language-based definitions.

One of the most salient aspects concerns the form of IEs in sign languages. As discussed in the previous section, in contrast to spoken idioms – which are typically poliremati (such as MWEs) – idiomatic signs can also be monoremati. This characteristic is attributed to the simultaneity and visual-manual modality of these languages, which allow the encoding of complex conceptual structures within a single sign (Sutton-Spence & Woll, 1999; Johnston & Schembri, 2010; Pierrot, 2020; Pasin, 2021; Marrocu, 2023; Rigo 2022, in print). The monoremati structure, however, does not imply semantic transparency; rather, it highlights the difference in how idiomatic meaning is constructed and interpreted in the signed modality. However, this is not the only difference between spoken and signed languages.

To continue the description of idioms in sign languages, it is important to note that the studies reviewed so far report that IEs can be grouped into three main categories. Despite the number of signs involved in a given idiom, existing classification of IEs in sign language tend to focus on their origin rather than their form.

The first category includes idioms that are direct calques from the majority spoken language. These idioms reflect a strong influence from the sociolinguistic substrate in which the sign language develops – namely, the dominant presence and prestige of the surrounding spoken language. Usually, this influence is particularly evident due to the pressure exerted by the spoken language

in the same territory, which tends to be regarded as the more prestigious language. As a result, certain IEs are mapped from the spoken language into the sign language, preserving both their structure and meaning while being re-encoded in the visual-manual modality. Examples from this category include signs like (18) BRAIN^FREEZE in ASL or (30) WHAT TICKET in LSC.

The second category involves borrowings from the majority language that are culturally adapted to the signed modality and Deaf culture, and may undergo modality-specific restructuring. These idioms are not calques in the strict sense (hence the term 'loans'), as they typically integrate proprioceptive or culture-specific elements that reinterpret the original idiomatic concept within the embodied experiences of signers. An example from this group is the ASL idiom IN_ONE_EYE_OUT_THE_OTHER in (19)

Finally, the third category includes idioms that have no equivalent in the spoken language. These are often considered prototypical examples of idiomaticity in sign languages, as they emerge from within the signing communities without any direct influence from the majority language. In other words, these expressions originate in Deaf communities and reflect its culture and perceptual or experiential realities, encoding meanings that are culturally grounded and may be semantically opaque to non-signers or less experienced signers. Examples include (31) ZERO_ON_FOREHEAD from DGS and (29) HAND_IN_POCKET from LSC.

It could be of particular interest for future research to explore the potential existence of a fourth category of sign language idioms: interlinguistic borrowings between different sign languages. However, two major obstacles currently hinder such investigation. First, there is a lack of sufficiently large and comparable corpora across different sign languages, making systematic cross-linguistic analysis difficult. Second, the field of idiomaticity in sign languages remains relatively young, and the identification, documentation, and theoretical modeling are still in early stages.

3.6 Summary of Chapter 3

This chapter has provided a comprehensive theoretical framework for understanding idioms across both spoken and sign languages, establishing key definitional criteria while highlighting significant cross-modal variation in idiomatic phenomena.

The multidimensional framework adopted – particularly Langlotz's (2006) model – has shown that idioms are best understood not through a single definitional trait but as constructions shaped by interrelated features: institutionalization, compositeness, frozenness, conventionality, and non-compositionality. This model offers a flexible yet systematic approach through which to examine idiomatic phenomena, accounting for the gradient and heterogeneous nature of idioms in use. In addition, central to this framework is the recognition that idiomatic constructions operate on two distinct semantic levels. The literal meaning represents the compositional sum of the meanings of individual constituents, while the idiomatic meaning constitutes the lexicalized extended meaning of the entire construction. The relationship between these two levels is called pattern of figuration: a systematic semantic extension that has become conventionalized within a given language. The degree of discrepancy between literal and idiomatic meanings determines the construction's opacity: the greater the semantic distance, the more opaque the idiom becomes. This dual-level analysis explains why some idioms like "spill the beans" maintain a certain degree of semantic transparency (where the notion of 'spilling' relates to 'revealing'), while others like "kick the bucket" exhibit complete semantic opacity with no discernible connection between literal and figurative meaning.

The investigation of sign language idioms revealed fundamental challenges to traditional theoretical frameworks. Unlike spoken language idioms, which are characteristically poliremathic, sign language idioms predominantly exhibit monoremathic structures due to the simultaneous and synthetic nature of the visual-manual modality. This structural difference necessitates a reconceptualization of how idiomaticity manifests across different linguistic systems. Cross-linguistic analysis of multiple sign languages (ASL, BSL, LSF, LSC, and DGS), in addition, identified three primary categories of IEs based on their origin: *i)* calques from surrounding spoken languages, *ii)* culturally adapted loans, and *iii)* expressions typical to the signing communities. These categories reflect the complex sociolinguistic dynamics between sign languages and their dominant spoken language counterparts, while also highlighting the creative potential of Deaf communities in developing culture-specific figurative expressions.

Moreover, the theoretical framework proposed by Johnston and Schembri (2010) suggests that idiomaticity in sign languages primarily manifests through "lexical idioms" – fully lexicalized signs that retain semantic unpredictability while functioning as atomic symbolic units. This process

involves the lexicalization of partly-lexical depicting signs through real-space blending operations, metaphorical extensions, and cultural conventionalization.

To conclude, this chapter demonstrates that while idioms represent universal linguistic phenomena characterized by non-compositionality and conventionalization, their specific manifestations are fundamentally shaped by modality-specific constraints and affordances. Sign languages reveal alternative pathways for idiomatic development that challenge spoken language-based assumptions while maintaining core definitional properties. This cross-modal perspective contributes essential insights to our understanding of how figurative meaning is constructed, transmitted, and conventionalized within linguistic communities, regardless of the communicative modality employed. Moreover, this analysis also provides a diagnostic framework for identifying and delineating the boundaries of idiomaticity across both spoken and sign languages. Having established the theoretical foundations necessary for identifying, analyzing, and investigating IEs across linguistic modalities, the subsequent chapter will present a detailed examination of idiomaticity in LIS. Building upon the definitional criteria, classification systems, and analytical frameworks outlined in this chapter, the following discussion will provide a comprehensive account of how idiomatic phenomena manifest within the specific linguistic and cultural context of the Italian Deaf community.

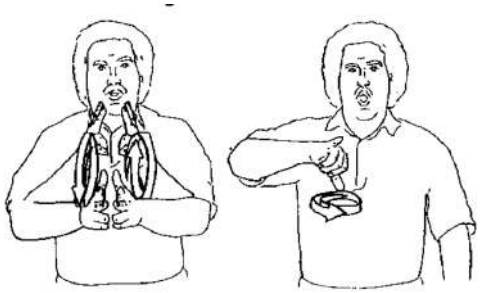
Chapter 4

Idioms in LIS: preliminary analysis and observations

Regarding IEs in LIS, the literature is expanding and includes not only several theses on the topic (Pierangeli, 2019; Santini, 2020; Pasin, 2021; Rigo, 2022; Marrocu, 2023), but also publications such as Romeo (1997), Russo (2004), Vian (2015), Branchini & Mantovan (2020), Pasin (2023), and Rigo (in print).

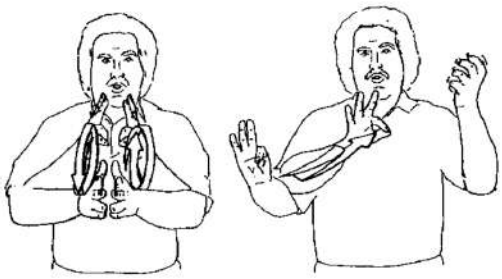
The origin of figurative expressions in LIS follows the same pattern observed in other languages, both sign and spoken: they often originate from metaphors or metonymies (Rigo, 2022; Marrocu, 2023). Naturally, they are linked to the visual-spatial channel and the possibility of manually reproducing a referent, thus making it visually perceivable. Amorini (2018:118) adds that the creation process of figurative expressions in LIS «largely depends on the visualization of the objects represented, so that the form of signs varies according to the use […] and the use of space».

This phenomenon has been widely recognized and studied since the 1990s with Romeo's (1997) first LIS grammar, which provides a small collection of IEs used in sign language at that time. Below are images taken from the aforementioned grammar. Examples (1) and (2) show polirematic IEs such as SIGN OIL and SIGN VIOLIN, used respectively to indicate a person who signs particularly well and fluidly, and a person who, through their signing, seeks to persuade or flatter someone.



(1) SIGN OIL

'to sign fluently'



(2) SIGN VIOLIN

'to persuade' / 'to flatter'

(Romeo, 1997:38)

In (3), a typical and widely used monorematic idiom in LIS is presented. NAIL_ON_HEAD is used to indicate a firmly fixed event in one's mind that will never be forgotten; the image evokes the action of "nailing" a memory into one's mind. In (4), the sign LOOSE_SLEEVE is shown, another monorematic sign that is a calque of the Italian spoken IE "*avere la/essere di manica larga*" (literally "to have/to be of loose sleeve") used to describe someone who is very lenient, tolerant, or understanding.

(3) NAIL_ON_HEAD

'burned into one's memory'

(4) LOOSE_SLEEVE

'to be tolerant'

(Romeo, 1997:38)

As seen also in other languages, these first examples demonstrate that IEs in LIS are also non-compositional, whereby the meaning of a complete idiomatic form cannot be deduced from the meaning of its individual components. Furthermore, being formed on the basis of visual metaphors, their use and comprehension require the acquisition of a series of cultural competencies, which often render the sign difficult to understand and interpret. Consider, for example, the sign in (1) SIGN OIL, which cannot be transferred directly into another language, at least not literally; this constitutes an additional exemplary case of Lakoff and Johnson's (1980a) model,[57] in which they defined metaphor as a cognitive process that conveys the meaning of a semantically abstract element to a concrete concept, derived from visual-bodily experiential schemas. In that particular example, the lexical sign OIL conceptually encodes the semantic properties of smoothness and fluidity, which are then metaphorically projected onto the domain of signing competence. The resulting expression thus exploits the tactile and kinesthetic qualities associated with oil to convey the notion of fluent, effortless signing, creating a conceptual mapping between the physical properties of the substance and the smoothness and quality of a signer's proficiency.

This chapter is organized into six sections, each addressing a complementary aspect of the phenomenon. In §4.1, the chapter begins with a review of previous research on LIS idioms, ranging from early grammatical descriptions to more recent empirical and sociolinguistic studies. This section establishes the foundation for the present analysis by clarifying how idioms have been

[57] See §2.3.1.

identified, defined, and classified in LIS scholarship. A sub-section (§ 4.1.1) further examines classification proposals, distinguishing between calques from Italian, borrowings with cultural adaptation, and idioms specific to LIS. This systematization provides the necessary background for evaluating the extent to which LIS idioms align with, or diverge from, idioms in other signed and spoken languages.

Building on this foundation, §4.2 turns to the crucial issue of distinguishing idioms from other figurative or culturally specific signs. Here, the chapter addresses a recurrent problem in the literature: the tendency to label as idioms signs that, in fact, do not fulfil the definitional criteria of idiomaticity. Subsections (§ 4.2.1 and § 4.2.2) discuss two categories that are frequently misclassified: language-specific lexical items and number-incorporated signs. Each sub-section applies a diagnostic framework proposed to assess the idiomatic status of these signs, demonstrating that they should be regarded as [–idiomatic] rather than true [+idiomatic].

§4.3 focuses on the origins and transmission of LIS IEs. Drawing on the available studies, this section highlights the cultural and institutional contexts in which idioms have emerged and been transmitted, particularly within Deaf schools. The analysis also considers the processes of conventionalization and semantic opacity that shape the evolution of idioms over time, while underscoring the methodological challenges of tracing their etymology.

The chapter then, in §4.4, addresses the contrast between monorematic idioms and the concept of polysemy. In particular, this section examines the relationship between idiomaticity and polysemy in monomorphemic forms, proposing some observations for distinguishing between genuine monorematic idioms and polysemous lexemes in general. Then, in §4.5 special attention is given to monorematic idioms and their phonological structure, especially idiomatic compounds of the type HEAD^[X]. Through phonological analysis, these sections illustrate how certain compounds function as monorematic idioms, thereby challenging the traditional polilexical criterion often applied in idiom research. Finally, §4.6 reflects on the register to which idioms in LIS can be ascribed. While many IEs are typically associated with informal and colloquial usage, it might be reductive to classify idioms uniformly to this register. This section thus argues that LIS idioms cannot be confined to a single register but rather occupy a flexible space shaped by contextual and individual (idiolectal) factors, thereby contributing to a broader reflection on the complex relationship between LIS and register, as a general concept.

4.1 Previous research on LIS idioms

This section presents various studies on IEs in LIS - some focusing specifically on these expressions, others mentioning them while examining linguistic phenomena in the same domain - with the aim of introducing and describing this category within LIS, building on previous research conducted on other sign languages. The purpose is to provide a comprehensive overview to assess the current state of research in this area. Unfortunately, as previously mentioned, there is a limited number of studies dedicated specifically to IEs in LIS. More extensive literature exists on metaphor in general, which often relates to or references IEs. The majority of available works consist of theses or publications summarizing such theses.

For Pierangeli (2019:63), IEs in LIS are defined as "multi-lexical expressions that combine a fixed signifier with conventional typically non-literal meaning". Like their spoken languages counterparts, LIS IEs exhibit:

i. fixity: constituents are fixed and invariable;

ii. transformational anomalies: they do not admit transformations possible for non-idiomatic phrases;

iii. semantic irregularity: they violate the principle of compositionality.

In addition, for Pierangeli (2019) LIS IEs are deeply rooted in Deaf culture and cannot be understood through literal translation. The thesis uses as example (5) SIGN IN_POCKET (meaning to keep a secret or to not sign).[58] This expression, just like (29) HAND_IN_POCKET from LSC in Chapter 3, makes cultural sense since Deaf people convey information through the visual-manual channel. This expression is often compared with the Italian idiom "*acqua in bocca*" (literally, "water in mouth").

[58] Several variants and realizations of this sign can be observed. In addition to the form reported as SIGN IN_POCKET, where the second element IN_POCKET is produced with a B handshape, there also exists a variant involving regressive handshape assimilation, in which IN_POCKET is articulated with the same 3 handshape as SIGN. Moreover, in some cases, the movement of the first sign SIGN may be omitted, resulting in a single, lexicalized form SIGN_IN_POCKET.

(5) SIGN IN_POCKET

'to not comment' or 'to say nothing'

(Pierangeli, 2019:65)

As seen in other sign languages as well, unlike spoken languages that rely on verbal metaphors, LIS IEs primarily use visual metaphors, which are based on visual-spatial properties of sign language, body-based experiences of the Deaf community, and cultural conventions specific to Deaf culture.

Santini's (2020) sociolinguistic investigation of IEs in LIS provides empirical evidence for the systematic nature and cultural significance of these linguistic forms within the Italian Deaf community. Through online interviews with 30 Deaf signers across Northern, Central and Southern Italy, Santini documented 14 primary IEs and analyzed their structural properties, origins, and usage patterns. However, not all the proposed signs conform to the criteria of idiomaticity outlined primarily by Langlotz's (2006) model, which serves as the theoretical framework for this thesis. Among other aspects, the main issue is that some of these signs are either just language-specific lexical items – literally untranslatable into Italian – or slang signs. This corroborates the observations made by Baker-Shenk and Cokley (1980) and more recently by Lepic (2025), as discussed in §3.4 of this thesis, namely that many signs traditionally labelled as idioms do not, in fact, meet the definitional criteria for idiomaticity. In particular, some of the signs presented do not respect the trait of dual interpretation – the pattern of figuration (Langlotz, 2006) – whereby an expression, in order to qualify as idiomatic, must not only have an established idiomatic interpretation, but also allow for a possible literal interpretation. For some of these signs, such a dual reading is entirely absent, thereby depriving them of the semantic ambiguity required to be classified as true idioms.

To illustrate this point, the LIS sign FAKE in (6) can be considered. It is often cited as an example of an idiomatic sign; however, it conveys a single, specific meaning rather than a dual interpretation. The lexical sign is used to describe a person who is insincere or fake. Its form consists of the 3/5 handshape[59] combined with a repeated path movement produced at the side of the mouth or near the chin. This particular location is iconically motivated, as it highlights the image of an artificial or forced smile, thereby reinforcing the semantic association of falseness (Santini, 2020:44). Again, the sign does not extend to any additional meanings beyond this specific interpretation.

(6) FAKE

'to fake' or 'fake person'

(Santini, 2020:45)

Interestingly, Santini identified a crucial systematic pattern in LIS whereby signs with two meanings (apparently idiomatic and literal) are distinguished through specific NMMs. According to Santini, idiomatic realizations consistently feature backward torso shift, rightward head tilt, lowered eyebrows with squinted eyes (or, alternatively, raised eyebrows with wide eyes). These markers are systematically absent in literal sign realizations, providing for the writer evidence for the grammaticalization of NMMs in IEs. However, this systematic distinction raises important theoretical questions about the nature of these dual-meaning signs. While many of the analyzed signs appear to require obligatory NMMs for their figurative interpretation, this may not necessarily constitute evidence of true idiomaticity but rather can be cases of polysemy. The crucial distinction lies in semantic compositionality: genuine idioms exhibit non-compositional meanings that cannot be derived from their constituent parts, whereas polysemous signs maintain semantic relationships between their multiple meanings through metaphorical or metonymic extensions. For certain signs

[59] Open hand with the middle finger bent forward.

the concept of polysemy and idiomaticity seems to be confused. For instance, signs like CHICKEN in (7) or (8) POTATO which have been classified as having both literal and idiomatic meanings, seem more plausibly interpretable as cases of polysemy rather than idiomaticity. In LIS, CHICKEN can indicate both the animal and the concept of 'gullible'; POTATO is used to denote the tuber or an incompetent person.

(7) CHICKEN

'chicken' or 'gullible'

(Santini, 2020:34)

(8) POTATO

'potato' or 'incompetent'

(https://media.spreadthesign.com/video/mp4/17/444962.mp4)

In CHICKEN, the semantic link between 'chicken' (the animal) and 'gullible person' reflects a motivated metaphorical extension grounded in cultural associations with the perceived lack of intelligence of the chicken. POTATO, by contrast, appears to have military origins, deriving from the punitive practice of assigning the specific duty of peeling potatoes to soldiers as disciplinary actions. Today, the expression is used to refer to a clumsy person or someone lacking competence

in performing specific tasks (Santini, 2020). These motivated relationships in both CHICKEN and POTATO differ from the non-compositional opacity typically associated with IEs, raising questions about the boundaries between motivated polysemy and genuine idiomaticity. From this perspective, a more detailed analysis of the semantic relationship between the literal and figurative meanings is therefore necessary to clarify whether these expressions truly qualify as idiomatic. Such an analysis would also help determine whether the observed NMM patterns constitute genuine grammatical markers specific to IEs in LIS, rather than general pragmatic devices used for disambiguating polysemous meanings. It should be noted, however, that the NMMs produced simultaneously with an idiomatic sign may not necessarily serve a syntactic function, which complicates their interpretation. Since IEs are part of everyday communication and are often embedded in conversations, the NMMs may instead be, as mentioned before, prosodic, affective, or idiolectal, linked to a range of factors – both individual and contextual – relevant to a given communicative event. Moreover, the modification of these suprasegmental features may vary across signer, depending on the communicative intent (Rigo, 2022).

Similarly to other sign languages, LIS IEs derive from remarkably diverse sources. While many expressions emerge from specifically Deaf cultural contexts – such as SIGN IN_POCKET – others reflect borrowings from Italian culture – like WOLF IN_MOUTH, discussed in §4.1.1.1.

Contrary to predictions about rapid change in sign languages (Frishberg, 1975; Radutzky, 2009), Santini documented remarkable stability in LIS IEs over approximately 50 years (2020:52). Most expressions showed consistent realization patterns across generational cohorts, with only limited evidence of phonological change in two expressions – HAIR_RAISE and SIGN IN_POCKET – following displacement processes that enhanced visual accessibility and articulatory efficiency.[60]

[60] Specifically, in HAIR_RAISE and SIGN_IN_POCKET, a process identified by Radutzky (2009:21) called "shifting" is evident, where signs gradually move from their original articulation location to a more accessible one. Santini (2020) observed that, for HAIR_RAISE, older signers produce it on the top of the head, while younger signers articulate near the ears. Similarly, SIGN_IN_POCKET shifts from the lower torso (around the pockets) in older signers to the upper torso in younger signers. This change likely reflects a need for easier production in the former and improved visibility in the latter, as signs tend to move upward to enhance visual clarity.

(9) HAIR_RAISE

‘to have someone’s hair raised on their head’ or ‘shocking’

(Branchini & Mantovan, 2022:846)

In her thesis, Santini (2020) additionally discussed recognition patterns and community usage (conventionality). Some signs – defined as idiomatic by Santini – show universal recognition, while others such as (10) HEART BLACK (heartless person) remain largely unknown (2020:49). This variation suggests stratification within the idiomatic lexicon based on frequency of use and cultural centrality.

(10) HEART BLACK

‘heartless’ or ‘cruel’

(Franchi & Maragna, 2013)

This finding aligns with broader observations about idiomatic transmission across linguistic communities (Santini, 2020:53). As emerged from comprehensive research, while there are IEs that are passed down from generation to generation and through which communication becomes more natural and fluid, not all speakers know the origin of the sign or the socio-cultural reference explicitly connected to the expression itself. This occurs in all languages worldwide (*ibid*), both spoken and signed, and is due to the fact that these expressions are so deeply rooted in language

use that they become completely spontaneous. The phenomenon reflects the natural evolution of conventional expressions, where semantic opacity may increase over time while maintaining their functional communicative value within the linguistic community. This process of conventionalization demonstrates how IEs can achieve different levels of entrenchment, from culturally transparent forms to completely opaque units that persist through usage frequency rather than semantic motivation.

Pasin's (2023) work – based on the research presented in her MA thesis (2021) – investigates whether the properties of IEs described for spoken languages are applicable to LIS. It should be noted that not all 19 signs presented in the study[61] can be counted as idiomatic due to the definitional issues described before in this chapter. Among the examined signs, some do not fully meet the definitional criteria of idioms but rather represent language-specific lexical items or slang signs. Nonetheless, some relevant points and results will be highlighted to contribute to the description of IEs in LIS. In fact, in Pasin's classification, five classes of idiomatic signs are proposed:

i) LIS-specific IEs (with no Italian equivalent);

ii) calques from Italian;

iii) borrowings from Italian with cultural adaptations;

iv) signs with specific mouth gestures;[62]

v) slang forms.

The primary research aim is to analyze IEs in LIS by clarifying their distinctive properties through interlingual and intermodal comparison with the corresponding spoken language. The study seeks to deepen understanding of classification criteria, usage contexts, diatopic and diachronic differences, and possible grammatical modifications in LIS IEs. In summary, Pasin confirms that LIS IEs exhibit the same fundamental properties as spoken language idioms: institutionalization, conventionality, structural fixity (frozenness), figurativity, and non-compositionality. This analysis

[61] The same set of signs is examined in Rigo (2022) in his thesis on idioms in interpreting and translation studies, with the aim of identifying the challenges and strategies involved in the process of translating LIS IEs into Italian.
[62] Which are language-specific lexical items, with specific obligatory mouth gestures.

also accounts for proverbialism, informality, and affection as characteristic properties of idioms.[63] The study suggests that IEs in LIS are generally confined to informal settings; it is reported that signers avoid the use of idioms with institutional or high-status figures. In addition, different degrees of informality exist, with particularly informal forms being predominantly used by younger signers, while they are less common among older signers. Moreover, these expressions tend to require a certain degree of familiarity with the interlocutor, as informants indicate they do not use idioms with strangers or in informal contexts but rather with close acquaintances or friends. However, the issue of informality in IEs is complex and heterogeneous and will be addressed in more detail later in this chapter, in §4.6. As for affection, this property is less clear-cut in LIS idioms, as the expressions do not necessarily convey an affective judgment towards the object described, and thus affection is not considered a defining characteristic of LIS IEs (Pasin, 2023).

Just like analysis on IEs in spoken and other sign languages, this study demonstrates varying degrees of structural frozenness, with single-sign expressions being less modifiable than multi-sign expressions. Similarly to Santini (2020), NMMs – specifically mouth gestures – prove crucial for distinguishing idiomatic from literal meanings, and modifications to core sign parameters are generally unacceptable when they contribute to idiomatic interpretation.

In addition, Marrocu (2023) confirms that there is no complete categorization of LIS IEs, and this absence could stem from several factors:

i. temporal and special variability: IEs are particularly mutable and unstable across time and regions.

ii. oral transmission: LIS, like other sign languages, lacks a standardized written form, resulting in general linguistic heterogeneity and high IE variability.

iii. limited standardization: existing LIS writing systems remain non-standardized and do not constitute genuine written forms

[63] Several scholars (e.g., Nunberg et al., 1994) as well have identified these traits as core features and ontological properties of IEs. Proverbiality refers to the tendency of idioms to convey descriptions or explanations of recurrent situations that hold particular social relevance, often in relation to concrete entities and their interrelations (Gobbato, 2023). Informality denotes the association of idioms with casual or colloquial registers (McCarthy, 1992; Nunberg et al., 1994). Finally, affect captures the frequent use of idioms to express evaluative judgments or emotional attitudes toward the entities or situations they reference (Nunberg et al., 1994).

Lastly, it has been observed that the lack of full standardization and a written form may explain why LIS idioms are highly variable across time and generations, making analysis and collection more complex than in languages with a written system (Santini, 2020; Rigo, 2022; Marrocu, 2023; Pasin, 2023).

4.1.1 Classification of LIS idioms

Research on idioms in LIS demonstrates that these expressions follow patterns consistent with findings from other sign languages, already presented in §3.5.2. The classification of IEs in LIS seems to align with the three-category framework established for other sign languages: calques from the spoken language of the same territory, borrowings from the spoken language with cultural adaptations, and typical of the sign language itself.

4.1.1.1 Calques from Italian idioms

The first category encompasses direct calques from Italian, where the IEs maintain their original meaning and structure, reflecting the sociolinguistic influence of the dominant spoken language. An example of this category is HEART GOLD in (11), which indicates a good and genuine person. It is the calque of the Italian IE "*avere un cuore d'oro*" (literally, "to have a gold heart") or "*essere una persona dal cuore d'oro*" ("to be a person with a heart of gold").

(11) HEART GOLD

'to have a heart of gold'

(Rigo, 2022:93)

Another classic example of this category is the IE in (12) WOLF IN_MOUTH, which is a calque of the Italian idiom "*in bocca al lupo*" (literally, "in the mouth of the wolf"), meaning "good luck".

Interestingly, in LIS the sign for WOLF appears in initial position, whereas in Italian it occurs in final position. This reordering is merely modality-specific to conform to the grammatical constraints and visual-manual properties inherent to LIS modality. Specifically, the sign WOLF has a handshape change from an open 5 handshape produced in front of the mouth to a flat closed 5 handshape[64] in neutral signing space. Crucially, this final handshape of WOLF corresponds precisely to the handshape required for IN_MOUTH. This phonological overlap creates an articulatory advantage, as the handshape needed for the second sign is already established at the completion of the first sign, facilitating smoother execution. Additionally, this ordering may reflect the tendency for more salient referents – in this case, WOLF – to be presented first in the linguistic structure (Branchini & Geraci, 2011). From a syntactic perspective, this reordering also aligns with the canonical SOV (Subject-Object-Verb) structure of LIS. Such adaptation reflects the need to accommodate the syntactic requirements and articulatory constraints of the visual-manual channel.[65]

(12) WOLF IN_MOUTH

'good luck!'

(Rigo, 2022:92)

For this expression a variant also exists that preserves the same word order as the Italian IE. In this version, a circular pointing movement is produced around the signer's mouth, instead of the second sign IN_MOUTH from the idiom in (12).

[64] This handshape is also known as "artichoke" or "tulip" handshape.

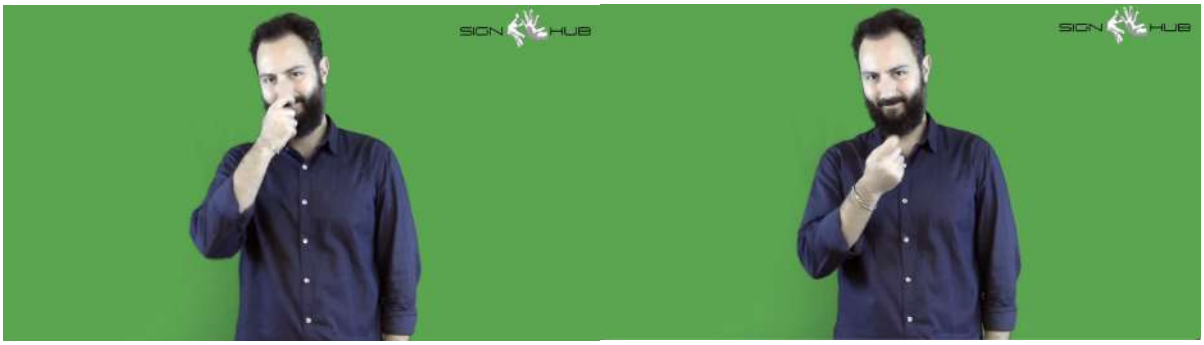
[65] It is important to distinguish this type of calque from borrowings with cultural adaptations, as in the case of WOLF IN_MOUTH, no lexical substitutions occur from the source language to approximate the meaning or metaphorical reference to cultural elements specific to LIS. Unlike culturally adapted borrowings, which typically involve the replacement or modification of lexical items to align with Deaf cultural experiences and visual-spatial conceptualizations, this calque maintains all original lexical components from the Italian idiom while solely undergoing syntactic reordering to conform to LIS grammatical constraints.

(13) MOUTH WOLF

‘good luck!”

(Rigo, 2022:53)

One last interesting example in this category is the complex calque TAKE_NOSE^AROUND in (14). It originates from the combination of two Italian IEs with similar meanings: ‘*prendere per il naso*’ (“lead somebody by the nose,” literally “take by the nose”) and ‘*prendere in giro*’ (“make fun of somebody,” literally “take in around”).



(14) TAKE_NOSE^AROUND

‘to make fun of somebody’

(Branchini & Mantovan, 2022:282)

4.1.1.2 Borrowings from Italian idioms with cultural adaptations

The second category of IEs can be described as borrowings from Italian with cultural adaptations. They are expressions that undergo modality-specific restructuring to integrate elements specific to the Italian Deaf culture and embodied signing experiences. This category is, however, somewhat problematic, as the classification of certain IEs as culturally adapted borrowings may be subject to debate. Pasin provides examples such as SIGN IN_POCKET – presented in (5) – and what is

glossed in this thesis as EYE^CL(flat closed five):‘out_behind_head’[66] in (15); noting that both expressions have undergone a process of cultural modification that has adapted them to Deaf culture (2023:24).

(15) EYE^ CL(flat closed five):‘out_behind_head’

‘to not pay attention’ or ‘to not understand’

(Rigo, 2022:101)

Nonetheless, these expressions may not be properly included in the second category, since they are not borrowings from the spoken language *per se*. For instance, SIGN IN_POCKET cannot be considered a direct borrowing from the Italian idiom “*acqua in bocca”* (literally, “water in mouth”), as none of the original lexical components of the source language are preserved. Similarly, EYE^CL(flat closed five):‘out_behind_head’diverges from its presumed source, the Italian idiom “*entrare da un orecchio e uscire dall’altro*” (“to go in one ear and out the other”): while the use of the eye may reflect a cultural adaptation, the second sign is realized with an outward movement from behind the head, instead of being oriented though the opposite eye. Explanation for this can be found in the fact that the idiom “in one ear out the other” exists both in Italian and in (American) English, with ASL showing a borrowing of the expression that incorporates cultural adaptations (§3.4.1). By contrast, in LIS the corresponding idiom is structurally different, which further supports the view that it should be considered a typical idiom rather than a borrowing Italian with cultural adaptations.

Based on the analysis of IEs classified within this second category in the reviewed literature, these expressions do not appear to legitimately fall under this taxonomic classification. This suggests an apparent absence of IEs belonging to this category in LIS, though this issue will be explored in

[66] In Pasin (2023:24) it is glossed as IN_EYE_OUT, and it is translated as “in one ear and out the other”. This sign is similar to the ASL idiom IN_ONE_EYE_OUT_THE_OTHER in §3.4.1.

greater depth in the following chapter, where further idiomatic signs gathered specifically for the present study will be presented.

4.1.1.3 Typical LIS idioms

Finally, the third category comprises idioms with no equivalent in spoken Italian, representing prototypical examples of LIS idiomaticity that emerge organically within the Italian Deaf community and reflect culturally grounded meanings that may be semantically opaque to hearing individuals or new signers. Examples of this category are the IEs in (1) SIGN OIL, or HEAD^BLOCK in (16).


(16) HEAD^ BLOCK

'to be shocked'

For instance, the expression SIGN OIL is a unique IE in LIS that conveys a specific concept but lacks a direct equivalent in spoken Italian. Similarly, HEAD^BLOCK is another idiom in LIS that may not be immediately apparent to those unfamiliar with the language.

This class of idioms illustrates how LIS, like other sign languages, develops its own set of IEs that are not mere translations or calques influenced by the majority spoken language, but are instead rich in cultural significance and nuance. As previously mentioned, such expressions often emerge from the lived experiences and shared history of the Deaf communities, reflecting social norms, cultural practices, and values unique to their context, independent of Italian influence. Consequently, understanding these idioms requires not only linguistic knowledge but also cultural insight into the Italian Deaf community's values, traditions, and characteristics.

4.2 Distinguishing idioms from other figurative or culture-specific signs

The analysis of IEs in LIS proposed so far has revealed a critical issue in the existing literature: as mentioned several times in the previous sections, many signs traditionally classified as idioms do not, in fact, meet the definitional criteria for idiomaticity. This misclassification has important theoretical implications, as it conflates distinct linguistic phenomena and categories under the umbrella term "idiom", thereby complicating the analysis of these lexical classes and the identification of their specific properties. Based on the studies examined in this thesis (Santini, 2020; Pasin, 2021; Rigo, 2022; Marrocu, 2023; Pasin, 2023) and the data collected,[67] it appears that two particular categories are most frequently misidentified as idioms, although they may not be the only cases. These categories are discussed here because they are of greatest interest and are most commonly observed in spontaneous conversations: language-specific signs (with mouth gestures) and number-incorporated signs.

As established in Chapters 2 and 3, genuine idioms must exhibit the pattern of figuration (Langlotz, 2006), which requires dual interpretation – that is, an expression must have both a possible literal interpretation and an established idiomatic interpretation. This semantic duality creates the ambiguity that is proper of idiomaticity and is intrinsically linked to non-compositionality: the meaning of the idiom cannot be fully derived from its constituent elements but must instead be interpreted in its totality. In other words, the pattern of figuration provides the semiotic basis through which non-compositionality is realized, as the literal and figurative layers interact to produce a meaning that extends beyond the sum of the individual parts of the expression or sign. However, many signs examined in LIS research lack this crucial property, falling instead into the aforementioned categories that, while linguistically interesting, might not be considered truly idiomatic. The confusion between these categories and true IEs may have persisted in LIS research partly because they share the characteristic of being semantically opaque to new signers and difficult to interpret through a direct correspondence with Italian. However, semantic opacity alone does not constitute idiomaticity, as discussed in Chapter 3. The distinction is crucial for developing accurate theoretical frameworks and for understanding the true nature of IEs in sign languages, which must have – just like in spoken languages – both literal meaning and figurative one (a.o. Sutton-Spence & Woll, 1999:186; Rigo, in print) as key characteristic.

[67] Which will be presented and discussed in the next chapter.

This section aims to clarify these distinctions by examining each category separately, establishing clear criteria for differentiation, and providing examples that illustrate why these phenomena, while culturally and linguistically significant, cannot be classified as IEs in the strict sense. The analysis will demonstrate that these signs lack the patter of figuration and, partially, the non-compositionality that characterize true idioms. To address this issue, a diagnostic test is proposed, grounded in the fundamental properties of idiomaticity outlined in Chapter 3. According to this model, a sign or expression can only be considered idiomatic if it satisfies the criteria of institutionalization, compositeness, frozenness, conventionalization, and non-compositionality (see §3.2.1). Furthermore, idiomatic status presupposes the possibility of a dual reading (literal/figurative-idiomatic), together with the presence of meaning transfer – or conceptual mapping (see §3.1.3 for pattern of figuration and §2.2 for conceptual mapping). The analysis employs a systematic tabular format (see Table 6), where each criterion is evaluated: a plus sign (+) indicates that the requirement is met, a minus sign (–) indicates that it is absent, a question mark (?) can be used when the available data do not allow for a clear determination. Only when all the criteria receive a positive evaluation (+) can the sign or the expression under analysis be classified as idiomatic, [+idiomatic]. Conversely, if even a single criterion is marked as negative (–), the sign or expression cannot be defined as idiomatic, and should therefore be classified as [–idiomatic]. This test thus can provide a simple, transparent, and replicable method for distinguishing idioms from other, superficially similar, lexical elements in LIS – it will be used in this thesis to describe why some signs are not considered idioms.

EXPRESSION or SIGN	**Diagnostic question**	**Evaluation options**		**Notes**
Institutionalization	Is the expression recognized and systematically used in the community?	+	*Yes*	
		–	*No*	
Conventionalization	Is the idiomatic meaning shared?	+	*Fully or partially conventionalized*	
		–	*In process or not conventionalized*	

Compositeness/frozeness	Are there restrictions in modifying the structure?	+	*Lexical substitution, morphological modifications, insertions, … are impossible or limited*	
		–	*Lexical substitution, morphological modifications, insertions, … are possible or free*	
Non-compositionality	Is the meaning of the expression or the sign different from the sum of its parts?	+	*Total or partial opacity*	
		–	*No opacity, compositional*	
Dual interpretation (Pattern of figuration)	Can the expression be interpreted both literally and idiomatically?	+	*Both literal and idiomatic-figurative reading are possible*	
		–	*Only one reading*	
Meaning transfer (mapping)	Is there a conceptual, metaphorical, or figurative mapping?	+	*Metaphorical, metonymical, figurative mapping*	
		–	*No mapping*	

Table 6. General schema of idiomaticity analysis

This model also allows for the analysis of signs and expressions that emerge from the community's linguistic creativity but have not yet reached a sufficient level of institutionalization or conventionalization to be fully categorized as idiomatic. Likewise, it can be applied to signs produced spontaneously, often with heightened iconic or metaphorical origin, created by signers for humorous or ironic purposes or to convey a particular message without using an institutionalized lexical item. It should be noted that such expressions or signs must be systematically tested with other signers to assess their level of recognition (conventionalization) and cross-referenced with existing grammars and dictionaries to verify their documented presence (institutionalization). In cases where such verification is not feasible or where relevant data are

unavailable, these criteria will be assessed as unfulfilled, thereby indicating that the linguistic element in question constitutes a non-idiomatic form (or one that has not yet achieved idiomatic status), while potentially satisfying other defining criteria characteristic of figurative language varieties.

To clarify how this diagnostic framework can be applied in practice, the following table (Table 7) provides an example of analysis for the IE in LIS SIGN OIL.

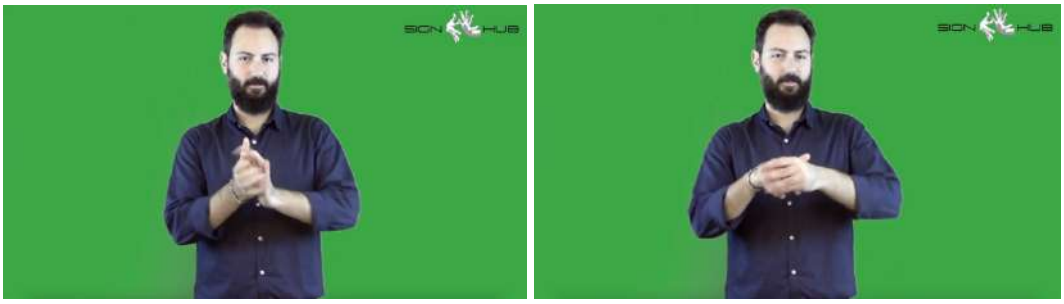
SIGN OIL	**Diagnostic question**	**Evaluation options**	**Notes**
Institutionalization	Is the expression recognized and systematically used in the community?	+	*Documented a.o. in Romeo (1997)*
Conventionalization	Is the idiomatic meaning shared?	+	
Compositeness/frozeness	Are there restrictions in modifying the structure?	+	*Minor variations possible*
Non-compositionality	Is the meaning of the expression or the sign different from the sum of its parts?	+	
Dual interpretation (Pattern of figuration)	Can the expression be interpreted both literally and idiomatically?	+	
Meaning transfer (mapping)	Is there a conceptual, metaphorical, or figurative mapping?	+	*Metaphorical mapping: oil → fluency*

Table 7. Analysis of idiomaticity for SIGN OIL

Based on the diagnostic model outlined above, the analysis of SIGN OIL shows that it meets all the defining criteria for idiomaticity. The expression satisfies all the requirements and, moreover, exhibits both the literal-figurative/idiomatic dual reading and the presence of semantic mapping – which are crucial indicators of idiomaticity. Given the consistently positive outcomes across these criteria, SIGN OIL can therefore be regarded as genuine [+ idiomatic] expression in LIS.

The same model can also be applied to monorematic idiomatic signs. An illustrative case is provided by the sign WASH_HANDS, presented again in (17), which, beyond its literal meaning,

is conventionally used with the figurative sense of "to wash one's hands of", that is, to refuse responsibility about something.



(17) WASH_HANDS
'to wash one's hands of'

(Branchini & Mantovan, 2022:282)

WASH_HANDS	**Diagnostic question**	**Evaluation options**	**Notes**
Institutionalization	Is the expression recognized and systematically used in the community?	+	*Documented a.o. in Branchini & Mantovan (2022)*
Conventionalization	Is the idiomatic meaning shared	+	*Also, thanks to the shared cultural references*
Compositeness/frozeness	Are there restrictions in modifying the structure?	+	
Non-compositionality	Is the meaning of the expression or the sign different from the sum of its parts?	+	*The iconic reference of its formational parameters does not lead to its figurative interpretation*

Dual interpretation (Pattern of figuration)	Can the expression be interpreted both literally and idiomatically?	+	*it could be understood also as the literal action of washing hands*
Meaning transfer (mapping)	Is there a conceptual, metaphorical, or figurative mapping?	+	*Culturally recognized symbolic reference to the biblical episode*

Table 8. Analysis of idiomaticity for the sign WASH_HANDS

Applying the diagnostic framework for idiomaticity to WASH_HANDS reveals that the sign fulfills all the essential criteria for idiomaticity. These consistent positive outcomes confirm, again, that the sign in (17) qualifies as a true [+ idiomatic] sign in LIS.

For clarity and practicality, a reduced version of the diagnostic model can be adopted in the following sections, as presented in Table 9. In this simplified format, the columns dedicated to diagnostic questions and notes have been removed, while only the properties and the evaluation options are retained. Nonetheless, the extended version of the model remains available and may be employed whenever a more detailed or case-specific analysis is required.

EXPRESSION or SIGN	**Evaluation options (+/–)**
Institutional	
Conventional	
Composite/frozen	
Non-compositional	
Dual interpretation	
Mapping	

Table 9. Simplified general schema of idiomaticity analysis

Applying this diagnostic tool, the two categories of signs discussed – language-specific lexical signs and number-incorporated signs – will be examined, and the methodology will be applied to

test the hypothesis that these signs cannot be classified as idiomatic. The systematic application of the framework provides empirical support for the theoretical distinctions proposed, demonstrated through this analysis why these two classes of signs fail to meet the definitional criteria for idiomaticity.

4.2.1 Language-specific lexical signs

Language-specific lexical signs represent a rich category of signs that are frequently misclassified as idioms in LIS. These expressions are signs that convey specific meanings and lack the dual interpretation capacity that defines true IEs. Unlike proper idioms, these signs have a single, fixed meaning and fail to exhibit the pattern of figuration essential for idiomaticity.

There still is no unified or standard classification and description of these signs, but a distinguished feature of language-specific lexical signs in LIS is their conventional status as lexical units that happen to be culturally specific, often untranslatable directly to Italian, and not transparent in their form. Their opacity stems from cultural specificity rather than semantic non-compositionality, and importantly, they cannot be interpreted both literally and figuratively. Another distinctive feature is the systematic presence of specific mouth gestures accompanying each sign. These are not mouthing of Italian words, but rather involve conventionalized configurations of the lips, cheeks, and tongue, sometimes combined with air releases or particular oral articulations, which are integral to the phonological structure of the sign. Within the Deaf communities, this category of signs is often referred to as *COS* (*Componente Orale Speciale* – "Special Oral Component"), precisely in reference to these distinctive mouth gestures (Fontana & Fabbretti, 2000). In this thesis, however, the term *language-specific lexical signs* is preferred, since while *COS* highlights only the oral production component, *language-specific lexical signs* foregrounds the sign as a whole, thus emphasizing its holistic status as a linguistic unit.

A clear example of these signs is THOUGHT_BEHIND in (18), which means 'to not care' or 'to not express one's thought'. This sign, while semantically complex to those unfamiliar with LIS, does not permit a dual interpretation: it functions as a cultural and linguistic specific lexical item that directly encodes the concept without requiring compositional interpretation. This is also due to the fact that it is not possible to establish that all of its parameters carry iconic or metaphorical references.

(18) THOUGHT_BEHIND

'to not express one's thought'

(Rigo, 2022:99)

As anticipated in §4.2, the signs presented in this and the following section will be analyzed according to the analysis framework for idiomaticity in order to demonstrate their (non-)idiomatic status. Accordingly, Table 10 presents the analysis of the sign THOUGHT_BEHIND.

THOUGHT_BEHIND	**Evaluation options (+/–)**
Institutional	+
Conventional	+
Composite/frozen	+
Non-compositional	+ / ?
Dual interpretation	–
Mapping	+ / ?

Table 10. Analysis of idiomaticity for the sign THOUGHT_BEHIND

The analysis of THOUGHT_BEHIND, as summarized in Table 5, indicates that while the sign is institutionalized, conventional, and exhibits compositional/frozen properties, its non-compositional status remains uncertain. This uncertainty arises because it is not possible to determine with confidence whether all of its formational parameters carry a clear iconic or semantic reference. Some features, such as the POA and the hand orientation, may visually suggest the concept of something going behind the signer's head, and the handshape configuration corresponds to that of the verb THINK in LIS; however, there is no conclusive evidence to support a systematic figurative mapping. The apparent correspondence between formational parameters and potential conceptual content remains speculative without empirical validation through corpus analysis or

native signer intuitions. Further investigation into its origin might be necessary to definitively establish its etymology. Consequently, the present analysis adopts a dual notation system: a positive marker (+) indicates the potential validity, while a question marker (?) acknowledges the preliminary and hypothetical nature of these observations. Crucially, the sign does not permit a dual literal–figurative interpretation, which is a defining characteristic of IEs. These results suggest that, despite some shared features with idiomatic signs, THOUGHT_BEHIND cannot be classified as a genuine IE in LIS, and is thereby considered a [–idiomatic] sign.

Another example of this category is the sign DAMN in (19). It is used as an expletive to express frustration or annoyance when an intended action fails, or to complain about a person or situation. Its handshape, with the index and the pinkie finger extended, recalls the "horn" gesture, which is generally associated with negative connotations in both LIS (Bertone, 2011:22) and, more in general, Italian hearing community. The origin of DAMN appears to be linked to the figure of the devil (Santini, 2020), as the handshape visually evokes its horns. According to Santini (2020:50), the expression likely originated in Southern Italy. Additionally, this sign is produced with an obligatory mouth gesture glossed as [*/*], which approximates the articulation resembling the phonetic sequence /uats/. This articulation cannot be classified as mouthing, since no corresponding Italian lexical item *waz* exists. Within the Deaf community, however, the sign is frequently referred to by this very label, *waz*.

[*waz*]

(19) DAMN

'damn!' or 'what the hell'

(Santini, 2020:43)

As with THOUGHT_BEHIND, the idiomaticity of DAMN can be systematically evaluated using the diagnostic framework. See the following Table 11.

DAMN	**Evaluation options (+/–)**
Institutional	+
Conventional	+
Composite/frozen	+
Non-compositional	?
Dual interpretation	–
Mapping	+ / ?

Table 11. Analysis of idiomaticity for the sign DAMN

This analysis allows to demonstrate analytically that, despite its frequent categorization as an IE, DAMN does not qualify as such. Similarly to THOUGHT_BEHIND, the sign does not allow for a dual literal-figurative interpretation: this sign has only one meaning, and cannot be used in other figurative ways. Taken together, these observations indicate that the sign should be classified as [– idiomatic], classifying it as a language-specific lexical item, for which the absence of a direct translation or a clearly motivated iconic reference are not decisive factors in determining idiomatic status.

The theoretical implications of the distinction between idioms and language-specific lexical items are significant. While this second category demonstrates the richness and cultural depth of LIS vocabulary, they operate through different cognitive and linguistic mechanisms than true idioms – which create meaning through the violation of compositional principles and the exploitation of semantic ambiguity through dual interpretation possibilities. Understanding this distinction is crucial for accurate linguistic analysis and for developing appropriate pedagogical and linguistic approaches. Language-specific lexical items require in-depth linguistic knowledge for comprehension but can be learned as direct lexical mappings, while true idioms require understanding of both their literal and figurative interpretive possibilities. This differentiation also has important implications for translation and interpretation practices, as language-specific lexical items and true idioms may require different strategies for cross-linguistic and cross-modal transfer.

4.2.2 Number-incorporated lexical signs

Number-incorporated signs represent another category frequently confused with idioms in LIS research. These are signs that incorporate specific handshapes – commonly recalling numbers (a.o., 23, 51, 75) but convey conventionalized and arbitrary (often slang) meanings rather than mathematical values. Some of these signs are thought to derive from the *smorfia napoletana*, a traditional Southern Italian system that assigns symbolic or dream-based interpretations to numbers for use in the lottery (*tombola*) (Pasin, 2021; Rigo 2022). However, not all number-incorporated signs maintain a direct link to the symbolic meanings of the numbers in this tradition.[68]

Like language-specific lexical items, number-incorporated signs seem to lack the dual interpretation capacity that defines true idiomaticity, albeit for different structural reasons. The key distinction between these signs and cardinal numerals lies in their articulatory realization: in LIS, numerical handshapes used for this kind of signs can present some modifications in movement, orientation, or location, preventing a literal reading. Consequently, number-incorporated signs cannot be confused with standard numerical lexical signs. For example, in (20) the sign for the cardinal numeral 51 is presented, and is compared to the number-incorporated sign HORRIBLE(51) in (21). The latter has not yet been analyzed from this perspective; the form shown is drawn from the dataset that will be presented in Chapter 5 and is provided here solely as a contrastive example to test its phonological differences with the standard sign for the number 51.

(20) 51

'fifty-one'

(https://media.spreadthesign.com/video/mp4/17/453633.mp4)

[68] Following the numbers cited in this section, 23 is associated with the 'stupid', 51 with the 'garden', 75 with 'Pulcinella' (a traditional Napolitan character with white clothes and a black mask).

(21) HORRIBLE(51)
'horrible'

The sign 51 is produced with the manual configuration 5 (all fingers extended and spread) transitioning to a G handshape (index finger extended, other fingers closed). The movement is a straight path movement from the center of the singing space towards the signer's ipsilateral side. In contrast, HORRIBLE(51) shares the same handshapes, but differs in the movement. The movement involves a quick backward path movement with a slight wrist flick, executed with speed.

In order to further assess whether HORRIBLE(51) can be regarded as idiomatic, Table 12 presents its examination through the idiomaticity test.

HORRIBLE(51)	**Evaluation options (+/–)**
Institutional	+
Conventional	+
Composite/frozen	+
Non-compositional	+
Dual interpretation	–
Mapping	?

Table 12. Analysis of idiomaticity for the sign HORRIBLE(51).

The analysis reveals that the sign is institutionalized, conventional, and exhibits a frozen structure – any modification of its parameters results in a change or loss of the original meaning. It can be considered non-compositional, as its meaning cannot be derived from its constituent formational parameters, particularly the handshapes representing 5 and G. However, the potential presence of figurative mapping remains uncertain, given that while it may be connected to the

Neapolitan *smorfia*, it does not carry the meaning that the number 51 holds within that traditional system (the garden). This suggests either an alternative etymological origin or the occurrence of semantic transfer, though further research into its origins and distribution patterns would be required to clarify this relationship (unfortunately, no sources or data are currently available regarding this aspect). Crucially, the sign does not permit dual literal-figurative interpretation, which categorically excludes it from the domain of IEs. Overall, the results indicate that HORRIBLE(51), despite being frequently perceived as idiomatic due to its semantic opacity, should rather be classified as a conventionalized lexical item of LIS – that is, a [–idiomatic] sign.

Another sign belonging to this category is the sign glossed as STUPID(23) and illustrated in (23). This sign appears to be rooted in the Napolitan tombola tradition, where the number 23 represents "*lo scemo*" (the fool); in fact, it refers to a person who has been made a fool of or has been tricked and deceived, and – just like HORRIBLE(51) and 51 – it shares some features with the number 23, presented in (22) below. To analyze their formal properties, the two signs are here described from a phonological perspective, focusing on their articulatory features, highlighting both the similarities and the structural differences that contribute to their distinct lexical status.

(22) 23

'twenty-three'

(https://media.spreadthesign.com/video/mp4/17/453576.mp4)

[vi]

(23) STUPID(23)

'to make a fool of someone'

(Santini, 2020:45)

As shown, the number 23 is articulated with two sequential handshape configuration changes. The initial configuration is a V (index and middle finger extended, remaining fingers closed), which then changes to a 3 handshape (thumb, index, and middle finger extended). The movement is a straight path movement from the center of the neutral signing space toward the ipsilateral side of the signer. The orientation of the palm remains generally forward throughout the transition, without marked wrist rotation. Lastly, the sign is produced with neutral facial expressions and without distinctive NMMs. The sign STUPID(23) shares the same handshape transition – from V to 3 – but differs in both movement trajectory and POA. The sign is initiated at the forehead, with the palm oriented outward, and changes in a straight path movement away from the signer toward the interlocutor. A slight wrist pivoting occurs during the transition between the two handshapes. It is also accompanied by a specific mouth gesture [*vi*], which is not required in the cardinal numeral. It should be noted that some signers use this as a directional verb with changes in movement and orientation depending on who is addressing whom. These articulatory modifications, together with the distinct NMMs, clearly differentiate the two signs and prevent any possible dual interpretation.

As for HORRIBLE(51), below it is proposed the analysis for verifying the idiomaticity of the sign STUPID(23).

STUPID(23)	**Evaluation options (+/–)**
Institutional	+
Conventional	+

Composite/frozen	+
Non-compositional	+
Dual interpretation	–
Mapping	+

Table 13. Analysis of idiomaticity for the sign STUPID(23).

This analysis of STUPID(23), as summarized in Table 13, indicates that the sign is institutionalized and conventional within the Italian Deaf community, reflecting stable recognition and usage among signers. It also exhibits a frozen structure, as its handshape sequence, POA, and movement pattern are fixed and cannot be modified without altering its meaning. The sign is also non-compositional: its overall meaning (a person who has been deceived or made a fool of) cannot be derived from the individual constituent parts, the signs for 2 and 3. A dual literal-figurative interpretation is not possible; in other words, STUPID(23) cannot be confused with the number 23. Finally, the semantic mapping is potentially motivated by the Napolitan *smorfia*, as the number 23 has conventional symbolic associations in that cultural tradition. Taken together, these characteristics indicate that STUPID(23), although semantically opaque, constitute a conventionalized lexical item rather than a [+idiomatic] sign.

Lastly, Santini (2020) compares STUPID(23) with CHICKEN – which the author identifies as synonymous. However, while both signs convey the idea of being deceived or fooled, they slightly differ in their semantic nuances: CHICKEN is an adjective and refers to someone naïve or gullible, STUPID(23) is a directional verb that carries a much stronger negative connotation, denoting stupidity or foolishness.. Moreover, it seems also that CHICKEN might be preferred by older signers, whereas STUPID(23) is more commonly used among younger generations (Santini, 2020:51).

To conclude this section, the last number-incorporated sign that will be discussed is NOT_CARE(75). As documented in Pasin (2021), this expression originates – just like the two signs presented above – from the Napolitan *smorfia*. This sign exhibits various semantic interpretations (Rigo, 2022), with informants attributing three distinct meanings. In its first usage, NOT_CARE(75) denotes a dishonest or lying person, with the ironical intensified form 150 (double of 75) serving as a pejorative variant indicating an extremely dishonest individual. The second meaning describes a situation that leaves one indifferent or unbothered, while the third refers to a state of carelessness or absent-mindedness. Pasin (2021) notes that these three interpretations are

semantically disparate, making it difficult to establish logical connections between them, and responses were equally distributed across all three meanings. In (24) and (25) the sign NOT_CARE(75) will be presented in comparison to the cardinal number 75.

(24) 75

‘seventy-five’

(https://media.spreadthesign.com/video/mp4/17/453679.mp4)

(25) NOT_CARE(75)

‘to be indifferent’ or ‘to be careless’

(Rigo, 2022:94)

The numeral sign 75 is produced with two sequential handshapes configurations, involving both hands in the initial stem. The non-dominant hand forms a 5 handshape (all fingers open and extended), while the dominant hand assumes an L handshape (thumb and index extended, remaining fingers closed). For the second stem, only the dominant hand is required, with the non-dominant hand lowering as the dominant hand changes to a 5 configuration. The movement trajectory follows a straight path from the center of the neutral space toward the ipsilateral side of the signer, mirroring the articulatory pattern in the signs 51 and 23. Palm orientation remains

forward, and the sign is produced with neutral facial expressions. Conversely, the sign NOT_CARE(75) shares the same initial handshape configuration. However, the index finger of the dominant hand contacts the forehead at the onset. During the sequential transition, the hands lower and the dominant hand moves than in a straight path upward movement, opening into a 5 configuration. A slight wrist pivoting accompanies the dominant hand's handshape transition. These articulatory differences, again, differentiate the two signs, and preclude any dual literal-figurative interpretation of the sign NOT_CARE(75).

To further confirm this hypothesis, in Table 14 the analysis of idiomaticity of the sign NOT_CARE(75) is presented.

NOT_CARE(75)	**Evaluation options (+/–)**
Institutional	+
Conventional	+
Composite/frozen	+
Non-compositional	+
Dual interpretation	–
Mapping	?

Table 14. Analysis of idiomaticity for the sign NOT_CARE(75).

The examination of NOT_CARE(75) demonstrates that this sign is institutionalized and conventionalized, even though it displays different possible interpretations. The expression manifests a composite and crystallized structure, whereby the parameters resist modification without compromising semantic integrity. This sign demonstrates also non-compositional properties, since the meaning cannot be derived through the interpretation of its constituent handshapes, namely the same of the number 75. Most importantly, the sign precludes dual literal-figurative reading possibilities, which excludes it from the domain of true IEs. Finally, the potential semantic mapping is uncertain: although the sign may be historically related to the Napolitan *smorfia* (Pasin, 2022), in which the number 75 conventionally represents Pulcinella,[69] there is no

[69] A traditional Napolitan character with white clothes and a black mask.
The association of the number 75 with Pulcinella in the Neapolitan *smorfia* seems to be conventional: while Pulcinella, as the most representative Neapolitan mask, was deliberately included in the system, the specific numerical assignment is arbitrary and rooted in oral tradition.

conclusive evidence that this cultural association systematically motivates the current lexical meaning. Collectively, these linguistic properties suggest that NOT_CARE(75), despite its semantic opacity and structural complexity, should be categorized as a [–idiomatic] sign.

The strategy of incorporating numbers into lexical signs to express concepts in figurative or non-literal ways is not exclusive to LIS. In several studies (Pasin, 2021; Rigo, 2022), a particularly compelling example form ASL is discussed: the sign 258 in (26), which conveys the meaning 'very interesting'.

(26) 258
'very interesting'

(from Youtube, Signs)

The sign 258 – which may have originated as a form of internally motivated and socially marked sign play – appears to derive from the handshapes found in the signs VERY (which uses a V handshape) and INTERESTING (whose initial handshape employs a 5-handshape followed by the ASL 8 handshape – index, ring, and pinkie fingers extended, with middle finger and thumb touching). The signs are illustrated respectively in (27) and (28) for reference.

(27) VERY

(https://media.spreadthesign.com/video/mp4/13/50922.mp4)

(28) INTERESTING

(https://media.spreadthesign.com/video/mp4/13/308020.mp4)

However, unlike number-incorporated LIS signs, the ASL sign 258 may still retain a pattern of figuration and interpretative ambiguity, as there are no modifications in handshape, movement, or POA compared to the cardinal numerals 2, 5, and 8 in ASL. In other words, the sign does not undergo the same morphophonological alterations typically observed in LIS when numbers are incorporated into other signs, suggesting a different interaction between numerical forms and lexicalized signs in ASL. Crucially, the difference between the two languages might not be merely morphophonological: in ASL, the sign 258 is formed by handshapes that correspond to the signs for VERY and INTERESTING, maintaining a certain degree of compositional transparency. In LIS, number-incorporated signs are completely semantically opaque, with no transparent correlation between handshapes and other signs or meanings.

To conclude, when produced with phonological modifications, a number-incorporated sign in LIS cannot be interpreted as the numerical value. Conversely, when signed as the cardinal numeral, it cannot carry the slang or another conventionalized meaning. This articulatory differentiation generally eliminates the possibility of dual interpretation within the same realization, thus failing to meet the pattern of figuration requirement for idiomaticity. In other words, number-incorporated signs cannot be identified as IEs in LIS.

4.3 Origins and transmission of LIS idioms

From the studies mentioned in this chapter (Santini, 2020; Pasin, 2021; Rigo, 2022; Marrocu, 2023), which constitute the primary sources available on this topic, the etymological investigation of IEs in LIS reveals a complex interplay of cultural, historical, and sociolinguistic factors that have shaped their emergence and diffusion within the Italian Deaf community. However, as previously noted, these studies did not establish a clear distinction between true IEs and other typical expressions, particularly language-specific lexical items (often accompanied by mouth gestures). Therefore, what follows in this section may apply and refer to both IEs and language-specific lexical items in LIS. The origins of LIS IEs, especially typical LIS idioms, are intrinsically connected to the educational and communal settings in which this sign language historically developed: the educational institutions, or Institutes. For example, the ISISS[70] "A. Magarotto" in Padua is recognized to be a fundamental place for idiomatic – more in general lexical – creation and transmission, having served as one of the principal educational centers for Deaf students in Italy. The convergence and shared living of students from across the Italian peninsula creates optimal conditions for both the emergence of new idiomatic forms and the diffusion of regional expressions.

The semantic and formal properties of these expressions reveal systematic patterns of cultural motivation that reflect both the visual-manual nature of LIS and culture-specific experiences within Deaf communities. Following Wilcox (2000) and Taub's (2001) analysis of metaphorical mapping in sign languages, LIS IEs demonstrate how formational parameters can iconically represent source domain concepts while conventionalizing target domain meanings. Multiple expressions in the documented corpus trace their acquisition to institutional contexts and exemplify this phenomenon. SIGN IN_POCKET, or SIGN_IN_POCKET in (29), for instance, emerged in the school environment, used among students as a warning to stop signing or from teachers to encourage oral communication. The expression exploits the fundamental visual-manual nature of LIS: the unavailability of the hands metaphorically blocks signed communication.

[70] ISISS stands for *Istituto Statale di Istruzione Secondaria Superiore*, which is the Italian designation for a State Institute of Upper Secondary Education (in other words, the high school). These institutions provide general, technical, or vocational education for students aged approximately 14-19.

(29) SIGN _IN_POCKET

'to not comment' or 'to say nothing'

(Rigo, 2022:92)

Similarly to SIGN_IN_POCKET, other expressions exhibit this clear cultural grounding in specifically Deaf experiences. Although there is no evidence to support that it originated in institutional contexts, the idiom HAND-CLOSE in (30) reflects the cultural significance of the visual-manual modality of LIS: the non-dominant hand in handshape 3 represents signing activity, while the dominant hand in F handshape moves forward evoking zipper closure. This creates a transparent mapping between manual restriction and communicative impossibility, paralleling the Italian spoken idiom in (31) '*tenere la bocca chiusa*', while remaining uniquely grounded in the visual-manual experience of sign language users.

(30) HAND- CLOSE

'to shut up'

(Santini, 2020:39)

(31) ITA tenere la bocca chiusa

hold the.F.SG mouth closed.F.SG

'stay silent' **(+idiomatic)**

'keep one's mouth closed' **(-idiomatic)**

As already mentioned, it is difficult to trace all the IEs back to their origin and study their motivation. Consequently, while numerous expressions maintain cultural currency and communicative utility, the aforementioned studies state that informants frequently demonstrate limited awareness of their etymological origins and cultural references. This phenomenon reflects natural processes of linguistic conventionalization wherein expressions achieve autonomous status through frequency of use, gradually becoming independent of their original motivational foundation. The case of HEART BLACK, used to indicate someone cruel, exemplifies this pattern. Despite its systematic usage in the community, informants in the studies presented before demonstrated limited knowledge of its origins, offering only logical speculation connecting the expression to conventional color symbolism associating black with negativity and aggression. This semantic opacity suggests advanced conventionalization, wherein the expression maintains functional utility despite reduced motivational transparency.[71]

This investigation into the origins of IEs in LIS reveals the complex methodological challenges inherent in tracing the etymological development of these linguistic forms within the Italian Deaf community. The limited documentary evidence and the predominantly oral transmission of sign languages create significant obstacles for comprehensive diachronic and etymological analysis. The institutional contexts, particularly residential schools for the Deaf, emerge as crucial sites of linguistic innovation (Santini, 2020; Pasin, 2021; Rigo, 2022), yet the specific mechanisms of creation and diffusion of IEs remain largely underdocumented.

[71] A similar phenomenon can be observed in standardized languages with a written system, such as Italian. Consider, for instance, the IE '*essere al verde*', meaning to have no money (literally, "to be at green"). This represents a highly opaque idiom in which the connection between its figurative and literal meaning is no longer accessible, and whose interpretation must therefore be acquired in a fixed and conventionalized form. The issue is not limited to the degree of transparency: the matter becomes more complex because the historical origin of such an expression is itself difficult to trace, with several hypothesis proposed but none conclusively confirmed.

Given these limitations, future research would benefit significantly from a targeted ethnolinguistic study that systematically presents previously collected IEs to elderly Deaf signers who experienced the formative period of these educational institutions. Such an approach would capitalize on the historical memory of signers still living who lived in Deaf institutes and may possess invaluable firsthand knowledge regarding the origins, contexts of use, and evolution of specific expressions. This research could provide crucial insights into the cultural and social circumstances that fostered the emergence of particular idiomatic forms, while simultaneously documenting the transmission patterns and regional variations – diachronic and diatopic – that characterize the current distribution of these expressions within the Italian Deaf community. Only through such systematic collection of testimonial evidence can we hope to reconstruct a more complete picture of the nature, diffusion, and diachronic development of LIS IEs, thereby addressing the current gaps in our understanding of this fundamental aspect of LIS.

4.4 Monorematic idioms and polysemy

As already outlined in §3.5.1, one of the recurring challenges in the study of sign language idioms is the application of traditional spoken-language criteria, particularly the requirement of polylexicality. While many idioms in LIS do consist of multi-sign sequences that correspond to poliremati structures – i.e., (1) SIGN OIL, (5) SIGN IN_POCKET, or (10) HEART BLACK – a significant number are monorematic, realized as single lexical items with idiomatic meanings. Branchini & Mantovan (2020), Pasin (2023), and Rigo (in print) state that the visual-manual modality of LIS allows for complex semantic content to be encoded within a single sign through morphological modification, movement patterns, and non-manual markers, which in spoken languages would typically require multiple words. This observation is consistent with other research on other sign languages, like Čhemák (2007), Johnston & Ferrara (2012), Vašku (2019), and Pierrot (2020). These scholars analyze the possibility of extending the definition of idioms to include complex single-unit forms. Along similar lines, Clauss (2010) and Quer et al. (2017) note that sign languages seldom exhibit fixed IEs composed of more than one sign. Examples of this type of monorematic idioms in LIS are (3) NAIL_ON_HEAD or (9) HAIR_RAISE, presented previously in this chapter. However, this property of some LIS idioms – and of sign languages more generally – whereby these expressions can manifest as single lexical units, presents a notable

theoretical challenge: how can we differentiate between a monomorphemic idiomatic sign and a polysemous lexeme?

As already discussed in §4.1, critical in the study of idioms analysis about LIS is polysemy – the coexistence of multiple related meanings within a single form – which is particularly relevant when analyzing monorematic idioms in LIS. As Pasin (2023) notes, certain monorematic idioms exhibit layered meanings, where a base, often iconic meaning coexists with one or more figurative interpretations. This phenomenon is not unique to sign languages but is amplified in LIS due to the interaction between meaning-form transparency and semantic broadening. Rigo (2022) emphasizes that polysemy can present challenges in interpretation, as the intended idiomatic meaning must be disambiguated from literal or alternative figurative readings based on context, discourse topic, and co-occurring non-manual features. From a lexicographic perspective, such cases complicate the classification of idioms, since they straddle the boundary between polysemous signs and fixed idiomatic units.

However, it is crucial to distinguish between polysemy and proper idiomaticity. IEs must allow for a dual reading – literal and figurative – and at the same time they are characterized by non-compositionality, in the sense that their idiomatic interpretation cannot be straightforwardly derived from the sum of their constituent elements. When speaking of polysemy, reference is made to a single lexical item that can activate multiple related meanings. It is true that in LIS there are monorematic idioms, yet within them the phonological parameters of the sign can trigger both a literal and an idiomatic reading, as in the case of HAIR_RAISE. This sign, due to its high degree of iconicity, enables the addressee to perceive at least the literal meaning, while its idiomatic extension is accessible only in specific discourse contexts. By contrast, a sign such as POTATO does not qualify as idiomatic, since even if it can be used figurately, its figurative meaning is not recoverable from the semantic and iconic cues embedded in its formational parameters. In this sense, the distinction might lie in the fact that idiomatic monorematic signs maintain a motivated link between literal and idiomatic readings, whereas purely figurative uses of sign without such a link cannot be categorized as idiomatic.

4.5 Phonological analysis of non-compositional compounds HEAD^[X] (as example of monorematic idioms)

Phonological analysis provides insight into the internal structure of monorematic idioms, particularly those realized as compounds. Various studies (a.o. Geraci, 2009; Branchini & Mantovan, 2020) have shown that compounds in LIS often display phonological simplification, assimilation, and movement reduction compared to their components in isolation. These processes can lead to the creation of highly lexicalized forms whose meaning is no longer directly inferable from the original constituent signs – becoming idiomatic. For instance, a compound that historically combined two lexical signs may, over time, undergo form reduction and phonological fusion, resulting in a monorematic lexical item with an opaque meaning. Since compounds are considered as lexical units made up of two or more elements (also called free forms, or stems) forming a new, complex, independent lexeme (Santoro, 2018), exocentric compounds – which can be defined as idiomatic – can be classified as monorematic as well. In this sense, the linguistic category of compounding provides support to the hypothesis that IEs in LIS may also occur in monorematic form.

This section presents examples of LIS idioms that, although appearing as fixed expressions of two signs, according to the Prosodic Model (Brentari, 1998),[72] could actually be compound signs formed by two stems. Specifically, in this analysis, these examples are LIS compounds HEAD^[X] – with HEAD as the first stem, and a second lexical sign.[73] It is important to clarify that the gloss HEAD is used here rather than KNOW because, although the two signs are homophones, the literature examining these signs employs HEAD as the reference gloss (a.o. Geraci, 2009). This choice therefore ensure coherence with previous analysis and maintain terminological consistency, including with the chapters of this thesis where in which the same sign appears. To understand this analysis, it is essential to first note that HEAD in isolation displays a repeated movement toward the temple. However, according to Geraci (2009), this movement is not inherent to the sign's underlying form. Instead, it represents an epenthetic movement[74] inserted to satisfy the phonotactic

[72] See §1.3.

[73] According to Santoro's analysis (2018:40) there are four combinations of LIS compounds based on their composition of core lexical items and classifiers: Core^Core; Core^Classifier; Classifier^Core; Classifier^Classifier.

[74] Movement epenthesis in sign language phonology is a repair strategy triggered when a sign lacks an inherent movement – without one, the sign would violate phonotactic constraints. To render such signs well-formed, a minimal movement is inserted, delivering the necessary prosodic and timing structure (cf Chapter 1, §1.3.3).

constraint that signs must contain at least one movement feature. In other words, the underlying form of HEAD lacks movement, and the repeated movement observed in isolation is added to prevent a phonotactic violation. When HEAD appears as the first element of a compound (HEAD^[X]), this epenthetic movement is blocked. Following the principle of epenthetic movement in the sign HEAD (Geraci, 2009), the spreading of movement features from the second stem of a compound prevents the insertion of epenthetic movement within the first stem, satisfying the movement requirement. If the two signs were separate elements, the first sign HEAD would retain its movement as it does in isolation, since the movement should be inherent in its underlying form. In other words, from a phonological analysis, the output of these signs does not violate any phonotactic or prosodic rule, since the movement component of the second stem satisfies the general constraint that signs must have at least one movement. The blocking effect of the second stem of a compound results from spreading its PF features to the first stem of the compound. Formally, this is captured by connecting the PF tier of the second stem with the root of the first stem, as shown below in the formal descriptions of three idiomatic compounds HEAD^DARK, HEAD^EMPTY and HEAD^CRASH. This aims to demonstrate that these signs can be considered monorematic idioms, underlyingly bounded. The examples presented below of HEAD^EMPTY and HEAD^CRUSH are drawn from the dataset collected for this thesis, and are presented here solely to provide concrete illustrations of the category described in this section.

4.5.1 The case of HEAD^DARK

The idiomatic compound (32) HEAD^DARK is used to indicate ‘to be in the dark about some topic’, and it clearly has a non-compositional meaning.

(32) HEAD^ DARK

‘to be unaware/in the dark’

(Rigo, 2022:97)

The sign DARK is produced with both hands, starting with a 5 handshape in distal areas of the neutral space, and then moving towards a more proximal and centered area of the neutral space. While making this straight setting change, the handshape undergoes a [closed] change, resulting in a A handshape of both hands. Then, the features of the second PF spread to the first stem of the compound, as illustrated in Figure 19. In this example, the non-dominant hand is pre-configured with the initial handshape of the second stem while the dominant hand is producing the first sign HEAD.

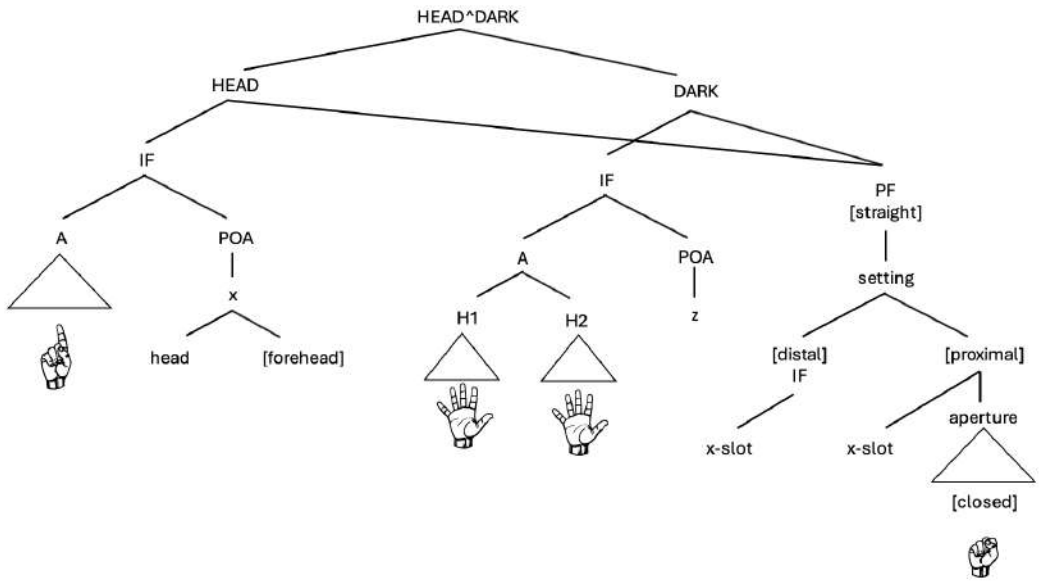


Figure 19. Epenthesis blocked in compounds, the case of HEAD^DARK

4.5.2 The case of HEAD^EMPTY

Another example is HEAD^EMPTY, which is shown in (33). This idiomatic compound means 'to know nothing about something' and it is formed by the sign HEAD, without the epenthetic movement, and the sign EMPTY in any of its variants. In this study, the variant provided for HEAD is the one produced bringing the fingers together, referred to as flat closed 5 handshape[75]. This variety can be found signed with either one hand, as in the following example, or with both hands.

[75] This handshape is also called 'flat closed O', 'artichoke', 'tulip' or 'bunch'.

(33) HEAD^ EMPTY

'to know nothing about something'

The stem EMPTY, as introduced above, shows a flat closed 5 handshape (of one or both hands) that moves in the neutral space, making a [circle] trajectory produced by an extension of the junction, generating an orientation change. The PF branch of the second stem EMPTY spreads its features on the first stem, satisfying the movement requirement for HEAD. This phenomenon is captured in Figure 20.

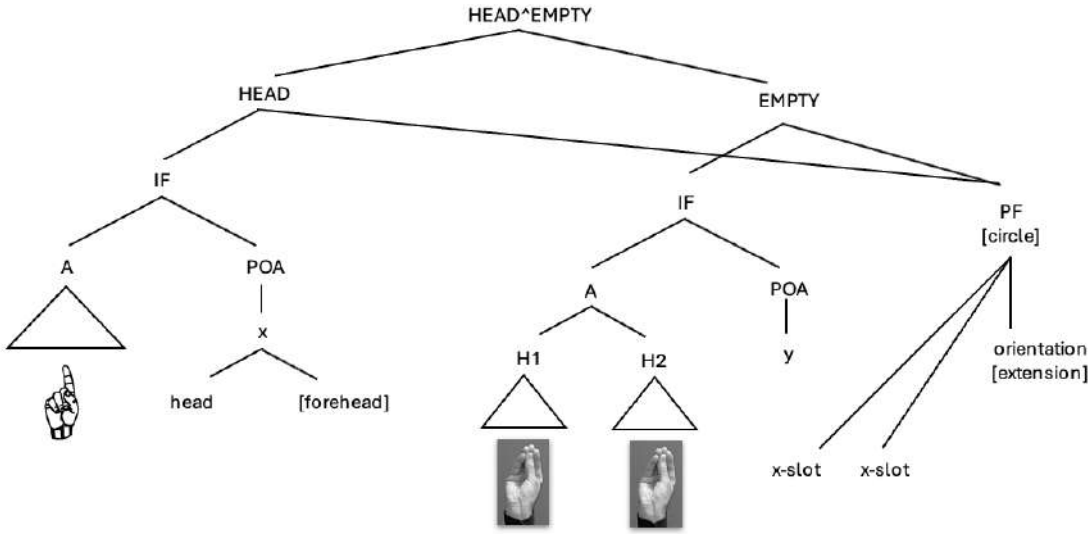
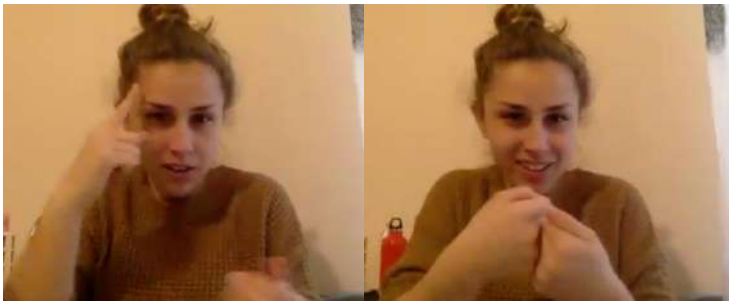


Figure 20. Epenthesis blocked in compounds, the case of HEAD^EMPTY

4.5.3 The case of HEAD^CRASH

As observed in the examples above, also HEAD^CRASH follows the same phonological process. The sign, shown in (34), conveys the meaning of 'to be shocked and bewildered' and it is formed by the sign HEAD and CRASH.



(34) HEAD^ CRASH

‘to be shocked/bewildered’

The sign for CRASH involves both hands in A handshape, moving in a path movement toward each other and touching at the proximal phalanges. The features of this movement are captured in the PF branch, which properties are spread to the PFs of the first stem HEAD, as in Figure 21.

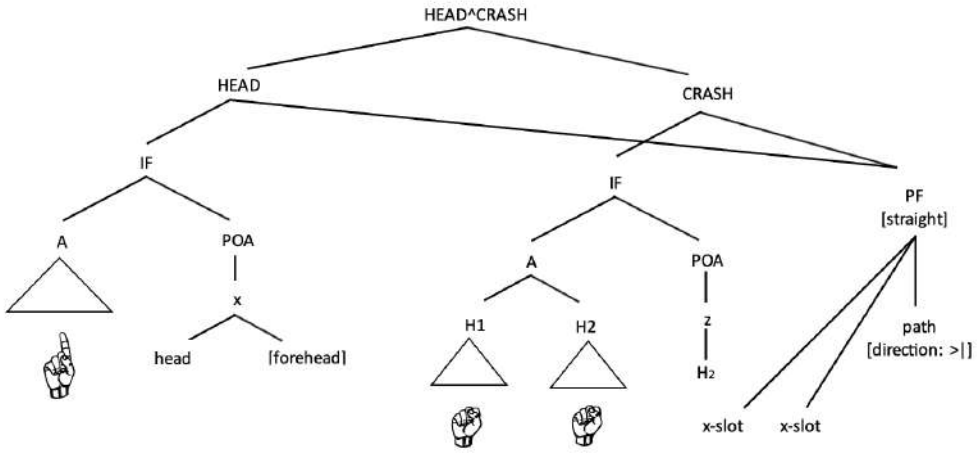


Figure 21. Epenthesis blocked in compounds, the case of HEAD^CRASH

4.5.4 General observations on idiomatic compounds HEAD^[X]

The previous sections have briefly presented different phonological aspects of compound signs in LIS. The analysis demonstrates how movement features from the second stem influence the phonological form of the entire sign, preventing the insertion of epenthetic movements in the first stem. This phonological interaction underscores the unity and integrity of these compounds as monorematic idioms, where the movement characteristics are crucial in satisfying the phonotactic constraints of LIS. Specifically, the provided examples, such as HEAD^DARK, HEAD^EMPTY

and HEAD^CRUSH, illustrate how compounds that appear as fixed expressions of two signs can actually be single signs formed by two stems.

Therefore, the Prosodic Model, as outlined by Brentari (1998), can provide a framework for distinguishing between multi-sign idiomatic compounds and single-sign idiomatic compounds. This model helps further explain the complex interactions and influences between stems in sequential compounds, such as reduction and assimilation, which are common in sign languages.

Fixed expressions and lexical idioms (FEI) can be viewed through this lens, allowing for a clearer understanding of how non-compositional compounds function. According to the Prosodic Model, it is possible to describe non-compositional compounds as single-sign lexemes, where the idiomatic meaning is encapsulated within a single, cohesive unit rather than a mere sequence of signs. In other words, the sign language compounds that were presented are complex units formed of two lexical elements, and the interactions between these elements can significantly influence the resulting signs. The Prosodic Model offers a formal description of how these compounds are formed, providing insights into the nature of non-compositional compounds and their classification as single-sign lexemes.

The identification and analysis of idioms in LIS can be facilitated by recognizing this new class of FEI. This approach supports the notion that idioms can indeed be monorematic, meaning they can exist as single, indivisible units. In addition, it would be interesting to study simultaneous compounds and determine if they can be analyzed as idiomatic or non-compositional as well. In sign languages, stems can be expressed simultaneously, with each hand producing a different root at the same time (Santoro, 2018). This simultaneity allows for unique phonological processes that are typical of sign languages and do not occur in spoken languages. Additionally, simultaneous compounds are particularly interesting because they behave very differently from sequential compounds, which resemble the structures found in spoken languages. Exploring these unique features of simultaneous compounds could not only provide deeper insights into the distinct nature of sign languages compared to spoken languages but also expand our knowledge of FEI in general.

Future research should explore other types of FEI in LIS. For example, investigations could focus on identifying idiomatic compounds beyond those formed with HEAD^[X]. In LIS, there are similar cases involving other body parts, such as EAR^[X], or HEART^[X]; understanding the full

range of idiomatic compounds in LIS will enhance our knowledge of idiomaticity in sign languages and improve our ability to analyze and categorize these complex linguistic phenomena.

4.6 Register of idioms in LIS

Register refers to the relationship between the linguistic form employed and the context in which the language is used (Branchini & Mantovan, 2020:779). Defining register in sign languages is perhaps among the most challenging aspects to address, as comprehensive and detailed studies dedicated to this topic are still lacking. Only in recent years have some scholars, particularly sociolinguists and scholars in translation studies, focused on this issue systematically, and consequently, the defining parameters of register in sign languages are beginning to be delineated in a more structured manner.

As stated in Volterra et al. (2019), in Italy, the determining factor in recent years has been the growth of linguistic, social, and cultural awareness within Deaf communities, which has led, as a primary consequence, to the expansion of domains of use for sign language: from the familiar-informal, almost private – if not invisible – sphere, there has been a transition to formal and increasingly visible contexts such as conferences, seminars, news programs, courtrooms, universities, television programs, etc. This awareness regarding linguistic scope on the part of the Deaf community has thus contributed to the diaphasic variation of the language: whereas in the past, Signed Italian was preferred in formal contexts,[76] now individuals choose whether to use LIS or Italian (depending on the context and interlocutor).

Thanks to the greater diffusion and visibility of the language and the increasingly higher level of education among Deaf individuals, LIS has developed a formal register and a series of subcodes and specialized languages. All these social developments, along with many others,[77] have contributed to developing the need to diversify language use. The choice to use a formal or informal

[76] By Signed Italian *(italiano segnato* or IS), conventionally, we refer to that communicative code which uses the manual lexicon of LIS but the syntax of Italian. It was once used by Deaf individuals to demonstrate their knowledge of the vocal language, which was considered of greater prestige than the signed language due to long-standing social and cultural pressure.

[77] Consider social networks and how they have revolutionized language. LIS has also been affected by this new communicative channel that leads to very specific pragmatic and formal choices (for example, the way of introducing oneself).

variety is dictated, as in any language, by the context and type of discourse, but also by the interlocutor and the degree of knowledge and familiarity between the communication participants. However, it remains complex to define structurally and unequivocally what makes sign language more or less formal. The main problem, though not the only one, appears to be linked, again, to the absence of a written form: typically, writing enables linguistic standardization and the creation of degrees of formality and informality in a given language.[78]

Overall, the variation from informal to formal register is observable through:

i) **Phonological (and prosodic) aspects:** modification in the use of signing space (e.g., Quinto-Pozos & Mehta, 2010, for ASL), sign duration, and the use of mouthings, especially in those signs with specific mouth gestures;

ii) **Morphological (and lexical) aspects:** reduced use of highly iconic structures and non-manual components;

iii) **Syntactic aspects:** modulation of topicalization, careful use of classifiers and discourse markers, organized and clear construction involving the use of connectives such as REASON, THEREFORE, and CONSEQUENCE (Branchini & Mantovan, 2020:782).

Additionally, the use of politeness forms is generally conveyed through facial expression and posture (Volterra et al., 2019:188). Therefore, much attention is given to suprasegmental features which, in formal contexts, are less emphasized and, regarding posture, the signer's torso remains straight and moves in an almost imperceptible manner. In informal conversation, however, the signer's position and bodily movements are more marked, and facial expressions are more emphasized.

Before delving into the matter of (in)formality of LIS idioms, it is important to note that linguists report contrasting opinions regarding the register classification of IEs, as the separation between formal and informal use is not as clear-cut as traditionally assumed. For example, as Cowie, Mackin, and McCaig (1983) observe for spoken languages, while idioms marked as "formal" tend to reflect distant relationships and official settings with serious or elevated tones, those marked as

[78] Although all languages are primarily realized in oral form, writing triggers processes of reflection and, in part, linguistic variation (at least diamesic and diaphasic) through the creation of grammars, literary production, and the consequent formation of registers and linguistic styles. For further insights, see Halliday (1985) and, specifically for sign languages, Fontana (2013).

"informal" suggest close relationships in domestic settings with relaxed tones. However, Casas and Campoy state that applying this division to all idioms "is a gross overgeneralization" (1995:54). Similarly, many IEs can function across both informal and formal registers depending on contextual factors and speaker intent.

Concerning LIS IEs, Pasin (2021, 2023) states that they are typically used in more informal than formal contexts, since they often require particular NMMs or mouth gestures and an extremely flexible use of manual parameters. However, it is worth noting again that the analyses carried out so far have generally focused on signs traditionally labeled as idiomatic which, according to the model adapted in this thesis, should not be classified as idiom but rather as language-specific lexical items with obligatory mouth gestures. Nevertheless, the impossibility of using them in formal contexts has not yet been proven. As will be discussed further, a signer may decide to produce an idiomatic sign in a specific context and at a precise moment because, as a visual metaphor, it might represent the most appropriate linguistic choice (Rigo, 2022); in these specific situations, the expression is rendered less "colloquial" through parameter modulation. The same can happen with a language-specific lexical item. An example is provided with the sign IMPOSSIBLE_NO_WAY[79] in (35) and (36): in the first series of images, the signer uses a formal variant of the sign, managing the signing space, NMMs, and movement; in the second series of pictures, the sign is more informal, given the more extensive use of space, the exaggerated marking of NMMs (especially mouth gestures), and the broader movement.

(35) IMPOSSIBLE_NO_WAY
'impossible' (formal)

[79] This sign forms a minimal pair with the LIS sign DEAD/DIE, differing only in the obligatory mouth gesture required in IMPOSSIBLE_NO_WAY, and is frequently considered a language-specific lexical item.

(36) IMPOSSIBLE_NO_WAY
‘impossible’ (informal)

(Volterra et al., 2019:118)

A final consideration concerns the idiolectal dimension of IEs: just as in spoken languages, speakers use idiomatic forms of their language in different quantities and to different degrees, similarly in signing communities there are people who use idiomatic signs in greater numbers and with higher degrees of iconicity than others. Therefore, the use of idiomatic forms fully represents a linguistic resource, as they allow individuals to express themselves with existing and frozen concepts (or phrases) while simultaneously creating new figurative forms according to their idiolect (Cardona, 2009).

4.7 Summary of Chapter 4

This chapter has provided a comprehensive examination of IEs in LIS, outlining the current state of research and proposing methodological frameworks for a more precise identification and analysis of these linguistic phenomena. The analysis reveals several critical insights that may help the understanding of idiomaticity in sign languages, while also highlighting significant theoretical and practical challenges that require attention in future research. On the theoretical side, several issues remain unresolved, particularly concerning the definition and classification of idioms in LIS. A key question is the status of monorematic idioms with respect to the criterion of formal compositionality, which in spoken languages generally apply to polylexical IEs. On the practical side, methodological difficulties in identifying idioms, tracing their origins and modes of transmission, and the consequent scarcity of corpora hinder systematic analysis. Moreover,

comparative work across sign languages is still needed to determine whether the features observed in LIS are language-specific or more widely shared.

The investigation demonstrates that LIS idioms exhibit the fundamental properties characteristic of IEs across languages, although presenting some modality-specific adaptations. However, the research also reveals a persistent problem in existing scholarship whereby numerous signs traditionally classified as idioms fail to meet these definitional criteria. A systematic diagnostic framework has been proposed and has been employed to distinguish genuine idioms from language-specific lexical items and number-incorporated signs, categories that, while linguistically significant, operate differently. This same framework will also be applied in the following chapter to present and analyze the IEs (and other signs) collected in this study.

Following the research on other sign languages, the classification of LIS idioms was proposed in three categories: calques from Italian, borrowings from Italian with cultural adaptations, and typical LIS idioms. Notably, the analysis so far suggests that the second category (borrowings with cultural adaptations) may be less prevalent in LIS than previously assumed. This may be due to the fact that signs previously treated as borrowed idioms in earlier research cannot be classified as such within this theoretical framework. However, this issue remains open and will be further addressed in the following chapter, where the collected IEs will be presented alongside frequency data for the three categories based on spontaneous conversations between couples of Deaf informants. Focusing on this topic provides insight into the complex sociolinguistic influences that shape IEs in sign languages, and allows for the analysis of the autonomy and creative capacity of sign languages in developing their own figurative expressions.

Regarding the processes through which IEs are created in LIS, §4.3 presented a description of their origin and transmission. The section highlights the crucial role of educational contexts, particularly residential schools for the Deaf, where linguistic innovations and cultural transmission were fostered and maintained. However, the analysis also reveals significant methodological challenges in tracing etymological development, arising from the predominantly oral nature of sign language transmission and limited documents or evidence. The observation that many idioms achieve functional autonomy despite reduced motivational transparency reflects natural processes of conventionalization common across languages.

Another central issue when studying IEs in sign language was discussed: the possibility of monorematic idioms. As for other sign languages presented in Chapter 3, it was observed that LIS displays several idiomatic single signs, which challenge traditional definitions of idioms developed in spoken language research. To substantiate this hypothesis and provide a theoretical account of the phenomenon, a specific class of signs - the compounds HEAD^[X] - was analyzed, as these signs superficially appear to be multi-sign IEs. However, the application of the Prosodic Model (Brentari, 1998) demonstrates that compound signs can function as monorematic idioms through phonological processes that generate unified, non-compositional meanings within single articulatory units. In particular, the blocking of epenthetic movement in the first stem HEAD when combined with a second stem reveals the underlying phonological unity of these expressions. This finding not only supports the inclusion of monorematic forms within idiomatic categories but also provides empirical evidence for the structural complexity within some single signs, thereby challenging traditional polylexical criteria for idiomaticity.

A critical distinction emerged between monorematic idioms and polysemous signs, addressing a possible source of confusion in the literature. While both phenomena involve single lexical units with multiple meanings, genuine monorematic idioms maintain the essential property of dual interpretation - enabling both literal and figurative readings through their formational parameters - whereas polysemous signs like CHICKEN or POTATO represent motivated metaphorical expressions that lack some characteristics of true idiomaticity - particularly the non-compositionality.

Finally, the fact that idioms are often associated with informal registers was also discussed, but §4.6 argues against uniform classification, demonstrating instead that contextual and individual factors create flexible usage. The modulation of manual parameters and non-manuals - operating at the prosodic level - can render IEs appropriate across various register levels. It was further noted that different idioms may be suitable for different situations, making it difficult to define a simple formal-informal dichotomy.

In conclusion, this chapter has shown that idioms in LIS constitute a rich and systematically organized component of the language, reflecting both universal aspects of human linguistic creativity and the specific properties of a visual-manual language. The analysis underscores the need for precise theoretical frameworks and methodological approaches in the study of sign

language idiomaticity, while also highlighting the cultural significance of these expressions within the Deaf community. Importantly, the concepts and distinctions discussed in this chapter provide the necessary foundation for the following chapter, which presents the empirical data collected for this thesis. This data comprises analyses of conversations between pairs of Deaf signers, who were asked to engage in discussions on specific topics. The resulting corpus was examined to identify IEs - in addition to the ones already presented in these chapters - and compare them with other categories of signs previously discussed. Such comparisons allow for a more comprehensive understanding of the linguistic phenomena under investigation and advance the description and analysis of LIS, specifically figurative language.

Chapter 5

Empirical Study on LIS idioms

The study of IEs has received extensive attention in the field of spoken language research, with numerous works examining their structural, semantic, and pragmatic dimensions. By contrast, the systematic investigation of idioms in sign languages – particularly in contexts of semi-spontaneous conversation – remains limited and fragmented. The preceding chapters have outlined the criteria necessary for identifying IEs in LIS, distinguishing them from other types of multi-sign constructions or conventionalized forms that, due to both their complexity and the scarcity of targeted research, have often been conflated with idioms. Chapter 4 in particular reviewed existing scholarship and provided a theoretical framework to delineate the specific features that characterize idiomaticity in LIS. Building on this foundation, the present chapter introduces the empirical data collected for this study and presents their analysis, with the aim of contributing to a more systematic understanding of idiomatic production and use in LIS, and by extension, in sign languages more broadly.

The investigation of idiom production in LIS is complicated by the need to distinguish between conventional IEs and other types of figurative or opaque signs, as both categories involve different degrees of semantic transparency and cultural codification. The present experimental study aims to address this gap by systematically examining idiom production patterns among Deaf LIS signers in semi-spontaneous conversational settings. This investigation is guided by three primary research questions:

1. What is the frequency of idiom production in (semi-)naturalistic signed conversations?
2. Which typological categories of idioms emerge most prominently?
3. Do idioms and other culture-specific signs in LIS display comparable production patterns?

Addressing these questions could have significant implications for both theoretical linguistics and practical applications. From a theoretical perspective, documenting idiom usage in LIS contributes to broader discussions about the universality of figurative language across modalities and the relationship between embodied cognition and linguistic expression. Moreover, a systematic

theoretical framework and a comprehensive description of what constitutes idioms in LIS are still lacking. This study may represent an initial step toward establishing clearer parameters for the definition of this linguistic category. From a practical standpoint, on the other hand, these findings might serve as a basis for sign language pedagogy, interpretation training, and the development of comprehensive LIS dictionaries and educational materials.

This chapter presents an empirical investigation designed to capture authentic idiom production through carefully structured elicitation tasks that balance the need for systematic data collection with the preservation of natural conversational dynamics. It is organized as follows: §5.1 outlines the research methodology, detailing the recording procedures and question-based elicitation methods used to collect semi-naturalistic LIS data. §5.2 addresses methodological considerations and limitations inherent to sign language research, examining challenges related to idiomatic production. Then, §5.3 describes the informative questionnaire employed to gather participants' sociolinguistic profiles, while §5.4 provides detailed demographic information about the ten LIS signers who participated in the study. §5.5 explains the data annotation and analysis procedures using ELAN software, presenting the hierarchical tier structure for systematic coding of IEs adopted in this study. Consequently, §5.6 presents the quantitative results, analyzing idiom frequency patterns, typological categories, and potential sociolinguistic correlations including age-related trends and professional background considerations. Finally, §5.7 offers a comprehensive qualitative analysis of the collected IEs, examining both calques from Italian and typical LIS idioms, with particular attention to the productive category of idiomatic compounds.

5.1 Research Methodology

This study employs a simple approach, utilizing semi-structured interviews to elicit semi-naturalistic language production while maintaining sufficient control to ensure systematic data collection. The research design is grounded in the principles of corpus linguistics and conversation analysis, adapted specifically for the visual-manual modality of LIS. In the following sections, the methodology is described in detail.

5.1.1 Methodological considerations and limitations

Sign language research presents unique methodological challenges at both theoretical and practical levels (Van Herreweghe & Vermeerbergen, 2012; Quer & Steinbach, 2019), which are worth presenting and reflecting on before delving further. At the theoretical level, researchers need to avoid biases derived from their prior knowledge on spoken language's frameworks when examining sign language data. While sign languages share fundamental properties with spoken languages as natural, fully-fledged linguistic systems, they also exhibit modality-specific characteristics that constitute their unique richness and must be recognized and described without preconceptions and expectations based on spoken language phenomena. At the practical level, on the other hand, the first challenge is the selection of informants. Signers show varying competence levels, primarily due to differences in early language exposure: only 5-10% of deaf children worldwide are born to Deaf parents and acquire a sign language natively from birth, while the remaining 90-95% are born to hearing parents resulting in later or limited exposure to sign language, if any at all. In fact, it is important to add that, while some Deaf individuals may eventually attend Deaf schools or bilingual programs, many do not encounter sign language until later in childhood or adolescence. This delayed exposure, occurring after the critical period for acquisition, can have long-term consequences on their linguistic competence (Mayberry et al., 2002; Zorzi et al., 2022).

Specifically for the Italian context, the Deaf LIS user population is estimated at around 40.000 individuals (EUD, 2014; Branchini & Mantovan, 2022), representing a highly heterogeneous community including Deaf people with Deaf parents (8-10%) and Deaf individuals who acquired LIS later in life (Cardona & Volterra, 2007). As a result, it is particularly difficult to identify "absolute" native signers (Fornasiero, 2020; Hou & de Vos, 2022), so contemporary research practice considers as near-native: *(i)* Deaf individuals exposed to sign language before age 3; *(ii)* people with over 10 years of active involvement in the Deaf community; and *(iii)* individuals with demonstrated competence and linguistic awareness (Mathur & Rathmann, 2006; Quer & Steinbach, 2019).

Researchers must also consider that most Deaf signers live in a condition of bilingualism, communicating in both the national spoken language and sign language, albeit with varying levels of competence in each language (Fabbretti & Tomasuolo, 2006; Fontana, 2009; Volterra, 2014).

Given the daily contact with the majority hearing language and the social prestige of spoken languages, this bilingual reality may influence signed production. Thus, the demographic reality of widespread bilingualism significantly influences linguistic competence and requires careful consideration in research design.

A further issue concerns the type of data used: corpus-based or elicited. Corpus data are extremely valuable as they allow researchers to capture sociolinguistic variation, considering factors such as age, region, gender, education, and social status. Also, they typically involve large numbers of participants from diverse regions, providing representative samples for investigating linguistic structures (Lucas, 2013; Fornasiero, 2020).[80] However, corpus data could have some limitations. Firstly, they provide spontaneous production but lack negative evidence: if a structure is unattested within the corpus, this does not necessarily mean it is absent in the language; it may simply not have appeared in the recorded interactions. Moreover, it is difficult to investigate linguistic phenomena that exist but are rare, as low-frequency structures may be underrepresented or entirely missing from the corpus. To address this, researchers often design elicitation tasks to target specific linguistic phenomena. Yet elicitation itself carries risks, particularly the possibility of unnatural productions or cross-linguistic interference from spoken language. To minimize this, visual stimuli – such as drawings, pictures or videos – are frequently employed, together with role-play, story-(re)telling, or picture description tasks (Van Herreweghe & Vermeerbergen, 2012). Moreover, to facilitate spontaneous and natural production, it is important to involve Deaf interlocutors and to conduct recordings in familiar environments such as Deaf clubs, workplaces, or at home.

Given these methodological challenges and considerations, several specific design choices were made for the present study. First, regarding the type of data, this research employed an elicitation approach rather than corpus-based analysis. This choice was motivated by the need to investigate specific productions - namely, IEs - that might be infrequent or rare in existing corpora, while maintaining control over the discourse topics to ensure comparable data across participant pairs. Second, concerning participant selection, the study included both native signers (according to the criteria outlined above), acknowledging the demographic reality of the LIS community where absolute native signers are extremely rare. Third, to address the risk of cross-linguistic interference

[80] An example is the LIS Corpus Project (Cecchetto, Giudice & Mereghetti, 2011; Geraci et al., 2011), launched in 2009 and containing data from 165 signers across ten Italian cities (Bologna, Brescia, Milan, Turin, Florence, Rome, Bari, Catanzaro, Salerno, and Ragusa).

and unnatural productions typical of elicitation tasks, several precautions were implemented. Firstly, participants in this study were not presented with any materials; instead, all questions were asked directly in LIS. Importantly, in order to avoid the influence of a hearing researcher, my role was limited to presenting the initial question. The responses and discussion were carried out exclusively between the two Deaf participants, thereby preserving the conversational flow and ensuring the spontaneous use of language was not disrupted by the intervention of a non-native signer. Furthermore, by conducting the interviews online via Zoom, participants were able to take part from the comfort of their own homes or from any other setting they considered most suitable.

The joint interview methodology, while effective for eliciting natural discourse, may have introduced some artifacts related to participant familiarity and shared experiential knowledge. Pairs of participants with extensive shared history might use slang forms or highly contextualized expressions that could be difficult to analyze without additional background information.

5.1.2 Recording methodology and technical setup

All data collection sessions were conducted via Zoom, a videoconferencing platform specifically designed for video call recording and communication. The selection of this platform was motivated by four primary considerations: first, the platform features an intuitive and user-friendly interface that minimizes technical barriers for participants; second, the online format allows geographically dispersed participant pairs to connect easily, overcoming spatial constraints that might otherwise complicate scheduling; third, the video calls and recordings maintain high quality with minimal interruptions or technical glitches during sessions (unless connectivity issues arise from participants' network infrastructure); and fourth, Zoom has become a widely adopted and familiar platform across both hearing and Deaf communities, particularly following its increased usage during the COVID-19 pandemic. Additionally, no strict instructions were provided regarding participants' positioning and background, allowing them to connect in a manner most comfortable to them. Thus, this method was selected primarily to ensure participant comfort and accessibility while maintaining video quality suitable for detailed linguistic analysis. This approach aimed also to avoid imposing excessive rigidity or formality and to minimize the effects of the "observer's paradox" (Labov, 1972), whereby individuals tend to alter their natural behavior when they feel observed. As a result, some variability in background quality and lighting was present – which

could have been mitigated by recommending a neutral backdrop – but this flexibility was intended to preserve the naturalness of participants' signing. Prior to data collection, all participants provided informed consent for video recording and participation in the study. Each session was recorded at either 720p or 1080p resolution, depending on the participants' internet bandwidth capabilities and technical specifications.

Recording sessions lasted approximately one hour per interview, structured to minimize fatigue while allowing sufficient time for natural discourse development. In addition, participants were positioned to ensure optimal visibility for the upper torso, face, and full signing space.

Finally, it should be noted that, despite these precautions, interaction via Zoom may still appear somewhat unnatural due to the two-dimensional nature of the medium; however, this aspect is not considered relevant to the objectives of the present study.

5.1.3 Joint interview protocol and elicitation methodology

For the data collection, joint interviews were employed (Roulston, 2010). Participants were paired with familiar interlocutors from their social networks to encourage natural conversational dynamics and reduce research-participant and participant-participant awkwardness during the interactions. This approach aimed to approximate (semi)naturalistic conversational conditions that might elicit spontaneous language, potentially including idioms and other figurative expressions (Gobbato, 2023).

Regarding participant pairing for this study, couples were formed based on pre-existing relationships and familiarity. During recruitment, one potential participant was initially contacted and asked to select a partner from their social network who met the study's inclusion criteria (native or near-native LIS competence, Deaf identity). This strategy ensured that paired participants had an established relation and shared communicative patterns, which was essential for facilitating natural conversational dynamics in the joint interviews. Participant pairs generally fell within similar age ranges, while the nature of their relationships varied: some had met at Deaf schools, others shared regional backgrounds and friendships within local Deaf communities, and still others had connected through social, professional, or community-based networks. Thus, each joint interview session involved two participants engaging in guided, semi-structured conversations

around predetermined topics designed to encourage IEs production. The interview protocol was structured around three main elicitation moments, each targeting the same production of idioms and other figurative language elements.

The data collection protocol incorporated three distinct elicitation techniques designed to produce and capture idioms across different contexts. Participants were asked to retell the plot of a favorite television series or film to their conversation partner. This task was designed to elicit evaluative language, character descriptions, and emotional responses – contexts in which IEs frequently occur in natural discourse (Biber et al., 2002; Gobbato, 2023). The narrative structure provides a rich context for figurative language use while allowing participants to draw on familiar cultural content.

The retelling task proved particularly effective in eliciting idioms related to character evaluation (e.g., personality traits, behavioral assessments) and plot development (e.g., expressions of surprise, disappointment, or dramatic tension). This approach aligns with research demonstrating that narrative contexts facilitate figurative language production also in sign language.

The second elicitation strategy involved participants describing a significant travel experience – either positive or negative – to their conversation partner. This task was selected, just like the previous one, to encourage descriptive language, emotional reflection, and cross-cultural comparison. Travel narratives typically involve encounters with unfamiliar situations, emotional responses to new experiences, and evaluative commentary on cultural differences, all of which are supposed to create contexts conducive to figurative language use. This elicitation method was particularly successful in capturing idioms related to emotional states, cultural comparisons, and evaluations. The personal nature of travel experiences encouraged participants to employ expressive language forms, including culture-specific idioms that might not emerge in more formal discourse contexts.

The final component of each interview consisted of an open conversation segment where participants were encouraged to discuss topics of mutual interest without specific prompting from the researcher.

Crucially, this segment also provided an opportunity for participants to pose questions to the researcher, as it is natural for individuals to develop curiosities following an interview. These questions emerged systematically at the conclusion of each session since participants had not been

informed about the specific focus of the research or the reasons behind particular topics and questions during the interview itself. This approach was essential not only for maintaining the naturalness of elicited responses but also for adhering to ethical research practices by providing participants with a full debriefing about their participation in the study.

This free exchange moment served multiple analytical purposes: it provided baseline data on natural discourse patterns, allowed for observation of spontaneous topic development, and captured IEs that might not emerge through structured elicitation tasks. Additionally, this segment proved fundamental for collecting metalinguistic commentary and assessing participants' linguistic awareness regarding IEs in LIS, as participants could now reflect openly on the phenomena that had been the focus of investigation. The metalinguistic insights gathered during these exchanges revealed different degrees of awareness among participants regarding their own use of figurative language. While some signers demonstrated explicit knowledge of IEs and their nature during the discussion, most displayed a more intuitive, implicit competence, accompanied by only a partial or unclear understanding of what constitutes an idiom. This final segment, while annotated, was not included in the quantitative analysis but served as a qualitative data collection phase through collaborative discussion, capturing participants' metalinguistic reflections and awareness in an informal, peer-to-peer exchange format.

5.2 Informative questionnaire

Information was collected through a fully bilingual background questionnaire designed to provide insights into the participants' sociolinguistic profiles. To ensure complete accessibility, every question was available both in written Italian and in LIS video format. Figure 1 shows a screenshot of a portion of the questionnaire, illustrating its structure.

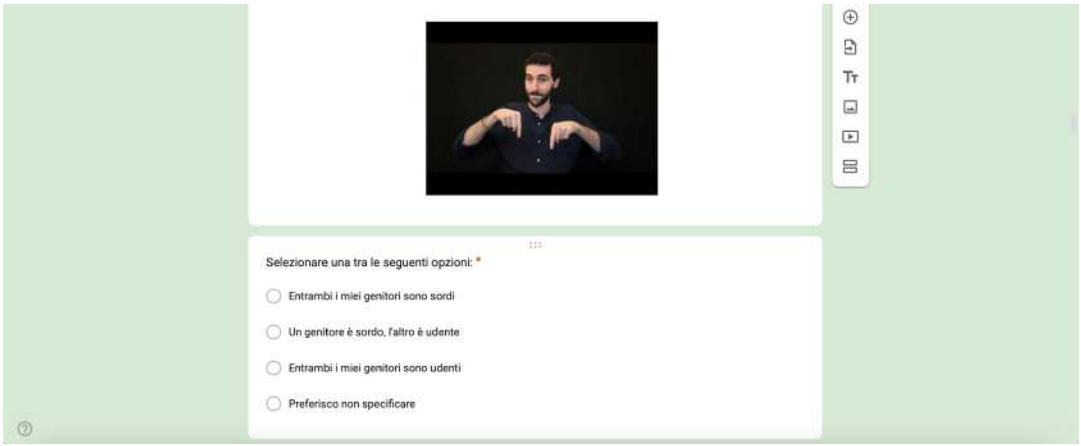


Figure 22. Screenshot of the questionnaire designed to collect informants' sociolinguistic data

The questionnaire gathered data on key demographic and linguistic variables, including age, gender, place of birth and residence, age of deafness onset/diagnosis (categorized as 0-3 years, 4-6 years, 7-12 years, or 12+ years), and levels of education ranging from elementary school to postgraduate degrees. Moreover, particular attention was paid to parental hearing status (both parents Deaf, one parent Deaf and one hearing, both parents hearing), type of education received across different school levels (oralist, bilingual, with interpreter, with communication assistant, with support teacher, or none), age of LIS acquisition, and language use patterns in different domains (home, friends, workplace). The questionnaire also assessed participants' multilingual competence, examining proficiency levels in LIS, Italian, and other sign languages (ASL, BSL, LSF, or other) as well as spoken languages (English, French, or other), using a five-point scale from "no knowledge" to "native proficiency".[81] Additional information was collected regarding occupation (student, employee, freelancer, worker, unemployed, manager, or other), attendance at specialized institutes for the Deaf, and specific workplace language preferences.

These aspects are crucial for interpreting the data and serve different analytical purposes. Information about parental hearing status, type of education received, age of LIS acquisition, and attendance at specialized institutes for the Deaf are essential for assessing participants' LIS competence levels, as these factors directly influence early exposure to and use of the language –

[81] Specifically, the options were "no knowledge", "basic level", "intermediate level", "advanced level", and "native proficiency". The latter option was intended for potential participants who had a foreign parent and therefore grew up in a bilingual household from an early age.

particularly considering the limited number of schools for the Deaf still operating in Italy. Questions regarding workplace language use, friend interactions, and other daily communication contexts help determine the extent of LIS use outside the family environment and assess how much Italian might influence LIS production in different social domains. Finally, data on knowledge of other sign and spoken languages allows for cross-linguistic analysis to examine whether these second or third languages may influence participants' LIS competence and IEs production.

5.3 Participants

Ten informants (I1-I10) participated in the data collection, with a mean age of 35.1 years (range = 22-45; SD = 7.79)[82] and an equal gender distribution (50% male, 50% female). The sample shows considerable heterogeneity regarding family, linguistic background, and geographical origin. Parental hearing status was documented as it provides crucial information about early LIS exposure and home language use: six participants (60%) have both Deaf signing parents, indicating natural LIS acquisition from birth and consistent sign language exposure at home, while four participants (40%) have hearing parents, suggesting later LIS acquisition. As for the geographical origin, three participants come from southern Italy, three from central Italy, and four from northern Italy.

Age of deafness onset varies significantly across participants: seven informants (70%) present congenital or early-onset deafness (0-3 years), two developed hearing loss during childhood (7-12 years), and one shows later onset. Regarding LIS acquisition, most participants learned it "as a child", with the notable exception of I10 at five years. Educational background information was collected to assess potential Italian language influence on LIS productions: participants experienced diverse educational approaches ranging from oral-only methods to bilingual education with sign language interpreters, which directly impacts their exposure to Italian and potential cross-linguistic influence in their signing. The educational level of the sample is high, with six participants holding bachelor's degrees, four with high school diplomas, and no early school dropouts. Regarding educational approaches, during early education, 7 participants (70%) received oral-only instruction in elementary school, while 3 (30%) had communication assistants in class.

[82] Such an SD value suggests some variability in participants' ages, which *may* help observe possible generational differences in language production, though the small sample size limits any strong conclusions.

The transition toward more inclusive approaches becomes evident in secondary education: at the middle school level all participants experienced an oral education with communication assistant and support teacher, only one (10%) specified the presence of interpreters as well. By high school, only 1 participant (10%) continued with oral-only education, while 3 (30%) received bilingual education with interpreters, and 6 (60%) benefited from various forms of support, including interpreters combined with special needs teachers. At the university level, among the 6 participants who pursued higher education, all had access to interpreters. Occupational distribution includes employees (40%), freelancers (30%), and students (20%). As anticipated, workplace language use data was gathered to understand daily LIS usage patterns outside familiar or friendship contexts: participants use varying combinations of LIS and Italian depending on their work environment and colleagues' hearing status, providing insight into their typical daily language exposure and switching patterns.

All participants report native-level LIS competence, while showing variable Italian proficiency levels (intermediate to advanced), confirming the typical LIS-Italian bilingual profile of the Italian Deaf community (Sala, 2021). Seven informants attended specialized Deaf schools, primarily ISISS A. Magarotto in Padova. This information was collected to assess whether attendance at a specialized institution may have influenced the production of specific linguistic features, and to consider whether certain schools might have exerted a stronger impact than others.

5.4 Data annotation and analysis

The experimental sessions were video-recorded, and the collected data were processed and analyzed through multiple stages using ELAN software.[83] ELAN (EUDICO Linguistic Annotator) is a multimedia annotation tool developed at the Max Planck Institute for Psycholinguistics in Nijmegen, Netherlands, which enables simultaneous analysis of multiple videos and supports the insertion of annotations, linguistic information, and research notes for comprehensive study of video-recorded linguistic production.

The annotation process was designed with a hierarchical tier structure that could be customized according to research needs, with the possibility of creating independent or dependent analytical

[83] ELAN (Version 7.0) [Computer software]. (2025). Nijmegen: Max Planck Institute for Psycholinguistics, The Language Archive. Retrieved from https://archive.mpi.nl/tla/elan

layers. Figure 23 shows a screenshot of the annotation template used, specifically illustrating the hierarchical structure. In the following lines, the organization of the tiers and the annotation procedure will be described in detail.

Figure 23. ELAN hierarchical structure template

The primary focus of the analysis was directed toward the general sign production and its corresponding glossing, with the objective of documenting all signs produced during the entire interviews in order to obtain the total number of signs per participant and establish an initial assessment of individual linguistic output. Following the glossing of each sign, a dependent tier labeled 'sign type' ('*tipo di* segno') was activated to categorize each sign as either 'lexical', 'idiomatic', 'gesture', 'language-specific lexical sign', 'number-incorporated sign', or 'other'. Gestures were annotated because, as Italians, participants may naturally produce gestures typical of Italian culture alongside their sign production. The category 'other' was used to annotate non-lexical productions such as self-interruptions (false starts) and fingerspelling, since individual letters in fingerspelling were not classified as lexical signs. When a sign was identified as 'idiomatic', two additional dependent tiers were subsequently activated: the first classified the 'type of IE' ('*categoria e.i.*') according to three categories – calque from Italian, borrowing from Italian with cultural adaptations, and typical of LIS (see Chapter 4, §4.1.1) – while the second tier documented the 'number of signs' involved in the idiom ('*numero di segni*') to facilitate analysis

of monorematic idiomatic signs versus polymorphemic IEs. Lastly, an independent tier for 'comments' was included to provide researchers with space for noting particular observations or analytical remarks.

This annotation structure was duplicated within the same interface to accommodate the dyadic nature of the interviews, requiring parallel annotation for both participants. The two sets of tiers operated independently, allowing for annotation of overlapping linguistic production, including feedback responses, backchannels, and other instances of simultaneous communication that commonly occur in natural conversational interaction. Figure 24 provides a simplified screenshot of the ELAN annotation structure designed for this study, illustrating the hierarchical organization of the analytical tiers and their interdependencies.

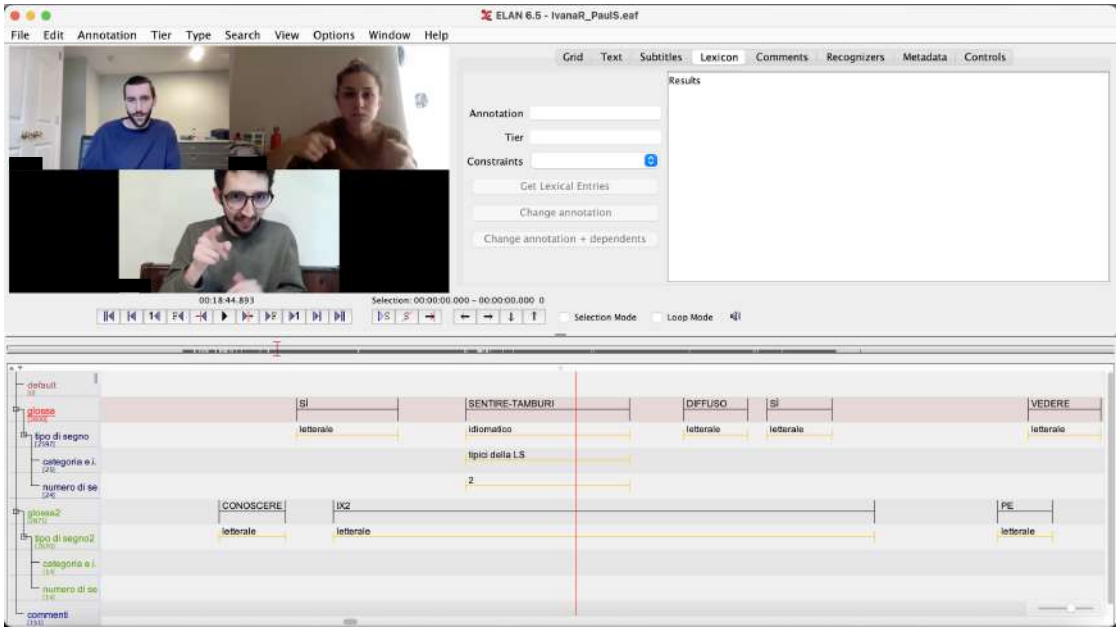


Figure 24. Screenshot of the file organization on ELAN, illustrating the annotation system adopted

ELAN software also enables precise temporal annotation, recording the exact onset and offset times of each sign. While this temporal information was not directly relevant to the current research objectives, the data were preserved to support potential future investigations using the same linguistic corpus.

Lastly, ELAN also enables the export of all annotated data into Excel, facilitating the extraction of comprehensive information from each video session for subsequent quantitative analysis. The Excel file was initially organized with separate worksheets for each video call, containing all corresponding annotation data. Subsequently, the data were further subdivided, assigning each participant an individual worksheet. This structure allowed for a detailed analysis of each participant's linguistic production patterns and facilitated comparative examination across participants.

5.5 Results

The analysis of the collected data addresses the three primary research questions guiding this investigation, providing insights into idiom production patterns among LIS signers in semi-spontaneous conversational settings.

5.5.1 General distribution of idiom production in semi-naturalistic signing conversations

The analysis of the data collected across the ten participants yielded a total of 20,606 annotated tokens, distributed across the six main categories previously discussed: literal signs, IEs, gestures, language-specific lexical signs, number-incorporated signs, and other productions (see Table 15 and Figure 25). As expected, literal signs constituted the majority of the dataset, accounting for 18,537 tokens (89.96%). Gestures represented the second largest category with 1,331 tokens (6.46%), followed by language-specific lexical signs with 513 tokens (2.49%). IEs were comparatively rare, with 159 tokens (0.77%), while number-incorporated signs (35 tokens, 0.17%) and other forms – such as fingerspelling and self-interruptions – (31 tokens, 0.15%) occurred only sporadically.

Category	n	%
Literal signs	18,537	89.96
IEs	159	0.77
Language-specific lexical signs	513	2.49
Number-incorporated signs	35	0.17
Gestures	1,331	6.46
Other	31	0.15

Total	**20,606**	**100,00**

Table 15. Distribution of sign categories in the data set

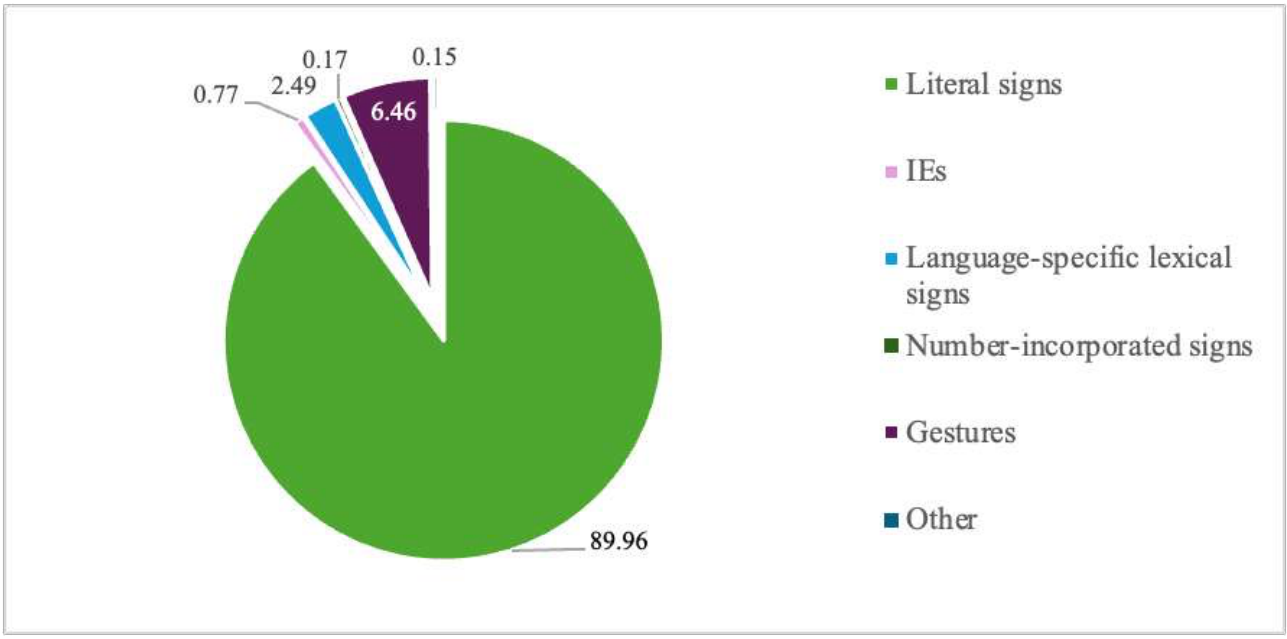


Figure 25. Percentage distribution of signs across categories in the LIS corpus

The distribution highlights the relative infrequency of idiomatic production within these semi-structured conversational contexts, although idioms did emerge systematically across all informants. Table 16 shows the individual distribution of categories per participant.

Informant	**Literal**		**IEs**		**Language-specific lexical signs**		**Number-incorporated signs**		**Gestures**		**Other**		**Total**
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**
I1	665	89.62	4	0.54	11	1.48	2	0.27	60	8.09	0	0.00	742
I2	1,377	93.61	6	0.41	16	1.09	0	0.00	72	4.89	0	0.00	1,471
I3	2,394	89.66	16	0.60	82	3.07	1	0.04	177	6.63	0	0.00	2,670
I4	2,330	89.68	25	0.96	72	2.77	0	0.00	168	6.47	4	0.15	2,598
I5	1,959	89.29	18	0.82	62	2.83	5	0.23	145	6.61	4	0.18	2,194
I6	2,022	89.59	22	0.97	60	2.66	6	0.27	146	6.47	3	0.13	2,257
I7	1,928	89.59	15	0.70	56	2.60	4	0.19	144	6.69	3	0.14	2,152
I8	1,865	89.06	19	0.91	58	2.77	5	0.24	143	6.83	4	0.19	2,094
I9	1,971	90.00	18	0.82	49	2.24	6	0.27	141	6.44	5	0.23	2,190
I10	2,026	90.53	16	0.71	47	2.10	6	0.27	135	6.03	8	0.36	2,238

Total	**18,537**	**89.96**	**159**	**0.77**	**513**	**2.49**	**35**	**0.17**	**1,331**	**6.46**	**31**	**0.15**	**20,606**

Table 16. Sign production and idiom usage by participant.

A further layer of analysis was conducted to distinguish among different categories of IEs, namely *(i)* calques from Italian, *(ii)* borrowings from Italian with cultural adaptations, and *(iii)* typical idioms. The results indicate that the majority of idioms produced belong to the third category, with 127 out of 159 tokens (79.87%), whereas 32 idioms (20.13%) were classified as calques from Italian. Interestingly, no instances of the second category – borrowings with cultural adaptations – were identified in the given dataset (see Table 17). These findings suggest that while contact phenomena with Italian play a role in idiom formation, idioms originated in the Deaf community and LIS-specific constitute the dominant category in actual use.

Informant	**Calque**		**Borrowings**		**Typical**		**Total**
	n	**%**	**n**	**%**	**n**	**%**	**n**
I1	3	18.75	0	0.00	13	81.25	16
I2	3	50.00	0	0.00	3	50.00	6
I3	0	0.00	0	0.00	4	100.00	4
I4	4	16.00	0	0.00	21	84.00	25
I5	4	22.22	0	0.00	14	77.78	18
I6	5	22.27	0	0.00	17	77.27	22
I7	2	13.33	0	0.00	13	86.67	15
I8	4	21.05	0	0.00	15	78.95	19
I9	4	22.22	0	0.00	14	77.78	18
I10	3	18.75	0	0.00	13	81.25	16
Total	**32**	**20.13**	**0**	**0.00**	**127**	**79.87**	**159**

Table 17. Categories of IEs by participant

The frequency of IEs ranged from a minimum of 4 tokens to a maximum of 25 tokens, indicating variability of idiomatic use across signers – which will be discussed in detail later. Notably, participants with higher overall output (e.g., I3 and I4) also produced proportionally more idioms. However, it is unclear whether this pattern reflects a meaningful correlation between total sign production and idiomatic competence, or whether it simply represents a natural consequence of increased overall output (i.e., more signs produced across all lexical categories). The current

sample size and data distribution do not allow for dedicated statistical analysis to determine the nature of this relationship.

The informant-level analysis revealed that all participants produced at least some typical LIS idioms, though with varying frequency. For example, I4 and I6 displayed the highest number of idioms (n=25 and n=22 respectively), with a clear prevalence of typical LIS idioms over calques from Italian. By contrast I2 showed the lowest idiomatic output overall (n=6), with an equal distribution between calques and typical LIS idioms.

5.5.2 General sociolinguistic analysis of participants' IE production

Additional analyses were conducted to identify potential factors that might influence IEs production. Among these, attention initially turned to verifying whether age could be a relevant sociolinguistic variable. Further consideration highlighted the potential influence of being a LIS instructor as another factor worth investigating. It was hypothesized that certified LIS teachers might demonstrate greater metalinguistic awareness and possess a richer linguistic repertoire due to their formal training and professional experience. In Italy, LIS teacher certification is regulated through the ENS (*Ente Nazionale Sordi*, the National Association of the Deaf) training system, which maintains national registers of qualified professionals.[84] The system includes two main teaching categories: RNS 1° (LIS Instructors) and RNS 2° (Complementary Disciplines Teachers), along with program coordinators (RNC).

An intriguing pattern emerges when examining idiom production in relation to participant age. A first observation of participants under 30 years old (highlighted in the data in Table 18) reveals that younger signers tend to produce more idioms overall.

Informant	**Literal**		**IEs**		**Language-specific lexical signs**		**Number-incorporated signs**		**Gestures**		**Other**		**Total**
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**
I1	665	89.62	4	0.54	11	1.48	2	0.27	60	8.09	0	0.00	742
I2	1,377	93.61	6	0.41	16	1.09	0	0.00	72	4.89	0	0.00	1,471

[84] https://www.ens.it/formazione/#registri-nazionali, consulted on September 9, 2025.

I3	2,394	89.66	16	0.60	82	3.07	1	0.04	177	6.63	0	0.00	2,670
I4	2,330	89.68	25	0.96	72	2.77	0	0.00	168	6.47	4	0.15	2,598
I5	1,959	89.29	18	0.82	62	2.83	5	0.23	145	6.61	4	0.18	2,194
I6	2,022	89.59	22	0.97	60	2.66	6	0.27	146	6.47	3	0.13	2,257
I7	1,928	89.59	15	0.70	56	2.60	4	0.19	144	6.69	3	0.14	2,152
I8	1,865	89.06	19	0.91	58	2.77	5	0.24	143	6.83	4	0.19	2,094
I9	1,971	90.00	18	0.82	49	2.24	6	0.27	141	6.44	5	0.23	2,190
I10	2,026	90.53	16	0.71	47	2.10	6	0.27	135	6.03	8	0.36	2,238
Total	**18,537**	**89.96**	**159**	**0.77**	**513**	**2.49**	**35**	**0.17**	**1,331**	**6.46**	**31**	**0.15**	**20,606**

Table 18. Idiom production by participants under 30 years old

The examination of the relationship between participant age and IE production revealed an interesting pattern. Younger participants appeared to produce more IEs than older participants, suggesting that age might influence idiomatic language use, or that younger LIS users may have greater familiarity with or preference for IEs in conversational contexts. However, when participants were divided into two age groups – those under 30 years and those 30 years and older – the difference in IE production was not substantial enough to be considered meaningful. While the data hint at a possible age-related trend, the small number of participants (n=10) and the considerable variation between individuals make it difficult to draw certain conclusions. The findings suggest that age could be a relevant factor in idiomatic production, but a larger study with more participants would be needed to determine whether this relationship is consistent and meaningful across the broader LIS community.

Additionally, as anticipated before, participants were re-contacted to verify whether they held LIS teaching certification and worked as LIS instructors. Three participants (I1, I7, and I10) were identified as certified LIS instructors, while I3 and I4 were currently studying to obtain certification. Although showing interesting patterns in their idiom production, the wide differences observed across these participants' idiomatic outputs prevent any conclusive assessment of whether LIS teaching certification constitutes an influential variable in idiom production. In Table 19, the data set is presented again with these participants highlighted.

Informant	**Literal**	**IEs**	**Language-specific lexical signs**	**Number-incorporated signs**	**Gestures**	**Other**	**Total**

	n	%	n	%	n	%	n	%	n	%	n	%	n
I1	665	89.62	4	0.54	11	1.48	2	0.27	60	8.09	0	0.00	742
I2	1,377	93.61	6	0.41	16	1.09	0	0.00	72	4.89	0	0.00	1,471
I3	2,394	89.66	16	0.60	82	3.07	1	0.04	177	6.63	0	0.00	2,670
I4	2,330	89.68	25	0.96	72	2.77	0	0.00	168	6.47	4	0.15	2,598
I5	1,959	89.29	18	0.82	62	2.83	5	0.23	145	6.61	4	0.18	2,194
I6	2,022	89.59	22	0.97	60	2.66	6	0.27	146	6.47	3	0.13	2,257
I7	1,928	89.59	15	0.70	56	2.60	4	0.19	144	6.69	3	0.14	2,152
I8	1,865	89.06	19	0.91	58	2.77	5	0.24	143	6.83	4	0.19	2,094
I9	1,971	90.00	18	0.82	49	2.24	6	0.27	141	6.44	5	0.23	2,190
I10	2,026	90.53	16	0.71	47	2.10	6	0.27	135	6.03	8	0.36	2,238
Total	**18,537**	**89.96**	**159**	**0.77**	**513**	**2.49**	**35**	**0.17**	**1,331**	**6.46**	**31**	**0.15**	**20,606**

Table 19. Idiom production by participants with LIS teaching certification

An examination of whether being a LIS teacher affects IE production revealed considerable variation within each group. Certified LIS instructors showed a wide range of IE production, from as few as 4 to as many as 16 expressions. Interestingly, current teacher trainees (I3 and I4) – both under 30 years old – produced more IEs than certified teachers, while non-teachers present high variability. However, the large differences between individual participants within each group made it impossible to identify any clear pattern related to teaching status. The small number of certified teachers in the study (only 3) further complicated the analysis. Overall, the findings suggest that being a LIS teacher does not appear to be a meaningful factor in determining how many IEs a person produces, at least based on this particular group of participants.

Moreover, the individual production patterns reveal complex interactions between sociolinguistic variables and idiomatic competence that resist straightforward categorization. However, given the limited sample size of 10 participants, these observations should be interpreted with caution. The trends identified are indicative rather than definitive and warrant further investigation. Participants I4 and I6, who demonstrated the highest levels of IE production (24 and 22 tokens respectively), present similar demographic profiles: I4 (22 years, from North-East of Italy) represents the youngest participant with Deaf parents who acquired LIS from birth and experienced mixed educational support, while I6 (32 years, also from North-East of Italy) exemplifies early-onset deafness with Deaf parents who acquired LIS from birth and had predominantly bilingual education. Both participants attended specialized Deaf schools, suggesting that institutional immersion within the Deaf Community during formative years may have facilitated the acquisition

and retention of culturally-specific idiomatic repertoires for these individuals. Age analysis reveals no consistent pattern: the youngest participant (I4, 22 years) produced the highest number of tokens (n=25; 15.72%), while participants of similar ages show considerable variation (I3 at 25 years, tokens n=16; 10.06%). Among older participants, I2 (45 years, from Central Italy) produced only 6 tokens (3.77%) despite his advanced age, while I5 (45 years, from Northern Italy) produced 18 tokens (11.32%), demonstrating substantial individual differences within age cohorts.

Geographic distribution spans from Southern Italy (Sicily, Campania) to Northern regions (Veneto, Emilia-Romagna), with no apparent regional clustering in IE production. This geographic dispersal may reflect the standardizing influence of specialized Deaf education, particularly attendance at ISISS A. Magarotto Padova, which six participants attended (I1, I3, I4, I5, I6, and I2). Notably, participants who did not attend specialized Deaf institutions (I7, I8, I9) show varied production levels (15, 19, and 18 tokens respectively), indicating that institutional attendance alone cannot predict idiomatic competence. However, it is crucial to consider that Deaf individuals typically relocate multiple times throughout Italy and frequently come into contact with different local Deaf communities. This mobility pattern may explain the absence of correlations between place of origin and IE production, as many participants likely encountered different LIS variants and may have acquired new idiomatic forms or suppressed regional variants that are not used in their current city of residence. In addition, the widespread use of social media and the Internet has shortened geographical distances, facilitating contact with Deaf individuals from other regions, and potentially further influencing the development and spreading of some linguistic forms. Such contact dynamics complicate any straightforward analysis of geographic influence on idiomatic repertoires. Conversely, participants with more limited IE production display equally heterogeneous profiles. I1 (39 years, from Sicily), despite having Deaf parents, native LIS acquisition from birth, attendance at multiple specialized schools, and having worked as a LIS instructor for many years, produced only 4 idiomatic tokens (2.52%). Similarly, I2 (45 years, from Central Italy), with hearing parents and early oral-only education, produced merely 6 tokens (3.77%) despite attending specialized Deaf schools in Messina and Padova later. These cases demonstrate that traditional predictive factors fail to account for individual variation in idiomatic production for these participants.

As anticipated before, educational trajectories reveal complex interactions: participants who experienced transitions from oral-only to bilingual approaches (I3, I5) show moderate to high IE production (16 and 18 tokens respectively; 10.06% and 11.32%), while those with consistent educational approaches display greater variation. In addition, parental hearing status shows no clear correlation: participants with Deaf parents range from I1's minimal production (4 tokens; 2.52%) to I4's maximal output (25 tokens; 15.72%), while those with hearing parents similarly span from I2's limited production (6 tokens; 3.77%) to I8's moderate output (19 tokens; 11.95%).

Furthermore, cross-referencing data on participants' multilingual competence – including International Sign, DGS, and various spoken languages – with their IE production frequencies yields no evidence that multilingual knowledge systematically influences idiomatic output. Notably, no IEs derived from languages – other than Italian – through literal translation or calquing processes were documented across all participants, despite several participants demonstrated competence in other sign languages. In fact, some participants with advanced competence in multiple sign languages (I6 with DGS, International Sign, and Spanish Sign Language; I5 with International Sign, DGS, and advanced French) did not produce proportionally higher IEs compared to participants with more limited multilingual repertoires. The statistical sample remains too limited to support broader generalizations about the relationship between any single sociolinguistic variable and idiomatic competence. The absence of clear correlations between traditional sociolinguistic variables – including age, geographic origin, age of acquisition, parental hearing status, educational approach, institutional attendance, or multilingual competence – and idiomatic production frequency indicates that IE competence in LIS emerges from a complex constellation of factors that extends beyond conventional acquisition parameters. These findings underscore the need for more nuanced theoretical frameworks that account for the multifaceted nature of sign language socialization and the role of community membership in shaping figurative language competence. As the first study to focus specifically on IEs in LIS while proposing an experimental theoretical framework, this investigation does not purport to provide comprehensive answers regarding this category of figurative expressions, but rather aims to establish a foundation for more detailed future analyses.

5.6 Comparison with other types of culture-specific signs

As presented in §5.6, language-specific lexical signs represent the most prevalent category among those examined – excluding literal signs – with a total of 513 occurrences 20,606 total production (2.49%). Individual participant analysis reveals considerable inter-subject variability in production patterns. I3 demonstrates the highest productivity with 82 occurrences (15.98% of total language-specific lexical items), followed by I4 with 72 occurrences (14.04%) and I5 with 62 occurrences (12.09%). Lower productivity is observed in I1 (11 occurrences, 2.14%). The mean production per participant is 51.3 occurrences (SD=22.8), indicating substantial individual variation in the use of language-specific lexical items.

The other category is that of number-incorporated signs, which constitute the least frequent category, totaling merely 35 occurrences (0.17% of total productions). This distribution pattern reveals extreme heterogeneity across participants, with two informants (I2 and I4) producing zero instances of this construction type. Among productive participants, I6, I9 and I10 each demonstrate the highest frequency with 6 occurrences each (17.14% of total number-incorporated sign per participant), whereas I3 produced only 1 occurrence (2.86%) despite being the most prolific signer in absolute terms. The mean production is 3.5 occurrences (SD=2.4), with, again, 2 participants showing no production whatsoever. It is possible to hypothesize that the low production of this type of signs is influenced by the context created by the question designed to elicit IEs. In fact, the most frequently produced sign was HORRIBLE(51) (see §4.2.2), typically used to reference to food or to places experienced during a trip; specifically, the corpus often includes utterances such "FOOD/EAT HORRIBLE(51)". In other words, it appears that HORRIBLE(51) functions particularly well as an evaluative sign when describing local food experiences during travels, whereas in other contexts, different number-related signs might be more prevalent.

The overall category of figurative/culture-specific signs – including IEs, language-specific lexical signs, and number-incorporated signs – amounts to 707 occurrences, representing about 3.4% of the total productions. When comparing idioms with the other two types of signs (language-specific lexical items and number-incorporated signs), distinct production patterns emerge. Without idioms, the combined category of cultural-specific signs totals 548 occurrences (2.66% of total productions), substantially exceeding idiomatic production (159 occurrences, 0.77% of total

productions). Figure 26 illustrates the stark difference between IEs (22.49%) and other culture-specific signs (77.51%) within this combined category.

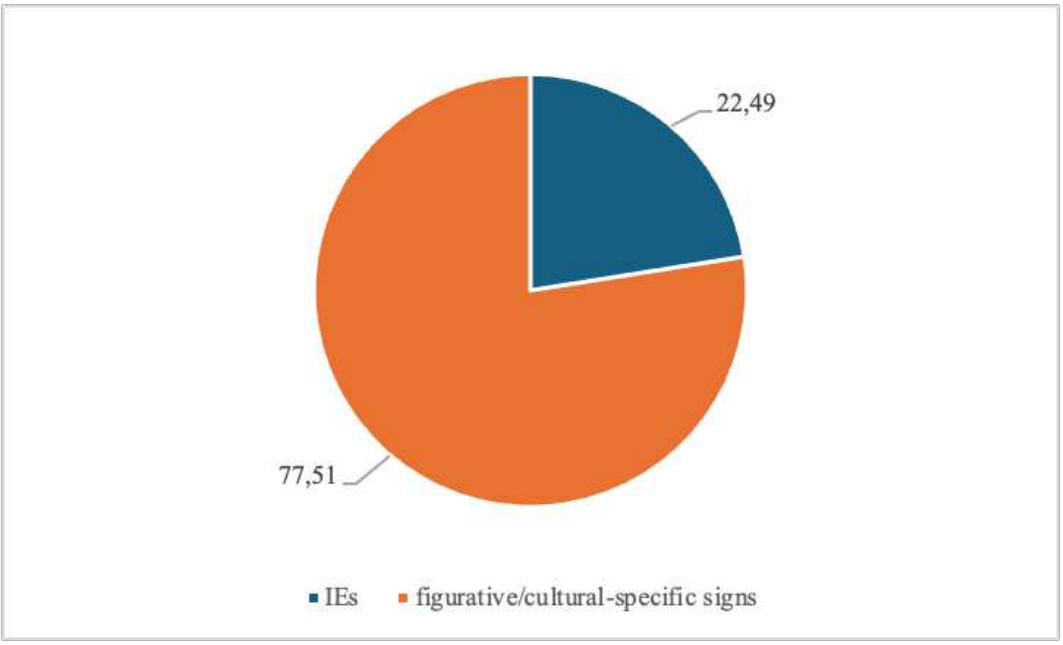


Figure 26. Percentage comparison of IEs and other figurative/cultural-specific sign production

However, this difference is primarily driven by language-specific lexical signs, which alone account for 72.56% of the culture-specific category, while number incorporated signs contribute only 4.95%, as shown in Figure 27.

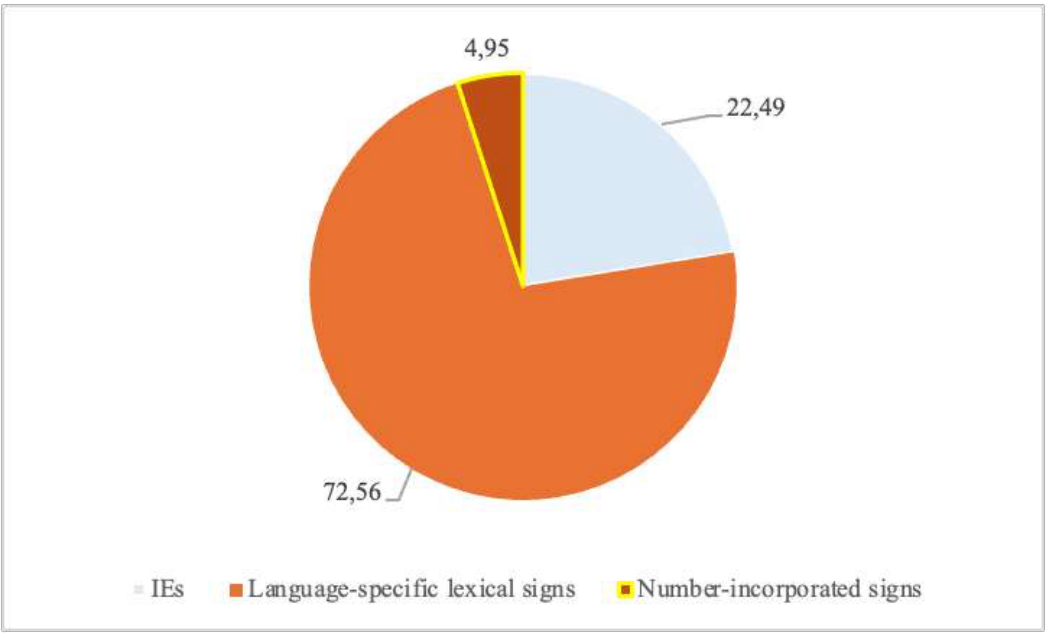


Figure 27. Percentage comparison of IE and language-specific and number-incorporated signs

The data reveal that idioms and other culture-specific signs do not display entirely comparable production patterns in LIS. While both categories show positive intercorrelation at the individual level, they differ substantially in overall frequency and distribution characteristics. Culture-specific signs demonstrate significantly higher productivity rates, greater inter-individual variability, and more pronounced clustering among high-production participants. Idioms show more uniform distribution across participants and more consistent production levels. These findings suggest that while both categories may tap into similar cognitive-linguistic mechanisms for non-literal expression, they occupy distinct functional niches within the LIS linguistic system, with culture-specific signs serving as more prevalent vehicles for culturally-embedded meaning compared to the more specialized role of traditional IEs. This pattern is particularly logical given that language-specific lexical signs, which constitute the majority of the culture-specific category, are essentially literal signs that have been classified as culture-specific due to their semantic opacity and comprehension complexity. As discussed in §4.2.1, these signs are often so opaque in meaning that they are frequently misidentified and erroneously labeled as idioms, highlighting the blurred boundaries between literal and figurative expression in the LIS-signing community, as previously discussed.

5.7 Qualitative analysis

Following the quantitative overview of idiom production in the dataset, this section presents a detailed qualitative analysis of the collected IEs in LIS. The analysis aims to examine the formal and semantic properties of these expressions, most of which are the first time being attested and formally described for the first time. In particular, the next sections are organized according to the main typological distinction that emerged from the framework designed in the previous chapters: calques from Italian, typical LIS idioms, monorematic – included compounds – and polirematic IEs.

5.7.1 Calques from Italian IE

The corpus contains 32 tokens (20.13%) of IEs that represent direct calques from Italian (see Appendix A), preserving both the conceptual structure and figurative meaning of the source language. Within this category, the signs that are presented below are the most frequent and, consequently, those that are most relevant for closer examination.

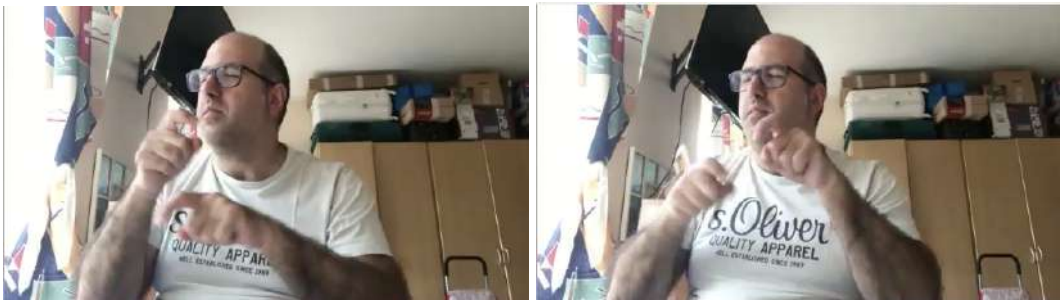
First, there is a monorematic idiom that has already been introduced in this thesis (see Chapter 3, example (9)), which was attested six times across participants. This idiom, presented in (1), is HAIR_RAISE, conveying the figurative meaning of being shocked, directly calqued from the Italian expression "*rizzare i capelli in testa*". Its literal meaning would be "having one's hair (physically) raised on the head".

(1) HAIR_RAISE

'shocking' [idiomatic]

'to have someone's hair raised on their head' [literal]

Another monorematic idiom originates from the Italian expression "*tornare indietro*" or "*fare un passo indietro*", used figuratively to mean going back to a previous moment or correcting oneself to provide clarification. This form appears in (2) as WALK_BACKWARD, with the idiomatic meaning of restarting a sentence or concept.

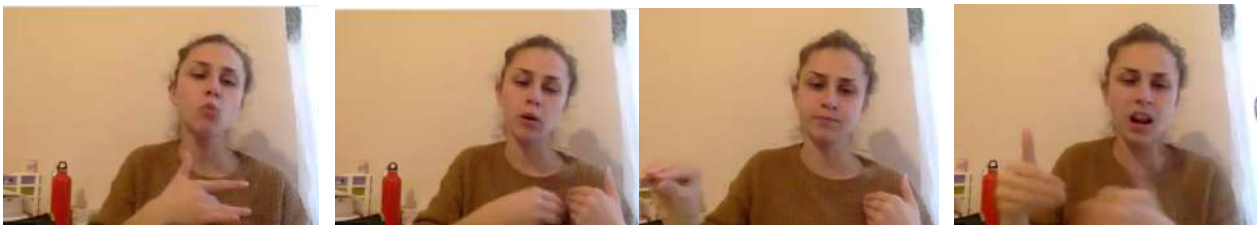


(2) WALK_BACKWARD

‘to start again (with a sentence or concept)’ [idiomatic]

‘to walk backwards’ [literal]

Remaining within the category of calques from Italian, an especially noteworthy idiom, though, attested only once in the entire corpus, is presented in (3). This is the poliremati c idiom HEART CL(flat closed 5):‘grab and put’ LEAVE, which constitutes a calque of the Italian idiom “*lasciarci il cuore*” (literally, “to leave the heart there”), meaning to invest deep emotional involvement in something or somewhere, to the extent of leaving part of one’s heart behind.

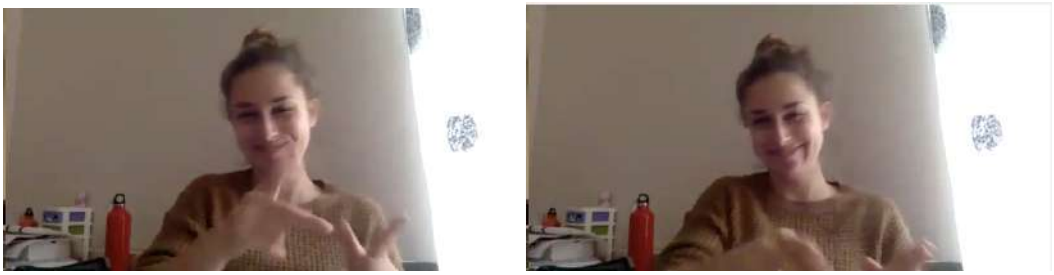


(3) HEART CL(flat closed 5) ‘grab and put’ LEAVE

‘to leave part of one’s heart behind’ [idiomatic]

‘to leave one’s heart there’ [literal]

Several noteworthy instances of calques from Italian have been observed, though within the framework of LIS, these may not qualify as pure idioms according to strict definitional criteria. While these expressions appear to exhibit a dual interpretation (or semantic ambiguity), this phenomenon may be more accurately characterized as polysemy arising from the structural correspondence between an Italian IE and its LIS equivalent. In (4) CUT is presented, which calques the Italian expression “*darci un taglio*” (literally “to give it a cut”, meaning “to stop/quit something”), and means to stop something.



(4) CUT

‘to stop something’ [idiomatic]

‘to cut something (with scissors)’ [literal]

Crucially, in this idiomatic usage, the sign does not retain its literal meaning of physically cutting something with scissors but rather conveys the figurative sense of ceasing or discontinuing an activity or behavior. This semantic shift demonstrates how the metaphorical extension from the concrete action of cutting to the abstract concept of termination has been preserved in the calquing process from Italian to LIS. This convergence suggests that the apparent dual interpretation may be attributable to the direct morphological mapping between the source language idiom and the target sign language articulation, rather than representing genuine idiomatic polysemy within the LIS linguistic system. The observed phenomenon raises important questions regarding the classification of borrowed IEs in sign languages and the mechanisms through which semantic transfer occurs across modalities in language contact situations.

Another example of a calque from Italian is illustrated in (5) A Z. This idiom consists of two signs in which the alphabet letters A and Z are sequentially produced. It directly replicates the Italian IE "*dalla A alla Z*" (literally, "from A to Z"), conveying the meaning of totality or completeness, analogous to the alphabet's span from its first to its final letter.

(5) A Z

'in its totality' [idiomatic]

'from A to Z' [literal]

The expression is interpreted figuratively, since a strictly literal reading would merely denote the two isolated letters – or even the entire alphabet, from A to Z – rather than the intended sense of entirety.

5.7.2 Typical LIS idioms

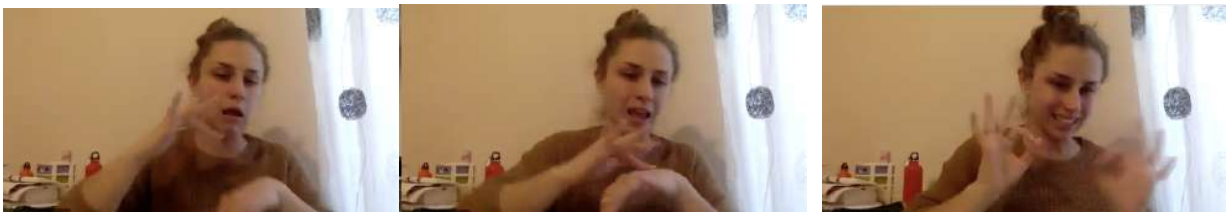
As already introduced, the majority of expressions in the corpus represents idioms that appear to have originated independently within the Italian Deaf community, showing no apparent correspondence with Italian IE (see Appendix B).

The first cases comprise expressions formed by 'TOUCH [aspectual marker]', specifically participants produced TOUCH FINISH in (6) e TOUCH NOT_YET (7). In these cases, the verb TOUCH does not denote a literal physical touch or contact with an object, but rather signifies having been in a particular place (a semantic usage also documented in ASL; see Chapter 3, §3.4.1) or having experienced something.

(6) TOUCH FINISH

'to have been somewhere' [idiomatic]

'to have touched (something)' [literal]



[sss]

(7) TOUCH NOT_YET

'to have not been there yet' [idiomatic]

'to have not touched (something) yet' [literal]

This might represent a semantic extension of TOUCH from its basic meaning of physical contact to a metaphorical sense indicating experiential contact or familiarity with a place or situation. The aspectual markers FINISH and NOT_YET simply indicate whether that experience has already occurred or is still awaited. It is also possible that FINISH constitutes a case of polysemy, and further research is needed to determine the full range of meanings for this sign and its expressions.

Another example of typical LIS IE appears in (8), SIGN IMPOSSIBLE_NO_WAY, which conveys the figurative sense of something so extraordinary or incredible – positively or negatively – that it cannot be adequately expressed in words – or signs.

(8) SIGN IMPOSSIBLE_NO_WAY

‘impossible to describe’ [idiomatic]

‘impossibility to sign’ [literal]

This IE exemplifies a conventional metaphor in which the impossibility of linguistic production serves as a hyperbolic device, highlighting the exceptional or overwhelming nature of the referent. The expression maps the concept that an experience has been perceived with such intense force that language proves inadequate to express it; thus, in this case, signs cannot capture the intensity of the event due to its overwhelming magnitude, rather than reflecting any genuine communicative inadequacy or motor limitation on the part of the signer.

Within the category of LIS-specific IEs, two polirematic constructions comprising two signs were documented during travel narrative segments, both sharing the initial component MONEY or COST[85] and conveying the semantic meaning of “expensive”. The first expression, MONEY MISSILE, appears in example (9), while the second, MONEY HIT_HEAD, is illustrated in example (10). These constructions present particularly compelling cases as they occupy the same semantic domain while employing distinct conceptual metaphors.

(9) MONEY MISSILE

‘very expensive’ [idiomatic]

‘cost is a missile’ [literal]

[85] In LIS, the concepts of ‘money’ and ‘cost’ are expressed using the same sign; for the purposes of this study, in the glosses MONEY is used.

(10) MONEY HIT_HEAD

‘very expensive’ [idiomatic]

‘money hits one’s head’ [literal]

The first expression utilizes the image of a missile – an object characterized by rapid upward trajectory, forceful propulsion, and extensive range – potentially mapping the conceptual framework of vertical ascension onto cost escalation (where “up” correlates with “more”). Conversely, the second expression invokes the imagery of impact to the head, metaphorically representing cost as a force so excessive that it induces physical discomfort or pain.

Among the monorematic idioms discussed in this chapter, the sign THROW_NOSE provides a clear example of how LIS conveys figurative meaning though single lexical units, combining iconicity with metaphorical extension. The sign THROW_NOSE represents the semantic concept of deliberate indifference or conscious disregard toward something or someone, functionally equivalent to expressions meaning “to not care about” or “to ignore”. This sign exhibits phonological variation through three documented handshapes: the F handshape – in (11a) – the flat closed 5 handshape – in (11b) – and the closed G – in (11c), all maintaining the same core semantic meaning while demonstrating the phonological flexibility characteristic of many sign language lexemes.

(11a) THROW_NOSE

(11b) THROW_NOSE

(11c) THROW_NOSE

‘to not care’ [idiomatic]

‘to throw one’s nose’ [literal]

Importantly, the sign’s meaning operates at a metaphorical level rather than representing the literal action of physically grasping and throwing one’s nose, illustrating how sign languages employ iconicity and metaphorical mapping in ways that parallel spoken language idioms. The existence of these two signs shows the degree of variability that can also be found in idiomatic productions, where phonological forms may vary while preserving semantic stability.

Another typical monorematic idiomatic sign in LIS is STICK-FOREHEAD in (12), which employs the sign GLUE or STICKY, normally articulated in neutral space, but relocated to the forehead. The forehead conventionally serves as the locus for cognitive actions in LIS, including memory-related processes (see Chapter 1, §1.4). Consequently, this sign, which could literally denote something adhered or attached to the forehead, conveys the figurative-idiomatic meaning of “remembering well” or retaining information that has become “engraved in one’s mind”.

(12) STICK-FOREHEAD

‘engraved in one’s mind’ [idiomatic]

‘to have something stuck on one’s forehead’ [literal]

This construction exemplifies how LIS exploits both spatial iconicity and metaphorical mapping, where the physical concept of adhesion is metaphorically extended to represent the cognitive process of permanent retention, while the POA (forehead) reinforces the semantic domain of mental activity. The idiomatic interpretation emerges from the interaction between the lexical base (GLUE) and its non-canonical spatial realization, resulting in a non-compositional meaning that transcends the literal sum of its components.

Within the class of typical monomorphemic LIS IEs, and as anticipated in the previous chapter, a particularly rich and varied subcategory has been identified: idiomatic compounds, which are discussed in the following section.

5.7.3 Idiomatic compounds

These signs are considered compounds rather than sequences of two separate signs because phonological analyses reveal that the two stems function as a single, cohesive lexical unit (see Chapter 4, §4.5). Movement features from the second stem influence the first, blocking epenthetic movements and creating a phonologically integrated form. This interaction indicates that the sign behaves as a monomorphemic idiom, where the compound’s idiomatic meaning is encapsulated within a single lexical item rather than resulting from the combination of two independent signs.

These compounds are systematically formed with a body-part morpheme – most commonly HEAD or EAR – followed by a second lexical stem, resulting in the formal structure HEAD^[X] or EAR^[X]. This subcategory stands out for its productivity and semantic diversity, as the combination of the body-part root with a second element often yields idiomatic meanings that are not directly inferable from the individual components. In addition to the

previously analyzed HEAD^EMPTY, HEAD^DARK, and HEAD^CRASH (see Chapter 4, §4.5), this section presents two additional compounds featuring HEAD as the first stem. HEAD^ILL in (13) expresses the idiomatic meaning "to be crazy about something" or "to be obsessed with something". The non-compositional nature of this compound is evident in that its idiomatic interpretation diverges significantly from the literal combination of its constituent stems, which would suggest mental illness or cognitive impairment.

(13) HEAD^ILL

'obsessed with something' [idiomatic]

'mentally ill' [literal]

Another noteworthy compound is HEAD^PROFOUND in (14), which conveys the idea of falling asleep quickly and effortlessly, entering a state of deep sleep without difficulty. The element PROFOUND here does not refer to the head moving downward toward a deep location; rather, it metaphorically evokes the intensity and completeness of sleep.

(14) HEAD^ PROFOUND

'to fall asleep quicky' [idiomatic]

'head goes into the depths' [literal]

The next analysis introduces a particularly intriguing compound, HEAD^FILE-CABINET FIND in (15), which conveys the meaning of "searching for/finding a memory". This construction demonstrates a transparent conceptual mapping whereby memory functions as an archive and individual memories correspond to files, establishing a clear metaphorical framework that aligns with common cognitive metaphors found across languages.

(15) HEAD^ FILE-CABINET FIND

‘to search and find a memory’ [idiomatic]

‘to search and find a file in one’s head’ [literal]

Despite exhibiting the characteristic features of non-compositionality and dual semantic interpretation that typically define IEs, this sign appeared only once throughout the entire collected corpus. The singular occurrence of HEAD^FILE-CABINET FIND raises important questions regarding its status within the LIS lexicon and the processes of idiomatization more broadly. The infrequency of production might suggest that this expression has not yet achieved full institutionalization within the LIS community, particularly given that this represents the first documented attestation of this particular sign in the literature. However, it is worth noting that this expression was also recognized by the other informant in the pair. Nonetheless, this novel occurrence presents two equally plausible interpretations. So, on one hand, the expression may be undergoing a process of linguistic diffusion and conventionalization, potentially representing an emerging idiom that will gain broader acceptance and usage within the community over time. Alternatively, this instance may constitute an isolated creative production that demonstrates the dynamic nature of linguistic creativity and metaphorical productivity in LIS, illustrating how conceptual mapping mechanisms operate in real-time discourse to generate novel lexical items. For now, the status of this sign remains unclear. A definitive classification as idiomatic would require that it satisfy all the criteria delineated in the previous chapters, particularly §3.1.1, including aspects such as institutionalization and conventionality. Accordingly, the question of its idiomaticity remains open and represents an avenue for future research.

The documentation of such creative linguistic productions provides valuable insight into the mechanisms through which metaphorical thinking contributes to lexical expansion in sign languages. Regardless of whether HEAD^FILE-CABINET FIND ultimately achieves conventional status or remains an isolated occurrence, this expression demonstrates the active role of metaphorical cognition in LIS discourse and highlights the ongoing processes through which

signers exploit conceptual mappings to create meaningful expressions that extend beyond the compositional boundaries of their constituent elements. Such emergent constructions merit systematic study and longitudinal observation in sign language study. Investigating these expressions can advance the research on lexical innovation processes and reveal mechanisms underlying conceptual development in visual-manual languages. Indeed, expressions of this nature – displaying apparent idiomatic characteristics yet lacking the widespread recognition and usage patterns necessary for full institutionalization and conventionality – may represent a theoretically significant category for understanding how LIS generates new conceptual representations and how non-compositionality works. Further investigation is therefore needed.

Finally, as previously indicated, the dataset also includes idiomatic compounds following the EAR^[X] structure. The first example is EAR^INSIDE in (16), which expresses the meaning "to feel" rather than the literal interpretation of auditory perception occurring internally.

(16) EAR^ INSIDE

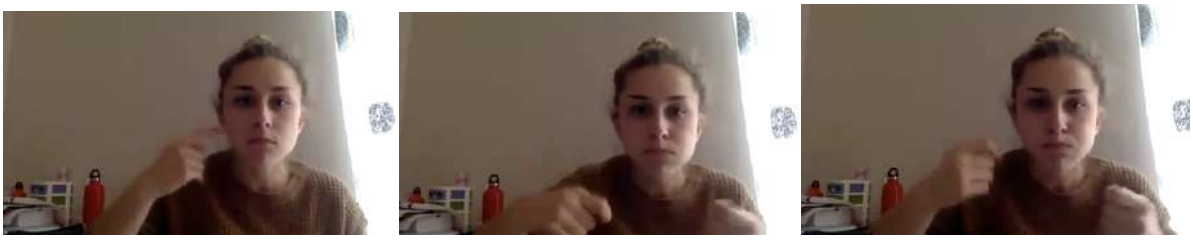
'to feel' [idiomatic]

'to hear inside the body' [literal]

From a cross-linguistic perspective, Italian provides an interesting parallel through the polysemous verb *sentire*, which encompasses both auditory perception ("to hear") and emotional/physical sensation ("to feel"). This semantic convergence between sensory and affective domains appears to be reflected in LIS through the compound EAR^INSIDE, which exploits the metaphorical extension of auditory perception to encode internal emotional states. The compound structure might employ the sign INSIDE to disambiguate between external auditory events and internal experiential phenomena, redirecting the perceptual domain from external sound reception to internal affective experience. In other words, the initial component EAR potentially derives from the auditory sense linked to the Italian term *sentire* (to hear), while the addition of INSIDE serves to specify the internal, affective meaning corresponding to the sense "to feel". This construction

suggests that LIS may employ similar conceptual mappings to those found in spoken Italian, where the boundaries between sensory modalities and emotional states are linguistically permeable.

Additionally, in (17) EAR^DRUM is presented, which conveys the meaning “to have heard about something” or “to be aware of something” through indirect sources. While DRUM in isolation can denote gossip or rumor, in the documented context, this compound was produced when the informant described learning about a travel destination through repeated recommendations and discussions among friends and acquaintances.



(17) EAR^ DRUM

‘to have heard of something’ [idiomatic]

‘to hear drums’ [literal]

Overall, idiomatic compounds in LIS underscore the interplay between formal integration, metaphorical mapping, and non-compositionality, revealing both established idioms and potential pathways for the emergence of novel lexical items. These findings emphasize the need for further longitudinal studies to understand the processes of idiomatization, conventionalization, and lexical innovation in sign languages.

5.8 Summary of Chapter 5

This chapter presents the first systematic empirical investigation of IEs production in LIS within semi-spontaneous conversational contexts. Building on the theoretical and methodological framework established in earlier chapters, the study combines quantitative and qualitative observations to describe idiomatic frequency, sociolinguistic distribution, structural and semantic properties.

The empirical investigation employed joint interviews conducted via Zoom with ten LIS signers, whereby participants were paired with familiar interlocutors to encourage natural conversational

dynamics. Data collection utilized three elicitation techniques: narrative retelling tasks focusing on favorite television series or films, travel experience descriptions, and free exchange segments. Subsequently, all sessions were video-recorded and annotated using ELAN software with a hierarchical tier structure categorizing signs as lexical signs, IEs, gestures, language-specific lexical signs, number-incorporated signs, or other productions. In addition, the participant sample demonstrated considerable demographic heterogeneity. Specifically, 60% had Deaf signing parents facilitating early LIS acquisition, while 40% had hearing parents resulting in later acquisition. Furthermore, seven participants (70%) presented congenital or early-onset deafness (0-3 years), and educational backgrounds varied from oral-only to bilingual approaches. Notably, all participants reported native-level LIS competence with variable Italian proficiency levels, thereby reflecting the typical bilingual profile of the Italian Deaf community.

The quantitative analysis yielded significant findings regarding IE frequency and distribution. From 20,606 total annotated tokens, IEs represented merely 0.77% (159 tokens), with individual participant rates ranging from 0.41% to 0.97%. Among the other categories, literal signs represent the 89.96% (18,537 tokens) of the corpus; gestures constituted the second largest category at 6.46% (1,331 tokens); language-specific lexical signs are the 2.49% (513 tokens); number-incorporated signs compose the 0.17% (35 tokens) of the corpus. This overall distribution highlights the overwhelming dominance of literal signs and the marginal presence of IEs within the broader LIS lexicon. These figures confirm that idioms represent a numerically small but consistently present component of LIS communication, emerging in every recording session despite some variations. Significant is the predominance of typical LIS idioms over Italian calques. Of the 159 idiomatic tokens identified, 79.87% are expressions native to the LIS community, while only 20.13% are calques from Italian; interestingly, no borrowings with cultural adaptation were documented. It should be noted that, even though the corpus contains 159 idiomatic tokens, many of these represent repeated instances of the same expression rather than distinct types. This repetition is particularly evident in compounds involving HEAD^[X] and EAR^[X], which together account for 54 occurrences, making them the most productive category observed. Examples include, in addition to HEAD^CRUSH, HEAD^EMPTY, and HEAD^DARK (see Chapter 4, §4.5), HEAD^ILL (“obsessed with something”), HEAD^PROFOUND (“fall asleep quickly”), EAR^INSIDE (“to feel”), and EAR^DRUMS (“have heard about something”). Crucially, these compounds are distinguished from sequential signs through phonological evidence, wherein

movement features from the second stem block epenthetic movements in the first stem, thereby creating phonologically integrated monorematic units (see Chapter 4). Among these, the compound HEAD^BLOCK is the single most frequently produced idiom, appearing 19 times across participants and absent in the output of only two informants.

The qualitative analysis provided detailed formal and semantic examinations of collected IEs, organized into two principal categories. Firstly, calques from Italian preserve both conceptual structure and figurative meaning from the source language. These include monorematic expressions such as HAIR_RAISE ("to be shocked" from Italian "*rizzare i capelli*") and WALK_BACKWARD ("to restart/clarify" from "*fare un passo indietro*"), as well as polirematic constructions like HEART CL(flat closed 5) 'grab and put' LEAVE ("to leave part of one's heart behind" from "*lasciarci il cuore*"). Conversely, typical LIS idioms appear to have originated within the Italian Deaf community with no apparent Italian correspondence. These encompass various structural types: polirematic constructions such as the ones presented, TOUCH FINISH or TOUCH NOT_YET ("have been somewhere/not been there yet"), SIGN IMPOSSIBLE_NO_WAY ("impossible to describe"), and MONEY MISSILE or MONEY HIT_HEAD ("very expensive", utilizing distinct conceptual metaphors); monorematic idioms including THROW_NOSE (with F or flat closed 5 handshape variants meaning "not care about/ignore") and STICK-FOREHEAD ("engraved in one's mind", employing spatial iconicity and metaphorical mapping). Notably, topic-driven factors might have contributed to the recurrent use of certain polirematic idioms: for instance, narratives about memorable travel experiences naturally elicitated expressions like TOUCH FINISH to indicate "having been somewhere", produced at least twice by eight participants out of ten, once by one, and not at all by another. Idioms expressing astonishment or incredulity, such as HEAD^BLOCK or SIGN IMPOSSIBLE_NO_WAY, appeared repeatedly, reflecting the influence of discourse context and emotional stance of idiom selection.

In addition, in analyzing the idiomatic production, it was essential to consider whether sociolinguistic variables could explain more about idioms frequency. An age-related trend emerged: younger signers (under 30) produced idioms at higher rates than older participants, a difference that – while not conclusive given the sample size – suggests that generational factors, possibly linked to changing educational practices and community networks, may influence idiomatic competence. In fact, the data also reveal marked individual variation: participants

differed substantially not only in overall IE frequency but also in the relative balance of monorematic (including compounds) and polirematic idioms, confirming that idiomatic competence is shaped by a complex interplay of factors rather than by a single demographic variable. Finally, professional background as LIS instructors was examined to determine whether formal training in language structure and pedagogy might foster greater idiom production or a preference in particular idiom types. The results, however, do not indicate a meaningful effect of professional status on idiom frequency or type within this participant group. Similarly, geographical origin showed no systematic influence on IE production. Overall, the analysis of sociolinguistic factors revealed interesting tendencies but no statistically robust correlations, a limitation likely attributable to the relatively small sample size.

The data presented in this chapter combined with the theoretical and methodological insights from previous sections, provide the foundations for addressing the three central research questions that guided this investigation, which will be systematically answered in the concluding chapter.

Chapter 6

Conclusion

This thesis has provided a systematic theoretical framework for analyzing a specific type of figurative language in LIS, namely IEs. By integrating multiple perspectives, this work aimed to provide a robust set of criteria for identifying and categorizing IEs, distinguishing them from other sign categories. These final pages serve as a recap of the key concepts presented in the previous chapters (§6.1) and as a review of the main findings and discuss their implications (§6.2). Final comments, remarks and possible future directions of the research on this topic are provided in §6.3.

6.1 General summary

The first chapter presented an overview of LIS as a fully developed linguistic system, characterized by complex structural organization operating through the visual-manual modality. The phonological description based on five distinctive parameters – handshape, orientation, movement, location, and non-manual markers – provided the necessary analytical tools for systematic investigation of IEs. In addition, the application of the Prosodic Model (Brentari, 1998) proved particularly effective in analyzing sign features and describing how different parameters interact in the formation of signs. This methodological approach revealed how the simultaneity characteristic of sign languages functions and how it can be employed to analyze compounds, particularly idiomatic compounds.

One of the central discussions in the first chapters concerns the complex interplay between iconicity and arbitrariness in figurative language in LIS. While iconicity may facilitate literal interpretation of some expression, idiomatic meaning results from cultural and linguistic conventions, introducing a level of arbitrariness that functions beyond visual transparency. The principle of "double mapping" (Taub, 2001) proved crucial for understanding how iconic representation intersect with metaphorical mappings, producing multi-layered semantic structures. This mechanism is particularly relevant in IEs where form may be iconically motivated, but overall meaning remains conventionalized.

Chapters 3 and 4 provide the theoretical and empirical basis for examining IEs in LIS. Chapter 3 establishes a comprehensive theoretical framework for identifying and analyzing IEs through five defining features: non-compositionality, institutionalization, conventionality, frozenness, and compositeness. Central for this framework is Langlotz's (2006) pattern of figuration as the key diagnostic for idiomaticity: a true idiom must allow both a literal and a figurative reading.

Chapter 4 then applies these criteria to conduct a systematic analysis of expressions or signs in LIS that have been traditionally labeled as idiomatic. This investigation revealed that many of these conventionally accepted "idioms" actually lack the necessary diagnostic features, thereby demonstrating that they should not be classified as true IEs. This framework thus seems to be effective not only in identifying genuine idioms but also in excluding constructions that fail to meet the established defining criteria. In addition, a central issue concerns the distinction between monorematic and polirematic constructions. While spoken-language idioms are typically multi-word, LIS exhibits numerous monorematic idioms: single, morphologically complex signs that convey fixed, figurative meanings. Their existence reflects the simultaneous and synthetic nature of sign languages, where handshape, movement, orientation, location, and non-manual markers can interact in parallel. This multimodal layering allows a single sign to encode meanings as semantically rich and structurally complex as multi-word idioms in spoken languages. Consequently, in this thesis it is suggested that idiomaticity in LIS – and likely in sign languages more broadly – extend beyond the multi-lexical constraint typical of spoken languages. The visual-manual modality appears to enable some mechanism of idiomatic formation that differ from those of spoken languages. Therefore, idiomaticity should be assessed through semantic opacity and the potential for dual literal/figurative interpretation, suggesting that the simultaneous and spatial nature of sign languages may offer distinctive ways for figurative meaning construction.

Equally important is the need to exclude language-specific lexical items and number-incorporated signs from the idiom category: although culturally distinctive or language-specific, these forms lack non-compositionality and do not exhibit the dual interpretation required for idiomatic status. Nevertheless, it remains essential to include them in the analysis precisely to highlight their contrast with IEs and to demonstrate, through direct comparison, the features that set true IEs apart.

Together, these chapters show that LIS idioms share core properties with their spoken-language counterparts while exploiting the visual-manual modality's unique capacity for simultaneity. Given

that idiomaticity in LIS has received limited attention in the literature, unlike the extensive research tradition on idioms in spoken languages, this thesis argues that establishing rigorous diagnostic criteria is particularly crucial at this foundational stag of LIS idiom studies. This proposed framework allows to distinguish true idioms – whether mono- or poliremati c – from polysemy and other figurative but non-idiomatic signs, ensuring an accurate account of idiomaticity in LIS.

6.2 Main findings and comments

This investigation set out to address three fundamental research questions regarding IE production in LIS. Specifically, the three research questions aimed to clarify: i) what the frequency of idiom production in (semi-)naturalistic signed conversations is; ii) which typological categories of idioms emerge most prominently; and iii) if idioms and other culture-specific signs in LIS display comparable production patterns?

The empirical findings provide clear answers that advance our understanding of figurative language in sign languages while opening new avenues for future research.

The quantitative analysis revealed that IEs represent a numerically small but systematically present component of LIS discourse, accounting for 0.77% of total productions (159 tokens out of 20,606). While this frequency appears low, the consistent emergence of idioms across all ten participants and recording sessions demonstrates their integral role in natural LIS communication. Individual variation ranged from 0.41% to 0.97%, indicating substantial differences in idiomatic competence that cannot be attributed to single sociolinguistic variables but rather emerge from complex interactions of factors including age, community exposure, and individual linguistic creativity.

As for the second research question, the analysis revealed a clear hierarchical distribution among idiomatic categories. LIS-typical idioms constituted the dominant category with 79.87% of all productions, while Italian calques accounted for 20.13%. Specifically, calques from Italian preserve both conceptual structure and figurative meaning from the source language, including monorematic expressions like HAIR_RAISE (“to be shocked”) and poliremati c constructions such as HEART CL(flat closed 5) ‘grab and put’ LEAVE (“to leave part of one’s heart behind”). Interestingly, no instances of Italian borrowings with cultural adaptations were documented. This result is noteworthy because it contrasts with findings in other sign languages, like ASL, where

idiomatic signs of this type have been documented. The absence of such forms in the present dataset may indicate either that some sign languages simply lack this category and therefore do not display idiomatic borrowings from the spoken language used in the same territory, or that the category is rare in LIS and did not surface in these ten productions. Crucially, an absence in the corpus cannot be taken as proof of absence in the language, but only as evidence that it was not attested in the recorded interactions. The overall pattern of occurrences nevertheless shows that, while contact phenomena with Italian do influence idiom formation – as demonstrated by the presence of idiomatic calques – expressions originating within the Deaf community constitute the dominant category in actual usage, at least among the participants in this study.

Within this category, idiomatic compounds following HEAD^[X] and EAR^[X] structures emerged as the most productive subcategory, accounting for 54 occurrences and representing a previously undocumented morphological process in LIS idiomaticity. Examples include HEAD^BLOCK ("to be shocked"), HEAD^EMPTY ("not knowing"), EAR^INSIDE ("to feel"), representing the first systematic documentation of this morphological process in LIS idiomaticity. Among these, the most produced idiomatic compound was HEAD^BLOCK, which alone appeared 19 times across participants, demonstrating high conventionalization within the community. These findings reveals that compounding serves also as an important strategy for IE formation in LIS, challenging traditional assumptions about idiomatic poliremacity derived by spoken languages. Thus, additional research specifically on idiomatic compounds is warranted to further explore their underlying mechanism, distribution, and potential functions within the (figurative) language.

To address the third research question, a comparative analysis was conducted to examine idioms alongside with other culture-specific signs – namely language-specific lexical items and number-incorporated signs. The study demonstrated that these categories were significantly more frequent than idioms, with 513 occurrences (2.49% of total productions), whereas number-incorporated signs remained marginal at 35 occurrences (0.17%). Crucially, the data reveal non-comparable distribution patterns in this corpus: culture-specific signs showed higher productivity rates, greater inter-individual variability, and more pronounced clustering among high-production participants, while idioms exhibited a more uniform distribution and consistent production levels. These findings are consistent with the fact that language-specific items and number-incorporated signs are, strictly speaking, fully-lexical signs – here categorized separately solely for analytical purposes

in order to highlight their distinction from IEs, a distinction that is not yet widely recognized in LIS scholarship.

To further explore participants' metalinguistic awareness, a brief free-exchange segment was conducted at the end of each interview, during which informants were asked if they were familiar with the concept of IE, and if they knew the difference between IEs and language-specific lexical signs and number-incorporated signs. Nine participants out of ten initially responded affirmatively at the first question. However, as the conversation proceeded, only two informants (I1 and I10) – both LIS instructors – were able to articulate the distinction accurately. On the other hand, the rest of the group stated that they believed number-incorporated signs and language-specific lexical items were types of idioms. This outcome corroborates the observation discussed in Chapter 4: (meta)linguistic awareness of these categories remains limited.

The investigation of potential sociolinguistic influences revealed interesting but inconclusive patterns. Younger participants (under 30 years) showed higher idiom production rates, suggesting possible generational differences in idiomatic competence, though the small sample size prevents definitive conclusions. Professional background as LIS instructors, geographical origin, and multilingual competence showed no systematic correlation with idiom frequency, highlighting the complex and multifactorial nature of idiomatic acquisition and competence. This complexity was further heightened by substantial individual variation across participants, indicating that idiomatic competence likely emerges from several factors extending beyond conventional sociolinguistic variables.

6.3 Final comments and future directions

The present investigation acknowledges several methodological constraints that limit the generalizability of findings. Firstly, the sample size of ten participants, while providing detailed qualitative and idiolectal insights, restricts the statistical power for identifying sociolinguistic correlations. Then, the semi-structured elicitation methodology, although it may have influenced production patterns through topic-driven factors, was considered optimal for recreating semi-naturalistic communicative contexts, particularly because interactions occurred between Deaf participants, with the researcher present only as a moderator to pose questions. Indeed, specifically

the joint interview approach proved effective in elicitating the spontaneous use of specific expressions, including idioms and other language/cultural-specific signs. Future research could further explore underrepresented IEs that may emerge in more formal or specialized discourse contexts.

Beyond these limitations, this research highlights persistent challenges in detecting, analyzing, and describing IEs. A central issue remains the unclear boundary between institutionalized idioms and creative, idiolectal productions. For instance, the analysis encountered novel expressions like HEAD^FILE-CABINET FIND ("to search and find a memory"), which exhibit features like non-compositionality and dual interpretation but appear to be products of individual linguistic creativity rather than conventionalized forms. This touches upon the crucial role of context and idiolectal repertoires, wherein individuals frequently use specific formulaic expressions as part of their personal communicative style (cf. Van-Lancker Sidtis, 2021). Future work should therefore develop finer-grained criteria to differentiate these creative, context-dependent constructions from true IEs and, just as importantly, from the language-specific lexical signs that are often mistakenly included in the idiom category. In addition, future studies would also benefit from large-scale corpus analysis to establish more robust frequency patterns and identify diatopic or diachronic variation in idiomatic usage. Longitudinal studies could illuminate the processes of idiom conventionalization and track the emergence of new IEs within the community.

Although this is a preliminary study, with the limitations acknowledged above, the systematic documentation of IEs and their structural patterns provide crucial resources for LIS pedagogy. The identification of productive morphological processes – particularly idiomatic compounds – offers valuable pedagogical insights for teaching advanced figurative competence to (hearing) L2 learners. Furthermore, the distinction between idiomatic signs, language-specific lexical signs, and number-incorporated signs addresses a significant gap in current LIS educational materials, where these categories are often conflated and represent some of the most challenging lexical items for L2 learners to comprehend and acquire.

Consequently, these findings have direct implications for interpreter training programs, as IEs pose particular challenges in cross-modal and cross-cultural communication (Santiago & Barrick, 2007; Rigo, 2022). A more detailed understanding of specific idiomatic categories and their formation

may help interpreters with essential knowledge to navigate figurative language more effectively in professional contexts – both during the understanding and the interpreting processes.

In addition, this research contributes to ongoing efforts to develop comprehensive LIS dictionaries by providing systematic criteria for identifying and categorizing IEs. The proposed theoretical framework facilitates more accurate documentation of figurative meanings and clearer differentiation between different types of non-literal expressions.

In conclusion, this thesis represents the first comprehensive analysis of idiomaticity in LIS, offering a theoretical framework and empirical foundation for a field of study still largely unexplored. By demonstrating how LIS exploits the unique affordances of the visual-manual modality to create figurative and idiomatic meaning, this work not only contributes on advance our understanding of the LIS lexicon but also to the broader linguistic debate on the interplay between modality, meaning formation, and idiomaticity. The framework developed here offers a replicable methodology for future cross-linguistic investigations, contributing to broader discussions about cognitive mechanisms, cultural specificity, and the relationship between modality and idiomaticity in human language.

References

Ädel, A. (2014). Metonymy in the semantic field of verbal communication: A corpus-based analysis of WORD. *Journal of Pragmatics, 67*, 72–88. https://doi.org/10.1016/j.pragma.2014.03.010

Alati, A. R. (2015). *A pragmatic analysis of Olunyole idioms* [Doctoral thesis]. Pretoria: University of South Africa.

Aljadaan, N. (2016). *Understanding hyperbole* [Master thesis, University College London]. Arab World English Journal, 1–31. https://doi.org/10.24093/awej/th.212

Amorini, G. (2008). "Metafora in LIS". In Bagnara, C., Corazza, S., Fontana, S., & Zuccalà, A., (a cura di). *I segni parlano*. Milano: Franco Angeli.

Aronoff, M., Meir, I., & Sandler, W. (2005). The paradox of sign language morphology. *Language,* 81, 301–344. https://doi.org/10.1353/lan.2005.0043

Arnold, I. V. (1973). *The English Word*. Moscow: Higher School.

Baker-Shenk, C. (1983). *A microanalysis of the nonmanual components of questions in American Sign Language.*Retrieved from https://escholarship.org/uc/item/7b03x0tz

Baker-Shenk, C., & Cokely, D. (1980). *American Sign Language: A Teacher's Resource Text on Curriculum, Methods and Evaluation*. Silver Spring: T.J. Publishers.

Barcelona, A. (2003). *Metaphor and metonymy at the crossroads: A cognitive perspective*. Mouton de Gruyter.

Barkema, H. (1996). Idiomaticity and terminology: A multi-dimensional descriptive model. *Studia Linguistica, 50*(2), 125–160.

Battison, R. (1978). *Lexical borrowing in American Sign Language.* Silver Spring, MD: Linstok Press.

Bauer, L. (1983). *English word formation*. Cambridge: University Press.

Bertone, C. (2011). *Fondamenti di grammatica della lingua dei segni italiana.* Milano: FrancoAngeli.

Biber, D., Conrad, S., & Leech, G. (2002). *Longman. Student Grammar of Spoken and Written English.* London: Pearson Educated Limited.

Bilkova, I. (2000). *Czech and English Idioms of Body Parts: A View From Cognitive Semantics* [M.A. thesis]. Glasgow: University of Glasgow.

Bobrow, S. A., & Bell, S. M. (1973). On catching on to idiomatic expressions. *Memory and Cognition*, 1, 343–346.

Boyes-Braem, P. (1981). *Significant Features of the Handshape in American Sign Language* [Doctoral dissertation]. Berkeley: University of California.

Branchini, C., & Geraci, C. (2011). "L'ordine dei costituenti in LIS: risultati preliminari". In Cardinaletti, A., Cecchetto, C., & Donati, C. (eds.), *Grammatica, lessico e dimensioni di variazione nella LIS*. Milano: FrancoAngeli, 113–26.

Branchini, C., & Mantovan, L. (2020). *A grammar of Italian Sign Language (LIS).* Venice: Edizioni Ca' Foscari.

Branchini, C., & Mantovan, L. (2022). *Grammatica della lingua dei segni italiana (LIS).* Venezia: Edizioni Ca' Foscari.

Brentari, D. (1990). Theoretical foundations of American Sign Language phonology [Doctoral dissertation]. Chicago: University of Chicago. Published 1993 in *University of Chicago Occasional Papers in Linguistics.*

Brentari, D. (1998). *A prosodic model of sign language phonology.* Cambridge, MA: MIT Press.

Burger, H., Buhofer, A. & Sialm, A. (1982), *Handbuch der Phraseologie*. Berlin: Walter de Gruyter.

Burger, H. (1989). "'Bildhaft, übertragen, metaphorisch': Zur Konfusion um die semantischen Merkmale von Phraseologismen". In Gréciano, G. (ed.), *EUROPHRAS '88. Phraséologie contrastive*. Actes du colloque international, Klingenthal-Strasbourg, 12–16 May 1988, Strasbourg: USHS, 17–29.

Burger, H. (1998). *Phraseologie*. Berlin: Erich Schmidt Verlag.

Caballero, G., & German, A. (2021). Grammatical tone patterns in Choguita Rarámuri (Tarahumara). *International Journal of American Linguistics,* 87, 149–178. https://doi.org/10.1086/712980

Cacciari, C. (1989). La comprensione delle espressioni idiomatiche. Il rapporto fra significato letterale e significato idiomatico. *Giornale Italiano di Psicologia*, XVI, 3, 413–437.

Cacciari, C., & Corradini, P. (2015). Literal analysis and idiom retrieval in ambiguous idioms processing: A reading-time study. *Journal of Cognitive Psychology*, 27(7), 797–811.

Cacciari, C. & Glucksberg, S. (1991). "Understanding idiomatic expressions: the contribution of word meanings". In Simon, G. B. (ed.). *Understanding word and sentence*. Amsterdam - Oxford: North-Holland, 217–240.

Cacciari, C., & Glucksberg, S. (1994). "Understanding figurative language". In Gernsbacher, M. A. (ed.). *Handbook of psycholinguistics*. New York: Academic Press, 447–477.

Cacciari, C., & Tabossi, P. (1988). The comprehension of idioms. *Journal of Memory and Language*, 27(6), 668–683.

Carrol, G., & Conklin, K. (2020). Is all formulaic language created equal? Unpacking the processing advantage for different types of formulaic sequences. *Language and Speech*, 63(1), 95–122.

Carston, R., & Wearing, C. (2015). Hyperbolic language and its relation to metaphor and irony. *Journal of Pragmatics, 79*, 79–92. https://doi.org/10.1016/j.pragma.2015.01.011

Casadei, F. (1994). "La semantica delle espressioni idiomatiche". *SILTA (Studi Italiani di Linguistica Teorica e Applicata*), 23/1, 61–81.

Casadei, F. (1995a). "Per una definizione di 'espressione idiomatica' e una tipologia dell'idiomatico in italiano". *Lingua e Stile*, 30, 335–358.

Casadei F. (1995b). "Flessibilità lessico-sintattica e produttività semantica delle espressioni idiomatiche: un'indagine sull'italiano parlato". In Casadei, F., Fiorentino, G., Samek-Lodovici, V. (a cura di). *L'italiano che parliamo.* Santarcangelo, Fara Editore, 4–13.

Casadei, F. (1996). *Metafore ed espressioni idiomatiche: uno studio semantico sull'italiano.* Roma: Bulzoni.

Casas-Monroy, R. M., & Hernandez-Campoy, J. M. (1995). A Sociolinguistic Approach to the Study of Idioms: Some Anthropolinguistic Sketches. *Cuadernos de Filología Inglesa,* 4, 43–61.

Cecchetto, C., Giudice, S., & Mereghetti, E. (2011). "La raccolta del Corpus LIS". In Cardinaletti, A., Cecchetto, C., & Donati, C. (eds.). *Grammatica, lessico e dimensioni di variazione nella LIS.* Milano: FrancoAngeli, 55–68.

Čermak, F. (2007). "Idioms and Morphology". In Burger, H., D. Dobrovol'skij, P. Kühn, & Norrick, N. R. (eds.), *Phraseology: An International Handbook of Contemporary Research*. Berlin-New York: Mouton de Gruyter, 20–26.

Chafe, W. (1968). Idiomaticity as an anomaly in the Chomskyan paradigm. *Foundations of Language*, 44, 109–27.

Chen Pichler, D., Reynolds, W., & Palmer, J.L. (2019). "Multilingualism in signing communities". In Quay, S., & Montanari, S. (eds.). *Multidisciplinary perspectives on multilingualism*. Berlin: De Gruyter, 175–202.

Claridge, C. (2010). *Hyperbole in English: A corpus-based study of exaggeration*. Cambridge University Press.

Clauss C. (2010). *Phraseologismen in der Lautsprache und in der Deutschen Gebärdensprache: Der Versuch eines kontrastiven Vergleichs beider Sprachen.* Monaco: GRIN Verlag.

Clements, G. (1978). "Tone and syntax in Ewe". In Napoli, D. J. (ed.), *Elements of tone, stress, and intonation*. Georgetown University Press, 21–99.

Conklin, K., & Schmitt, N. (2012). The processing of formulaic language. *Annual Review of Applied Linguistics*, 32, 45–61.

Corazza, S. (1990). "The morphology of classifier handshapes in Italian Sign Language (LIS)". In Lucas, C. (ed.). *Sign Language Research: Theoretical Issues*. Washington, DC: Gallaudet University Press, 71–82

Corazza, S. & Volterra, V. (1988). "La comprensione di lingue dei segni "straniere". In De Mauro T., Gensini S., & Piemontese, M.E. (eds.), *Dalla parte del ricevente: percezione,*

comprensione, interpretazione. Atti del XIX Congresso Internazionale S.L.I. Roma: Bulzoni, 73–82.

Corson, D. (1997). The learning and use of academic English words. *Language Learning* 47(4). 671–718.

Cowie, A. P. (1994). "Phraseological units: Problems of classification". In Cowie, A. P. (ed.). *Phraseology: Theory, Analysis, and Applications*. Oxford: Oxford University Press, 3–18.

Cowie, A., Ronald Mackin, P., & McCaig, I.R. (1983). *Oxford Dictionary of Current Idiomatic English / Vol.2, Phrase, Clause & Sentence Idioms.* Oxford: Oxford University Press.

Cutler, A. (1982). Idioms: The older the colder. *Linguistic Inquiry*, 13(2), 317–320. www.jstor.org/stable/4178278.

Cuxac, C. (2000). *La Langue des Signes Français (LSF). Les voies de l'iconicité.* Paris: Ophrys.

Cuxac, C., & Sallandre, M. A. (2007). Iconicity and arbitrariness in French Sign Language: High iconic structures, degenerated iconicity, and diagrammatic iconicity. In Pizzuto, E. et al. (eds.), *Verbal and signed languages - Comparing structures, constructs, and methodologies*. Berlin/New York: Mouton De Gruyter, 13–33.

Dancygier, B., & Sweetser, E. (2014). *Figurative language*. Cambridge: Cambridge University Press.

De Caro, E., & Edith, R. (2009). The role of familiarity and decomposability in processing English L2 idioms. *Ilha do Desterro*, 56, 21-49.

De Mauro, T. (2003-2005). *Grande Dizionario Italiano dell'Uso (GRADIT)*. Torino: UTET.

Deignan, A. (2005). *Metaphor and corpus linguistics*. Amsterdam/Philadelphia: John Benjamins.

Deignan, A. (2015). Figurative language and lexicography. In Hanks, P., & de Schryver, G. M. (eds.), *International handbook of modern lexis and lexicography*. Berlin: Springer.

ELAN (Version 7.0) [Computer software]. (2025). Nijmegen: Max Planck Institute for Psycholinguistics, The Language Archive. Retrieved from https://archive.mpi.nl/tla/elan

Emmorey, K. (2021). New Perspectives on the Neurobiology of Sign Languages. *Frontiers in communication*, *6*, 748430. https://doi.org/10.3389/fcomm.2021.748430.

EUD. 2014. Italy. *European Union of the Deaf*. https://www.eud.eu/eud-members/fullmembers/italy/

Fabbretti, D., & Tomasuolo, E. (2006). *Scrittura e sordità*. Roma:Carocci.

Fauconnier, G., & Turner, M. (2002). *The way we think: Conceptual blending and the mind's hidden complexities*. Basic Books.

Fedeli, L. (2015). Slang terms in Italian Sign Language (LIS): A sociolinguistic perspective [MA dissertation]. Venice: Ca' Foscari University of Venice.

Fernando, C. (1996). *Idioms and Idiomaticity*. Oxford: Oxford University Press.

Fernando, C., & Flavell, R. (1981). *On idiom: critical views and perspectives*. Exeter: University of Exeter.

Ferré, G. (2014). Multimodal hyperbole. *Multimodal Communication, 3*(1). https://doi.org/10.1515/mc-2014-0003

Fontana, S. (2009). *Linguaggio e Multimodalità: Gestualità e Oralità nelle lingue vocali e nelle lingue dei segni.* Pisa: Edizioni ETS.

Fontana, S. (2013), *Tradurre le lingue dei segni. Un'analisi multidimensionale.* Modena: Mucchi editore.

Fontana, S. & Fabbretti, D. (2000). "Classificazione e analisi delle forme labiali della LIS in storie elicitate". In Bagnara, C., Chiappini, G., Conte, M.P. & Ott, M. (eds.). *Viaggio nella città invisibile.* Pisa: Edizioni Del Cerro, 103-11.

Fontana, S., & Zuccalà, A. (2009). "Lo spazio sociale della sordità: da individuo a comunità". In Bagnara, C., Corazza, S., Fontana, S., & Zuccalà, A. (eds.). *I segni raccontano: esperienze, strumenti e metodologie*. Roma: FrancoAngeli, 35–45.

Fraser, B. (1970). Idioms within a transformational grammar. *Foundations of Language, 6,* 22–42.

Frishberg, N. (1975). Arbitrariness and iconicity. Historical change in American Sign. *Language,* 51, 696–719.

García-Page Sánchez, M. (2020). "Expresiones con doble 'nacionalidad' lingüística". In Dal Maso, E. (ed.). *De aquí a Lima. Estudios fraseológicos del español de España e Hispanoamérica*.

Col. VenPalabras 3. Estudios de lexicología española. Venezia: Edizioni Ca' Foscari. 17–28.

Geraci, C. (2009). Epenthesis in Italian Sign Language. *Sign Language & Linguistics,* 12(1), 3–51.

Gibbs, R. W. (1980). Spilling the beans on understanding and memory for idioms in conversation. *Memory & Cognition*, 8(2), 149–156.

Gibbs, R. W. (1989). Understanding and literal meaning. *Cognitive Science*, 13(2), 243–251.

Gibbs, R. W. (1994). *The poetics of mind: Figurative thought, language, and understanding*. Cambridge: Cambridge University Press.

Gibbs, R. W. (2001). Evaluating contemporary models of figurative language understanding. *Metaphor and Symbol*, 16(3-4), 317–333.

Gibbs, R. W. (2008). Metaphor and thought: The state of the art. In Gibbs, R. W. Jr. (ed.), *The Cambridge handbook of metaphor and thought*. Cambridge University Press, 3–13. https://doi.org/10.1017/CBO9780511816802.002

Giora, R., & Fein, O. (1999). Irony: Context and salience. *Metaphor and Symbol, 14*(4), 241–257.

Glucksberg, S. (2001). *Understanding figurative language: From metaphors to idioms*. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780195111095.001.0001

Gobbato, A. (2023), *Formulaic language in spoken English: an analysis of the use of idioms in the TV series Pretty Little Liars* [M. A. thesis]. Padova: Università di Padova.

Gonzalez-Ray, I. (2002). *La phraséologie du français.* Toulouse: Presses Universitaires du Mirail.

González, R. H. & Vera. F. (2024). "La interpretación al español del léxico idiomático de la lengua de signos española: ¿quimera o realidad?". En Montes, A. (ed.). *La traducción y la interpretación desde y hacia Europa*. Col. Interlingua 392. Granada: Comares, 133–141.

Goossens, L. (1990). Metaphtonymy: The interaction of metaphor and metonymy in expressions for linguistic action. *Cognitive Linguistics, 1*(3), 323–340.

Gramley, S., & Pätzold, K.-M. (2004). *A Survey of Modern English* (2nd ed.). London: Routledge. https://doi.org/10.4324/9780203425978

Guiraud, P. (1982). *La semantica*. Milano: Bompiani.

Hajiyeva, B. (2025). Translating idioms and slang: Problems, strategies, and cultural implications. *Acta Globalis Humanitatis Et Linguarum,* 2 (2), 284–293.

Halliday, M. A. K. (1978). *Language as Social Semiotic: The Social Interpretation of Language and Meaning.* London: Edward Arnold.

Halliday, M. A. K. (1985). *Spoken and written language*. Geelong: Deakin University. [ed. it. *Lingua parlata e lingua scritta*, La Nuova Italia, 1992].

Hampe, B. (2005). Image schemas in cognitive linguistics: Introduction. *Cognitive Linguistics Research, 62*(3), 1–14.

Hiraga, M. K. (2002). The interplay of metaphor and iconicity: A cognitive approach to poetic texts. *Theoria et Historia Scientiarum, 6*, 9–27. https://apcz.umk.pl/THS/article/view/ths.2002.008/13450

Hou, L., & de Vos, C. (2022). Classifications and typologies: Labeling sign languages and signing communities. *Journal of Sociolinguistics*, *26*(1), 118-125. https://doi.org/10.1111/josl.12490

Howarth, P. (1998). "The phraseology of learners' academic writing". In Cowie, A. P. (ed.), *Phraseology: Theory, Analysis, and Applications*. Oxford: Oxford University Press, 161–186.

Hu, Z. (2010). The Image Iconicity in the Chinese Language. *Chinese Semiotic Studies, 3*, 1, 40 55. https://doi.org/10.1515/css-2010-0106

Hyman, L., Katamba, F., & Walusimbi, L. (1987). Luganda and the strict layer hypothesis. *Phonology Yearbook,* 4, 87–108.

Johnson, M. (1987). *The body in the mind: The bodily basis of meaning, imagination, and reason*. Chicago: University of Chicago Press.

Johnston, T. & Ferrara, L. (2012). "Lexicalization in signed languages: When is an idiom not an idiom". *Selected Papers from UK-CLA Meetings 1*, United Kingdom Cognitive Linguistics Association, 229–248.

Johnston, T., & Schembri, A. (2010). Variation, lexicalization and grammaticalization in signed languages. *Langage et société*, 1, 131, 19–35.

Katz, J. J., & Postal, P. M. (1963). “Semantic interpretation of idioms and sentences containing them”. *Quarterly Progress Report*, 70, MIT Research Laboratory of Electronics, 275–282.

Klima, E., & Bellugi, U. (1979). *The Signs of Language*. Cambridge: Harvard University Press.

Kövecses, Z. (1996). *American English: An Introduction*. Peterborough: Broadview Press.

Kövecses, Z. (2002). *Metaphor: A practical introduction.* Oxford: Oxford University Press.

Kövecses, Z. (2010). *Metaphor: A practical introduction* (2nd ed.). Oxford University Press.

Kövecses, Z., & Szabcó, P. (1996). Idioms: A view from Cognitive Semantics. *Applied Linguistics,* 17(3), 326–55. https://doi.org/10.1093/applin/17.3.326

Kremers, J. (2012). The syntax of simultaneity. *Lingua,* 122(9), 979–1003.

Labov, W. (1972). Some Principles of Linguistic Methodology. *Language in Society*, *1*(1), 97–120. http://www.jstor.org/stable/4166672

Lakoff, G. (1986). A figure of thought. *Metaphor & Symbolic Activity, 1*(3), 215–225. https://doi.org/10.1207/s15327868ms0103_4

Lakoff, G. (1993). The contemporary theory of metaphor. In Ortony, A. (ed.), *Metaphor and thought* (2nd ed.). Cambridge: Cambridge University Press, 202–251. https://doi.org/10.1017/CBO9781139173865.013

Lakoff, G., & Johnson, M. (1980a). *Metaphors we live by*. Chicago: University of Chicago Press.

Lakoff, G., & Johnson, M. (1980b). Conceptual metaphor in everyday language. *The Journal of Philosophy, 77*(8), 453–486. https://doi.org/10.2307/2025464

Langlotz, A. (2006). *Idiomatic creativity: A cognitive-linguistic model of idiom-representation and idiom-variation in English*. Amsterdam/Philadelphia: John Benjamins.

Larson, M.L. (1984). *Meaning-Based Translation: A Guide to Cross-Language Equivalence.* Lanham: University Press of America.

Lattey, E. (1986). Pragmatic classification of idioms as an aid for the language learner. *International Review of Applied Linguistics in Language Teaching*, 24, 1-4, 217–234. https://doi.org/10.1515/iral.1986.24.1-4.217

Leah, M. (2014). *Idiom comprehension and production in L2 English* [Unpublished doctoral dissertation]. Cambridge: University of Cambridge.

Lerose, L. (2012). *Fonologia LIS.* Tricase (Lecce): Libellula Edizioni.

Lewis, M. (1993). *The Lexical Approach: The State of ELT and a Way Forward*. London: Commercial Colour Press.

Liddell, S. K., & Johnson, R. E. (1989). American Sign Language: The phonological base. *Sign Language Studies,* 64, 197–277.

Lipka, L. (1992). *An Outline of English Lexicology: Lexical Structure, Word Semantics, and Word-Formation*. Tübingen: Max Niemeyer Verlag.

Loos, C., German, A., & Meier, R. P. (2022). Simultaneous structures in sign languages: Acquisition and emergence. *Frontiers in Psychology,* 13, 992589. https://doi.org/10.3389/fpsyg.2022.992589

Lucas, C. (2013). "Methodological issues in studying sign language variation". In Meurant, L., Sinte, A., Van Herreweghe, M., & Vermeerbergen, M. (eds.). *Sign language research uses and practices,* 285–308. Berlin, Boston: De Gruyter.

Manning, P. K. (1979). Metaphors of the Field: Varieties of Organizational Discourse. *Administrative Science Quarterly*, *24*(4), 660–671. https://doi.org/10.2307/2392371

Marlo, M. R., Mwita, L. C., & Paster, M. (2015). Problems in Kuria H tone assignment. *Natural Language and Linguistic Theory,* 33, 251–265.

Marrocu, M. G. (2023), *Espressioni idiomatiche: confronto interlinguistico tra la LSE e la LIS* [M.A. thesis]. Venezia: Università Ca' Foscari Venezia.

Martin, G. R. R. (2011 [1996]). *A Game of thrones*. London: Harper Voyager.

Makkai, A. (1972). *Idiom Structure in English*. The Hague: Mouton.

Makkai, A. (1975). A taxonomy of lexical and phrasal idioms. *Studia Anglica Posnaniensia*, 7, 73–85.

Makkai, A. (1976). *A Dictionary of American Idioms*. Woodbury, NY: Barron's Educational Series.

Mathur, G., & Rathmann, C. (2006). "Variability in verbal agreement forms across four signed languages". In Goldstein, L., Whalen, D., & Best, C. (eds.). *Laboratory phonology 8: Varieties of phonological competence*. Berlin, Boston: Mouton de Gruyter, 287–314.

Mayberry, R., Lock, E., & Kazmi, H. (2002). Development: linguistic ability and early language exposure. *Nature* 417:38. doi: 10.1038/417038a

Mazzoni, L. (2008). *Classificatori e impersonamento nella Lingua Italiana dei Segni.* Pisa: Ed. Plus.

McCarthy, M. (1992). English idioms in use. *Revista canaria de estudios ingleses*. 25, 55– 65.

McCarthy, M., & O'Dell, F. (2002). *English Idioms in Use*. Cambridge: Cambridge University Press.

McCarthy, M., & O'Dell, F. (2010). *English Idioms in Use Advanced*. Cambridge: Cambridge University Press.

McGlone, M. S., Glucksberg, S., & Cacciari, C. (1994). Semantic productivity and idiom comprehension. *Discourse Processes, 17*(2), 167–190.

Meier, R. P. (2002). Why different, why the same? Explaining effects and non-effects of modality upon linguistic structure in sign and speech. In Meier, R. P., Cormier, K., & Quinto-Pozos, D. (eds.), *Modality and structure in signed and spoken languages*. Cambridge: Cambridge University Press, 1–25.

Mejri, S. (2005). "Figement absolu ou relatif : la notion de degré de figement". *LINX* [En ligne], 53, 183–196.

Mitchell, R. E., & Karchmer, M. A. (2004). When Parents Are Deaf Versus Hard of Hearing: Patterns of Sign Use and School Placement of Deaf and Hard-of-Hearing Children. *Journal of Deaf Studies and Deaf Education, 9*(2), 133–152. https://doi.org/10.1093/deafed/enh017

Montinaro, A. (2022). Non è solo un modo di dire. Locuzioni idiomatiche e variazione linguistica. *Lingue Linguaggi,* 53, 339-355. ISSN 2239–0367, e-ISSN 2239-0359 DOI 10.1285/i22390359v53p339.

Moon, R. (1998). *Fixed expression and idioms in English: A corpus-based approach.* Oxford: Clarendon Press.

Morford, JP, & Hänel-Faulhaber, B (2011). Homesigners as Late Learners: Connecting the Dots from Delayed Acquisition in Childhood to Sign Language Processing in Adulthood. *Lang Linguistics Compass*, 5, 525–537. 10.1111/j.1749-818X.2011.00296

Myers, S. (2024). Phonetics of tone (African languages). In *Oxford Research Encyclopedia of Linguistics.* Retrieved January 21, 2025, from https://oxfordre.com/linguistics/view/10.1093/acrefore/9780199384655.001.0001/acrefore-9780199384655-e-1088

Nerlich, B. (2005). "Metonymy". In Brown, K. (ed.), *Encyclopedia of language and linguistics*. Amsterdam: Elsevier, 109–113.

Newman, J. (2015). "Epistemic opacity, confirmation holism and technical debt: Computer simulation in the light of empirical software engineering". In Gadducci, F. & Tavosanis, M. (eds.). *History and Philosophy of Computing – Third International Conference, HaPoC 2015*. Dordrecht: Springer, 256–272

Nunberg, T., Sag., A. I., & Wasow, T. (1994). Idioms. *Language*, 70(3), 491–538.

O'Grady, W., Dobrovolsky, M., & Aronoff, M. (1997). *Contemporary Linguistics: An introduction*. Boston: Bedford/St.Martin's.

Oakley, T. (2007). "Image schemas". In Geeraerts, D., & Cuyckens, H. (eds.), *The Oxford handbook of cognitive linguistics*. Oxford: Oxford University Press, 214–235.

Occhino, C., Anible, B., Wilkinson, E., & Morford, J. P. (2017). Iconicity is in the eye of the beholder. *Gesture*, 16(1). 100–126. DOI: https://doi.org/10.1075/gest.16.1.04occ

Odden, D. (1995). "Tone: African languages". In Goldsmith, J. (ed.), *The handbook of phonological theory*. Oxford: Blackwell, 444–475

Pak, M. (2008). *The postsyntactic derivation and its phonological reflexes* [Doctoral dissertation]. Philadelphia: University of Pennsylvania.

Panther, K.U., & Radden, G. (1999). *Metonymy in language and thought*. Amsterdam/Philadelphia: John Benjamins.

Pasin, G. (2021). *Espressioni idiomatiche: Analisi di un Corpus LIS* [M.A. thesis]. Venezia: Università Ca' Foscari Venezia.

Pasin, G. (2023). "Analisi preliminare delle espressioni idiomatiche in LIS". In Mantovan, L. (ed.), *Segni, gesti e parole. Studi sulla lingua dei segni italiana e su fenomeni di contatto intermodal*e. Venice: Edizioni Ca' Foscari, 17–39.

Pawley, A., & Syder, F. H. (1983). "Two puzzles for linguistic theory: Nativelike selection and nativelike fluency". In Richards, J. C. & Schmidt, R. W. (eds.). *Language and Communication.* London: Routledge, 191–225.

Perniss, P., Thompson, R. L., & Vigliocco, G. (2010). Iconicity as a general property of language: Evidence from spoken and signed languages. *Frontiers in Psychology, 1*, 227. https://doi.org/10.3389/fpsyg.2010.00227

Perrine, L. (1977). *Sound and sense: An introduction to poetry* (5th ed.). New York: Harcourt Brace Jovanovich.

Pierangeli, C. (2019). *Segni in tasca. Aspetti teorici e pratici dell'interpretazione linguistica tra italiano e lingua dei segni italiana (LIS)* [M.A. thesis]. Rome: Università La Sapienza.

Pierrot, C. (2020). "Les idiomatiques en langue de signes française". *Dossier. Licence professionnelle. Intervention sociale, langue des signes,* Aix-Marseille Université.

Pietrandrea, P. (2002). Iconicity and arbitrariness in Italian sign language. *Sign Language Studies, 2*(3), 296–321.

Pinker, S., & Bloom, P. (1990). Natural language and natural selection. *Behavioral and Brain Sciences,* 13, 707–784. https://doi.org/10.1017/S0140525X00081061

Poizner, H., Klima, E. S., & Bellugi, U. (1987). *What the hands reveal about the brain.* Cambridge, MA: MIT Press.

Pollio, H. R., Barlow, J., Fine H. J., & Pollio M. (1977). *The Poetic of Growth: Figurative Language in Psychotherapy and Education*. Hillsdale, NJ: Lawrence Erlbaum.

Prandi, M. (2017). *Conceptual conflicts in metaphors and figurative language*. New York/London: Routledge.

Prandi, M. (2021). *Le metafore tra le figure: Una mappa ragionata*. Torino: UTET Università.

Prince, A., & Smolensky, P. (1993). *Optimality Theory. Technical Report 2*. New Brunswick, NJ: Rutgers University Center for Cognitive Science.

Quer, J., Cecchetto, C., Donati, C., Geraci, C., Kelepir, M., Pfau, R., & Steinbach, M. (2017). *SignGram Blueprint: A Guide to Sign Language Grammar Writing.* Berlin, Boston: De Gruyter Mouton.

Quer, J, & Steinbach, M. (2019). Handling sign language data: the impact of modality. *Frontiers in Psychology* 10. 483. doi:10.3389/fpsyg.2019.00483.

Quinto-Pozos D., & Mehta S. (2010). Register variation in mimetic gestural complements to signed language. *Journal of Pragmatics, 42*, 557–584. doi:10.1016/j.pragma.2009.08.004

Radden, G., & Kövecses, Z. (1999). Towards a theory of metonymy. In Panther, K. U., & Radden, G. (eds.). *Metonymy in language and thought*. Amsterdam/Philadelphia: John Benjamins, 17–59.

Radutzky E. (2009). "Il cambiamento fonologico storico della Lingua dei Segni Italiana". In Bertone C., & Cardinaletti A. (eds.), *Alcuni capitoli della grammatica della LIS – Atti dell'incontro di Studio – La grammatica della Lingua dei Segni Italiana.* Mason Perkins Deafness Fund, 17–25.

Rigo, P. (2022). *Espressioni idiomatiche in LIS. Problemi e strategie nell'interpretazione e nella traduzione in italiano* [M.A. thesis]. Venezia: Università Ca' Foscari Venezia.

Rigo, P. (in print). "The interplay between iconicity and arbitrariness in Italian Sign Language (LIS) idioms: a theoretical proposal for the analysis of signed idioms". *Annali di Ca' Foscari. Serie Occidentale.*

Romeo O. (1997). *Grammatica dei segni*. Bologna: Zanichelli.

Roulston, K. (2010). *Reflective interviewing: A guide to theory and practice*. London: SAGE Publications Ltd

Russo, T. (2004). Iconicity and productivity in sign language discourse: An analysis of three LIS discourse registers. *Sign Language Studies, 4*(2), 164–197.

Sala, R. (2021). Tradurre la comunità sorda, non solo una questione linguistica. *Lingue E Linguaggi, 43*, 247–270. doi:10.1285/i22390359v43p247

Sala Suszyńska, J. (2016). The role of figurative language. *Humanum: Międzynarodowe Studia Społeczno Humanistyczne, 20*(1), 163–172.

Sandler, W. (1986). The spreading hand autosegment of American Sign Language. *Sign Language Studies,* 50(1), 1–28. https://doi.org/10.1353/sls.1986.0006

Sandler, W., & Lillo-Martin, D. (2006). *Sign Language and Linguistic Universals*. Cambridge: Cambridge University Press.

Santiago, R. R., & Barrick, L. F. (2007). "Handling and incorporation of idioms in interpretation". Metzger, M., & Fleetwood, E. (eds.). *Translation, sociolinguistic, and consumer issues in interpreting*. Washington DC: Gallaudet University Press, 3–44.

Santini, G. (2020). *Origine ed evoluzione diacronica delle espressioni idiomatiche nella lingua dei segni italiana* [BA thesis]. Venice: Università Ca' Foscari Venezia.

Santoro, M. (2018). *Compound in Sign Languages: The Case of Italian and French Sign Language* [PhD Dissertation]. Paris: École Hautes des études en Sciences Sociales (EHESS).

Squillante, L. (2014). *Polirematiche e collocazioni dell'italiano: uno studio linguistico e computazionale* [Doctoral dissertation]. Roma: Università La Sapienza

Stack, K. M. (1988). Tiers and syllable structure: Evidence from phonotactics [M.A. thesis]. Los Angeles: University of California.

Stokoe, W. C. (1960). *Sign language structure: An outline of the visual communication system of the American Deaf.Studies in Linguistics, Occasional Papers,* 8.

Sutton-Spence, R. & Woll, B. (1999). *The Linguistics of British Sign Language: An Introduction.* Cambridge: Cambridge University Press.

Swinney, D. A., & Cutler, A. (1979). The access and processing of idiomatic expressions. *Journal of Verbal Learning and Verbal Behavior*, 18(5), 523–534.

Taub, S. (2001). *Language from the body: Iconicity and metaphor in American Sign Language*. Cambridge University Press. https://doi.org/10.1017/CBO9780511509629

Titone, D. A., & Connine, C. M. (1999). On the compositional and noncompositional nature of idiomatic expressions. *Journal of Pragmatics*, 31(12), 1655–1674.

Tobbi, S. (2024). Beyond literal interpretations: exploring the cultural and cognitive dimensions of English body parts idioms. *Armenian Folia Anglistika*, *20*(1 (29), 129–141. https://doi.org/10.46991/AFA/2024.20.1.129

Valli, C., & Lucas, C. (1998). *Linguistics of American Sign Language* (3rd ed.). Washington, DC: Gallaudet University Press.

Valli, C., Lucas, C., Mulrooney, K. J., & Villanueva, M. (2011). *Linguistics of American Sign Language: An Introduction* (5th ed.). Washington, DC: Gallaudet University Press.

Van Herreweghe, M., & Vermeerbergen, M. (2012). "Handling sign language data". In Pfau, R., Steinbach, M., & Woll, B. (eds.). *Sign language: An international handbook (Handbooks of Linguistics and Communication Science)*. Berlin, Boston: Walter de Gruyter, 1023–1044.

Van-Lancker Sidtis, D. (2004). When novel sentences spoken or heard for the first time in the history of the universe are not enough: Toward a dual-process model of language. *International Journal of Language & Communication Disorders*, 39(1), 1–44.

Van-Lancker Sidtis, D. (2015). Formulaic language and language disorders. *Annual Review of Applied Linguistics*, 35, 62–80.

Van-Lancker Sidtis, D. (2021). *Foundations of Familiar Language: Formulaic Expressions, Lexical Bundles, and Collocations at Work and Play*. Hoboken: Wiley-Blackwell.

Vašků, K. (2019). Lexical idioms: what is regular and what anomalous in word-formation, *Linguistica Pragensia*, 29(1), 29–46.

Vermeerbergen, M., Leeson, L. & Crasborn, O. (2007). *Simultaneity in Signed Languages: Form and function*. Amsterdam/Philadelphia: John Benjamins.

Vian, N. (2015). "Traduzione e traducibilità delle metafore nella lingua dei segni". In Celo, P. (ed.), *I segni del tradurre: riflessioni sulla traduzione in lingua dei segni italiana*. Roma: Aracne editrice, 35–62

Volterra, V. (ed.). (2004). *La lingua dei segni italiana: La comunicazione visivo-gestuale dei sordi.* Bologna: Il Mulino.

Volterra, V., Roccaforte, M., Di Renzo, A., & Fontana, S. (2019). *Descrivere la lingua dei segni italiana: Una prospettiva cognitiva e sociosemiotica.* Bologna: Il Mulino.

Wood, M. M. (1981). *A definition of idiom*. Bloomington: Indiana University Linguistics Club.

Woolard, K. A., & Schieffelin, B. B. (1994), Language Ideology. *Annual Review of Anthropology*, 23(1994), 55–82.

Weinreich, U. (1969). "Problems in the analysis of idioms". In Puhvel, J. (ed.). *Substance and Structure of Language*. Berkley: University of California Press, 23–76.

Welmers, W. (1973). *African language structures.* Berkeley: University of California Press.

Westbury, C. (2005). Implicit sound symbolism in lexical access: evidence from an interference task. *Brain and Language, 93*(1), 10–19.

Wilbur, R. (1987). *American Sign Language: Linguistic and applied dimensions.* Boston: Little, Brown.

Wilcox, P. P. (2000). *Metaphor in American Sign Language*. Washington DC: Gallaudet University press.

Zattini, F. (1997). "Storia e cultura della comunità sorda in Italia 1874-1922". In Zuccalà, A. (ed.), *Cultura del gesto e cultura della parola.* Roma: Meltemi, 69–83.

Zorzi, G., Giustolisi, B., Aristodemo, V., Cecchetto, C., Hauser, C., Quer, J., Sánchez Amat, J., & Donati, C. (2022). On the Reliability of the Notion of Native Signer and Its Risks. *Frontiers in psychology*, *13*, 716554. https://doi.org/10.3389/fpsyg.2022.716554

Sitography

www.vimeo.com/yomma

www.youtube.com/watch?v=XIO1FyGo9mI&t=5s

www.educativo.insor.gov.co

www.youtube.com/watch?v=OY8i7ND_sU&list=PL9ItgFkmUZD2yMoPjxHRA0SsHV7Br9SNx&index=9

www.youtube.com/watch?v=dJrlDBcxsQU

www.youtube.com/watch?v=UwobS6Gn0ss&t=63s

www.spreadthesing.com

www.aslinteractive.com

Appendix A: IEs in the dataset – Calques from Italian

A Z


A *Z*

[idiomatic] ‘in its totality’
[literal] ‘from A to Z’

CUT


CUT

[idiomatic] ‘to stop something’
[literal] ‘to cut something (with scissors)’

HAIR_RAISE


HAIR_RAISE

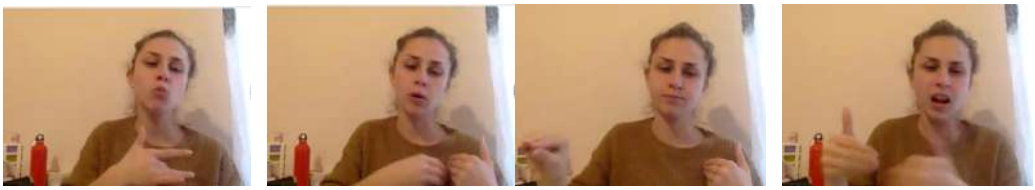
[idiomatic] ‘shocking’
[literal] ‘to have someone’s hair raised on their head’

HEAD^HARD

*HEAD^* *HARD*

[idiomatic] ‘stubborn’
[literal] ‘to have a hard head’

HEART CL(flat closed 5) ‘grab and put’ LEAVE



HEART *CL(flat closed 5) ‘grab and put’* *LEAVE*

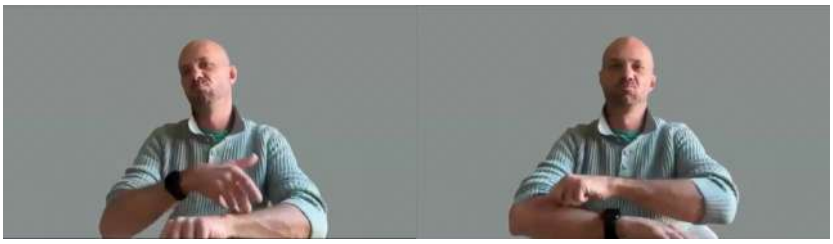
[idiomatic] ‘to leave part of one’s heart behind’
[literal] ‘to leave one’s heart there’

MOUTH WOLF

MOUTH *WOLF*

[idiomatic] ‘good luck!’
[literal] ‘in the wolf’s mouth’

SLEEVE_ROLL-UP



SLEEVE_ROLL-UP

[idiomatic] ‘to get to work’

[literal] ‘to roll up one’s sleeves’

TAKE_EAR^CL(closed G)‘pull and shake’

*TAKE_EAR^* *CL(closed G)‘pull and shake’*

[idiomatic] ‘slap on the wrist’ or ‘to get scolded’

[literal] ‘to pull and shake one’s ear’

TAKE_NOSE^AROUND

*TAKE_NOSE^* *AROUND*

[idiomatic] ‘to make fun of somebody’

[literal] ‘to take someone’s nose and spin it’

WALK_BACKWARD


WALK_BACKWARD

[idiomatic] ‘to start again (with a sentence or concept)’
[literal] ‘to walk backwards’

Appendix B: IEs in the dataset – Typical of LIS

CANDY CL(F)'offer a candy'

CANDY *CL(F)'offer a candy'*

[idiomatic] 'to throw someone a bone'
[literal] 'to offer someone a candy'

EAT ALL

EAT *ALL*

[idiomatic] 'all-rounded' or 'versatile'
[literal] 'to eat everything'

EAR^DRUM

*EAR^* *DRUM*

[idiomatic] 'to have heard of something'
[literal] 'to hear drums'

EAR^INSIDE

*EAR^* *INSIDE*

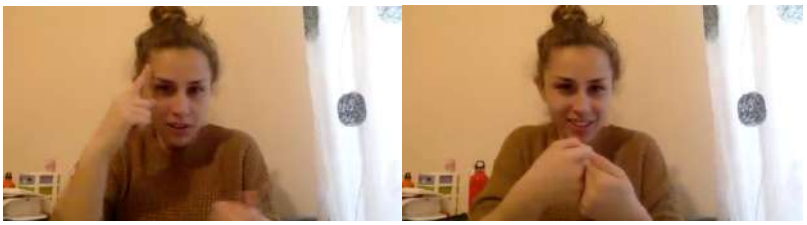
[idiomatic] ‘to feel’
[literal] ‘to hear inside the body’

HEAD^BLOCK

*HEAD^* *BLOCK*

[idiomatic] ‘to be shocked’
[literal] ‘to have the head blocked’

HEAD^CRASH



*HEAD^* *CRASH*

[idiomatic] ‘to be shocked/bewildered’
[literal] ‘to bump/bang one’s head’

HEAD^EMPTY

*HEAD^* *EMPTY*

[idiomatic] ‘to know nothing about something’
[literal] ‘to have an empty head’

HEAD^FILE-CABINET FIND

*HEAD^* *FILE-CABINET* *FIND*

[idiomatic] ‘to search and find a memory’
[literal] ‘to search and fund a file in one’s head’

HEAD^ILL

*HEAD^* *ILL*

[idiomatic] ‘to be obsessed with something’
[literal] ‘mentally ill’

HEAD^PROFOUND

*HEAD^* *PROFOUND*

[idiomatic] ‘to fall asleep quicky’
[literal] ‘head goes into the depths’

HEAD^QUESTION-MARK

*HEAD^* *QUESTION-MARK*

[idiomatic] ‘to be unable to know’
[literal] ‘a question mark in/on one’s head’

LIFE PAY

LIFE *PAY*

[idiomatic] ‘to pay the price’ or ‘to suffer the consequences’
[literal] ‘to pay the/for life’

MEASURE OUT

MEASURE *OUT*

[idiomatic] ‘extreme’ or ‘exaggerated’
[literal] ‘out of measure’

MONEY HIT_HEAD

MONEY *HIT_HEAD*

[idiomatic] ‘very expensive’
[literal] ‘money hits one’s head’

MONEY MISSILE

MONEY *MISSILE*

[idiomatic] ‘very expensive’
[literal] ‘cost is a missile’

NAIL_ON_HEAD

NAIL_ON_HEAD

[idiomatic] ‘burned into one’s memory’
[literal] ‘to hammer a nail in one’s forehead’

SIGN IMPOSSIBLE_NO_WAY

SIGN *IMPOSSIBLE_NO_WAY*

[idiomatic] ‘impossible to describe’
[literal] ‘impossibility to sign’

SMELL^HORRIBLE

*SMELL^* *HORRIBLE*

[idiomatic] ‘terrible’
[literal] ‘an awful smell’

STICK-FOREHEAD

STICK-FOREHEAD

[idiomatic] ‘engraved in one’s mind’

[literal] ‘to have something stuck on one’s forehead’

TAKE_NOSE^PULL-DOWN

*TAKE_NOSE^* *PULL-DOWN*

[idiomatic] ‘to be disappointed’

[literal] ‘to take one’s nose and pull it down’

THROW_NOSE (var. 1)

THROW_NOSE

[idiomatic] ‘to not care’

[literal] ‘to throw one’s nose’

THROW_NOSE (var. 2)

THROW_NOSE
[idiomatic] ‘to not care’
[literal] ‘to throw one’s nose’

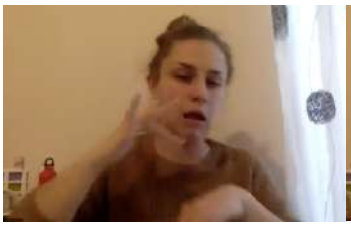
THROW_NOSE (var. 3)

THROW_NOSE
[idiomatic] ‘to not care’
[literal] ‘to throw one’s nose’

TOUCH FINISH

TOUCH *FINISH*
[idiomatic] ‘to have been somewhere’
[literal] ‘to have touched (something)’

TOUCH NOT_YET



TOUCH *[sss]* *NOT_YET*

[idiomatic] ‘to have not been there yet’
[literal] ‘to have not touched (something) yet’

ZERO_ON_FOREHEAD


ZERO_ON_FOREHEAD

[idiomatic] ‘to know nothing (about a topic)’
[literal] ‘to have a zero on one’s forehead’
