Towards a Grammar of Space of Iraqw

A Cushitic language of Tanzania

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# ii. Abbreviations

<table>
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<tr>
<th></th>
<th>1&lt;sup&gt;st&lt;/sup&gt; person</th>
<th>MID</th>
<th>middle voice</th>
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<tr>
<td>M</td>
<td>masculine</td>
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### Locational nouns abbreviations

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<td>AT</td>
<td>dir</td>
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<td>ala</td>
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<td>sakw</td>
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<td>guríu</td>
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<td>gawá</td>
<td>bihháa</td>
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1. Introduction

The present thesis is written as a conclusion to my research master in linguistics at Leiden University. In the thesis I will lay the foundation towards a grammar of space of Iraqw, a South-Cushitic language spoken in the Manyara region of northern Tanzania. Grammar of space is a fascinating topic for linguistic research, and Iraqw has proven to be an interesting subject to conduct this research on. The fieldwork for the present thesis was conducted in the village of Kwermusl, close to the town of Mbulu, in December 2015 and January 2016.

Initial focus was placed on the expression of topological relations, and the final thesis echoes this focus in the sense that it constitutes the bulk of the new data presented. The other two topics of grammar of space, motion and frames of reference, haven’t escaped my attention during research but have been studied in less detail. There are several unavoidable gaps in some parts of the thesis, partly due to the rarity of some of the items elicited, but also due to the fieldwork being a one time shot. Nonetheless, the thesis offers a rather broad window into the grammar of space of Iraqw. That being said, it is not to be considered a full account of Iraqw grammar of space. Please contact me for any questions or ambiguities.

The thesis is divided into five main chapters. Chapter two will present the background to the study of grammar of space and the framework in which the thesis should be considered. Furthermore, it presents the stimuli used to research each of the components of grammar of space. The third chapter will present some of the basics of Iraqw grammar, focusing on morphology, with the intention of presenting the reader with enough knowledge of the Iraqw language to understand the glossing used throughout the thesis. Chapters four, five, and six present the new data retrieved during fieldwork, and are almost exclusively written on the basis of this fieldwork. Chapter four gives an overview of the phrasing of topological relations, chapter five treats motion descriptions in Iraqw, and chapter six discusses the use of the three frames of reference in Iraqw. Chapter seven is a summary of the preceding chapters. At the end of the thesis I have added two appendices. Appendix A presents a brief note on spatial deixis in Iraqw, a topic I have included due to its frequency in natural data. Appendix B contains low quality images of the additional stimuli I have used during the fieldwork.

1.1. The Iraqw language

The Iraqw language belongs to the southern branch of Cushitic, a language family of East Africa whose largest members are Oromo and Somali, spoken in Ethiopia and Somalia. Cushitic belongs to the larger Afro-Asiatic macrofamily. Iraqw is classified as a South Cushitic language, whose closest relatives are the Alagwa and Burunge languages, also spoken in Manyara region of Tanzania. Ethnologue reports around 462,000 speakers\(^1\). The language has been described by Mous (1992), and a dictionary is available (Mous et al 2002). The following map gives an impression of the linguistic environment of Iraqw:

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1.2. Deviations from traditional orthography

Iraqw orthography is entirely phonemic, and the orthography used in the present thesis largely follows the conventions of the Kwermusl community, itself based on Norwegian missions to Mbulu. The following deviate from their common graphemes:

- sl: voiceless alveolar lateral fricative [ɬ]
- c: voiced pharyngeal fricative [ʕ]

I’ve decided to replace the highly confusing / with c, similar to its use in other Cushitic languages such as Somali. Likewise, sl is spelled as hl in Mous (1992); I’ve decided to use the Norwegian spelling of sl instead, which is also used in other publications on Iraqw.

<table>
<thead>
<tr>
<th>Traditional spelling</th>
<th>Present spelling</th>
<th>IPA</th>
<th>English</th>
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<tbody>
<tr>
<td>ku/a</td>
<td>kuca</td>
<td>kuʕa</td>
<td>wall</td>
</tr>
<tr>
<td>hlee</td>
<td>slee</td>
<td>leː</td>
<td>cow</td>
</tr>
</tbody>
</table>

Aside from these deviations the present paper uses the established Iraqw orthography. The following lists some of the potentially confusing graphemes:

- tl: voiceless alveolar lateral affricate [tɬ]
- q: voiceless uvular stop [q], generally released as a fricative [χ] or affricate [χχ]
- x: voiceless velar fricative [x]
- hh: voiceless pharyngeal fricative [h]
2. **The study of space in language**

The ways in which language conceptualises and makes predications about space has until recently been relatively neglected within the discipline of linguistics (Ameka & Levinson 2007:847). This is striking, considering that spatial descriptions are not only quintessential, but even amongst the most frequent utterances. The localisation of items, and asking about the whereabouts of items, are amongst the most crucial speech acts in human language. It is to be questioned then why this topic only gathered mainstream interest in the field of linguistics during the '90s (along with the broader field of ‘linguistic relativity’, cf. e.g. Lucy (1997) and Gumperz & Levinson (1991)).

Since then, much work has been done especially by the Max Planck Institute (MPI) of Psycholinguistics in Nijmegen, the Netherlands. It is also within this context that the main typologies, and consequently also the structure and setup of this thesis, are rooted (e.g. Levinson and Wilkins (2006a) and the Linguistics 45-5/6 (2007) issue). Similarly, the present thesis is written within this framework.

The traditional typology of spatial categories contains three main topics: *topological relations*, *frames of reference*, and *motion* (Levinson and Wilkins 2006:3ff). Grammars of space to date have generally maintained these topics, usually in the order given above, and for the sake of consistency and comparison I’ve decided to stick to this distinction in my own research. The three topics covered by grammar of space rest on the split between static and kinetic expressions of space. Static are those relations in which an item, called the Figure, is constant in terms of space in relation to time. Kinetic relations are those relations in which the Figure is not constant in terms of space in relation to time; i.e. it is in motion. Kinetic spatial expressions, in this definition, are limited to expressions in which the translocation of a Figure is predicated. Pivotal motion, such as the turning of a head, is largely excluded.

As the above figure shows, topological relations fall within the field of static expressions and motion predications fall within the field of kinetic expressions. Topological relations are those

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2 That being said, I have included a short appendix on deixis since it featured heavily within the spatial organisation of the language. Although part of grammar of space, it is usually omitted from writings on the subject.
predications in which a Figure is described in relation to another referent, called the Ground. Consider the following example:

(1) *The cup is on the table*

Figure Copula Relator Ground

A further split is made between angular and non-angular predications depending on whether or not a coordinate system is employed for the localisation of a Figure on the Ground (Levinson 1996b:359). Predications that make use of coordinate systems, *frames of reference*, specify the location of the Figure by means of a secondary attribute, such as a feature of the Ground, a direction from the speaker’s point of view, or cardinal direction or direction derived from a geographical feature. The above example is non-angular as the array described is constant from all directions: the cup will always be on the table. When the cup is placed beside the table, the relation is still static, yet a predication about this array may include information on the more precise whereabouts of the Figure:

(2) *The cup is to the right of the table*

Figure Cop relation.angular Ground

The above predication is angular in the sense that an observation from a different angle will yield to different observation. Languages consequently project a search-domain from the Ground when specifying the location of the Figure. Here this is achieved by creating a triad between Figure, Ground, and the speaker or observer.

Finally, there are those relations in which the Figure relocates between various Grounds in time: descriptions of motion. The above figure 1 is a little misleading as it suggests that motion is a less developed domain. Motion can likewise incorporate angular information (e.g. *the car is turning left*), and frames of reference are probably best seen as cutting through the static-kinetic dichotomy.

Before discussing the three topics in more detail, a comment has to be made on deixis, which is omnipresent in spatial descriptions yet omitted from most discussions on Grammar of Space. Spatial deixis likewise cuts through static and kinetic spatial relations, and describes the location of the Figure not in relation to a Ground but solely with a relation to a deictic anchor, e.g. the speaker.

2.1. **Topological relations**

Topological relations are, simply put, predications localising an item in relation to another item. The item to be localised is called the Figure, and the item it is related to is called the Ground. Although topological relations typically include relations of coincidence or

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3 The reason is clear, though, since deictic predications hardly include information on the relation between Figure and Ground. Rather, it localises the Figure using a deictic anchor, similar to the relative frame of reference to be discussed below. That being said, deixis cannot be incorporated with the discussion on frames of reference since it is non-angular in the sense that there is no search-domain projected from a Ground.
contiguity, such as the cup is on the table, this is not necessarily so, as in the dog is at its house. Relations of the latter type, in which two items are not in contiguity and are separated on a horizontal plane, often include further information on frames of reference in that a search-domain is projected, as in the dog is in front of the house. A key research topic within the domain of topological relations is the way in which the Basic Locative Construction (henceforth BLC) is phrased. The BLC is the basic, e.g. unmarked, predication of the relation of a Figure and a Ground. The above English phrases are all instances of the English BLC, which is summarised as follows:

(3)  [NP\textsc{figure}] COP [[PP\textsc{rel} [NP\textsc{ground}]]]  
      The cup is on the table

The item to be located, the Figure, is placed in the subject position. The relation itself is filled by a form of the verb be, whereas the search-domain is expressed through an adjunct PP. Other languages such as Dutch have drastically different BLCs:

(4)  [NP\textsc{figure}] VP\textsc{pos} [[PP\textsc{rel} [NP\textsc{ground}]]]  

The positional verb slot is here filled by one of four verbs: staan, ‘stand’; liggen, ‘lie down’; zitten ‘sit’; hangen ‘hang’. Which positional verb is used depends on the relation between Figure and Ground:

(5a) Het kopje staat op tafel.  
      the cup stands on table  
      “The cup is on the table.” (TRPS 1)
(5b) De lamp hangt aan het plafond.  
      the lamp hangs on the ceiling  
      “The lamp is on the ceiling.” (TRPS 13)
(5c) De poes zit op de mat.  
      the cat sits on the rug  
      “The cat is sitting on the rug.” (TRPS 40)
(5d) De appel ligt in de kom.  
      the apple lies in the bowl  
      “The apple is in the bowl.” (TRPS 2)

As the above example shows, Dutch uses different verbs and different locational prepositions in describing a Figure in relation to a Ground. With the exception of (5c), all are extensions of animate postures to inanimate Figures. Dutch uses positional verbs in the BLC, rather than a construction using a copula verb (although this is certainly allowed, cf. het kopje is op tafel). English may use similar constructions but these are extremely marked and not part of the

\textsuperscript{4} Abstractions with zitten are rare, but cf. Hij zit in de gevangenis [he sits in the prison] 'he is in prison'. I'm unaware of zitten being used for for inanimates.
English BLC, but rather of variations thereof, for instance when the relation between Figure and Ground cannot be described as canonical: *the bottle lies on the table*.

Languages usually have different non-BLC strategies for rendering topological relations. These include e.g. verbal constructions for languages that use nominal constructions in a BLC. The following hierarchy from Levinson and Wilkins (2006b:16) illustrates the likelihood of other constructions in favour of a BLC:

```
Likelihood of other constructions
1. Figure is impaled by Ground
2. Figure is stuck to Ground
3. Figure is ‘damage’ or negative space (e.g. crack, hole)
4. Figure is part of whole (part of Ground)
5. Figure is adornment or clothing
6. Figure is inanimate, movable entity in contiguity with Ground
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Greater likelihood of BLC

Figure 2: BLC hierarchy (Levinson and Wilkins 2006:16)

### 2.2. Frames of reference

The present framework of grammar of space lies on the expression of the relation between two types of referent, the Figure and the Ground. The Figure is the item asked about; whereas the Ground is the item the Figure is referenced to. Topological relations refer to static non-angular relations between Figure and Ground, the predications of which refer solely to the relation between Figure and Ground, without projecting a search-domain from the Ground.

However, certain spatial relations do warrant the projection of a search-domain. These relations cover situations in which the Figure and Ground are separated from each other in the horizontal plane. Such relations are angular in the sense that approaching an array in which a Figure and Ground are placed next to each other will lead to a different configuration dependent on the perspective of the observer. Languages typically, though not necessarily, generalise two out of three possible frames of reference (Levinson and Wilkins 2006:22), and cross-linguistically show vast variation in how these are applied. The three frames of reference are (1) the intrinsic frame of reference, (2) the relative frame of reference, and (3) the absolute frame of reference. The following sketch gives an overview of the three frames of reference:
The intrinsic frame of reference uses the properties of the Ground to project a search-domain. The Figure is located by means of referencing an attribute of the Ground. The relative frame of reference is more complex in that it contains a triangulation between the Figure, the Ground, and the speaker. The Figure is consequently related to the Ground by describing it in relation to an anchor, the speaker. The absolute frame of reference relates the Figure to the Ground by using an established reference point, which can be derived from a landmark (e.g. a mountain or ocean) or a cardinal point.

Although many languages employ all frames to certain extent, most make due with two frames of reference. English, for instance, uses the intrinsic frame of reference and the relative frame of reference in everyday speech. Nonetheless, the absolute frame of reference is still present in expressions of geography: *Edinburgh is to the east of Glasgow*. However, this frame of reference is hardly employed in other types of discourse. It would be quite unnatural to say *the man is west of the tree*.

In other languages, the absolute frame of reference is used in favour other frames. This is common in some languages, where small scale arrays are described in terms of ‘north’ and
‘south’ (e.g. Arrernte, cf. Wilkins 2006), or terms such as ‘upstream’ and ‘downstream’ (e.g. Jaminjung, cf. Schultze-Brandt 2006, or Trío, cf. Meira 2006:351):

(6) *i-pata* nai *é-pata* amohë
3-village 3:COP 2-village upstream

“His village is upstream of yours.” (Trío - Meira 2006:352)

### 2.3. Motion

Motion chapters within grammar of space deal with the movement of a Figure in relation to a Ground which, consequently, is limited to motion as translocation. Motion typology has been greatly influenced by Talmy’s (1985) paper which dissects motion predications into five components:

1. Figure
2. Ground
   a. Source
   b. Goal
   c. Medium
3. Path
4. Manner
5. Predicated event

The Figure is the item that is in motion; the Ground, the referent to which the Figure of motion is related, can be either a Source (movement from), a Goal (movement towards), or a Medium (upon which the movement takes place); the Path refers to the trajectory of the Figure; the Manner refers to the way in which the Figure moves relative to the Ground; and the predicated event refers to the predication itself, the verb. The following example shows how these components are applied to a clause:

(7) *The man* walks *to the house.*
    Figure Predicated Event+Manner Path Ground:Goal

The crux of Talmy’s (1985) paper lies on the differentiation between languages that conflate Manner with the verb (the predicated event), and languages that conflate Path with the verb. Germanic languages belong to this group. The above example from English shows that English conflates Manner with the verb. Other languages, such as Romance languages, Semitic languages, Japanese and Polynesian (Talmy 1985:99) conflate with Path instead. Consider the following example from Arabic in which the Path is conflated with the predicated event:

---

5 English has some Path-conflating verbs; however within Talmy’s (1985) dichotomy it is Manner-framing.
In the above example, the verb ġādara expresses movement away from the Ground, akin to English ‘leave’. There is no overt marking for Path in an adposition (or case), as in example (7). The same clause would be rendered in Dutch as De man vertrekt uit de stad, in which uit is the preposition encoding Path for the event vertrekken, ‘leave’.

Languages that conflate Manner with the verb then express Path outside of the verb in the form of an adposition or case, termed a ‘satellite’. Such languages are accordingly called ‘satellite-framing’, whereas those that conflate Path with the verb are termed ‘verb-framing’. It is important to note that many languages that conflate Manner also have Path-encoding verbs (cf. English enter, leave, arrive).

Finally it should be noted that there are verbs that are deictically anchored or have a presupposed trajectory. This includes verbs such of coming and going, which describe the movement of the Figure in relation to an anchor, and verbs such as fall, that have a more limited or presupposed Path. These verbs don’t conflate Path, however, as the predication I fell from the tree still requires the Path to be overtly expressed in a satellite, from.

2.4 Stimuli

The vast majority of the data used in the present thesis stems from fieldwork in Tanzania. In order to aid data collection and to present a starting point for deeper research, part of this data has been retrieved using sets of stimuli, which largely stem from the Language and Cognition Department of the Max Planck Institute for Psycholinguistics in Nijmegen (hf. MPI). With some exceptions these can be found online at: fieldmanuals.mpi.nl; full references are given in the references sections.

2.4.1 Topological relations

For research on topological relations, the following stimuli from the MPI were used:

- Topological Relations Picture Series (TRPS - Bowerman & Pederson 1992)
- Picture Series for Positional Verbs (PSPV - Ameka et al 1999)
- Topological Relations: Support (TRS - Meira & Levinson 2001)
- Topological Relations: Containment (TRC - Meira & Levinson 2001)

In addition to the stimuli from the MPI, I've developed a series of images to further explore the semantics of some of the more complicated locational nouns in the language. During research, the actual props were used. I've attached low resolution images of the arrays in Appendix B1.

The idea behind the TRPS is to uncover the BLC of the language and to demarcate its semantic range. The images include a range of Figure-Ground relations including more
canonical ones such as the cup on the table (TRPS 1), and less canonical ones such as the ball under the chair (TRPS 16). It includes reverse-Ground images in which a human referent is used as the Ground, as in the images featuring a human body part with a piece of jewelry or clothing (e.g. TRPS 5 and 10). Finally, there are images with negative space or damage, as in the tear in the towel (TRPS 18) or the crack in the cup (TRPS 26). These images allow us to demarcate the semantic domain of the BLC. Furthermore, it presents us with an inventory of the spatial relators of the language. To further demarcate the semantic range of these relators the other stimuli come into play.

The PSPV aims to map the semantic domain of the positional verbs of a language, and see if generalisations can be made for similar items in different positions on a Ground. The stimuli were not of particular relevance for Iraqw, but nonetheless gave an idea of what positions were covered by what verb.

The TRS and TRC stimuli aim to illustrate the more complex relations of support and containment. As with the other two stimuli, these are picture series of about 90 images in total, which cover a large range of parameters such as visibility, full or partial containment, contiguity, different restrictions of gravity, etc. I've used them heavily in order to uncover two of the more complicated locational relators in the language.

The images I developed myself were of a similar nature, but included more complicated Grounds with various dimensions and properties, and featured the Figure – illustrated in Appendix B1 as a skewer – in several positions on the Ground.

2.4.2. Frames of reference
Most of the data for frames of reference research stems from recorded conversations triggered by picture sets from the MPI. These were consequently transcribed and analysed with the help of a consultant. The following stimuli from the MPI were used:

- Man and Tree & Space Games toolkit (MT - Levinson et al 1992)
- Exploring the intrinsic frame of reference (Danziger & Gaskins 1993)

For the Man and Tree series, I’ve used sessions with two consultants. Both consultants were given the entire set of images. One consultant was tasked with describing a certain image to the other consultant, whose task it was to pick the described image out of the set laid out in front of him. The idea behind this was to stimulate natural conversations about a space. These sessions were recorded and transcribed afterwards. Of the toolkit, I’ve only made use of the Farm Animals and Man & Tree subsets. Furthermore, I’ve used the Space Games subset in individual elicitation sessions.

In addition to the data retrieved through the above toolkit, much of the data used for the research on the frames of reference in Iraqw was done using actual objects with varying properties including dimensions, motion, facedness, and usage, in order to differentiate between the domain of use of the intrinsic frame of reference and the relative frame of reference. I’ve developed a series of images seeking to exploit the intrinsic and relative frames of reference. These can be found in Appendix B2.
2.4.3. **Motion**

Research on motion was done primarily through informal elicitation sessions in which I triggered a discussion by asking directly how a certain image is phrased in Iraqw, usually under the premise “if I want to say X”. The responses were written down in real-time and were not recorded. These sessions were of a social nature and triggered many responses.

In addition to these sessions, I’ve made an attempt at gathering natural discourse by using Mercer Mayer’s (1969) *Frog, where are you?* (hf. Frog Story). This book has had a long history in field linguistics as it allows for retrieving natural data without excessive priming or meta-language interference. Consultants (both adults and children) were tasked with telling the story out loud. These renditions were recorded and transcribed. Certain passages from the book are rich in motion images, and consequently useful for research on motion. The ‘cliff scene’ in particular, being scene 19 through 22, has been used for motion research (cf. Levinson and Wilkins 2006). However, more scenes from the Frog Story proved useful for motion research. In the early stage of my research on motion, I’ve used the following visual stimuli from the MPI:

- Motion Verb Stimulus (Mverb - Levinson 2001)
- Enter/exit animation for linguistic elicitation (Kita 1995)

Both toolkits contain short illustrated videos showing the translocation of a Figure in relations to a variety of Grounds. In addition, the motion lexicalisation questionnaire (Wilkins 1999) proved useful for creating an outline of motion description in Iraqw.
3. **A brief overview of some key morphological features of Iraqw**

The present chapter will highlight and elaborate on some grammatical features of the language. Due to space restrictions only those features necessary for understanding the examples and the glossing in the present thesis will be discussed. As such this overview should not be seen as complete, and many sections will feel very incomplete and in need of further elaboration. Cf. Mous (1992) for an in-depth overview of the language. Examples below are taken from literature sources as well as my own data.

### 3.1. Nouns

Iraqw nouns come in three genders, masculine, feminine, and plural (in older literature also: neutral), and two numbers, singulative and plurative. Aside from a long list of tendencies (cf. Mous 1992:41-44), there are no morphological ways to differentiate between the three genders. Gender definitions are based on the verbal agreement that a noun triggers. Masculine nouns take singulative masculine verbal agreement, feminine nouns take singulative feminine verbal agreement, and plural-gendered nouns take plurative agreement. Verbal agreement is unaffected by the number of the noun, e.g. a plurative masculine noun triggers singulative masculine verbal agreement. The following example shows the verbal agreement of nouns.

Note that singulative plural nouns take plurative agreement.

\[(9a)\] \textit{daaqay i giilin} \hspace{1cm} (9b) \textit{i giilin}  
\[
\text{boys} \quad 3 \quad \text{fight:3SG.M} \hspace{1cm} 3 \quad \text{fight:3SG.M} \\
\text{“The boys are fighting.”} \hspace{1cm} \text{“He is fighting.”} 
\]

\[(9c)\] \textit{hhayse i harweeriirin} \hspace{1cm} (9d) \textit{i harweeriirin}  
\[
\text{tails} \quad 3 \quad \text{encircle:DUR:3SG.F} \hspace{1cm} 3 \quad \text{encircle:DUR:3SG.F} \\
\text{“The tails are making circles.”} \hspace{1cm} \text{“She is making circles.”} 
\]

\[(9e)\] \textit{hhayso i harweeriiriná'} \hspace{1cm} (9f) \textit{i harweeriiriná'}  
\[
\text{tail} \quad 3 \quad \text{encircle:DUR:3PL} \hspace{1cm} 3 \quad \text{encircle:DUR:3PL} \\
\text{“The tail is making circles.”} \hspace{1cm} \text{“They are making circles.”} \hspace{1cm} \text{(Mous 2007:5)} 
\]

As is common in Cushitic languages, Iraqw nouns change gender when a plurative suffix is attached, or when the nominal root is suppleted. Many animate referents take their natural gender in the singulative and the opposite gender in the plurative. The following gives additional examples:

\[(10)\] \textit{gurta} \hspace{1cm} \text{M} \quad \text{’male goat’} \hspace{1cm} \rightarrow \hspace{1cm} \text{gurtaawee} \hspace{1cm} \text{F} \quad \text{’male goats’}  
\[
\text{leei} \hspace{1cm} \text{F} \quad \text{’female goat’} \hspace{1cm} \rightarrow \hspace{1cm} \text{aara} \hspace{1cm} \text{P} \quad \text{’female goats’} \\
\text{baynamoo} \hspace{1cm} \text{M} \quad \text{’pig’} \hspace{1cm} \rightarrow \hspace{1cm} \text{baynu} \hspace{1cm} \text{P} \quad \text{’pigs’} \\
\text{dasi} \hspace{1cm} \text{F} \quad \text{’girl’} \hspace{1cm} \rightarrow \hspace{1cm} \text{dasu} \hspace{1cm} \text{M} \quad \text{’girls’} \\
\text{afeetlo} \hspace{1cm} \text{P} \quad \text{’loin’} \hspace{1cm} \rightarrow \hspace{1cm} \text{afeetle} \hspace{1cm} \text{F} \quad \text{’loins’} 
\]

The differences in gender between different numbers essentially translates in different verbal
forms:

(11a) gurta i cayiim  (11b) gurtaawee i cayin
male.goat(M) 3 eat:DUR:3SG.M  male.goats(F) 3 eat:DUR:3SG.F
“The goat is eating.” “The goats are eating.”

To my knowledge there are no nouns for which the singulative is plural-gendered and the plurative is masculine. There are several feminine and plural-gendered nouns for which the gender remains the same between different numbers.

(12) ba’armo (M) ‘fly’ → ba’ár (M) ‘flies’
camatlito’o (F) ‘virgin’ → camatlite (F) ‘virgins’
xweera (P) ‘night’ → xweerdu (P) ‘nights’

3.2. Suffixation

Iraqw nouns may take possessive, demonstrative, and case suffixes. The following paradigm lists the different suffixes that may be attached to the nominal root.

<table>
<thead>
<tr>
<th>DEMONSTRATIVES</th>
<th>POSSESSIVES</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEM1</td>
<td>-î / -kâ</td>
<td>1SG</td>
</tr>
<tr>
<td>DEM2</td>
<td>-sîn</td>
<td>2SG</td>
</tr>
<tr>
<td>DEM3</td>
<td>-qâ’</td>
<td>3SG</td>
</tr>
<tr>
<td>DEM4</td>
<td>-dâ’</td>
<td>1PL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2PL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3PL</td>
</tr>
</tbody>
</table>

Iraqw differentiates between four deictic levels: (1) near me, (2) near you, (3) near him but visible, and (4) far away. For further elaboration cf. Appendix A. Some of the cases will be discussed in depth below.

Before any suffixes are attached to the nominal root, it is expanded by a linker morpheme that agrees in gender with the noun. Masculine and feminine roots have an alternative linker morpheme, a relic from an earlier stage of the language (Mous 1992:84). There are no clear phonological or semantic characteristics that could account for the distribution of these alternative linkers. There is no linker morpheme for plural gender. The linker morphemes are as follows:

<table>
<thead>
<tr>
<th>M</th>
<th>M2</th>
<th>F</th>
<th>F2</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>-î</td>
<td>-ku</td>
<td>-r</td>
<td>-ta</td>
<td>-ô</td>
</tr>
</tbody>
</table>
The following are some examples of how the suffixes are attached to the nominal root. There are various morphophonological exceptions associated with the suffixation of the linker morpheme. Note that the masculine -u becomes -w in between vowels, and is deleted altogether when a consonant follows, in examples (14a) through (14f).

(13a) \textit{dasi-r-i} \quad \textit{dasi-r-qw}' \\
girl-F-DEM1 \quad girl-F-DEM3 \\
'this girl' \quad 'that girl'

(13c) \textit{dasi-r-ée} \quad \textit{dasi-r-ók} \\
girl-F-1SG \quad girl-F-2SG \\
'my girl' \quad 'your girl'

(13e) \textit{dasi-r-ar} \quad \textit{dasi-r-sa} \\
girl-F-INSTR \quad girl-F-REASON \\
'with the girl' \quad 'because of the girl'

(14a) \textit{gurta-w-i} \quad \textit{gurta-qw}' \\
male.goat-M-DEM1 \quad male.goat-DEM3 \\
'this goat' \quad 'that goat'

(14c) \textit{gurta-ée} \quad \textit{gurta-w-ók} \\
male.goat-1SG \quad male.goat-M-DEM3 \\
'my goat' \quad 'your goat'

(14e) \textit{gurta-w-ar} \quad \textit{gurta-sa} \\
male.goat-M-INSTR \quad male.goat-REASON \\
'with the goat' \quad 'because of the goat'

Case suffixes may be attached to another suffix; the linker morpheme is not repeated:

(15) \textit{dawa-ku-ève-ar} \quad \textit{dawa-ku-ève-ar} \\
hand-M2-1SG-INSTR \quad 'to the hand'

3.2.1. **Directive case**
The directive case describes a motion towards the referent of the noun it is attached to. The suffix is -i. The masculine linker morpheme drops out when the directive is attached.

(16) \textit{hiima} (M) 'rope' \quad \textit{hiimi} 'to the rope' \\
\textit{hhara} (F2) 'stick' \quad \textit{hharti} 'to the stick' \\
\textit{lohu} (P) 'road' \quad \textit{lohi} 'to the road'

When the noun to which the directive is attached is in a post-verbal position, the resumptive pronoun alé is placed at the end of the clause. It does not show up when the respective noun is in a pre-verbal position (Mous 1991:259ff):
(17a) tlakway-i dahas-eek barà hhar-t-i alé
sack-DEM1 put-IMP.SG.O ON stick-f2-DIR RESPRO
“Put this sack on a stick.” (Mous 1992:104)

(17b) ta-na wacangw-i dáh
IMPS-PAST pit-DIR enter:PAST
“They entered the pit.” (Mous 1992:104)

The directive has a prepositional counterpart, ay:

(18) ta-y hardáh ay dír do'-ín
IMPS-CSC arrive:3SG.M to AT house-3PL
“And they arrived at their house.” (Mous 1992:250)

3.2.2. **Ablative case**

The ablative case describes a motion away from the referent. It is formed by adding -wa to the nominal root. Note that the linker morpheme is placed in between.

(19) Arusha (F) ‘Arusha’ → Arusharwa ‘from Arusha’
hhara (F2) ‘stick’ → hhartawa ‘from the stick’
basá (M2) ‘south’ → baskwa ‘from the south’

As with the directive case, the resumptive pronoun is placed at the end of the clause when the noun to which the ablative is attached is in a post-verbal position:

(20) Basilí n-i-na ti’ii’in iimí-r Kuta-r-wa alé
Basilí HITH-3.LOC-PAST run:DUR:3SG.M point-CON.F Kuta-F-ABL RESPRO
“Basilí was running to me from Kuta.” (Mous 1992:105)

In addition to movement away from the referent, the ablative may be used to specify movement on a referent:

(21) hee i hi’imiit bará loohi-r-wa alé
man 3.LOC walk:3SG.M:DUR ON road-F-ABL RESPRO
“The man is walking on the road.”

There is some further elaboration on the ablative case in section 5.4.

3.2.3. **Construct case**

As with the other cases, the construct case is preceded by a linker morpheme. It is created through a high tone on the final vowel of the noun, and is similar to the linker morphemes. For feminine gender, the high tone is added to the final root vowel. Plural gendered nouns have a construct case in -á:
The construct case is used when the noun is followed by a modifier. This includes dependent nouns following a head noun in a possessive construction (22a), adjectives (22b), numerals (22c), and relative clauses (22d). In addition, the construct case is used when the noun directly precedes its verbal head:

(22a)  

\[
\text{hhar-tá} \quad \text{baabú-é'ee'}
\]

stick-CON.F2  father-1SG

“the stick of my father”  (Mous 1992:95)

(22b)  

\[
\text{dici-tá} \quad \text{cáwak}
\]

fat-CON.F2  white

“white fat” (Mous 1992:95)

(22c)  

\[
\text{dasi-r} \quad \text{tam}
\]

girl-CON.F  three

“three girls”

(22d)  

\[
\text{aná} \quad \text{hiimú} \quad \text{uríux}
\]

1SG  rope:CON.M  pull

“I pull the rope.” (Mous 2007:10)

3.2.3.1. **Locational and temporal nouns**

There is a closed class of nouns used to describe the location of an object in respect to the ground in space and time. These locational nouns are grammatically in the construct case. Mous (1992:95-96) gives the following items:

<table>
<thead>
<tr>
<th>Locational noun:</th>
<th>Derived from:</th>
</tr>
</thead>
<tbody>
<tr>
<td>afá</td>
<td>'at the edge of'</td>
</tr>
<tr>
<td>afáqoomár</td>
<td>'until' (temporal)</td>
</tr>
<tr>
<td>ala</td>
<td>'behind'</td>
</tr>
<tr>
<td>amór</td>
<td>'at'</td>
</tr>
<tr>
<td>ba(r)á</td>
<td>'in'</td>
</tr>
<tr>
<td>bihháa</td>
<td>'beside'</td>
</tr>
<tr>
<td>daandú</td>
<td>'on'</td>
</tr>
<tr>
<td>dir</td>
<td>'to'</td>
</tr>
<tr>
<td>dóo</td>
<td>'of (in names)'</td>
</tr>
<tr>
<td>afa</td>
<td>'mouth'</td>
</tr>
<tr>
<td>afa + qooma</td>
<td>'mouth', 'time'</td>
</tr>
<tr>
<td>alu</td>
<td>'space behind'</td>
</tr>
<tr>
<td>amo</td>
<td>'place'</td>
</tr>
<tr>
<td>bara</td>
<td>'side'</td>
</tr>
<tr>
<td>bihhii'</td>
<td>'side'</td>
</tr>
<tr>
<td>daanda</td>
<td>'back'</td>
</tr>
<tr>
<td>di</td>
<td>'place'</td>
</tr>
<tr>
<td>do'</td>
<td>'house'</td>
</tr>
</tbody>
</table>
In addition, I have found akwá, another realisation of afa in the construct case, to be used to express relations in which afa would otherwise be used. It can be considered an alternative.

These locational nouns are used in predications about space and therefore occur frequently in the present paper. They are further elaborated in the chapters on topological relations and motion. Due to the wide range of semantics and the lack of correct English counterparts for most of the locators, I use the following glossing:

<table>
<thead>
<tr>
<th>LOCATIONAL NOUN (CONSTRUCT FORM)</th>
<th>GLOSS</th>
<th>DERIVED FROM</th>
</tr>
</thead>
<tbody>
<tr>
<td>afa (mouth:CON)</td>
<td>MOUTH</td>
<td>afa</td>
</tr>
<tr>
<td>ala (space.behind:CON)</td>
<td>BEHIND</td>
<td>alu</td>
</tr>
<tr>
<td>amór (place:CON)</td>
<td>TO</td>
<td>amo</td>
</tr>
<tr>
<td>ba(r)á (side:CON)</td>
<td>ON</td>
<td>bara</td>
</tr>
<tr>
<td>bihháa (side:CON)</td>
<td>SIDE</td>
<td>bihhii’</td>
</tr>
<tr>
<td>daandú (back:CON)</td>
<td>BACK</td>
<td>daanda</td>
</tr>
<tr>
<td>dir (place:CON)</td>
<td>AT</td>
<td>di</td>
</tr>
<tr>
<td>gamú (trunk:CON)</td>
<td>EDGE</td>
<td>gamnangw</td>
</tr>
<tr>
<td>gawá (top:CON)</td>
<td>OVER</td>
<td>gawa</td>
</tr>
<tr>
<td>geerá (front:CON)</td>
<td>UNDER</td>
<td>geera</td>
</tr>
<tr>
<td>guriu (stomach:CON)</td>
<td>IN</td>
<td>gura’</td>
</tr>
<tr>
<td>gwe’eeđaá (buttocks:CON)</td>
<td>BOTTOM</td>
<td>gwe’eedoo</td>
</tr>
<tr>
<td>sakw (head:CON)</td>
<td>HEAD</td>
<td>saga</td>
</tr>
</tbody>
</table>

7 sakw and gwe’eeđaá are not included in Mous (1992:95-96)
25

tlacá(ng) middle:CON MIDDLE tlacángw 'middle'
tseecá outside:CON OUT tseec a 'outside'

Note that yaamá doesn’t occur in my data, and will not be discussed in the present thesis.

3.2.4 Instrumental
The instrumental case is used to express the instrument of the action. Its form is -(a)r:

(23) an-á dab-ar fool-lít
1SG-1 hands-INSTR dig-MID:1SG
“I dig with my hands.” (Mous 1992:107)

As with the directive case, there is a prepositional counterpart for the instrumental, ar:

(23) a-na baaliim-áan ar tlakó-r maheeri
1-PAST win-1PL INSTR shooting-CON.F arrows
“We won by shooting arrows.” (Mous 1992:226)

Since the background and reason cases don’t feature in the examples used in the present thesis, I will not elaborate these further.

3.3. Selectors
Verbs in Iraqw, as well as nominal complements in a verbless clause, are preceded by a copula-like ‘selector morpheme’ (Mous 1992:123ff). Selector morphemes carry information on the subject and several TMA categories. There are four different types of selectors: copulative selectors, locative selectors, temporal selectors, and adjectival selectors:

Copulative a
locative a (1st/2nd person)
i (3rd person)
Temporal ta
Adjectival ku (M)
ka (F)

All selectors can occur with either a nominal or verbal complement. The following will focus on the non-verbal use of the selectors; the more extensive verbal use is treated alongside the verbal morphology. The copulative selector is used to equate two nouns:

(24) iraqw a dooslite
Iraqw 3 farmers
“The Iraqw are farmers.” (Mous 1992:124)
The locative selector has two forms: *a* for 1st and 2nd person, and *i* for 3rd person. They are used in clauses in which the complement is a locative expression.

(25a)  
\[ \text{a} \quad \text{dir} \quad \text{do'} \]
\[
\begin{array}{ll}
\text{1sg} & \text{1/2 AT house} \\
\end{array}
\]
“*I'm at the house.*”

(25b)  
\[ \text{xoosímmoo} \quad \text{i} \quad \text{gawá} \quad \text{daandú} \quad \text{meesa} \]
\[
\begin{array}{lll}
\text{cup} & \text{3 OVER BACK table} \\
\end{array}
\]
“The cup is on the table.” (TRPS 1)

It is noteworthy that the subject may be omitted from the clause if it is understood. The predicate still takes a selector morpheme, however:

(26)  
\[ \text{i} \quad \text{gawá} \quad \text{daandú} \quad \text{meesa} \]
\[
\begin{array}{lll}
\text{3 OVER BACK table} \\
\end{array}
\]
“It's on the table.” (TRPS 1)

The temporal selector is used when a change of state occurs. This includes translocation:

(27)  
\[ \text{ta}-\text{y} \quad \text{dir} \quad \text{afku} \quad \text{tlawi} \]
\[
\begin{array}{lll}
\text{TEMP-DIR AT MOUTH lake} \\
\end{array}
\]
“They get at the edge of the lake.” (Mous 2007:17)

The adjectival selector is used when the complement is an adjective. *ku* is used for masculine gender, and *ka* is used for feminine and plural gender:

(28a)  
\[ \text{inóš} \quad \text{ku} \quad \text{hhoo'} \]
\[
\begin{array}{ll}
\text{3SG ADJ.M nice} \\
\end{array}
\]
“He is nice.”

(28b)  
\[ \text{inóš} \quad \text{ka} \quad \text{hhoo'} \]
\[
\begin{array}{ll}
\text{3SG ADJ.F nice} \\
\end{array}
\]
“She is nice.” (Mous 2007:17)

3.3.1. **Note on the glossing of selectors**

Since the vast majority of examples are non-verbal and with a third person subject, in order to reduce the complexity of the glossing of selectors and the examples in general, the copulative selector and locative selector are glossed as follows:

\[ \text{a} \quad \text{COP} \]
‘copula selector in a nominal clause’

\[ \text{a} \quad \text{1} \]
‘1st person locative selector’

\[ \text{a} \quad \text{2} \]
‘2nd person locative selector’

\[ \text{i} \quad \text{3} \]
‘3rd person locative selector’ (also occurs in verbal clauses with 3rd person subject)

The absolute majority of examples make use of *i*, the third person locative selector. Note that
the locative selector is also used for third person subjects of verbal clauses.

When connected to another gloss, e.g. 3SG or 2PL, 1, 2, and 3 denote person only. Thus:

(29)  
\[
\begin{array}{lll}
3.\text{LOC} & \text{sehmiit} & 3.\text{LOC} \\
\text{stand:3SG.M} & \Rightarrow & \text{stand:3SG.M} \\
\text{‘He is standing’} & \Rightarrow & \text{‘He is standing’}
\end{array}
\]

3.4. **Verbal morphology**

Iraqw has three conjugations. Which conjugation is used depends on the ending of the verb. Most verbs are in the third conjugation, which consists of five sub-conjugations.

The first conjugation includes verbs that end in -m, and therefore also includes those verbs that end with the durative -iim, making it a relative frequent conjugation. The second conjugation includes verbs that end with -w, as well as those that end with the inchoative suffix -uw. Although it not very frequent, and the inchoative doesn’t occur in the examples used in the present thesis, there are several motion-related verbs that are in the second conjugation. The third class covers all other verbs. The conjugations are given in the paradigm below. Note that the verbal forms are preceded by selectors; furthermore, the third class has two 3rd person plural forms (Mous 2007:14).

<table>
<thead>
<tr>
<th></th>
<th>'ask' (I)</th>
<th>'leave' (II)</th>
<th>'hoe' (IIIe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>a firíim</td>
<td>a tláw</td>
<td>a dóosl</td>
</tr>
<tr>
<td>2SG</td>
<td>a firíin</td>
<td>a tléer</td>
<td>a dósł</td>
</tr>
<tr>
<td>3SG.M</td>
<td>i firíin</td>
<td>i tláy</td>
<td>i doosl</td>
</tr>
<tr>
<td>3SG.F</td>
<td>i firíin</td>
<td>i tléer</td>
<td>i dósľ</td>
</tr>
<tr>
<td>1PL</td>
<td>a firimáan</td>
<td>a tláwán</td>
<td>a doosláan</td>
</tr>
<tr>
<td>2PL</td>
<td>a firíndá'</td>
<td>a tlérá'</td>
<td>a doslá'</td>
</tr>
<tr>
<td>3PL</td>
<td>i firiná'</td>
<td>a tláyá'</td>
<td>i doosliyá'</td>
</tr>
</tbody>
</table>

Conjugations are identified on the basis of the ending of the 1st person singular form. The verbal root and personal suffixes are to some extent merged in Iraqw, with conjugation class also contributing to the meaning of the verb. This makes it hard to actually analyse the endings as true suffixes, in particular those of the third conjugation. Throughout the present paper, the endings will not be parsed as suffixes.

The third group consists of five different conjugations, characterised and defined by their endings:
<table>
<thead>
<tr>
<th></th>
<th>IIIa</th>
<th>IIIb</th>
<th>IIIc</th>
<th>IIIId</th>
<th>IIIe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>-Vh</td>
<td>-(V)Vr</td>
<td>-VVw</td>
<td>-VVy</td>
<td>-VVC</td>
</tr>
<tr>
<td>2SG</td>
<td>-Vt</td>
<td>-Vt</td>
<td>-Vb</td>
<td>-Vg</td>
<td>-VC</td>
</tr>
<tr>
<td>3SG.M</td>
<td>-Vh</td>
<td>-VVr</td>
<td>-VVw</td>
<td>-VVy</td>
<td>-VVC</td>
</tr>
<tr>
<td>3SG.F</td>
<td>-Vt</td>
<td>-Vt</td>
<td>-Vb</td>
<td>-Vg</td>
<td>-VC</td>
</tr>
<tr>
<td>1PL</td>
<td>-Vhaan</td>
<td>-Vraan</td>
<td>-VVwaan</td>
<td>-VVyaan</td>
<td>-VVCaan</td>
</tr>
<tr>
<td>2PL</td>
<td>-Via'</td>
<td>-Via'</td>
<td>-Vba'</td>
<td>-Vga'</td>
<td>-VCa'</td>
</tr>
<tr>
<td>3PL</td>
<td>-Vha'</td>
<td>-Vriya'</td>
<td>-VVwiya'</td>
<td>-VVyiya'</td>
<td>-VVCiya'</td>
</tr>
<tr>
<td>3PL</td>
<td>-Vhir</td>
<td>-Vrir</td>
<td>-VVwir</td>
<td>-VVyir</td>
<td>-VVCir</td>
</tr>
</tbody>
</table>

### 3.4.1 Tense

TMA is expressed mostly on the selectors, which will be discussed below. Noteworthy here is that the past tense is expressed also on the verbal stem through a high tone on the final syllable. Since the high tone is already present on most final syllables, this only affects the 3SG.M of conjugation III:

(30) \[ i\ doosl \rightarrow aa\ dosl \]

3 dig:3SG.M \rightarrow 3.PERF dig:3SG.M:PAST

“He digs.” \rightarrow “He dug.”

### 3.4.2 Verbal suffixes

Verbal roots can be expanded by adding a causative, durative, or middle suffix to the stem. The causative expresses how the action of the verb is caused by the subject. The form of the suffix is -(ii)s, which is inflected through conjugation IIIe. The subject of the intransitive verb becomes the object in a causative construction; note that suffixes may be strung together:

(31) \[ inós\ baynu\ g-i-na\ cay-m-iis \]

3SG pigs O3-O.N-PAST eat-DUR-CAUS:3SG:PAST

“He fed the pigs.” (Mous 1992:174)

A durative nuance may also be expressed by reduplicating part of the root:

(32) \[ ti'iim\ ‘to run’ \rightarrow ti'i'iiim\ ‘to be running’ \]

The durative is an aspect morpheme that expresses the duration of the action. The form of the suffix is -(ii)m; it is inflected through conjugation I. Hence its 3SG.M form is -in, as in example (33b):
(33a) cisá an-á-na tutuw-iím
    yesterday 1SG-1-PAST clear.field-DUR:1SG:PAST
    “Yesterday I was clearing a new field.” (Mous 1992:179)

(33b) aa cay-in
    3:PERF eat-DUR:3SG.M
    “He has eaten.”

The middle suffix is used to express that the subject is a patient. The form of the suffix is -(ii)t. It is inflected through conjugation IIIe. Note that the vowel of the suffix assimilates to the preceding vowel when it is preceded by a guttural consonant, hence -út instead of -ít:

(34) buura i-ri ku'-út
    beer 3-CSC spill-MID:3SG.F
    “The beer was spilled.” (Mous 1992:312)

Note that this vowel assimilation also occurs for the causative and middle suffixes. Finally, there are some verbs that incorporate a suffix in the verbal base; these verbs are conjugated regularly:

(35) hamtliit ‘to take a bath’
    tleehhiit ‘to become’
    logoos ‘to beat’
    hhe’ees ‘to finish’
    ti ’iim ‘to run’
    tascaam ‘to climb’

3.4.3. Selectors in verbal clauses

As I’ve already mentioned selectors also precede verbal complements. In the present paper, the copulative, locative, and adjectival selectors occur before a verbal complement. The copulative a is used in the perfect tense with the suffix -(g)a attached; the locative i is used in the present tense, and in the imperfective with the suffix -na attached; the adjectival selector is used in impersonal clauses. The paradigm for the copulative and locative selectors is as follows; the forms with the perfective -(g)a attached are also given (Mous 1992:125,142):

<table>
<thead>
<tr>
<th></th>
<th>COP</th>
<th>COP-PERF</th>
<th>LOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>a</td>
<td>-a-ga</td>
<td>a</td>
</tr>
<tr>
<td>2SG</td>
<td>a</td>
<td>-a-ga</td>
<td>a</td>
</tr>
<tr>
<td>3SG</td>
<td>a</td>
<td>-a-a</td>
<td>i</td>
</tr>
<tr>
<td>1PL</td>
<td>a</td>
<td>-a-ga</td>
<td>a</td>
</tr>
<tr>
<td>2PL</td>
<td>a</td>
<td>-a-ga</td>
<td>a</td>
</tr>
<tr>
<td>3PL</td>
<td>a</td>
<td>na-a</td>
<td>i</td>
</tr>
</tbody>
</table>
In the glossing below, COP is used for all copulative selectors; 1, 2, 3 are used for the locative selectors, depending on the person of the referent.

For impersonal constructions, when the subject is present but unspecified, the adjectival selector is used (glossed IMPS when with a verbal complement). This selector agrees with the person, gender, and number of the object. It is also combined with the perfective -(g)a when the subject is unspecified. The following paradigm gives both the impersonal selector forms, as well as the forms when combined with the perfect -(g)a.

<table>
<thead>
<tr>
<th></th>
<th>IMPS</th>
<th>IMPS:PERF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>ti</td>
<td>ta</td>
</tr>
<tr>
<td>2SG.M</td>
<td>tu</td>
<td>ta</td>
</tr>
<tr>
<td>2SG.F</td>
<td>ti</td>
<td>ta</td>
</tr>
<tr>
<td>3SG.M</td>
<td>ku</td>
<td>kwa</td>
</tr>
<tr>
<td>3SG.F</td>
<td>ka</td>
<td>ka</td>
</tr>
<tr>
<td>1PL</td>
<td>ti</td>
<td>ta</td>
</tr>
<tr>
<td>2PL</td>
<td>tundu</td>
<td>tunda</td>
</tr>
<tr>
<td>3PL</td>
<td>ki</td>
<td>ka</td>
</tr>
</tbody>
</table>

The object of the verb can proceed and succeed the verb. When it proceeds the verb, the selectors are replaced by an object pronoun. The form of this pronoun depends on both the object and the subject of the verb. The forms are as follows:

<table>
<thead>
<tr>
<th>SUB/OBJ</th>
<th>COP</th>
<th>LOC</th>
<th>1SG</th>
<th>2SG.M</th>
<th>2SG.F</th>
<th>3SG.M</th>
<th>3SG.F</th>
<th>1PL</th>
<th>2PL</th>
<th>3PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2</td>
<td>a</td>
<td>a</td>
<td>i</td>
<td>u</td>
<td>i</td>
<td>u</td>
<td>a</td>
<td>ti</td>
<td>nu</td>
<td>i</td>
</tr>
<tr>
<td>3</td>
<td>a</td>
<td>i</td>
<td>i</td>
<td>u</td>
<td>i</td>
<td>g-u</td>
<td>g-a</td>
<td>ti</td>
<td>nu</td>
<td>g-i</td>
</tr>
</tbody>
</table>

When the verb is perfective, the suffix -(g)a is attached to the object pronoun, yielding the following paradigm:

<table>
<thead>
<tr>
<th>SUB/OBJ</th>
<th>1SG</th>
<th>2SG.M</th>
<th>2SG.F</th>
<th>3SG.M</th>
<th>3SG.F</th>
<th>1PL</th>
<th>2PL</th>
<th>3PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>iga</td>
<td>ugwa</td>
<td>iga</td>
<td>ugwa</td>
<td>aaga</td>
<td>taa</td>
<td>naa</td>
<td>iga</td>
</tr>
<tr>
<td>2SG</td>
<td>iga</td>
<td>ugwa</td>
<td>iga</td>
<td>ugwa</td>
<td>aaga</td>
<td>taa</td>
<td>naa</td>
<td>iga</td>
</tr>
<tr>
<td>3SG</td>
<td>iga</td>
<td>ugwa</td>
<td>iga</td>
<td>gwa</td>
<td>gaa</td>
<td>taa</td>
<td>naa</td>
<td>iga</td>
</tr>
<tr>
<td>1PL</td>
<td>iga</td>
<td>ugwa</td>
<td>iga</td>
<td>ugwa</td>
<td>aaga</td>
<td>taa</td>
<td>naa</td>
<td>gaa</td>
</tr>
<tr>
<td>2PL</td>
<td>iga</td>
<td>ugwa</td>
<td>iga</td>
<td>ugwa</td>
<td>aaga</td>
<td>taa</td>
<td>naa</td>
<td>iga</td>
</tr>
<tr>
<td>3PL</td>
<td>iga</td>
<td>ugwa</td>
<td>iga</td>
<td>ngwa</td>
<td>nga</td>
<td>taa</td>
<td>naa</td>
<td>nga</td>
</tr>
</tbody>
</table>

Note that the subject only affects the shape of the 3rd person forms.

The above overview has been restricted to paradigms of the shapes present in the thesis; for a full overview I refer to the respective chapters of Mous (1992).
4. **Topological relations**

Information as to the location of an item, the Figure, is requested in Iraqw by referencing this item as the subject in a non-verbal locational clause with an interrogative as the predicate; a locational selector agrees with the person of the subject. This constitutes the where-search question:

(36) FIGURE REL SEARCH-DOMAIN

Subject
NP
LOC.SELECTOR
NP:CON-Q

The searched item is placed in the figure slot as an NP. The locational copula is *i* for third person Figures and *a* for first and second person Figures. The WHERE slot is filled by either *diìmàa* or *amàa*, which are both nouns of place with the question suffix -*máa* attached. The word order is rigid, with the Figure NP always occurring clause-initially and *diìmàa* or *amàa* occurring clause-finally. A pragmatic tendency implies that for *diìmàa* the Figure is nearby and directly accessible. This implication does not hold for *amàa*, which may be used for referents directly accessible but is largely reserved for referents whose location could range from closeby to further afield. Possibly related to this tendency, *amàa* is more frequently used for animate Figures than *diìmàa*, which is used more frequently for inanimates.

(37a) xoosl moo i dìi-máa?
cup 3 place:CON-Q
“Where is the cup?”

(37b) Efraim i amàa?
PN 3 place:CON-Q
“Where is Efraim?”

Although an answer can merely consist of deictic reference to the item to be located, which will be described in appendix A, a more accurate localisation – by including information about the Ground – of the item one requests information of would be by equating the Ground as a predicate NP with the Figure NP in a non-verbal locational clause. This basic locative construction (hf. BLC) can be summarised as follows:

(38) FIGURE REL SEARCH-DOMAIN GROUND

Subject
NP
LOC.SELECTOR [NP:CON NP]

The Figure is formulated phrase-initially as an NP. In a response to the where-search question, it may be omitted from the BLC altogether. The Ground is formulated also as an NP, which is postposed to the Figure NP and at the end of the phrase. It always consists of an NP denoting the Ground and a preceding locational NP in the construct case specifying the relation of the Figure in respect to the Ground. This slot is not productive; there are only a handful of nouns
allowed in this position. The following list including the glossing is reproduced from the
chapter 3:

<table>
<thead>
<tr>
<th>LOCATIONAL NOUN (CONSTRUCT FORM)</th>
<th>GLOSS</th>
<th>DERIVED FROM</th>
</tr>
</thead>
<tbody>
<tr>
<td>afá</td>
<td>mouth:CON</td>
<td>MOUTH</td>
</tr>
<tr>
<td>ala</td>
<td>space.behind:CON</td>
<td>BEHIND</td>
</tr>
<tr>
<td>amór</td>
<td>place:CON</td>
<td>TO</td>
</tr>
<tr>
<td>ba(r)á</td>
<td>side:CON</td>
<td>ON</td>
</tr>
<tr>
<td>bihháa</td>
<td>side:CON</td>
<td>SIDE</td>
</tr>
<tr>
<td>daandú</td>
<td>back:CON</td>
<td>BACK</td>
</tr>
<tr>
<td>dír</td>
<td>place:CON</td>
<td>AT</td>
</tr>
<tr>
<td>gamú</td>
<td>trunk:CON</td>
<td>EDGE</td>
</tr>
<tr>
<td>gawá</td>
<td>top:CON</td>
<td>OVER</td>
</tr>
<tr>
<td>geerá</td>
<td>front:CON</td>
<td>UNDER</td>
</tr>
<tr>
<td>guriúu</td>
<td>stomach:CON</td>
<td>IN</td>
</tr>
<tr>
<td>gwe’eedaá</td>
<td>buttocks:CON</td>
<td>BOTTOM</td>
</tr>
<tr>
<td>sakw8</td>
<td>head:CON</td>
<td>HEAD</td>
</tr>
<tr>
<td>tlacá(ng)</td>
<td>middle:CON</td>
<td>MIDDLE</td>
</tr>
<tr>
<td>tseecá</td>
<td>outside:CON</td>
<td>OUT</td>
</tr>
</tbody>
</table>

The semantic range of these nouns is discussed in section 4.4. The Figure and Ground are
equated through a locative copula, which is *i* for third-person Figure NPs and *a* for SAP
Figure NPs.

(39a) (baynamoo)  *i*  [bará  qaymoo]
(NP<sub>FIGURE</sub>) 3  [NP:CON NP<sub>GROUND</sub>]
(pig) 3  [ON field]
“The pig is in the field.”

(39b) (aning)  *a*  [bará  do’]
(NP<sub>FIGURE</sub>) 3  [NP:CON NP<sub>GROUND</sub>]
1SG 1  [ON house]
“I’m in the house.”

*bará* is used as a general locational noun merely denoting location without further specifying
the exact nature of the topological relation. Further locational information may be provided by

---

8 *Sakw* doesn’t occur in topological relations. It will be discussed briefly in chapter 6.
adding additional locational NPs specifying the nature of the relation between Figure and Ground. This is frequently used when the combination of Figure and Ground permits multiple logical topological relations, such as a cat and a table, or when a locational noun has a wide semantic range and requires specification, such as gawá, ‘OVER’. The restricted semantics of these locational nouns serves for further specification of an otherwise ambiguous relation. There is no grammatical constraint as to how many locational nouns can occur in the construction. Note that in practice constructions with more than two locational nouns are rare.

(40a) kitaabu i bará kitaangw
book 3 ON support
“The book is on the shelf.” (TRPS 8)

(40b) kitaabu i bará daandú kitaangw
book 3 ON BACK support
“The book is on top of the shelf.”

(40c) kitaabu i bará gawá daandú kitaangw
book 3 ON OVER BACK support
“The book is on top of the shelf.”

When multiple locational nouns are used to specify the relation, or in more rapid speech, bará is usually shortened to báa:

(41) maytsí i báa gurúu meesa
cat 3 ON IN table
“The cat is under the table.” (TRPS 31)

Word order is rigid in the sense that further specifications through locational NPs cannot precede the general locational noun bará. The following clause is incorrect because daandú ‘BACK’ has to follow bará:

(42) *xooslmoo i daandú bará meesa
*cup 3 BACK ON table
*“The cup is on the table.”

Although further localisations are frequent, in practice bará is considered sufficient when the relation between a Figure and Ground can be considered ‘canonical’. When a cup is placed on a table (TRPS 1), the image would be phrased using only bará:

(43) xooslmoo i bará meesa
cup 3 ON table
“The cup is on the table.” (TRPS 1)

When the cup is placed underneath the table, a description using bará is not sufficient, and
gurúu is added to locate the Figure in this rather non-canonical relation:

(45)  xooslmo i  bará gurúu meesa
      cup   3  ON  IN  table
     “The cup is under the table.”

Although bará (mostly in its reduced form báa) usually precedes further specifications, these may occur without bará. The following example shows more specific locational nouns without the general locational noun:

(46a)  impirmoo i  gurúu kitaangw
      ball   3  IN  chair
     “The ball is under the chair.” (TRPS 16)

(46b)  xooslmo i  daandú meesa
      cup   3  BACK  table
     “The cup is on the table.” (TRPS 1)

Multiple specific locational nouns can be combined without the use of the general locational noun:

(47)  xooslmo i  gawá daandú meesa
      cup   3  OVER  BACK  table
     “The cup is on the table.” (TRPS 1)

Although bará may be omitted in favour of a specific locational noun, the NP:CON slot has to be filled and therefore every BLC requires a locational noun preceding the Ground NP. Omitting it is ungrammatical:

(48)  *xooslmo i  meesa
      *cup   3  table
     *”The cup is on the table.”

One exception to this ungrammaticality is the Ground yaamu, ‘ground’, which may be combined with a Figure without using a locational noun. This is the preferred way of locating an item on the ground; the use of bará or other specifications are secondary:

(49)  chupiito'oo i  yaamu
      bottle   3  ground
     “The bottle is on the ground.” (PSPV 58)

Although to some extent grammaticalised (cf. 4.4.3.1), locational nouns are essentially construct case forms of nouns from the lexicon. Consequently a root cannot be used both as a
locational noun and as a Ground NP; or: *[NP:CON1 NP\_FIGURE1]:

(50a) *tumati i afkwá afa
    *cigarette 3 MOUTH mouth
    *“The cigarette is in the mouth.” (TRPS 39)

(50b) *kitabu i bará daandú daandáa'
    *book 3 ON BACK back
    *“The book is on the back (of the goat).”

(50c) *chai i gurúu gura'
    *tea 3 IN stomach
    *“The tea is in the stomach.”

It is also impossible to merely omit the locational noun:

(51) *chai i gura'
    *tea 3 stomach
    *“The tea is in the stomach.”

Unsurprisingly, Iraqw simply uses bará with the (underived) locational noun as a Ground, respectively bará afa ‘on mouth’, bará daandáa' ‘on back’, bará gura' ‘on stomach’. It is however also possible to use another specific locational noun:

(52) migir ngwa gagár ar gawá daandáa'
    firewood O3:O.M:PERF carry:3SG.F INST OVER back
    “She carried the firewood on her back.” (Carlin & Mous 1995:126)

Although locational nouns form a closed class, certain attributes of the Ground may be used in a construct case preceding the Ground NP to specify the position of the Figure. Such derived specifications may not occur alone and cannot fill the NP:CON slot; they need to be accompanied by a locational noun:

(53a) kikombe i bará kaankir meesa
    cup 3 ON corner:CON.F table
    “The cup is on the corner of the table.” (TRS 5)

(53b) *kikombe i kaankir meesa
    *cup 3 corner:CON.F table
    *“The cup is on the corner of the table.”

(53c) ba'armoo i bará isár chupito'oo
    fly 3 ON neck:CON.F bottle
    “The fly is on the neck of the bottle.”
Some multi-layered topological relations render the Ground in turn Figure of another Ground. Such relations are expressed without repeating the locational selector. The locational selector occurs immediately between the first Figure and the first Ground predication; the second Ground predication is placed immediately after the first:

(54) kikombe i bará daandú boksi bará daandú meesa
    cup 3 ON BACK box ON BACK table

“The cup is on the box on the table.” (TRS 3)

4.1. **Non-BLC constructions for rendering topological relations**

Aside from the above discussed BLC constructions for rendering topological relations, Iraqw makes use of positional verb constructions and other verbal construction based on parameters of animacy, damage, adornment, and markedness. The following flowchart illustrates how these relations are expressed:

```
[+ANIMATE] → POSITIONAL VERB CONSTRUCTION
[-ANIMATE] → [-DAMAGE/-ADORNMENT/-SURROUNDING] → BLC → ...
... → [+MARKEDNESS] → IMPS POS-VERB CONSTRUCTION
... → [+DAMAGE/+ADORNMENT/+SURROUNDING] → ...
... → NON-BLC VERBAL CONSTRUCTION
```

Taking into account the BLC hierarchy given in section 2.1, Iraqw uses the BLC only for point 6; points 1 through 5 are expressed through verbal constructions.

4.1.1. **Constructions with positional verbs**

For both animates and inanimates a positional verb may be used to describe the position or orientation of the Figure in relation to the Ground. Such verbal constructions are rare for inanimate Figures, but generally preferred for inanimate Figures. This construction is phrased as follows:

(55) Figure Posture Search-domain Ground
    NP SELECTOR+POSITIONAL VERB NP:CON NP

In such constructions, the selector slot is filled by locative selector in the present tense, and by the copula selector in the past tense. The verb agrees with the figure in terms of person and, for the third person, gender:
(56a) **aning a siihh amorí**
1SG 1 stand:1SG here
“I’m standing here.”

(56b) **maytsí i iwít bará tlwú**
cat 3 sit:3SG.F ON rug
“The cat is sitting on the rug.” (TRPS 40)

(56c) **seeay i iwít bará tlwú**
dog 3 sit:3SG.M ON rug
“The dog is sitting on the rug.”

Furthermore, some transitive positional verbs, such as **harweer** ‘encircle’, require the temporal selector **ta** for topological relations:

(57) **dayshimoo ta harweer gawá guftanoo**
snake TEMP encircle:3SG.M OVER stump
“The snake has encircled itself on the tree stump.” (TRPS 23)

For inanimate Figures orientation is given a resultative nuance, i.e. having been placed there by an agent, since these couldn't have taken the orientation on their own accord. This is expressed through a causative morpheme on the verb, as well as a perfective impersonal selector that agrees in gender with the noun: **kwa** for masculine and **ka** for feminine and plural. Though theoretically possible, first and second person Figures are excluded from this construction since these are animate per definition. Inanimate figures cannot be the agent of a positional verb, as these are unable to perform the action on their own; such clause, (58c), is strictly speaking not ungrammatical, yet semantically impossible.

(58a) **chupiito’oo ka iwít-iis gawá daandú meesa**
bottle IMP.F sit:3SG.F-CAUS OVER BACK table
“The bottle stands on the table.” (lit. “... is made to sit”) (PVPS 37)

(58b) **chupa ka qaatiis gawá daandú meesa**
bottles IMP.F lie:3SG.F-CAUS OVER BACK table
“The bottles lie on the table.” (lit. “...are laid on”) (PVPS 52)

(58c) * **chupiito’oo i iwít gawá daandú meesa**
*bottle 3 sit:3SG OVER BACK table
*“The bottle stands on the table.” (PVPS 37)

As with non-verbal clauses, the Ground *yaamu*, ‘ground’, may occur without locational nouns:

(59) **chupiito’oo ka iwít-iis yaamu**
bottle IMP.F sit:3SG.F-CAUS ground
“The bottle stands on the ground.” (PSPV 58)
It has to be stressed that such constructions for inanimates are extremely marked; the BLC takes preference for relations with an inanimate Figure on a Ground.

### 4.1.2. Non-BLC constructions for inanimate Figures

Certain relations in the TRPS are not realisable through the BLC or are preferably realised differently. Such relations necessitate the use of a verbal construction describing the action which has instigated the consequent relation. This includes damage such as the tear in the towel (TRPS 18) and the crack in the cup (TRPS 26). In the following examples, the BLC cannot render the relation; instead a verbal construction is used. These verbal constructions use the equational selector, as well as the middle form of the verb, ending in -t. Note that the Figure is expressed through the verb and not as an NP.

(60a)  
\[
\text{taoolmoo aa fooxiit} \\
\text{towel 3.PERF puncture.MID:3SG.M}
\]

“The towel is punctured.” (TRPS 18)

(60b)  
\[
*\text{fooxa i bará taoolmoo} \\
*\text{hole 3 ON towel}
\]

*“The hole is in the towel.”

(60c)  
\[
\text{xooslmoo aa feehhiit} \\
\text{cup 3.PERF crack.MID:3SG.M}
\]

“The cup is cracked.” (TRPS 26)

(60d)  
\[
*\text{feehhami i bará xooslmoo} \\
*\text{crack 3 ON cup}
\]

*“The crack is in the cup.”

This construction is only used when negative space is the result of an action caused by an agent, as in the damage from the examples above. When negative space exists naturally in a Ground, and when no action is presumed to have created the topological relation, such as the hole in the tip of a pen, a genitive construction with the dependent noun in the construct case is used, as in (61a); the BLC, in (61b), is generally more accepted (or a first response) in part-whole relations not caused as a result of an action:

(61a)  
\[
\text{fooxár kalaamu} \\
\text{hole:CON.F pen}
\]

“the hole of the pen”

(61b)  
\[
\text{fooxa i bará kalaamu} \\
\text{hole 3 ON pen}
\]

“The hole is in the pen.”

Expressions in which the Figure surrounds the Ground or vice versa cannot be realised.

---

9 General acceptance of a BLC for these relations depends strongly on the individual speaker. Yet no-one gave the BLC as first response and had to ponder whether or not the BLC would be acceptable.
through the BLC; a verbal construction has to be used.

(62a)  
\[
\begin{array}{llll}
\text{fensi} & \text{do’} & \text{gwa} & \text{harweet} \\
\text{fence} & 3SG:3O & \text{encircle.MID:3SG.M} \\
\hline
\end{array}
\]
“This fence encircles the house.” (TRPS 15)

(62b)  
\[
\begin{array}{llll}
\text{do’} & \text{kwa} & \text{harweer} & \text{nee fensi} \\
\text{house} & \text{IMPS.M} & \text{encircle:3SG.M} & \text{with fence} \\
\hline
\end{array}
\]
“The house is encircled with a fence.” (TRPS 60)

(62c)  
\[
\begin{array}{llll}
\text{daamóot} & \text{iga} & \text{harwét} \\
\text{beard} & 1SG.O & \text{encircle.MID:3SG.F} \\
\hline
\end{array}
\]
“The beard surrounds me.” (I’m wearing a beard)

A verbal construction is the usual way of phrasing relations of clothing or adornment. The Ground is then used as the subject and the Figure as the object of a verb describing the relation. This verb is usually perfective:

(63)  
\[
\begin{array}{llllllllll}
\text{dasi-r-} & \text{i} & \text{kwaslu} & \text{ga} & \text{dahás} & \text{bará} & \text{isa} \\
girl-F-DEM1 & \text{beads} & S:3O.3P:PERF & \text{dress:3SG.F} & \text{ON neck} \\
\hline
\end{array}
\]
“This girl wears beads on the neck.” (TRPS 51)

4.2. A note on negative location
When the absence of a Figure in respect to a Ground is mentioned, the usual locational predication is negated through kaahh, ‘be dry, empty’, which requires a locative copula:

(64a)  
\[
\begin{array}{llllll}
\text{chupiito’oo} & \text{i} & \text{káahh} & \text{bará} & \text{daandú} & \text{meesa} \\
bottle & 3 & \text{dry:3SG.M} & \text{ON BACK table} \\
\hline
\end{array}
\]
“The bottle is not on the table.”

(64b)  
\[
\begin{array}{llll}
\text{chupiito’oo} & \text{i} & \text{káahh} & \text{yaamu} \\
bottle & 3 & \text{dry:3SG.M} & \text{ground} \\
\hline
\end{array}
\]
“The bottle is not on the ground.”

(64c)  
\[
\begin{array}{llll}
\text{aning} & \text{a} & \text{kaahh} & \text{gurúu} & \text{do’} \\
1SG & 1 & \text{dry:1SG IN} & \text{house} \\
\hline
\end{array}
\]
“I’m not in the house.”

The where-search domain is unaffected by negation.

4.3. A note on existential predication
When there is no Ground mentioned, but purely the existence of a Figure, the verb deer ‘exist’ is used, both in questions and declarative clauses. The construction is locational in the sense that the locative selector is used. For questions, the question affix -o is suffixed to the verbal root.
Further temporal dimensions may be added by the adverbs specifying the time, e.g. *matlo*, ‘tomorrow’ or *cisá* ‘yesterday’:

(66) *matlo buuraa i deer*
    tomorrow beer 3 exist.3SG
    “Tomorrow, there will be beer.”

Negative predication is phrased through *kaahh* ‘be dry, empty’, denoting absence:

(67a) *cisá buuraa i deer-o*
    yesterday beer 3 exist.3SG-Q
    “Was there any beer yesterday?”

(67b) *cisá buura i kāhh*
    yesterday beer 3 empty:3SG.F
    “Yesterday, there was no beer.”

Alternatively, the verb *faak* ‘be finished’ can be used. This construction differs from the above in that the verb requires an equational copula.

(68) *buuraa a-a fāk*
    beer 3.COP-PERF finish:3SG.F
    “The beer is finished.”

This verb is semantically more restricted than the verb *kaahh* ‘be dry, as it is used only for entities that can be ‘finished’.

4.4. **The semantic range of locational nouns**

The following locational nouns are used in predications on topological relations:

4.4.1. *barà (bàa)* ON [+CONTACT]
4.4.2. *dir* AT [+CONTACT]
4.4.3.2. *daandú* BACK
4.4.3.3. *gawá* OVER
4.4.3.4. *guríu* IN
4.4.3.5. *gamú* EDGE
The present chapter will assess the semantics of these locational nouns.

4.4.1. *bará* ‘ON’

*bará*, glossed as ‘in’ in Mous (1992), and additionally as ‘at’ and ‘down’ in Mous et al (2002), is a semantically bleached locational noun functioning as a general locational marker merely stating that there is a contact relation between the Figure and Ground (cf. also Carlin and Mous 1995:123). For all of the coincidence\(^{10}\) relations in the TRPS that warrant usage of the BLC, *bará* can be used, though often accompanied by a more specific locational noun such as *daandú* ‘BACK’ or *gawá* ‘ON’. It is furthermore used in constructions with positional verbs, and several other relations that would elicit a non-BLC construction as first response, as in (61), are judged to be grammatical when used in a BLC with *bará*. It is unproductive to demarcate the semantic range of *bará* as it is often combined with other locational nouns to further specify to position of the Figure in relation to the Ground.

*bará* often occurs as the sole locational noun in a BLC, and what is of interest is these topological relations in which *bará* without further specifications was given as first response. These included relations in which a Figure and Ground would be in relation to each other in what can be vaguely described as the most canonical position, such as the cup on the table (TRPS 1). Specifications upon the nature of the relation in such canonical relations where only elicited upon further questioning. This is in contrast to those relations where the Figure would be in a less canonical position in respect to the ground: when the cup is placed underneath the table, the first response would use *guruú* ‘IN’ as a further specification. In contrast, the box in the bag (TRPS 14) would trigger exclusively *bará* as first response, the specification *guruú* added later. Canonicity is restricted to the semantics of the Ground, e.g. a chair under the table (arguably a canonical relation between this particular Figure and Ground) would still be described using a specification, as using *bará* alone would presuppose that the chair is on top of the table. It is furthermore limited to less featured Grounds. For the Ground *do’* ‘house’ a specification was almost always used.

These canonical relations typically include descriptions of support and containment. As far as support is concerned, it is to be observed that both vertical as well as horizontal relations of gravitational support are rendered using only *bará*; this includes images such as the cup on the

\(^{10}\) Thus excluding non-contiguous relations as 6 (dog next to house) and 49 (tree next to church). For clarity’s sake I limit ‘contiguity’ as pertaining to the horizontal dimension, as the vertical dimension is treated as contiguous in Iraqw.
table (TRPS 1), as well as the picture on the wall (TRPS 44). Similarly, a lamp on the ceiling may be described using only *bará*, although this is admittedly rare.

Containment is more restricted in the sense that there is a purpose dimension added to the Ground. Fruit in a bowl would be described using *bará* alone, whereas a ball under a chair (TRPS 16) - arguably a relation in which the Figure is within the confines of (i.e. contained in) the Ground - is expressed with *gurúu*.

### 4.4.2. *dír* ‘AT’

*dír* is a general locational noun that is primarily used when the Figure and Ground are not in contact. Consequently it is largely absent from the data elicited through the TRPS. As a search domain is usually projected for relations in which there is no contact, *dír* is often used in combination with a frame of reference, which will be discussed in chapter 6. Although possible, *dír* is rarely used without such angular specifications. Nonetheless, the following clause is entirely acceptable:

(69)  

```
seeay i dir do'  
dog 3 AT house  
```

“The dog is at the house.” (TRPS 6)

*dír* is not restricted to non-contiguous relations, and may be used to relate the Figure to a specific part of the Ground. In the following example, the location of the Ground *meesa* ‘table’ is further specified using the construct case form of *kaanki*, ‘corner’, which is accompanied by the locational noun *dír*:

(70)  

```
kikombe i dir kaankir meesa  
cup 3 AT corner:CON.F table  
```

“The cup is at the corner of the table.” (TRS 5)

When the specification *kaankir* is omitted, *dír* cannot be used to describe the relation of the cup on the table.

(71)  

```
*kikombe i dir meesa  
*cup 3 AT table  
```

*“The cup is on the table.”

In other words, when specifying a coincidence relation, *dír* needs specification.

That being said, when a specification is made for a Figure in contact with its Ground, as in (71), the preferred construction or first response would still be with *bará*, as in (72):

(72)  

```
kikombe i bará kaankir meesa  
cup 3 ON corner:CON.F table  
```

“The cup is at the corner of the table.”
There is some variation amongst speakers in that some consider it impossible to render an inanimate Figure through *dir, restricting its use to Figures with motion capabilities:

(73a)  *xatlnoo i dir doomungu
      *tree 3 AT church
      *“The tree is beside the church.” (TRPS 49)

(73b)  seeay i dir do’
      dog 3 AT house
      “The dog is at the house.” (TRPS 6)

However, for many speakers (73a) is entirely grammatical.

4.4.3.  Other locational nouns

*bará and *dir are general locational nouns in that they can be used in all contexts that warrant the use of the BLC. They are usually combined with a more specific locational noun that further specifies the location of the Figure on the Ground in more detail. These are discussed below.

4.4.3.1. Degrees of grammaticalisation in locational nouns

The remaining locational nouns have a clear semantic demarcation in which the relation between a Figure and its Ground is generalised or in which properties of the Ground are taken into account as well. I have already mentioned that when differentiating a location on a Ground from a similar location on a Ground, a normal noun can be put into the construct case to further specify the location. All Iraqw locational nouns are essentially grammaticalised construct case forms of regular nouns. However, since these nouns still occur in the lexicon as their ungrammaticalised counterparts, it is possible to put such nouns in an ungrammaticalised construct case. Consequently Iraqw uses two constructions: a grammaticalised construction and non-grammaticalised, i.e. derived, construction. Morphologically both forms are identical. However, only the grammaticalised counterparts of these morphs can fill the NP:CON slot, and the ungrammaticalised derived counterparts cannot. Instead, these have to be accompanied by another locational noun such as *bará. On syntactic grounds it is possible to establish two classes of locational nouns: the grammaticalised closed group of locational nouns discussed in the present section which are used as locational nouns, and the ungrammaticalised derived locational nouns used as a specification to another locational noun. This latter group also contains all derived locational nouns that don’t have a grammaticalised counterpart, e.g. *kaankir ‘corner:CON’. The following example illustrates this for *daandú ‘BACK’:

```
<table>
<thead>
<tr>
<th>GRAMMATICALISED</th>
<th>daandú (BACK)</th>
<th>daandú‘back’</th>
</tr>
</thead>
<tbody>
<tr>
<td>daandú (BACK)</td>
<td>daandú‘back’</td>
<td>daandú (back:CON)</td>
</tr>
</tbody>
</table>
```
Although the above hypothesis is not without its problems and clearly needs more research, what can be discussed with certainty is there are differences in semantic load between these two posited groups of locational nouns, which translates into drastically different usage. Taking *daandú* ‘BACK’ as example, in the grammaticalised frame it expresses a relation of coincidence between a Figure and Ground. In the ungrammaticalised frame *daandú* carries more semantic load in the sense that the property from which the noun is derived, i.e. *daando* ‘back’, has to be present on the Ground. This essentially leads to two frames in which a topological relation can be expressed: a semantically empty construction in which solely the relation between a Figure and its Ground is expressed, and a semantically loaded construction in which a property of the Ground is generalised upon. For other nouns, such as *afku* ‘MOUTH’ there is no such dichotomy in the sense that the locational noun always carries considerable semantic load. That being said, *afku* belongs to the closed class of locational nouns, illustrating not only that there are varying degrees of grammaticalisation and semantic load within a given locational noun, but also in the closed class in general.

Imagine a teaspoon placed horizontally over a cup. Some speakers would use a more grammaticalised frame in which *daandú*, ‘BACK’, is used to express the relation, as in (74a); others would use a less grammaticalised frame and consequently only allow *daandú* when the cup is upside down and the spoon is on the back of the cup, as in (74b), since they would argue *daandú* can only refer to this position, and not in other positions, as in (74c). Within the more grammaticalised frame, a spoon placed over the rims of a cup can be expressed with *daandú*, as in (74a). In constrast, for less grammaticalised nouns, such as *afku* ‘MOUTH’, only (71d) is permitted for all speakers, since in (74e) *afá* ‘MOUTH’ is used to refer to a position to which it cannot refer, and there is no grammaticalised counterpart of *afá*:

(74a)  
\[
\text{kijiko } \text{i barà daandú kikombe} \\
\text{spoon 3 ON BACK cup} \\
\text{“The spoon is on the cup.” (cup in all postions)}
\]

(74b)  
\[
\text{kijiko } \text{i barà daandú kikombe} \\
\text{spoon 3 ON back:CON cup} \\
\text{“The spoon is on the cup.” (cup upside down)}
\]

(74c)  
\[
*\text{kijiko } \text{i barà daandú kikombe} \\
*\text{spoon 3 ON back:CON cup} \\
*\text{“The spoon is on the cup.” (cup upright)}
\]

(74d)  
\[
\text{kijiko } \text{i barà afá kikombe} \\
\text{spoon 3 ON MOUTH cup} \\
\text{“The spoon is on the cup.” (cup upright)}
\]

(74e)  
\[
*\text{kijiko } \text{i barà afá kikombe} \\
*\text{spoon 3 ON MOUTH cup} \\
*\text{“The spoon is on the cup.” (cup in other positions)}
\]

(74e) could theoretically be correct if the spoon were glued to the rims of the cup; I assume a non-BLC verbal construction would be preferred, however. The following image illustrates
the designations of the top half of the cup for the grammaticalised and non-grammaticalised, semantically loaded frames:

GRAMMATICALISED FRAME

\( \text{daandú (BACK)} \)

SEMANTICALLY LOADED FRAME

\( \text{afá (MOUTH)} \)

\( \text{bihháa (SIDE)} \)

\( \text{daandú (BACK)} \)

Image 2: \textit{daandú} in the grammaticalised and semantically loaded frames.

In the grammaticalised frame, \textit{daandú} merely designates the top half; the orientation of the cup is irrelevant. In the semantically loaded frame, \textit{daandú} may only refer to the back of the cup when it turned upside down. When placed upright, \textit{afá ‘MOUTH’} refers to the top part, whereas \textit{bihháa ‘SIDE’} refers to the top part when the cup is on the side.

These different degrees of grammaticalisation are employed differently with every speaker: some predominantly use a grammaticalised variant whereas others use a non-grammaticalised, more semantically loaded variant. Furthermore, as the discussion on the individual locational nouns will illustrate, some nouns show greater differences in grammaticalisation than others.

The following will outline the semantics of the different locational nouns used in the BLC. Since there is considerable overlap into the semantic domains of each locational noun, an overlap in the following discussion is unavoidable.

4.4.3.2. \textit{daandú ‘BACK’}

d\textit{aandú} is a more complicated locational noun the semantic extensions of which Carlin and Mous (1995) discuss in detail. I have already touched upon differences in semantic load amongst different locational nouns and different degrees of grammaticalisation even within a locational noun. The present discussion will first discuss the semantically loaded \textit{daandú}.

Being derived from the noun \textit{daandáa‘, ‘back’, it has been argued that as a locational noun, since it denotes the relation ‘on top of’, it is representative of the animal model for locational nouns, in which the animal (or cow) body is used for metaphorical extensions of topology (cf. Heine 1989:91). Yet \textit{daandú} as locational noun is more complex in the sense that not only the relation of a Figure in respect to a Ground is taken into account, but also the properties of the Ground and, to a lesser extent, the Figure themselves. This can be illustrated through the following example: when describing a bird sitting on a fence, only \textit{gawá ‘OVER’} is allowed; not \textit{daandú}. 
(75a)  tsirci i  bará gawá  sluma
    bird 3 ON OVER fence
    “The bird is on the fence.”

(75b)  *tsirci i  bará daandú sluma
    *bird 3 ON BACK fence
    *“The bird is on the fence.”

This is because the top of the Ground, sluma, ‘fence’, is not considered to have a ‘back’. Another argument given against the “animal model” is that the semantic range of daandú covers the position of items against a vertical dimension:

(76)  tsacama  ka  sihht-iis  bará daandú kuca
      ladder  IMPS.F stand.CAUS:3SG ON BACK wall
      “The ladder is placed against the wall.” (TRPS 58)

Although this suggests that the concepts of sluma ‘fence’ and kuca ‘wall’ respectively exclude and include a daandáa’ ‘back’, or that their daandáa’ is located on their vertical plane, this generalisation cannot be made since using a different Figure with kuca as Ground causes daandú to be ungrammatical. The nature of the Figure, and consequently also the relation between that Figure and the Ground kuca ‘wall’, plays a role in the acceptability of a locational noun. In the following example the only permitted locational nouns are bará ‘ON’ and gawá ‘OVER’; daandú cannot be used:

(77a)  simu i  bará gawá kuca
      telephone 3 ON OVER wall
      “The telephone is on the wall.” (TRPS 25)

(77b)  *simu i  bará daandú kuca
      *telephone 3 ON BACK wall
      *“The telephone is on the wall.” (TRPS 25)

These last few examples show that daandú is a more complex locational noun in that it doesn’t generalise only the semantics of the Figure, Ground or relation between them, but expresses a combination of these parameters. An important difference between the relation of the ladder against the wall and the telephone on the wall is that the former is supported also on the floor, whereas the latter is only supported by the wall. That being said, daandú is certainly used for relations in which the Figure is located on a vertical dimension of the Ground:

11 My data conflicts here with that of Carlin and Mous (1995:126). picha could emphatically not be expressed with daandú when it was supported only by the wall.
(78) tsirci i cakúut daandú huunkay
   bird 3 fly:3SG.M BACK cloud
   “The bird flies behind the cloud.” (Carlin and Mous 1995:124)

This use of daandú is, in contrast to Carlin and Mous’ (1995) account, limited to topological relations on a higher or conceptual scale in my own data, as in the following:

(79) Babati i daandú dindirmoo
   TN 3 BACK mountain
   “Babati is behind the mountain.”

For relations on a smaller scale, where a Figure is located behind the Ground, Iraqw uses athe intrinsic frame of reference. In this particular relation with ala ‘BEHIND’:

(80) hee-w-i aa naheet bará ala kitaangw
   man-M-DEM1 3.PERF duck:3SG.M ON BEHIND chair
   “This man has ducked behind a chair.” (TRPS 64)

This will be discussed further in chapter 6.

Carlin and Mous (1995:127) argue that daandú employs neither the ‘animal model’ nor the ‘human model’, nor a combination of the two. I agree with Carlin and Mous (1995) that the coincidence use of daandú is not sufficient to argue that the language employs an ‘animal model’. Instead, Carlin and Mous (1995:127) argue that daandú is rather the opposite of gurúu ‘IN’. The relation between a Figure and an upside-down calabash as Ground would then incite the use of daandú irrespective of the position of the Figure on the outside of the calabash:

(81a) ba’aarmoo i bará gurúu slooqáy
   fly 3 ON IN calabash
   “The fly is in the calabash.”
(81b) ba’aarmoo i bará daandú slooqáy
   fly 3 ON BACK calabash
   “The fly is on the calabash.” (the calabash upside down)

Though my own data is in accord with daandú being used as the opposite of gurúu (be it in the sense of ‘under-above’ or ‘inside-outside’) this view does overamplify its range as well. Of a variety of objects, daandú was impossible or dispreferred, despite the Figure being in a location that would be the opposite of gurúu. This includes non-spherical Figures such as a cup. An upside-down cup as in the following image would allow the use of gurúu for both the bottom and the inside. If we take daandú to be the opposite of gurúu, designations with daandú would then be allowed all over the surface; this is not the case, however, as the sides of the cup are designated with bihháa ‘SIDE’ instead; daandú is restricted to the top:
On the basis of this, I argue that *daandú* is the opposite of *gurúu* in the sense of ‘underneath’, not of *gurúu* in the sense of ‘inside’. It should be stressed that this only holds for non-spherical Grounds with edges (a calabash is a half sphere without edges). Furthermore, consider the following example:

(82a) *kitabu i bará gurúu hhafta*
     book 3 ON IN rug
     “The book is under the rug.”
(82b) *maysi i bará daandú hhafta*
     cat 3 ON BACK rug
     “The cat is on the rug.” (TRPS 40)

Although (82b) is generally accepted, some speakers consider the use of *daandú* in the second example incorrect on the basis of the Ground not having the property *daandáa*.

The discussion on different degrees of semantic bleaching is important for *daandú*, as some speakers have grammaticalised the use of *daandú* to any position in which the Figure is contiguous with the top of the Ground, i.e. a relation of coincidence. In other words, whether or not the Ground has a ‘back’ or whether or not the Figure is located on the part of the Ground considered the ‘back’ is irrelevant. (75b) would be considered correct within this frame. The following clause, repeated from (74), was correct for some speakers, but emphatically incorrect for other speakers:

(83) *kijiko i bará daandú kikombe*
     spoon 3 ON BACK cup
     “The spoon is on the cup.” (the cup positioned upright)

Speakers who considered this incorrect argued that *daandú* cannot refer to the rims of the cup. Instead, they preferred *gawá* ‘OVER’ or *afá* ‘MOUTH’ for this construction. Image 2 is repeated here for convenience:
4.4.3.3. **gawá ‘OVER’**

*gawá* is the construct case form of *gawa*, ‘top, higher up’. Its range includes those relations in which the Ground prevents the Figure from falling. Consider the following example:

(84a) \[ xooslmoo i \text{ bará } gawá \text{ meesa } \]
\[ \text{cup 3 ON OVER table } \]
\[ \text{“The cup is on the table.” (TRPS 1) } \]

(84b) \[ tsirci i \text{ bará } gawá \text{ sluma } \]
\[ \text{bird 3 ON OVER fence } \]
\[ \text{“The bird is on the fence.” } \]

In (84a), its use is similar to *daandú* ‘BACK’, and can be exchanged with that locational noun. (84b) cannot, unless the grammaticalised counterpart of *daandú* is used. The notion of support can also be on a horizontal axis, e.g. an item attached to the wall:

(85) \[ simu i \text{ gawá } kuca \]
\[ \text{telephone 3 OVER wall } \]
\[ \text{“The telephone is on the wall.” (TRPS 25) } \]

gawá further expresses relations in which the Figure is suspended from the Ground:

(86) \[ gwacateema i \text{ gawá } daari \]
\[ \text{lamp 3 OVER ceiling } \]
\[ \text{“The lamp is on the ceiling.” (TRPS 63) } \]

gawá furthermore covers non-contiguous relations in which the Figure is located above the Ground. Consequently, when *gawá* denotes a Figure located on top of a Ground, there is no assumption as to whether or not the Figure and Ground are in contact:
The above clause can be interpreted either as the lamp being positioned on the table, or as the lamp being suspended from the ceiling and located above the table (as in the stimulus). For other relations this ambiguity is less prevalent, as in the following:

(88) huunkáy i gawá tlooma
    cloud 3 OVER mountain
    “The cloud is above the mountain.” (TRPS 36)

Furthermore, when there is coincidence between Figure and Ground, gawá presupposes that the Figure is on the highest possible point of the Ground. Whether or not it is mutually exclusive with daandú ‘BACK’ in these instances depends on the nature of the Ground. In the following example, a position on the summit of a mountain can be described with both gawá and daandú, whereas a position on the slope of a mountain can only be described with daandú. Conversely, a position on the rim of a chair can only described with gawá, whereas a position on the base of a chair can be described with both gawá and daandú:

(89a) tsirci i bará gawá kitaangw
    bird 3 ON OVER chair
    “The bird is on the rim of the chair” or “The bird is on the base of the chair.”

(89b) tsirci i bará daandú kitaangw
    bird 3 ON BACK chair
    “The bird is on the base of the chair.” not *“The bird is on the rim of the chair.”

(89c) xatlnoo i bará gawá dindirmoo
    tree 3 ON OVER hill
    “The tree is on the top of the hill.” not *“The tree is on the slope of the hill.”

(89d) xatlnoo i bará daandú dindirmoo
    tree 3 ON BACK hill
    “The tree is on the top of the hill.” or “The tree is on the slope of the hill.”

Due to its wide semantic range it is often combined with daandú to specify location on something; word order is rigid in that gawá cannot follow daandú; (90b) is therefore incorrect:

---

12 It is worth mentioning that kitaangw ‘chair’ can also refer to stools and even shelves; essentially any item of support. In this sense, the rim of the chair might be considered different from the regular flat part used for support. This part needs to be researched more concretely.
51

(90a) xooslmo i gawá daandú meesa
cup 3 OVER BACK table
“The cup is on the table.” (TRPS 1)

(90b) *xooslmo i daandú gawá meesa
*cup 3 BACK OVER table
*“The cup is on the table.”

4.4.3.4. gurúu ‘IN’
gurúu is derived from the noun gura’, ‘stomach’, and covers the relations in which the Figure is contained by the Ground. This includes relations where the Figure is inside the Ground, as well as relations in which the Figure is covered by the Ground. Recall that in section 4.4.3.2 these uses where considered separate in order to relate it to daandú ‘BACK’ as the opposite of gurúu. (91a) illustrates the ‘inside’ gurúu; (91b) illustrates the ‘underneath’ gurúu:

(91a) atén a bará gurúu do'
1PL 1 ON IN house
“We are in the house.”

(92b) kijiko i bará gurúu warqamoo
spoon 3 ON IN cloth
“The spoon is under the piece of cloth.” (TRPS 24)

Although, as with daandú ‘BACK’ it is derived from a body part, gurúu arguably only has a grammaticalised counterpart in that it may be applied to any topological relation regardless of the semantics of the Ground; i.e. as long as the relation between Figure and Ground warrants its usage. Contrast to daandú, I have found no referent for which gurúu could not be used. Although considered opposites of a single pair in Carlin and Mous (1995), gurúu does not imply that the Figure and Ground are in contact, which is in contrast to daandú which presupposes contact (gawá would be used for instances where the Figure is above the Ground without contact):

(92) meesa i bará gurúu gwacateema
table 3 ON IN lamp
“The table is under the lamp.” (incorrect reading of TRPS 13)

Furthermore, I have already argued that daandú can only be considered the opposite of gurúu in the sense of ‘underneath’: although a location in the space inside an upside-down cup is described with gurúu, a position on the sides of the cup cannot be rendered with daandú; it is rendered with bihháa ‘SIDE’ instead.

Visibility is not a parameter for whether or not a relation can be expressed with gurúu: both Figures covered visibly and Figures concealed entirely by a Ground are expressed with gurúu as locational noun:
When talking about a group of Figures in a Ground, such an overflowing bowl of fruit, those which are within the dimensions of the bowl are generalised upon.

(94) macandú i bara gurúu bakul
fruit 3 ON IN bowl
“The fruit is in the bowl.” (TRC 15: overflowing bowl of fruit)

Although containment is the dominant parameter for gurúu, there are instances when support seems to take preference. Whereas English would describe TRC 1, 2, and 3 all with “in”, Iraqw doesn't allow gurúu for TRC 3, which shows a piece of fruit in a bowl filled to the rim sand.

(95) *macandumoo i bara gurúu bakuli
*piece.of.fruit 3 ON IN bowl
**“The piece of fruit is in the bowl.”

In this example, the piece of fruit as a Figure is not considered to be related to the bowl as a Ground, since it is outside of the dimensions of the bowl. Instead, the sand of is considered the Ground the Figure is to be related to; the sand is in itself a Figure, with the bowl as the Ground:

(96) macandumoo i bara hhasaangw; hhasaangw i bara gurúu bakuli
piece.of.fruit 3 ON sand sand 3 ON IN bowl
“The piece of fruit is on the sand; the sand is in the bowl.”

This can be illustrated as follows:

(95) *FRUIT \[\text{CONTAINMENT}\] BOWL

(96) FRUIT \[\text{SUPPORT}\] SAND \[\text{CONTAINMENT}\] BOWL

As example (94) has shown, when the majority of Figures is located within the Ground, the containment relation with gurúu is used. When an item is isolated from the other Figures, as
in (97) below, the isolated Figure is likewise expressed in relation to the other Figures as a support relation, and the other Figures are expressed as a containment relation in relation to the Ground:

(97) `macandumoo-wi i bará daandú macandú bará guríu bakuli`  
`piece.of.fruit-DEM1 3 ON BACK fruit ON IN bowl`  
“This piece of fruit is on the fruit in the bowl.” (TRC 10: big piece of fruit on top of other fruits in bowl)

This can again be visualised as follows:

```
  (97) FRUIT  --(SUPPORT)--  OTHER FRUITS  --(CONTAINMENT)--  BOWL
```

`guríu` generally presupposes full submergence of a Figure in its Ground, except for canonical relations with a purpose parameter. In the following examples, a stick sticking out of a bowl cannot be described with `guríu`, as in (98a). A more elaborate construction is required, as in (98b). However, a spoon sticking out of a bowl can be described with `guríu` as in (98c); it doesn't require the amount of specification as (98b):

(98a) `*hhara i bará guríu bakuli`  
`*stick 3 ON IN bowl`  
*“The stick is in the bowl.” (TRC 36 – construction used for TRC 34)

(98b) `hhara i bará bihháa afku bakuli`  
`stick 3 ON SIDE MOUTH bowl`  
“The stick is in the bowl.” (TRC 36)

(98c) `kijiko i bará guríu bakuli`  
`spoon 3 ON IN bowl`  
“The spoon is in the bowl.” (TRC 37)

Purpose is also a present parameter for certain Figures: islands and boats have in common that they both extend out of their Ground, namely water. Although water is certainly not the most straightforward Ground, the properties of the Figure seem to be given more priority here:

(99a) `marinkimo i bará daandú ma'ay`  
`boat 3 ON BACK water`  
“The boat is on the water.”

(99b) `marinkimo i bará guríu ma'ay`  
`boat 3 ON IN water`  
“The boat is in the water.” (i.e. it has sunken)

(99c) `yaama kahaar i bará guríu ma'ay`  
`land:CON dry 3 ON IN water`  
“The island is in the water.” (TRC 41)
Tied together with the purpose argument, the concept of containment extends to those relations that would be considered relations of support in English: containment in Iraqw includes every position of a Figure in even the slightest bowl-shaped Ground, such as a plate:

(100) _fu‘naay i barà guríu sahaanay_
    meat 3 ON IN plate
    “The meat is on the plate.” (TRC 25)

The concept of containment is furthermore extended to more abstract or larger-scale notions. Although barà without any further specification is acceptable or even preferred, guríu may be used to express notions such as being in a country:

(101) _aníng a barà guríu Tanzania_
    1SG 1 ON IN Tanzania
    “I’m in Tanzania.”

As with daandú, guríu is occasionally used in constructions in which it retains much of its semantic load. Being derived from _gura‘_, ‘stomach’, its first use is limited to the notion of ‘inside’, and when a multifaceted Ground differentiates between positions ‘inside’ and ‘underneath’, the rendering of the latter is done through _gwe’eedáa_ ‘BOTTOM’, as in (102b):

(102a) _hhara i barà guríu kitabu_
    stick 3 ON IN book
    “The stick is in the book.” not: “The stick is under the book.”

(102b) _hhara i gwe’eedáa kitabu_
    stick 3 BOTTOM book
    “The stick is under the book.”

_guríu_ expresses containment, and although translated as ‘in’ or ‘under’, we should understand that it cannot be used when describing a relation in which two items are differentiated. For describing two pictures on the wall _baray_ ‘below’ is used:

(103a) _picha-r-i i dír baray picha-r-qá_
    picture-F-DEM1 3 AT BELOW picture-F-DEM3
    “This picture is below that picture.”

(103b) *_picha-r-i i (barà/dír) guríu picha-r-qá_
    *picture-F-DEM1 3 ON/AT IN picture-F-DEM3
    *“This picture is under that picture.”

The latter phrase would presuppose that one picture is located underneath another picture, i.e. picture two is placed on top of _daandú_ ‘BACK’ picture one.
4.4.3.5 **gamú ‘EDGE’**

*gamú*, although glossed as ‘under’ in Mous (1992), is restricted to the position of a Figure in the lower corners of a Ground. It cannot be used to describe a relation in which a Figure is in the top corners of a Ground, as in (104b); a combination of *guriu* and *kaankir* is required:

(104a) \textit{chupiito’oo i gamú meesa}

\textit{bottle 3 EDGE table}

“The bottle is under the table in the corner.”

(104b) \textit{chupiito’oo i guriu kaankir (afku) meesa}

\textit{bottle 3 IN corner:CON MOUTH table}

“The bottle is in the corner below the table.”

Consequently, its range is extremely limited. The locational noun only occurred when I asked about it.

4.4.3.6. **bihháa ‘SIDE’, ala ‘BEHIND’, geerá ‘FRONT’**

*bihháa*, *ala* and *geerá* express the position of a Figure onto an intrinsic property of the Ground. They are mostly used in non-contiguous angular relation and will therefore be discussed in more detail in chapter 6. *bihháa* ‘SIDE’ is most widely used and can refer to non-contiguous relations, without specifying an angular search-domain:

(105) \textit{hee-w-i i bihháa asla}

\textit{man-M-DEM1 3 SIDE fire}

“This man is (sitting) next to the fire.” (TRPS 38)

With the exception of *bihháa*, the three nouns see little action for topological relations. They are mostly restricted to Grounds such as a human face, which can only be specified using these locational nouns; the use of e.g. *daandú* ‘BACK’, as in (106d) is not possible.

(106a) \textit{ia’ i bihháa saga}

\textit{ears 3 SIDE head}

“The ears are beside the head.”

(106b) \textit{duunga’ i geerá saga}

\textit{nose 3 FRONT head}

“The nose is on the front of the head.”

(106c) \textit{da-kw-’ée’ i ala sag-w-’ée’}

\textit{hand-M1-1SG.POSS 3 BEHIND head-M1-1SG.POSS}

“My hand is behind my head.”

(106d) \textit{*duunga’ i daandú saga}

\textit{*nose 3 BACK head}

*“The nose is on the head.”*
bihháa has a semantically loaded counterpart similar to daandú ‘BACK’, in the sense that it can be used to refer to the property of the Ground considered the bihhii‘side’. Figures can be projected onto this Ground through the construct case form bihháa. Again, as with daandú, bihháa doesn’t require to be accompanied by another locational noun such as bará ‘ON’.

(107) ba’aarmoo i bihháa chupiito’oo
    fly ON SIDE bottle
    “The fly is on the bottle.” (the bottle standing upright or lying on the side)

The ‘side of the bottle’ is the entire area below the neck. When a Figure, such as a fly as in (108), is located on this part of the bottle, the relation can be described using bihháa irrespective of the orientation of the bottle. The following illustrates the two frames for bihháa:

The grammaticalised use of bihháa is restricted to the (relative) sides of the cup, whereas the semantically loaded use of bihháa refers to the intrinsic sides. Although these largely coincide, the difference is when the cup is placed on the side, as in the middle image. Here, the grammaticalised use of bihháa is restricted to the bottom part and the top part of the cup; it cannot refer to the sides of the cup.

The scope of bihháa extends to positions on the inside of a Ground, when a Figure is supported by that Ground but also inside it:

(108) hhara i bará bihháa bakuli
    stick 3 ON SIDE bowl
    “The stick is in the bowl.” (leaned against the sides; TRC 35)

Finally, bihháa can also be combined with daandú in order to express that the Figure is located to the side of a Ground:
(109)  kikombe  i  barà  daandù  bihháa  meesa  
cup         3 ON   BACK   SIDE   table
          “The cup is on the edge of the table.”

Note that daandù cannot be omitted.

4.4.3.7. *afá, afkwá and afku ‘MOUTH’*

*afá, afkwá, and afku* are all variants of *afa* ‘mouth’ in the construct case and consequently identical in function. They are rarely used for topological relations since they still carry tremendous semantic load: they are only used to describe relations in which the Figure is specified in relation to the property *afa* of the Ground, which is an entrance or mouth-like property such as the cutting side of a knife. In contrast to semantically loaded *daandù ‘BACK’* and *guriu ‘IN’*, there is no bleached counterpart that generalises a specific topological relation. Nonetheless, *afá, afkwá* and *afku* are full locational nouns and not mere derivations in that they can occur as the only locational noun in a construction, i.e. without *barà ‘ON’* or another locational noun. The following examples show some instances of the construct case forms of *afa* being used. Note that *afa* is identified as the opening within a Ground, irrespective of size.

(110a)  he-w-i  i  afku  do’
         man-M-DEM1 3 MOUTH   house
        “The man is at the opening (i.e. door) of the house.”

(110b)  ba’aarmoo  i  afá  chupiito’oo
         fly   3 MOUTH  bottle
       “The fly is on the opening of the bottle.”

(110c)  hiima  kwa  qaas  bará  afkwá  kikapomoo
         rope M  lie:3SG ON   MOUTH   basket
        “The rope is placed over the mouth of the basket.” (PSPV 19)

*afá, afkwá, and afku* do not presuppose contiguity between Figure and Ground. In example (110b) the bottle could be placed on the side on e.g. a table, with the fly sitting on the table about a centimetre away from the opening of the bottle.

The functions of *afá, afkwá, and afku* are given in Mous (1992), as well as in the glossing of other publications, as being similar in function to *bihháa ‘SIDE’*, albeit with a wider semantic range. My own data, however, shows more instances of *bihháa* being used than *afá, afku* or *afkwá*. There are several Grounds for which the designations *bihháa* and *afá* overlap, such as a road. The side of the road can be designated with *bihháa*, but since it is arguably also the entrance to the road, *afá* is frequently used to refer to the side of the road as well:

(111a)  xaatnnoo  i  bihháa  loohi
         tree 3 SIDE road
        “The tree is beside the road.”
(111b) xaatlnoo i afâ loohi
    tree 3 MOUTH road
“The tree is beside the road.”

For Grounds with a multifaceted surface, such as a bottle, more locational nouns are used to identify different parts of the Ground. Consequently, there is less overlap between locational nouns since the locational nouns denote different parts:

(112a) ba’armoo i afâ chupiito’oo
    fly 3 MOUTH bottle
“The fly is on the opening of the bottle.”

(112b) ba’armoo i bihháa chupiito’oo
    fly 3 SIDE bottle
“The fly is on the side of the bottle.” or “The fly is beside the bottle.”

bihháa refers to the exterior parts of the bottle below the “neck”; afâ refers to the opening of the bottle. Since afâ cannot refer to the other exterior parts of the bottle and bihháa cannot refer to the opening, there is no interchangeability for the two locational nouns for this Ground. That being said, theoretically the two nouns can be interchanged when the bottle is placed on the side with the opening pointing either left or right from the speaker. If the fly is located just in front of the opening, without being in contact with the bottle, afâ intrinsically refers to a location in front of the opening, whereas bihháa uses a relative frame in which the Figure is to the left or right of the Ground from the perspective of the viewer.

As already mentioned, the afâ of a Ground is identified as the opening. That being said, the concept of afâ is extended to any Ground where the reach of gurûu ‘IN’ ends. As such, the Ground sahhaanay, ‘plate’, for which gurûu is used to refer to containment relations, the edges of this containment relation are expressed with afâ. When describing a stick placed over the rims of a plate, rather than using daandû the relation would be described using a derivative of afâ:

(113) hhara i barâ afku sahhaanay
    stick 3 ON MOUTH plate
“The stick is (placed) over the plate.”

4.4.3.8. tlacáng ‘MIDDLE’

tlacáng expresses a relation in which the Figure is surrounded by the Ground or in between different Grounds. tlacáng may occur without barâ.

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13 Grammaticalised daandû is of course permitted for this relation.
(114a)  he-w-i i (bará) tlacáng xaatli
man-M-DEM1 3 ON MIDDLE trees
“This man is in between the trees.”

(114b)  he-w-i i (bará) tlacáng do' nee xaatlnoo
man-M-DEM1 3 ON MIDDLE house and tree
“This man is in between a house and a tree.”

tlacáng also covers relations in which the Figure is surrounded by the Ground:

(115)  yaama kahaar i (bará) tlacáng ma'ay
land.CON dry 3 ON MIDDLE water
The dry land (island) is surrounded by water.” (TR:C 41)

Relations of coincidence may be specified further with tlacáng, which would denote that the Figure is located in the centre of the Ground. In these instances it is impossible to omit the locational nouns describing coincidence, in this case bará and daandú:

(116)  kikombe i bará daandú tlacáng meesa
cup 3 ON BACK MIDDLE table
“The cup is in the centre of the table.” (TR:S 2)

Omitting the other locational nouns from this construction would be ungrammatical:

(117)  *kikombe i tlacáng meesa
*cup 3 MIDDLE table
*“The cup is in the centre of the table.”

In this latter sense it may be argued that although tlacáng is a locational noun for predications of the type of (114) and (115) (i.e. when it denotes the Figure being surrounded by the Ground), tlacáng is used as a specification to a locational noun in predications of the type of (116) (i.e. when it denotes a central position of a Figure on a Ground), as it may not occur on its own and has to be accompanied by a locational noun.

4.4.3.9. gwe'eedaá ‘BOTTOM’
gwe'eedaá is used by some speakers to denote a location underneath a multifaceted Ground, especially in cases in which guríu ‘IN’ is already used to describe another property of the Ground. This applies to Grounds in which a Figure can be both located within as well as underneath a Ground, such as a bottle or a book. For such Grounds, the position within the Ground is designated with guríu and the position underneath the Ground with gwe'eedaá. For more simplex Grounds, such as a solid piece of wood, guríu and gwe'eedaá are interchangeable, although gwe'eedaá is never used as first response; guríu is emphatically preferred.
gwe'eedaá functions as a fully grammaticalised locational noun in the sense that it can occur on its own (i.e. without bará):

(118) *hhara i gwe'eedaá kitabu*

stick 3 BOTTOM book

“The stick is under the book.”

gwe'eedaá solely refers to the position of the Figure underneath the Ground. In this instance *guríu* would be perceived as the Figure being inside the book, i.e. between its pages.

In contrast to several other locational nouns such as *afá* or *sakw*, the designation of *gwe'eedaá* on the Ground is rather relative in that the part the Ground is supported by is identified as such. E.g. when a cup is placed upside down the intrinsic designation *afá* refers to the same position as the relative designation *gwe'eedaá*. Note that *afá* is still the first response. The following image illustrates this.

![Image 6: gwe'eedaá and *afá*](image)

**4.4.3.10. tseecaá ‘OUTSIDE’**

tseecaá, derived from *tseeca*, ‘outside’, describes a relation in which the Figure is outside of the confines of the Ground, with the implication of a previous relation between Figure and Ground that would have been described using *guríu* ‘STOMACH’ or *gamú* ‘EDGE’. It is not frequent and mostly limited to disturbed canonical containment relations.

(119) *boksi i tseecaá beegi*

box 3 OUT bag

“The box is out of the bag.” (upon further questioning using TRPS 14)

Any angular specifications, as well as the more ambiguous *bihháa* ‘SIDE’ may be used in this context. The difference is that whereas *bihháa* stipulates a relation in which the Figure is placed next to the Ground, this is not present for *tseecaá*: any relation in which the Figure is
removed from the (previous) containment within the Ground can be described using tseecaá, including relations that would otherwise be described using gawá ‘OVER’.

4.4.4. **A note on the semantic range of positional verbs**

The choice of positional verb used to express the orientation of a Figure in respect to its Ground is largely dependent on the geometrical properties of the Figure, whether these are innate (the Figure can only assume one position) or relative (the Figure can assume different positions which depend on its orientation in respect to its Ground).

Figures generally have a number of positional qualities that can be attributed to them, and which can consequently be expressed through a positional verb. The inventory of positional verbs available to a particular Figure is thus limited by the properties of that Figure (e.g. ropes and pieces of cloth can be folded, spread, draped, etc. whereas a bottle cannot; conversely a bottle can stand, be toppled, be shattered across a Ground, etc.). Since, in contrast to Dutch or German, these verbs are not part of the BLC for most types of Figures, an exhaustive account of the semantic range of each of these verbs would be of little interest. The present discussion will be limited to those used to describe animate Figures or Grounds, and will touch upon the verbs used in the PSPV.

The positional verbs siihh ‘stand’, iwiit ‘sit’, qaat ‘lie’, and harweer ‘encircle’ are used in for animate Figures. The status of harweer is questionable, however, since it was only used for snakes. Nonetheless, it was used for a snake in resting state, as in (a misinterpretation) of TRPS 23:

\[
\text{(120) } \text{dayshimoo ta harweer gawá guftanoo} \\
\text{snake REF encircle:3SG.M OVER stump} \\
\text{“The snake encircled itself on the tree stump.” (misinterpretation of TRPS 2)}
\]

In addition xoptiis ‘fall’, wageeqaw ‘fold up’, tuntuuk ‘cover’, hhaaf ‘spread’, tareree’ ‘suspend’, tlintii’ ‘lean on’, waraahh ‘pass’, and ku’uus ‘spill’ were used to express the location of inanimate Figures in the PSPV. For describing inanimate Figures these verbs are used in a resultative way as having been placed in said position by an impersonal agent; due to their inanimacy these objects are argued to be impossible to be the agents of the verbs through which they are expressed.

Which positional verb is used to express the orientation of a Figure is largely determined by the geometric properties of that Figure. Spherical objects like a ball can only described using qaat ‘lie’, whereas more complex geometric objects such as a bottle can be described using qaat ‘lie’, siihh ‘stand’, iwiit ‘sit’, and xoptiis ‘fall’, depending on its orientation:

\[
\text{(121a) } \text{chupiito'oo ka iwiit-iis yaamu} \\
\text{bottle IMP.S.PRF:F sit-CAUS ground} \\
\text{“The bottle has been made to sit on the ground.” (PSPV 7)}
\]
Items suspended from the Ground are expressed through *tareree', 'suspend, hang'; in theory any Figure can be described with this verb when the relation permits it:

(122a)  *picha*  *ka*  *tareree‘*  *bará*  *xaatno*  *ar*  *musmarmoo*
       picture  IMPS.PRF:F suspend:3SG.M ON tree INST nail
       “The picture is hung from the tree with a nail.” (TR:S 40)
(122b)  *werqamo*  *kwa*  *tareree‘*  *bará*  *meesa*
       cloth   IMPS.PRF:M suspend:3SG.M ON table
       “The piece of cloth is hung from the table.” (PSPV 49)

4.5. **Summary**

The Iraqw BLC consists of a locative selector and a locational noun to specify the search domain of the Ground. In addition to the BLC Iraqw may use verbal constructions. Such constructions are the usual way of phrasing relations with animate Figures and for relations where the Figure is damage (negative space), clothing, or adornment. Iraqw locational nouns are nouns in the construct case derived from regular nouns and form a closed class. Although essentially grammaticalised, there is variation among speakers as to how far the nouns are semantically bleached. These degrees of grammaticalisation range from abstractions of relations between Figure and Ground to relations in which the locational noun refers to a certain property of the noun. Some nouns of this class are less grammaticalised than others, whereas others have grammaticalised and non-grammaticalised, semantically loaded counterparts. In addition, Iraqw may productively derive nouns from its lexicon and use them to specify a search domain beyond the search domain projected by a locational noun from the closed class. These nouns differ from the closed class of locational nouns in that they cannot specify the search domain on their own; they have to be accompanied.
5. **Motion**

As mentioned in chapter two, the discussion on motion will be limited to motion as translocation, focusing on predications in which the movement of a Figure is expressed in relation to a Ground. Pivotal movement, such as the turning of the head, is omitted from the present discussion.

Compared to other languages discussed in Levinson and Wilkins (2006a) Iraqw uses relatively few comprehensive motion descriptions. Consequently, a stretch of natural text fails to exhaust the complex inventory for motion predication in Iraqw. Although the present chapter is written primarily using further priming through additional stimuli and general elicitation sessions, the following excerpts from the Frog Story will give an illustration for natural descriptions of motion events in Iraqw:

Excerpt 1: girl (ca. 9 years)

**scene 13**

(124) nacay aa harqaytsiit bará bohoongw harkoonki

child 3.PERF look:3SG.M ON hole:CON owl

“The child looked into the hole of the owl.”

**scene 14**

(125) harkoonki na ti’iit nacay aa huu’

owl HITH:PAST appear:3SG.M child 3.PERF fall:3SG.M

“The owl came out; the child fell.”

**scene 15**

(126) baari i ti’i’im seeay kwa ar ta’aaiim nee baari

bees 3 run:3SG.F:DUR dog IMP:M INSTR run:3SG.M:HAB with bees

“The bees went rapidly, and the dog is made to run by the bees.”

**scene 16**

(127) nacay aa ta’aaiim harkonki i gawtá-wa ti’i’im

child 3.PERF run:3SG.M:HAB owl 3 above:CON-ABL run:3SG.F:DUR

“The child ran away. The owl came flying from above.”

**scene 17**

(128) harkoonki hanoqáy harqaytsimiit nacay aa tsacám bará tlacano

owl there look:3SG.M:DUR child 3.PERF climb:3SG.M ON stone

“The owl there is looking while the child climbed on a stone.”

**scene 18**

(129) nacay aa huu’ harkoonki aa harqaytsiit yaamu

child 3.PERF fall:3SG.M owl 3.PERF look:3SG.M ground

“The child fell. The owl is staring at the ground.”

**scene 19** (running towards cliff)

(130a) nacay aa huu’ bará sakw saragi

child 3.PERF fall:3SG.M ON head:CON gazelle

“The child fell on the head of the gazelle.”
Although little time is spent on scene description overall, it is to be observed that most of the 13 motion predications are intransitive clauses that include a Figure NP and a verb that encodes Manner in the predication. Path and Ground information is less frequent, only occurring in the descriptions of scene 16, 17, 19, and 21.

Consider also the following excerpt from the “cliff scene” as described by an older speaker:

Excerpt 2: woman (late twenties)

scene 18
(133) nacay aa tsacám bará xaareemá saragi
child 3.PERF climb:3SG.M ON horns:CON gazelle
“The child climbed on the antlers of the gazelle.”

scene 19
(134a) nacay kwa gagaar ar xaareemi nee saragi
child IMP:M carry:3SG.M INSTR horns with gazelle
“The gazelle carried the child by the antlers.”
(134b) seeay kwa-r cakuut nee saragi
dog M:IMP-INSTR throw:3SG.M with gazelle
“The dog is thrown by the gazelle.”

scene 20
(135) saragi nacay aa diif bará yaaee
gazelle child 3.PERF beat:3SG.M ON river
“The gazelle butted the child into the river.”
The present chapter will first discuss the syntactic nature of motion predicates, and then proceed to describe the inventory of motion verbs and comment on two larger groups, as well as the verb *dah* ‘enter’. Finally, the coding of Figure, Ground and Path is discussed. I will close the chapter with a note on the hither morpheme.

5.1. **Motion predications in relation to other predications**

There are no formal syntactic criteria for differentiating a motion predication from any other verbal predication in Iraqw. The description of a motion event can minimally consist of a selector with a finite verb, as is minimally required for any verbal predication in Iraqw. (137a) is a motion description that is structurally identical to a non-motion predication as in (137b):

(137a)  
3 \( \text{walk:}3\text{SG.M:DUR} \)

“He is walking.”

(137b)  
3 \( \text{sit:}3\text{SG.M:DUR} \)

“He is sitting.”

(137a) contains information on the Figure, the Manner and the predication itself. This represents the most simple motion description available. Iraqw expresses other components of motion predications such as Path through satellites, discussed in more detail in section 5.4. The following example shows how a Ground and Path is added to the predication:

(138)  
3 \( \text{walk:}3\text{SG.M:DUR} \text{ON road} \)

“The man is walking on the road.”

Adding Path and Ground information to the predication reinforces the predication as a description of motion. That is not to say that the construction can be syntactically differentiated from other types of predications. Replacing the verb from (138) with a static verb such as *iwiwiit* ‘sit’ will not alter the construction:
Motion predications in Iraqw are therefore only analysable as such through the semantics of the verb phrase, making it difficult to give a clear syntactic demarcation of the domain of motion in Iraqw. As such I adhere to the definition of motion as translocation in identifying motion predicates.

5.2. Inventory of motion verbs
Motion verbs in Iraqw cover a wide range of semantics: many generic and cross-linguistically well-attested; others less so. The following is a sample taken from Mous et al (2002), partly based on the list of verbs in Wilkins (1999):

- kaw: go
- nakaac: approach
- hardah: arrive
- dah: enter
- dicaat: leave
- huuw/huus: bring
- waatlees: bring off hill
- geexaw: leave behind
- tutucuut: move
- hi'iit: walk
- taimi/ti'im: run
- tlacaaf: crawl
- gwangwaraaw': roll
- waatlaw; tsaca: climb
- aweer: descend
- ceet; huu': fall
- waaraahh: pass
- wayaa'; (al)kiic; daaf: return
- algaas: return cattle
- paasl: deviate
- mayeguut; tsifaqaas: disperse
The above list gives an idea of the motion concepts Iraqw verbs convey. What is overall clear is that Iraqw possesses a large number of verbs expressing Manner of motion, the most striking of which is *algaas* ‘return cattle’.

What is furthermore interesting is the overall lack of verbs conflating the medium of motion; equivalents of English *fly* and *swim* are absent in Iraqw, and are loaned from Swahili. Repeated here are two clauses from the Frog Story, in which the narrator uses the verbs *ti'ii* and *taiim* ‘run’:

(140a)  
\[ \text{baari i ti'iiim seeay kwa ar ta'aaiim nee baari} \]  
bees 3 run:3SG.F:DUR dog IMPS:M INSTR run:3SG.M:HAB with bees  
“The bees went rapidly, and the dog is made to run by the bees.”

(140b)  
\[ \text{nacay aa ta'aaiim harkonki i gawtā-wa ti'iiim} \]  
child 3.PERF run:3SG.M:HAB owl 3 above:CON-ABL run:3SG.F:DUR  
“The child ran away. The owl came flying from above.”

The movement on the ground as well as in the air is expressed using the verbs *taiim* and *ti'ii* ‘run’\(^{14}\). Interestingly movement in the air is expressed with *taiim* whereas movement over land is expressed with *ti'ii*. This could be pragmatic; *taiim* is also used for movement over land.

Iraqw has a verb for movement through water, *tumbiim*, ‘swim’ (Mous et al 2002:98) yet this root doesn't have motion semantics in the sense that it cannot be used to describe the movement of a Figure in respect with a Ground. Instead, *tumbiim* implies a state, i.e. ‘bathe’:

(141a)  
\[ \text{siiyomoo i tumin} \]  
fish 3 swim:3SG.M  
The fish is swimming.

(141b)  
\[ \text{anīng a hi'imiit barā loohi-r-wa alé} \]  
1SG 1 walk:1SG:DUR ON road-F-ABL RESPRO  
“I’m walking over the road.”

(141c)  
\[ \text{*anīng a tumbiim barā ma'ay-wa alé} \]  
*1SG 1 swim:1SG ON water-ABL RESPRO  
*“I’m swimming in the water.”

(141c) is ungrammatical since the ablative suffix *-wa* implies motion through a Medium. *tumbiim*, however, is not a motion verb and therefore cannot be used with and adjunct with *-wa*. The clause instead translates into a change of state, along the lines of *I’m leaving the water*.

The following two paragraphs will discuss the two largest semantic groups of motion verbs, namely those that conflate Manner in the verb, and those that have a presupposed

\(^{14}\) Note that *taiim* and *ti'ii* are variations of the same root (cf. Mous et al 2002).
trajectory or deictic core to which motion is specified.

5.2.1. **Manner-encoding verbs**

A large number of verbs in Iraqw conflate motion with Manner. There is no syntactic difference between the predication *going* and a Manner-conflating verb such as *running* (i.e. *going fast*); it is intrinsic to the verb stem.

(142a) `impirmoo aa tláw amór peehi`  
ball 3.PERF go:3SG.M:PAST TO wood  
“The ball went towards the wood.” (come-go 1)

(142b) `impirmoo aa gwangwaraa'aat amór peehi`  
ball 3.PERF roll:3SG.M:MID TO wood  
“The ball rolled towards the wood.”

As is expected from languages that encode Manner in the verb, Path information is expressed through a satellite. Iraqw follows this pattern, with Path encoded in prepositions, case, and locational nouns:

(143a) `i ti'iim`  
3 run:3SG.M:DUR  
“He is running.”

(143b) `i ti'iim ay dir xatlnoo`  
3 run:3SG.M:DUR DIR AT tree  
“He is running to the tree.”

The semantics of these Path satellites will be outlined in 5.4.

The intrinisicality of motion in the verbal root is evident from when the Manner alone is expressed without translocation, i.e. when no Source or Goal is predicated:

(144a) `aning a cakwmiit bará do'`  
1SG 1 jump:1SG:DUR ON house  
“I am jumping into the house.”

(144b) `aning a cakwmiit bará doo-wa alé`  
1SG 1 jump:1SG:DUR ON house:CON.M-ABL RESPRO  
“I am jumping inside the house.”

The ablative case -wa indicates that the action encoded in the verb is confined to one location. When -wa is omitted, the verb *cakwmiit* has motion semantics. The intrinisicality of motion in the verb is further evident from the use of the static locational noun *bará*. A more kinetic locational noun, such as *amór* or *dir* would also express motion, but indicate that the Figure doesn't enter the Ground.
Not every notion of Manner is conflated in the verb, and verbs of this semantic category may still combine with an adverb specifying Manner. The following example shows how the adverb *adá* 'fast' is used to specify the Manner of the motion predication expressed by *cakuut*, 'jump':

(146)  

1SG-1-PERF  ON  river-DIR  jump:1SG  fast  RESPRO  

“I quickly jumped into the river.” (Mous 1992: 117)

Since verbs of this group conflate with Manner, there are semantic restrictions with regard to the Figure they can take. Jumping, for instance, is a property of animate and consequently cannot be used to describe arguably similar motion of inanimates:

(146)  

1SG  jump:1SG:DUR  AT/TO  house  

“I'm jumping towards the house.”

The Figure is restricted to the semantics of the verb, which may or may not allow a certain Figure depending on whether or not the Manner expressed by the verb can be attributed to the Figure. For instance, the Figure *impirmoo*, ‘ball’, cannot take the verb *cakwmiit*, ‘jump’, as this verb requires an agent role that *impirmoo* cannot fulfil:

(147)  

1SG-1-PERF  ON  river-DIR  jump:1SG  fast  RESPRO  

*“The ball is jumping.”*

Instead, the action must be expressed with *duundumees* ‘bounce’, as in the following example:

(148)  

ball 3-PAST  bounce:3SG.M:DUR  3-CSC  halt:3SG.M:DUR  OVER  wood  

*“The ball bounced and landed on the wood.”*

Certain Manner-encoding verbs also include notions specifying the purpose, nature, or Ground of the predication; the encoding of Purpose in the verb stem is cross-linguistically unusual (Ameka, p.c.). Consider the following verbs:
laliis ‘go to relatives and friends in distant villages in order to search for maize or other grains for food’
law ‘go to cultivate’
al’aw ‘meet somebody’
waatl ‘go home’

These verbs differ from other verbs in that there is Purpose encoded in the verbal stem: to go with the intention of X. An external expression of Ground is uncommon for such verbs. Although syntactically any Ground can be used with the verbs, this may be semantically weird:

(149) dasi i waatl amór xa’n̂oo
girl 3 go:home:3SG.F TO tree
“The girl goes home to the tree.”

Example (149) would imply that the girl lives in the tree.

5.2.2. Deictic and directional verbs
The second group of verbs in Iraqw express movement in respect to a deictic centre. Although there is an intrinsic sense of direction and therefore a notion of Path, these verbs cannot be argued to conflate with Path since they still require an overt marking of Path through a locational noun, a case, or a preposition. That being said, the verbs are limited in scope in comparison to more semantically empty verbs as tlaw ‘go’. Consider the following example.

(150a) dasi i tleer ay dir dindirmoo
girl 3 go:3SG.F DIR AT hill
“The girl goes to the hill.”
(150b) dasi i xeer ay dir dindirmoo
girl 3 come:3SG.F DIR AT hill
“The girl is coming to the hill.” (with the intent of meeting us there)

Example (150a) merely states the translocation of the Figure towards a Goal. (150b) is similar, except that the movement is in respect to a deictic centre that is anchored at the Ground, dindirmoo ‘hill’. It is presupposed that the speaker will be also present at the Ground when the motion event takes place. Path is not conflated into the verb, as the following example illustrates:

(151) dasi i xeer dir dindirmoo-wa alé
girl 3 come:3SG.F AT hill:CON.M-ABL RESPRO
“The girl is coming from the hill.” (with the intent of meeting us here)

In the above example, xaw ‘come’ again describes movement towards the deictic centre but,
since the verb doesn’t conflate with Path, Path has to be expressed as a satellite.

This is similar to English: the verb *come*, e.g., is deictic in the sense that it describes movement towards a deictic centre, yet gives no information as to the Path of motion. The gap in *I'll come _ the hill* can be filled by several prepositions each giving a very different description of Path: *I'll come down from the hill, I'll come towards the hill, I'll come up the hill*; the deictic centre can be anchored anywhere, with a different Path as consequence.

Related to deictic verbs are verbs that presuppose a certain direction or trajectory, such as verbs of falling. The verbs *h uu* ‘fall’ and *ceet* ‘go down’, both expressing vertical downward movement, cannot be applied for horizontal movement. Despite their restrictions in terms of logical Path possibilities, this does not suggest conflation with Path. Path is overtly expressed using locational nouns, as in (152a); omitting these is ungrammatical, as in (152b):

(152a) kalaamu aa huu' bará daandú meesa
pen 3.PERF fall:3SG.M:PAST ON BACK table
“The pen has fallen on the table.”

(152b) *kalaamu aa huu' meesa
*pen 3.PERF fall:3SG.M:PAST table
*“The pen has fallen on the table.”

An exception is when the Ground is *yaamu*, ‘ground’, as both *ceet* and *h uu* presuppose movement towards the ground, as in (153a). Recall that *yaamu* can generally be used without locational nouns; this includes Path satellites. That being said, the trajectory to the ground may still be specified in more complex motion descriptions such as (153b):

(153a) dasi aa cét gawá xa'noo-wa yaamu
girl 3:PERF fall:3SG.F:PAST OVER tree:M-ABL ground
“The girl has fallen from the tree to the ground.”

(153b) chupitito'oo i-na gwangwara'aat gawá meesa-r-wa alé
bottle 3-PAST roll:3SG.F:MID OVER table-F-ABL RESPRO
i-ri cét gawá qatni iri cét gawá qatni-r-wa alé
3-CSC fall:3SG.F OVER bed 3-CSC fall:3SG.F OVER bed-F-ABL RESPRO
ay yaamu
DIR ground
“The bottle rolled across the table, then fell on the bed and then fell from the bed on the ground.”

The following is a sample, taken from Mous et al (2002), presents several deictically anchored motion verbs.

*xaw* ‘come’
*dah* ‘enter’
*ti'iit* ‘go out, exit’
The middle suffix -t (as in above ti'iit and hi'iit 'walk') can derive verbs of motion that include the Path from the verb from which they are derived:

- leehh ‘fetch’ → lehhiit ‘go get something’
- qumburuuc ‘dive’ → qumburucuut ‘go underwater’
- tsal’i ‘deep place’ → tsal’aat ‘go down inside, sink, dive into’
- diyaac ‘spread’ → diyacaat, dicaat ‘leave, go away’

Furthermore, generic motion verbs as tlaw function as a base from which Path-encoding verbs are derived:

- haratlaw ‘go out to quarrel’
- waatlaw ‘climb, go up a hill’

ti'iit further functions as a base from which several Path-encoding verbs are derived:

- harati'iit ‘go out to meet someone’
- alti'iit ‘go out together with somebody’

5.2.3. **dah ‘enter’**

The range of the verb dah, ‘enter’, is of typological interest regarding the translocation versus change of ground dichotomy. Languages of the former focus on the motion event with the Path between Source and Goal as focal point. Languages of the latter focus instead on the change of Ground, without focus on the Path. Using the Enter-Exit stimuli videos (Kita 1995), it can be argued that Iraqw falls in the former category, since the man “entering” the house by ‘beaming in’ cannot be covered by dah.

5.3. **Figure**

The Figure of the motion event can be the agent or patient, subject or object, of the verb of motion. Although some animacy constraints are expected in that animate Figures are more likely encoded in agent roles as a subject, and inanimate Figures in patient roles as either subject of an impersonal or object of an active clause, these are mainly tendencies. Inanimate Figures can occur as either agents or patients, both in subject and object position:
Interestingly, in contrast to static topological relations in which inanimates obligatorily take a patient role in a verb that expresses the relation as resultative, when expressing a kinetic event the inanimate Figure takes the agent role of the verb. In the following example, the Figure impirmoo is the agent of the verbs duundumees ‘bounce’ and sihhimiit ‘halt’, as can be seen from the selector it takes:

(155)  
impirmoo i-na duundumees i-ri sihhimiit gawá peehee
   ball  3-PAST  bounce:3SG.M:DUR  3-CSC  halt:3SG.M:DUR  OVER  wood
   “The ball bounced and landed on the wood.”

As discussed, many verbs encode Manner, which puts restrictions on the verbs a Figure can take. The verb cakuut, ‘jump’, e.g., cannot take inanimate Figures as the Manner encoded in the verb, the ‘jumping’, cannot be used to describe an inanimate Figure:

(156)  
*impirmoo i  cakwmiit
   *ball  3  jump:3SG.M:DUR
   *“The ball is jumping.”

These are not syntactic constraints or limitations due to the argument structure of the verb, but semantic restrictions. Similarly, although huu’, ‘fall’, describes vertical gravitational motion as translocation for inanimates, it cannot do so for human Figures, where it expresses falling not as translocation but as a change of state:

(157a)  
*dasi aa húu’  gawá xaano-wa alé
   *girl  3.PERF  fall:3SG.F:PAST  OVER  tree-ABL  RESPRO
   *“The girl fell from the tree.”

(157b)  
dasi aa húu'
   girl  3.PERF  fall:3SG.F:PAST
   “The girl (stumbled and) fell down.”
5.4. **Complex motion events: satellites**

All motion predications in Iraqw minimally consist of a Figure and the Predicated Event, usually with Manner conflated into the verb as Iraqw. Such simplex motion predications can be expanded by adding information on the Path and Ground. Recall from chapter 2 that the Ground can be a Source, Goal, or a Medium. Consider the following simple motion predication:

(158) *hee i hi’imiit*

```latex
\text{person 3 walk:3SG.M:DUR} \\
\text{FIGURE (EVENT+):MANNER} \\
\text{“The man is walking.”}
```

This predication can be expanded by adding additional Path and Ground information:

(159a) *hee i hi’imiit bará loohi*

```latex
\text{person 3 walk:3SG.M:DUR ON road} \\
\text{FIGURE (EVENT+):MANNER PATH MEDIUM} \\
\text{“The man is walking on the road.”}
```

(159b) *hee i hi’imiit bará loohi ay Moray*

```latex
\text{person 3 walk:3SG.M:DUR ON road DIR TN} \\
\text{FIGURE (EVENT+):MANNER PATH MEDIUM PATH GOAL} \\
\text{“The man is walking on the road towards Moray.”}
```

(159d) *hee i hi’imiit bará loohi Hhayno-wa ay Moray*

```latex
\text{person 3 walk:3SG.M:DUR ON road TN-ABL} \\
\text{FIGURE (EVENT+):MANNER PATH MEDIUM SOURCE-PATH} \\
\text{DIR TN PATH GOAL} \\
\text{“The man is walking on the road from Hhayno to Moray.”}
```

The most basic utterance, (160a), describing (the Figure in relation to) Manner, is subsequently expanded by Path and Ground information. In the consecutive examples, additional Ground types are added. The examples illustrate that all Ground information is accompanied by Path information. Although it presupposes that different types of Ground receive different Path markers, this is not the case. Medium information can also be expressed with case marking, and the directive has a case counterpart. In the following example, the ablative case -wa is used in combination with *bará* ‘ON’ to express the Medium:

(160) *hee i hi’imiit bará loohi-r-wa alé*

```latex
\text{man 3 walk:3SG.M:DUR ON road-F-ABL RESPRO} \\
\text{“The man is walking on the road.”}
```
The following paragraphs will discuss Ground and Path information.

5.4.1. **Ground (Source, Goal and Medium)**

The Ground can be the Source of motion, the Goal of motion, and the Medium of motion, depending on the semantics of the predication. There are no clear constraints as to how many Grounds are allowed in a single motion predication. Although not particularly natural, speakers had no problem with the sentence produced above, repeated here, which contains a Source, a Medium, and a Goal:

(161) *hee i hi’imiit bará loohi Hhayno-wa*

    person 3 walk:3SG.M:DUR ON road TN-ABL

    FIGURE (EVENT+):MANNER PATH MEDIUM SOURCE-PATH

    ay Moray

    DIR TN

    PATH GOAL

“The man is walking along the road from Hhayno to Moray.”

Path information accompanies every type of Ground, and this information is encoded in the same constituent as the Ground, which may be syntactically dependent on the expression of Path: when a preposition is used, the Ground noun is then included as a dependent to the Path PP. In other cases however, the Ground NP is the head of the Ground constituent, either taking a locational noun as dependent or a case suffix. The position of the Ground NP depends on the semantics of the verb.

5.4.2. **Path satellites**

Considering Talmy's (1985) typology, Iraqw is a satellite-framing language, in which the Path of motion is encoded in elements outside of the verbal root. In Iraqw, this information is encoded in locational nouns, prepositions, and case, depending on the motion event and the semantics of the Path. Hither morphemes can be used to describe motion towards the deictic centre of the speaker, they are considered in section 5.5. The inventory of satellites is as follows:

**Prepositions**

| DIR | ay |

**Case**

| DIR | -i |

| ABL | -wa |

**Locational nouns**

| ON | bará |
As is evident from the above list, Iraqw uses largely the same inventory for the description of static relations and kinetic events. In fact, derived specifications such as *kaankír* ‘corner:CON’ may again be used. This doesn’t occur in natural data, however. Aside from the cases and the preposition, the only addition is the locational noun *amór*. The syntax of the locational nouns in motion predicates is identical to those used in static expressions of topology:

(162) \( \text{*amór } \text{dindirmoo} \)

place:CON hill
NP:CON NGROUND
“to the hill”

Furthermore, locational nouns are sufficient for Path expression. I have earlier argued that motion is encoded in the verb. Consequently verbal (i.e. non-BLC) static and kinetic expressions are similar in terms of structure.

(163a) \( \text{dasi } i \text{ tleer } \text{dir } \text{xaatlnoo} \)
girl 3 go:3SG.F AT tree
“The girl goes to the tree.”

(163b) \( \text{dasi } i \text{ iwit } \text{dir } \text{xaatlnoo} \)
girl 3 sit:3SG.F AT tree
“The girl sits near the tree.”

The non-generic locational nouns (e.g. *daandú* ‘BACK’, *gawá* ‘OVER’, *gurúu* ‘IN’) can be used to specify the position on the Ground the movement is relative to:

(164) \( \text{kalaamu } \text{aa } \text{hiu'} \text{gawá } \text{daandú } \text{meesa} \)
pen 3:PERF fall:3SG.M OVER BACK table
“The pen fell on the table.”

Iraqw is an exclusively satellite-framing language and as a result requires an overt expression of Path in a motion predication that expresses a Ground. Even when a deictic verb is used, a rendering of a Ground without a Path would be ungrammatical. Consider the following example:
*(165)*  
*dasi i xeer  xa’noo*  
*`girl 3 come:3SG.F  tree`*  
*“The girl comes from to the tree.”*

*xaw* ‘come’ expresses motion relative to a deictic anchor. Example (165) is therefore ambiguous since it is not known in which direction the motion takes place. Path information is required to elaborate:

*(166a)*  
*dasi i xeer  xa’noo-wa alé*  
girl 3 come:3SG.F  tree-ABL  RESPRO  
"The girl is coming from the tree.”

*(166b)*  
*dasi i xeer  ay  xa’noo*  
girl 3 come:3SG.F  DIR  tree  
“The girl is coming to the tree.”

Although deictic verbs constrain the Path of a motion predication, they do not encode the Path in the root and still require an overt expression through an ablative case, a directive case or preposition, or one or more locational nouns. As is true for topological relations, it is by no means marked or forced, and actually quite common, to use multiple locational nouns in an expression of Path:

*(167)*  
*kalaamu  aa  hiú’  bará  daandú  meesa*  
pen 3.PERF  fall:3SG.M:PAST  ON  BACK  table  
“The pen has fallen on the table.”

As was discussed in the preceding section, Iraqw allows multiple Grounds in a single motion predication. This can include any combination of Source, Goal, and Medium. In the latter case, each Ground requires an expression of Path:

*(168)*  
*hee i hi’iimiit  bará  loohi  Hhayno-wa  ay  Moray*  
person 3 walk:3SG.M:DUR  ON  road  TN-ABL  DIR  TN  
FIGURE  MANNER  PATH  MEDIUM  SOURCE-PATH  PATH  GOAL  
“The man is walking on the road from Hhayno to Moray.”

The general locational nouns *bará ‘ON’, dir ‘AT’, and amór ‘TO’ are limited to horizontal movement. For vertical movement, such as with verbs of falling, they cannot be used:

*(169)*  
*kalaamu  aa  hiú’  dir  meesa*  
*pen 3.PERF  fall:3SG.M  AT  table*  
*“The pen fell on the table.”*

This restriction does not apply to the other locational nouns, as well the directive *ay* and the
ablative -wa:

(170)  
aa  cét  gawá  xaano-wa  alé  ay  gawá  daandú  do'
3.PERF fall:3SG.F:PAST OVER tree:ABL RESPRO DIR OVER BACK house
“She has fallen from the tree onto the house.”

5.4.3. **Differences between dir and amór**

dir ‘AT’ and amór ‘TO’ are both used to express motion towards the Ground. However, as was discussed in section 4.4.2., dir expresses a relation in which the Figure is relatively close to the Ground. This relation is also present in motion predications in which it consequently presupposes that the Figure will eventually reach a position relatively close to the Ground. amór denotes a position further away from the Ground, and the presupposition that the Figure will eventually reach the Ground is not present for amór. Rather, in motion descriptions, it stipulates that the Figure is merely heading in the direction of the Ground. In (171a), using dir presupposes that the girl will reach the tree; this is in contrast to (171b), in which it is ambiguous whether or not the girl will reach the tree.

(171a)  
dasi  i  dir  xa'noo  keer
  girl 3 AT tree go.to:3SG.F
“The girl goes to the tree.”

(171b)  
dasi  i  amór  xa'noo  keer
  girl 3 TO tree go.to:3SG.F
“The girl goes towards the tree.”

dir expresses movement in general, and can also be used to describe motion away from the Ground. In itself, dir does not necessarily encode movement towards the Ground. Consequently, it can be used to describe motion from the Ground (Source) in combination with the ablative. dir must then be combined with the ablative case -wa:

(172)  
dasi  aa  tleer  dir  xa'noo-wa  alé
  girl 3:PERF go:3SG.F AT tree:M-ABL RESPRO
“The girl went away from the tree.”

Although optional, dir is frequently combined with the directive preposition ay when a relation towards a Ground is expressed. When there is no confusion, ay is usually omitted.

(173)  
dasi  i  hardät  (ay)  dir  xa'noo
  girl 3 reach:3SG.F:DUR DIR AT tree
“The girl will reach the tree.”

Finally, dir cannot be used to describe movement on a Ground (Medium). For these relations, only bará, possibly with the ablative case attached to the Ground is used:
The above example (174a) is grammatically correct, but means *the man is walking (away) from the road*; the combination *dír NP:GROUND-wa alé* denotes movement away from the Ground, whereas the combination *bará NP:GROUND-wa alé* denotes movement on the Ground.

Finally, it should be mentioned that *amór* cannot combine with the ablative case at all, since it encodes motion towards a Ground. The following clauses are both ungrammatical:

(175a) *hee i hi’imiit amór loohi-r-wa alé*
*man 3 walk:3SG.M:DUR TO road-F-ABL RESPRO*
*“The man is walking over the road.” (Medium)*

(175b) *dasi aa tleer amór xa’noo-wa alé*
*girl 3:PERF go:3SG.F TO tree:M-ABL RESPRO*
*“The girl went away from the tree.” (Source)*

5.5. **Hither morpheme**

Iraqw makes use of a hither morpheme that gives additional Path information yet remains unaffected by the argument structure of the verb. Rather, it replaces the selector morpheme. The hither expresses movement towards a deictic core, which conflates with the speaker. Also when the referent moves past the speaker, without necessarily coming closer to the deictic centre, the hither may be used in combination with a locational noun. It cannot express movement away from the speaker (as a thither). The locational noun follows the hither morpheme and possible suffixes\(^{15}\); this locational noun refers to the hither.

(166a) *ni-na amór peehhi-r-wa gwangwaraa'aat ay dír guftanoo*
*HITH-PAST TO wood-F-ABL roll:3SG.M:MID DÍR AT stump*
*“It (the ball) rolls from the wood in our direction to the tree stump.” (come-go 18)*

(166b) *ni-na bihháa peehhi-r-wa tlay i-ri sîhiit dír guftanoo*
*HITH-PAST SIDE wood-F-ABL go:3SG.M 3-CSC stop:3SG.M AT stump*
*“It (the ball) rolls from the wood past us and stops at the tree stump.” (come-go 19)*

It should be mentioned that the hither gives additional Path information and can by no means

\(^{15}\) In the examples it seems as if the locational nouns *amór* and *bihháa* precede the Ground and therefore give information on the Ground. This is not the case, as *amór* cannot be combined with *-wa* and *bihháa* cannot be used in motion descriptions.
replace the Path information that occurs in the same constituent as the Ground. The following clause is therefore incorrect, as guftanoo lacks Path information:

(177) *ni-na amór peehti-r-wa guftanoo gwangwaraa'aat
      *HITH-PAST TO wood-F-ABL stump roll:3SG.M:MID
      *“It (the ball) rolls from the wood in our direction to the tree stump.” (come-go 18)

Since it gives additional Path information, it is optional. The normal selector i can be used in the following motion description. That being said speakers almost exclusively use the hither in these descriptions. This is perhaps unsurprising given that the hither morpheme and the third person selector are both structurally and prosodically similar.

(178) i-na amór peehti-r-wa gwangwaraa'aat ay dir guftanoo
      3-PAST TO wood-F-ABL roll:3SG.M:MID DIR AT stump
      “It (the ball) rolls from the wood to the tree stump.” (come-go 18)

5.6. **Summary**
Iraqw motion predications are syntactically identical to other verbal predications. I have given an overview of the inventory of motion verbs, in which I have shown that a majority of verbs conflates Manner with the Predicated Event. Furthermore, a noteworthy group of verbs also has Purpose information encoded in the verb. Despite the fact that there are several verbs that have a predetermined trajectory or a deictic anchor relative to which movement is described, whenever a motion predication is expanded by adding information on the Path and Ground, all verbs that contain an overt marking of Ground are required to have this Ground accompanied by an overtly expressed Path. This makes Iraqw satellite-framing language. Aside from the directive and ablative, Iraqw motion descriptions make use of the same inventory of locational nouns as predications on topological relations.
Frames of reference

Iraqw makes use of all three frames of reference. Of these the intrinsic frame is most widely used, followed by the absolute frame. The relative frame is only marginally employed, mostly when the intrinsic frame cannot be used but even then it competes with the absolute frame. Although the distribution of each frame is rather straightforward, with the domain of each frame being clearly demarcated, there is a complex interplay of the different frames during normal speech. Consider the following example:

**Director**

(179a) *garma i bayna di’iim sage amór-téén xaatla tsar bihháa ciiya*

boy 3 pigs:CON herd:3SG.M head to-1PL trees:CON two SIDE north

*xaatla tsar bihháa basa*

trees:CON two SIDE south

“A boy is herding pigs. He faces us. There are two trees to the north and two trees to the south.” (MT 2.1)

**Matcher**

(179b) *garma i bayna tsar di’iim bará tlacáng xaatla tsar sage*

boy 3 pigs:CON two herd:3SG.M in MIDDLE trees:CON two heads

*amor-teen*

TO-1PL

“A boy is herding two pigs. (He is) in between two trees, the heads facing us.”

The director describes the image using the absolute and relative frame: the direction is expressed using the relative frame of reference and the position in respect to the trees is referenced using the absolute frame of reference. The matcher responds by also using the intrinsic frame of reference, namely when describing the position of the Figure. The following chapter will discuss the use of the three frames of reference, and will end with a note on the application of frames of reference to motion description.

Although the intrinsic frame of reference is the most frequently used frame of reference, it should be noted that deictic reference is most widely used when describing a certain referent. A note on spatial deixis in Iraqw can be found in Appendix A.

6.1. Intrinsic frame of reference

The intrinsic frame of reference has already been touched upon in chapter four on topological relations, since referring to an intrinsic property of a Ground features heavily when denoting the position of a Figure on a Ground. Even when there is contiguity between the Figure and the Ground terms such as *bihháa*, ‘SIDE’, are used to describe the relation.

When a Figure and Ground are separated on a horizontal plane and a search domain has to be projected in order to account for different angular perspectives, as in the Man and Tree series and a handful of images in the TRPS, reference between the two items is primarily made by using the intrinsic frame of reference. A property of the Ground is then used to describe the position of a Figure:
Ephraim i dir sakw paskeeli
PN 3 AT HEAD bicycle
“Ephraim is at the head of the bicycle.”

The front of the bicycle is referred to in Iraqw as the ‘head’, saga, of the bicycle. Alternatively, one can use the more generic and semantically less loaded term geerá, ‘FRONT’:

Ephraim i dir geerá paskeeli
PN 3 AT FRONT bicycle
“Ephraim is at the front of the bicycle.”

Structurally there is no difference between spatial relations showing contiguity and spatial relations not showing contiguity between Figure and Ground. The main difference is the use of the locational nouns dir ‘AT’ and amór ‘TO’, as opposed to bará ‘ON’, to express the relation.

In terms of distribution, dir is used when the Figure and Ground are relatively close together, whereas amór is used when Figure and Ground are further apart, or when the speaker is unclear of the whereabouts of the Figure. Recall that dir may be used even when there is contiguity between Figure and Ground, as discussed in section 4.4.2.

shilingi i dir geerá chupiito'oo
shilling 3 AT FRONT bottle
“The shilling is in front of the bottle.”

shilingi i amór geerá chupiito'oo
shilling 3 TO FRONT bottle
“The shilling is to the front of the bottle, relatively far away.”

bará cannot be used for relations in which there is no contiguity between Figure and Ground on the horizontal plane, i.e. when a search domain is projected:

ba'aarmoo i bará bihháa chupiito'oo
fly 3 ON SIDE bottle
“The fly is on the side of the bottle.” (not: “next to the bottle”)

ba'aarmoo i dir bihháa chupiito'oo
fly 3 AT SIDE bottle
“The fly is at the side of the bottle.” (both “on the bottle” and “next to the bottle”)

Consequently, bará doesn’t occur in angular predications.

6.1.2. Locational nouns of the intrinsic frame

The main locational nouns used to specify the location on the Ground on which the Figure is located within the intrinsic frame are geerá, ‘FRONT’, ala, ‘BEHIND’ and bihháa, ‘SIDE’.
bihháa has already been discussed in the previous section but will be expanded upon here in relation to its use within the intrinsic frame. The following example illustrates the use of the three locational nouns:

(184a) garma xaatla tsar i alu-w-ós bayna lahoo i geera-w-ós
boy tree:CON two 3 behind-M-3SG pigs:CON six 3 front-M-3SG
“A boy... two trees are behind him, six pigs are in front of him.” (MT 4.1)

(184b) xaatnno i bihháa doomungu
tree 3 SIDE church
“The tree is next to the church.” (TRPS 49)

As the above examples illustrate, the locational nouns used within the intrinsic frame may be used without generic locational nouns such as dir ‘AT’. The locational noun refers to a specific property of the Ground, which is generalised into the concepts ‘front’, ‘back’, and ‘side’. How these concepts are designated to a particular part of a Ground within the intrinsic frame of reference will be discussed below.

Aside from geerá, ala, and bihháa, the two locational nouns sakw ‘HEAD’ and afku ‘MOUTH’ feature heavily in designations of more featured Grounds, such as a bicycle, as in (180), televisions, knives, and books. The semantics of afku and its alternative forms afá and afkwá have already been discussed in section 4.4.3.7. sakw ‘HEAD’, which doesn’t occur in the topological relations elicited during my fieldwork, is used to refer to the front of an item, usually when it has a more pointed shape, such as the tip of a blade. It is an extension of its base form, saga ‘HEAD’, and generally refers to parts considered the ‘head’ of a referent. This includes, logically, the head of cattle, but also the front of motion capable Grounds. For featured Grounds, it usually competes with geerá ‘FRONT’. For one-dimensional items, it refers to the tips; geerá is rarely used for these parts.

As with describing topological relations, Iraqw can productively use other nouns as locational specifiers, such as kaankir ‘corner:CON’ and ya’áa ‘legs:CON’, in the intrinsic frame. Although interchangeable with the other regular locational nouns, additional locational nouns serve to further specify the relation between Figure and Ground. As with topological relations, they cannot occur on their own and must be accompanied with a generic locational noun such as dir in (185a); in constrast to full locational nouns such as ala ‘BEHIND’, as in (185b):

(185a) heelár niina i dir ya’aáa kitángw ur
coin:CON small 3 AT legs:CON chair:CON big
“The coin is at the legs of the chair.”

---

16 I don’t believe this to be because of a constraint, but merely because the semantics of sakw are limited to pointy objects. An item located on the tip of a knife pointed upwards would possibly be described using sakw. I cannot verify this, however, and therefore left the locational noun out of the discussions in section 4.4.3.
Certain complex Grounds, such as a book or knife, require more locational nouns to identify the different parts of the Ground. For less complex nouns designations using only geerá ‘FRONT’, ala ‘BEHIND’ and bihháa ‘SIDE’ will suffice. How these are assigned to different parts of the Ground will be laid out below. It is important to note that a Ground is fully identified with locational nouns, whether or not a non-contiguous relation with a given Figure makes sense. It is furthermore noteworthy that although geera, ala, and bihháa are the three main locational nouns for intrinsic projections, certain Grounds may favour a specific locational noun such as sakw ‘HEAD’ or a derived specifier such as kaankir ‘corner:CON’.

Consider the following designations used to refer to parts of a book:

The top and bottom of a book are designated with sakw ‘HEAD’, the binding-side of the book is designated with ala ‘BEHIND’ and the side with the pages as geerá ‘FRONT’. The cover is designated with daandú ‘BACK’. The corners of the book are referred to with kaankir ‘corner:CON’. Reference of a Figure is made in respect to the position on the Ground it is related to. Since these designations are intrinsic to the Ground, when the book is placed upright, the designations remain identical. However, since daandú ‘BACK’ refers to the top of a surface, it cannot be used to denote the cover of the book once it is placed upright. Rather,
bihháa ‘SIDE’ is used. sakw ‘HEAD’ may also be used to refer to the cover of the book when it placed upright.

More complicated is the parsing of a knife, since some designations overlap. There is some variation between speakers as to which designation is used when there is more than one possibility.

Image 8: intrinsic designations on a knife

Although the cutting side of the blade is designated with geerá ‘FRONT’ and the opposite with ala ‘BEHIND’, bihháa ‘SIDE’ refers to both sides of the handle. The tip of the knife is referred to as sakw ‘HEAD’ – although some speakers allow geerá ‘FRONT’ as well – whereas the pommel, or the tip of the handle, is referred to as ala ‘BEHIND’ as well. Some speakers strictly allow only afku ‘MOUTH’ to refer to the cutting side of the blade. In those cases, geerá ‘FRONT’ is not used at all. When a knife is folded in, e.g. as with a Swiss Army knife, the handle remains designated with bihháa ‘SIDE’ but the two ends of the handle are designated with sakw ‘HEAD’, as it is considered a one-dimensional item.

Returning to the main locational nouns, whether a relation is designated with geerá ‘FRONT’ depends – within the intrinsic frame – on the properties of the position on the Ground the Figure is related to. geerá refers to the ‘front’ of the Ground, whereas ala refers to the ‘back’ and bihháa to the two ‘sides’ of the Ground. Parameters that determine what is the ‘front’ and ‘back’ of the Ground are motion-capabilities, usage and facedness, and overall geometric shape.

For Grounds capable of motion, both animate and inanimate, the ‘front’ is the direction in which the Ground moves. A position of a Figure to this side of a motion-capable Ground would be designated with either geerá ‘FRONT’, as in (186a), or, alternatively, sakw ‘HEAD’, as in (186b):

(186a) aníng a geerá gurta
     1sg 1 FRONT goat
    “I'm in front of the goat.”
The opposite side of motion-capable Grounds is then designated with *ala* ‘BEHIND’. The remaining two sides are designated with *bihhāa* ‘SIDE’. Differentiation between these sides is done through the other two frames, and will be discussed in the following sections.

For Grounds incapable of motion, the way in which an item is used generally determines what side is designated with *geerā* ‘FRONT’ and what side is designated with *ala* ‘BEHIND’. For a television, the side of the screen is designated with *geerā* ‘FRONT’; for a chair, the side one sits down from is designated with *geerā* ‘FRONT’. The opposite side is then designated with *ala* ‘BEHIND’ and the remaining sides with *bihhāa* ‘SIDE’.

For featureless Grounds the different sides are distinguished from each other on the basis of the length of the different sides: the long sides of a Ground are designated with *bihhāa* ‘SIDE’ whereas the shorter sides are designated with *geerā* ‘FRONT’ and *ala* ‘BEHIND’. The latter two are differentiated through the relative frame of reference, discussed below. When all sides are of similar length, as with a cube-shaped box, or when the surface is circular, as with a stool, a tree, or a bottle, all sides are differentiated through the relative or absolute frame of reference. When an item is one-dimensional, as with a stick, the long sides are referred to as *bihhāa* ‘SIDE’ and the ends are referred to as *sakw* ‘HEAD’.

---

17 Note that this example is marked: Iraqw speakers disprefer human Grounds.
The following diagram shows how a Ground is assigned the three main locational nouns:

1-DIMENSIONAL:  
**LONG SIDES:** *bihháa*  
**ENDS:** *sakw* (rarely also *geerá* and *ala* in relative frame)

2-DIMENSIONAL:  
**SQUARE:** *geerá,* *ala,* or *bihháa* (relative frame)  
**OTHER:**  
**LONG SIDES:** *bihháa*  
**SHORT SIDES:** *geerá* or *ala* (relative frame)

3-DIMENSIONAL FEATURELESS\(^{18}\) → AS 2-DIMENSIONAL

3-DIMENSIONAL FEATURED:

\[\text{[+SIDE OF USAGE]:} \]  
**SIDE OF USAGE:** *geerá*  
**OPPOSITE SIDE:** *ala*  
**OTHER SIDES:** *bihháa*

\[\text{[+FACEDNESS]:} \]  
**SIDE OF FACE:** *geerá*  
**OPPOSITE SIDE:** *ala*  
**OTHER SIDES:** *bihháa*

\[\text{[+MOTION]:} \]  
**DIRECTION:** *geerá*  
**OPPOSITE SIDE:** *ala*  
**OTHER SIDES:** *bihháa*

In conclusion, intrinsic designations are made on the basis of parameters such as usage, facedness, or motion, and, if not possible, on the basis of length. Furthermore, there is variation between speakers in that some use the three locational nouns *geerá* ‘FRONT’, *ala* ‘BEHIND’, *bihháa* ‘side’, whereas others use more specific denominations such as *sakw* ‘HEAD’, or *afku* ‘MOUTH’. This further correlates with the amount of features an object has: a knife is more likely to be designated with *sakw* ‘HEAD’ and *afku* ‘MOUTH’ in addition to *geerá,* *ala,* and *bihháa,* than a less featured object such as a table.

6.2. **Relative frame of reference**

The relative frame of reference is marginally used in Iraqw, and only serves as a supplement to the intrinsic frame when the geometric properties of a Ground fall short and cannot be designated. Even then, it competes with the absolute frame. The most frequent instance in which the relative frame is used to supplement the intrinsic frame is when a Ground is circular or of equal dimensions and a ‘front’ and ‘back’ cannot be designated using the Ground alone.

\(^{18}\) E.g. a box or table.
The speaker’s point of view is then mapped onto the Ground: the position between the speaker and the Ground is designated as geerá, ‘FRONT’, and the obstructed position behind the Ground from the point of view of the speaker is designated as ala, ‘BEHIND’. The remaining sides are designated with bihháa, ‘SIDE’. The more specific designations sakw ‘HEAD’ and akfu ‘MOUTH’ are not used in the relative frame, nor are any of the derived specifications such as kaankir ‘corner:CON’.

The two sides designated with bihháa ‘SIDE’ can be differentiated through the relative frame, although the absolute frame is preferred. The term dakw doó ciiyay ‘on the right hand side’ refers to the right, whereas dakw doó basay ‘on the left hand side’ refers to the left:

(188)  hee-w-i  i  dakw  doó  basa-y  xa’noo
       man-M-DEM1 3 hand:CON house:CON south-DIR  tree

“The man is to the left of the tree.”

Although the terms basa ‘south’ and ciiya ‘north’ refer to cardinal points, the terms dakw doó basay and dakw doó ciiyay always refer to the left and right, respectively, irrelevant of actual orientation. This is possibly correlated with the fact that Iraqw houses (doó is the construct case form of do’ ‘house’) generally face west (cf. Mous et al 2002:12)

English and Dutch allow designations as ‘left’ and ‘right’ to describe the orientation of a Figure in respect to the speaker (e.g. the man is looking to the right – even though the Figure is intrinsically looking forward); this is not allowed in Iraqw. dakw doó ciiyay and -basay refer strictly to the position in relation to the speaker and when mapped onto the Figure they refer strictly to the position in respect to that Figure. Within the relative frame the terms dakw doó ciiyay and dakw doó basay are anchored at the speaker and cannot be used to describe orientation of the Figure referred to:

(189)  *hee  bihháa  ciiya  i  dakw  doó  basay  gacay
         *man  side  north  3  hand:CON  house:CON  south  looks
         *“The man on the north side is looking to the left.” (MT 4.7)

6.3.  Absolute frame of reference

Iraqw uses the absolute frame of reference in favour of a relative frame of reference for those instances where the intrinsic frame of reference falls short. This includes relations of two similar items (Figure-Figure), situations in which one of the two sides designated with bihháa

19 It should be added that example (188) comes from a direct elicitation. In normal discourse, speakers would exclusively rely on the absolute frame of reference for disambiguation of the type discussed here. Stimulus MT4.1, which shows a herder with pigs facing to the right, doesn’t have a symmetrical counterpart, and having my consultants face different directions led to an asymetry as the matcher couldn’t find the picture described to him. The director didn’t change to the relative frame but instead reminded the matcher that they were facing different directions:

amór-ók-lé  ciiya  nguun  gacayá  amór-éé-ne  basa  nguun  gacayá
      to-2SG-DIR  north  SEL  look:3PL  to-1SG-DIR  south  SEL  look:3PL

“For you they (the pigs) are looking to the north. For me, they are looking to the south.”
have to be disambiguated, and situations in which the orientation of a Figure is required, whether or not it can be related to a Ground. The absolute frame of reference refers primarily to the cardinal directions; the Swahili terms are given as well.

<table>
<thead>
<tr>
<th>Iraqw</th>
<th>Swahili</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>ciya</td>
</tr>
<tr>
<td>South</td>
<td>basa</td>
</tr>
<tr>
<td>West</td>
<td>cuwa</td>
</tr>
<tr>
<td>East</td>
<td>dacaw</td>
</tr>
</tbody>
</table>

When two identical items are related to each other, a construction with *bihháa* ‘SIDE’ is used, irrespective of the position of the speaker:

(190a) *impira* tsar oo dacaat i bihháa basa
      balls:CON two M.CON red 3 SIDE south
      oo manjamoo i bihháa ciya
      M.CON yellow 3 SIDE north
   “Two balls. The red one is on the south side. The yellow one is on the north side.”
   (MT2.12)

(190b) oo bihháa cuwa oo bihháa dacaw
      M.CON SIDE west M.CON SIDE east
   “the one on the west and the one on the east” (referring to two balls)

For Figure-Ground Iraqw uses the absolute frame of reference to differentiate the two sides referred to as *bihháa*. Although these sides are designated as such through the intrinsic or relative frames of reference, as discussed above, their differentiation is predominantly done through the absolute frame of reference. The following is a piece of conversation in which director and matcher, facing different directions, discuss MT2.3 and MT2.5 (both of a man facing a tree albeit from a different angle).

Director
(191a) *garma* i siihiit i hharta kon xa'noo i bihháa basa
       boy 3 stand:3SG.M 3 stick have:3SG.M tree 3 SIDE south
       *garma* i bihháa doó ciya-y
       boy 3 SIDE house:CON north-DIR
   “The boy is standing holding a stick. The tree is on the south and the boy is to the north.”

---

20 This construction is not related to the relative frame of reference construction *dakw doó ciiyay* ‘on the right hand side’; if, in this stimulus, the relative frame of reference were used, *dakw doó basay* ‘on the left hand side’ should’ve been used.
Matcher

(191b) \text{garma} \ a\ a\ \text{sihanna} \ i\ \text{hharta} \ \text{kun} \ \text{bihhāa} \ \text{xa’noo}

\begin{tabular}{llllll}
boy & 3.PRF & stand:3SG.M & 3 & stick & have:3SG.M & SIDE & tree \\
x\ a’noo & i & bihhāa & basa \\
tree & 3 & SIDE & south \\
\end{tabular}

“The boy is standing holding a stick next to the tree. The tree is on the south.”

Aside from differentiation of the two ‘sides’, Iraqw uses cardinal points for general orientation. The following is part of the same conversation as above:

Director

(192) \text{garma} \ i\ \text{sihanna} \ i\ \text{hharta} \ \text{kun} \ \text{gura’} \ \text{basa}

\begin{tabular}{llllllll}
boy & 3 & stand:3SG.M & 3 & stick & have:3SG.M & stomach & south \\
x\ a’noo & i & baskwi & diiri \\
tree & 3 & south:CON & here \\
\end{tabular}

“The boy is standing holding a stick facing south. The tree is on the south.”

The cardinal points are used in regular conversions. While attending a local football game the two goals were identified as \text{bihhāa dacaw} ‘east side’ and \text{bihhāa cuwa} ‘west side’.

For rendering directions outside of the main cardinal points Iraqw can combine two cardinal points to render directions that fall in between, similar to ‘northwest’ and ‘southeast’. This is done by placing the main point of reference in the construct case and combining it with a second cardinal point through \text{al} - ‘together’. This is similar to how Swahili combines cardinals for secondary directions:

\begin{tabular}{ccl}
\text{Northeast} & \text{ciikwu al-dacaw} & \text{kaskazini mashariki} \\
& \text{dacar al-ciinya} & \\
\text{Northwest} & \text{ciikwu al-cuwa} & \text{kaskazini magharibi} \\
& \text{cuwā al-ciinya} & \\
\text{Southeast} & \text{baskwu al-dacaw} & \text{kusini mashariki} \\
& \text{dacar al-basa} & \\
\text{Southwest} & \text{baskwu al-cuwa} & \text{kusini magharibi} \\
& \text{cuwā al-basa} & \\
\end{tabular}

These derivations are secondary to the main cardinal points and generally not used unless for disambiguation. However, even then, speakers prefer to disambiguate using gestures and attempting to establish the four cardinal points in a more ego-centric frame.

In a route description task in which the players were first faced to the northwest and then to the southeast, the two players first attempted to establish the directions using the four cardinal points. The players predominantly used the term \text{basa} ‘south’ to refer to the southwest, with the other cardinal points being identified accordingly. There was some descrepancy however
as players occasionally also used *basa* to refer to the southeast. The Swahili terms given in above seek preference over the Iraqw terms.

Although the absolute frame of reference draws predominantly from the cardinal points, there is a toponym associated with every cardinal point:

<table>
<thead>
<tr>
<th>North</th>
<th>ciiya</th>
<th>Karatu</th>
</tr>
</thead>
<tbody>
<tr>
<td>South</td>
<td>basa</td>
<td>Babati</td>
</tr>
<tr>
<td>West</td>
<td>cuwa</td>
<td>Singida (also Mwanza)</td>
</tr>
<tr>
<td>East</td>
<td>dacaw</td>
<td>Arusha (also Dar es Salaam)</td>
</tr>
</tbody>
</table>

These toponyms refer to the major towns that more-or-less border the traditional Iraqw homeland, *Mamaisara*. It should be noted that there is no point in the world where the actual places align on two axes, let alone align with the cardinal points with which they are associated. Similarly, although most Iraqw speakers can reliably point at the four cardinal directions, they assign the toponyms to these directions. Thus, when asked to point to Arusha, an Iraqw speaker in Kwermusl would simply point to the east, even though Arusha would actually be located to the northeast\(^21\).

Some speakers used smaller scale toponymy to refer to the cardinal directions, using villages only several kilometers away as referential points:

<table>
<thead>
<tr>
<th>North</th>
<th>Mbulu(^22)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South</td>
<td>Kuta</td>
</tr>
<tr>
<td>West</td>
<td>Moray</td>
</tr>
<tr>
<td>East</td>
<td>Hhayno</td>
</tr>
</tbody>
</table>

The above toponyms clearly use Kwermusl (the place where the fieldwork was conducted) as a centre; Hhayno is itself part of Kwermusl. It should be stressed that these terms are not as frequent as the larger scale toponyms. It wouldn’t be too surprising if speakers from Moray would use Kwermusl to refer to the east.

Furthermore, terms from the two “sets” are regularly exchanged. *Kuta* was only used once within a frame using also *Mbulu*, *Hhayno*, and *Moray*; instead, *Babati* was used to refer to the south. The same is true for *Moray* and *Hhayno*, which were used relatively frequently within a frame also using *Babati* and *Karatu*. This is not particularly surprising, since although *Babati* and *Karatu* are still arguably within the Iraqw-speaking areas and directly bordering Mamaisara, *Singida* and *Arusha* (and certainly *Mwanza* and *Dar es Salaam*) are rather far away.

Although toponyms feature heavily in spontaneous discourse, it is clearly secondary to the cardinal points when describing the orientation of a Figure, serving more or less to give a

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\(^{21}\) It would be interesting to see what (if any) toponyms an Iraqw speaker would use being located in e.g. Kampala, Nairobi, Morogoro, or in Arusha, Singida, etc. Although I was able to locate Iraqw speakers in Arusha who were able to point reliably in the cardinal directions (not a very impressive feat with Mt Meru as referential point), I was unable to obtain discourse using toponyms.

\(^{22}\) It may be worth mentioning that the Swahili name *Mbulu* was used instead of the Iraqw name *Imboru*. 
label to the abstract direction when the speaker is unsure whether or not the addressee is able
to determine the direction from the cardinal point alone. Furthermore, they are mostly just
exclaimed as interjections.

\[(193a)\] ciiya, ciiya, ciiya, Karatu!
north north north Karatu
“(to the) north, north, north... Karatu!”

\[(193b)\] dir basa-y.... basa! Babati!
at south-DIR south Babati
“to the south... South! Babati!”

Although Karatu and Babati are frequently used for points of reference, it should be noted that
Arusha and Singida are hardly used for points of reference.

### 6.4. A note on frames of reference in motion descriptions

In addition to static relations, it is possible to distinguish the three frames of reference in
(kinetic) route descriptions. In spontaneous discourse, the absolute frame is almost exclusively
used:

\[(194)\] loohi dacaw i eehari, daqdá’ ta baskwa xuu'
road east 3 follow then IMPS south:CON go
“Follow the road to the east, then go south.”

The other frames are accessible in route descriptions but hardly used. The following clauses in
the intrinsic frame are all considered grammatical and possible, as in (195b) but dispreferred
in favour of the absolute frame:

\[(195a)\] maar-eek bihháa doo ciiyay daqdá’ ta cuwá xuu'
drive-IMP SIDE side north:DIR then IMPS west go
“Drive to the left and then go to the west.”

\[(195b)\] maar-eek geera
drive-IMP front
“Drive forward.”

The relative frame is not used in route descriptions but does feature in motion descriptions in
the form of a hither morpheme expressing movement towards the speaker. Although deictic in
nature, the centre cannot be anchored anywhere but at ego making it essentially relative in
nature. It doesn't take an argument slot and replaces the selector:

\[(196)\] ni-na amór hharta-wa gwangwara'aatiim ay amór guftano
HITH-PAST to stick-ABL roll:DUR:3SG.M DIR AT stump
“(The ball) rolled in our direction from the stick to the stump.”
6.5. **Summary**

Iraqw makes use of all three frames of references. The intrinsic frame of reference is preferred and Iraqw uses this system when possible. Grounds are given specific designations based on parameters such as geometric properties, facedness, motion, and use, and Figures are related to these designations when a search domain is projected. The relative frame of reference plays a marginal role, and is used only when the intrinsic frame of reference falls short due to the regular geometric properties of the referent. The absolute frame of reference is used in large scale topology, when the orientation of a referent is to be specified, or when two similar referents are differentiated from another. The absolute frame of reference makes use of the cardinal points in addition to toponyms.
7. Conclusions

In the present thesis I have presented a preliminary account of the grammar of space of the Iraqw language. I have given an overview on the phrasing of topological relations, the phrasing of motion descriptions, and the use of the three frames of reference in Iraqw.

In chapter four I have discussed the phrasing of the BLC in Iraqw, which I have argued to be a locative construction in which the Figure and Ground are related to each other using a locative selector. Furthermore, I have discussed several strategies for rendering topological relations that cannot be expressed using the BLC. I have argued that the search domain of a relation is expressed using a closed class of locational nouns. In addition Iraqw may productively use any noun in the construct case to specify the relation between Figure and Ground even further. The difference between the closed class of locational nouns and the derived open class lies in that the latter class cannot fill the search domain slot by itself; it has to accompanied by a member of the closed class.

I have argued that there is considerable variation between speakers for some locational nouns due to the fact that nouns from the closed class are grammaticalised. The extent of semantic bleaching differs between speakers, leading to conflicting ideas about whether or not a certain topological relation may be expressed using a particular locational noun. daandú, the construct case form of daandáa’ ‘back’ is arguably the most complicated locational noun in this sense, and whereas some speakers use it to solely refer to parts of a Ground with back-like properties, others extend its range to all relations in which a Figure is in coincidence with a Ground.

Chapter five has given an overview of motion predication. First, I have given an overview of the inventory of motion verbs in Iraqw. I have shown that verbs primarily conflate Manner with the Predicated Event, and that there is a small but noteworthy group of verbs also conflating Purpose in the verb stem. Second, I have discussed how more complex motion events are expressed in Iraqw, using locational nouns, prepositions, as well as case to express Path information when a Ground is present in the predication.

In chapter six I have discussed how the three frames of reference are used in Iraqw. I have shown that Iraqw mostly makes use of the intrinsic frame, using the same inventory of locational nouns as in non-angular topological expressions. Sections of a Ground are designated with different locational nouns using parameters such as motion capabilities, usage, and facedness. Locational nouns are designated to sections of featureless Grounds on the basis of the length of the sides of the Grounds. The relative frame of reference complements the intrinsic frame of reference when parts of a Ground cannot be designated through the intrinsic frame due to its geometric simplicity. The relative frame of reference fulfills a very marginal role.

Finally, I have argued that the absolute frame of reference is generally used in larger scale relations, when the orientation of a referent is specified, and in instances where two referents of the same type are differentiated from one another. Although the absolute frame of reference largely uses cardinal points for reference, I have illustrated that toponyms serve as labels to the cardinal points.
8. References


Online: http://fieldmanuals.mpi.nl/volumes/1999/deixis-demonstratives/


8.1. **Stimuli (MPI)**


Appendix A: A note on spatial deixis

Although most discussions of grammar of space have centered on topological relations, frames of reference, and motion, spatial deixis should not be excluded from a discussion on the organisation of space in a language. A full account on spatial deixis in Iraqw is clearly out of the scope of the present paper. Nonetheless I hope to present a small note in the present appendix. It is best seen as separated from the main chapters.

A.1. Degrees of deixis: relative distance and perception

Recall that Iraqw distinguishes four “deictic levels” which are manifested in the different demonstrative suffixes, demonstrative pronouns, and spatial adverbs:

<table>
<thead>
<tr>
<th>DEM SFX</th>
<th>DEM PRN (M)</th>
<th>DEM PRN (F)</th>
<th>DEM PRN (P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEM1</td>
<td>-í</td>
<td>kwi</td>
<td>tí</td>
</tr>
<tr>
<td>DEM2</td>
<td>-sing</td>
<td>kwísíng</td>
<td>tísíng</td>
</tr>
<tr>
<td>DEM3</td>
<td>-qâ’</td>
<td>kuqá’</td>
<td>tiqá’</td>
</tr>
<tr>
<td>DEM4</td>
<td>-dâ’</td>
<td>kudâ’</td>
<td>tidâ’</td>
</tr>
</tbody>
</table>

Recall that these terms have been traditionally described as distinguishing four dimensions: close to speaker, close to addressee, near both but visible, far away (Mous 1992:90). This is in line with accounts found for other Cushitic languages, as in Somali (Saeed 1999:113):

- close to speaker
- further away from speaker
- in the middle distance
- in the far distance

náagtán ‘this woman’
náagtdás ‘that woman’
náagteér ‘that woman quite far away’
náagtóó ‘that woman very far away’
nínkán ‘this man’
nínkás ‘that man’
nínkéér ‘that man quite far away’
nínkóó ‘that man very far away’

This parallels are misleading, however, as there hints that Iraqw spatial deixis is organised around perception rather than absolute distance. Although it is certainly true that DEM4 -dâ’ pertains to referents outside the visual field, including those far away, its range also includes items in the rather immediate vicinity of the speaker that are obstructed from the visual field.

For the other demonstratives, although distance is certainly a valid parameter, the range of items such as DEM3 -qâ’ and DEM1 -í is determined more by the number of referents and the relative distance between them. On a tabletop space, an item previously described with DEM1 -í must be described with DEM3 -qâ’ when a similar item is placed closer to the speaker, with the second items being described with DEM1 -í. The order in which the items are pointed to doesn't affect the selection of the demonstrative suffix: even when the furthest item is pointed at first; it should be singled out using DEM3 -qâ’. This is similar to other Cushtic languages.
such as Konso (Peters 2015). Although we can argue a distance parameter for the use of demonstratives, it should be stressed that this distance is entirely relative and not absolute.

DEM2 -síng pertains to referents close to the addressee; it is immediately overridden by DEM1 -i when speaker and addressee are close to each other, since DEM2 -síng cannot be used to refer to a referent close to the speaker. As a consequence, its range is extremely limited.

DEM1 -i close to speaker (and addressee)
DEM2 -síng close to addressee but not to speaker
DEM3 -qá' further away from speaker than referent-dem1, or far away
DEM4 -dá' outside field of vision, not necessarily far away

A.2. Deictic spatial reference
Recall from the chapter 6 that Iraqw favours using a deictic reference system instead of projecting a search domain from a Ground. Consequently, the Ground NP is omitted from the spatial expression in response to a where-search question. The Ground NP slot is then filled with a locational noun modified by a demonstrative:

(198a)  slee  i  amáa?
cow  3  where
“Where is the cow?”
(198b)  slee  i  amor-qá
cow  3  TO-DEM3
“The cow is there.”

Both dir and amór can be used for deictic reference. The full paradigm is as follows:

DEM1 dirí  amorí
DEM2 dirsíng  amorsíng
DEM3 dirqá'  amorqá'
DEM4 dirdá'  amordá'

Which locational noun is used as a base depends first on the where-search question. When diimáa ‘place:Q’ is used in the where-search question, the response uses dir ‘place:CON.F’ as a base to which demonstratives are suffixed; for amáa ‘place:Q’, amor ‘place:CON.F’ is used as a base. Second, amáa presupposes that the referent is out of the visual field are relatively distant from the deictic centre. The response to such a question would include a demonstrative from the amor-paradigm even when the referent is in vision, e.g. amorí.
Appendix B1: Additional stimuli: topological relations

The following images are taken from arrays used to facilitate the research of more complicated locational nouns such as daandú ‘BACK’. The photographs were not made with publication in mind.
Appendix B2: Additional stimuli: frames of reference
The following images were used to facilitate the switch from intrinsic frame of reference to relative frame of reference and consist of several different Ground with varying parameters.