A comparative study of manner salience in Ilami Kurdish

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Abstract: This paper is an attempt to evaluate "manner of motion salience" in Ilami, a southern dialect of Kurdish. Manner components can cross-linguistically be encoded by main verbs, manner verbs, manner preverbs, and ideophones, among other linguistic devices. First, we will discuss the ways this semantic component is expressed in Ilami Kurdish. Then, in order to assess the salience of the manner component, a dictionary-based lexical survey and several experimental trials will be carried out. Following a study by F. E. Cardini ("Manner of motion saliency: An inquiry into Italian", 2008), we will conduct a vocabulary investigation to calculate the number of manner verbs in Ilami Kurdish, and then compare the statistics with Italian (a verb-framed language) and English (a satellite-framed language) to measure manner salience in Ilami Kurdish in comparison with other languages. We will also perform several experimental trials, aimed at evaluating manner salience in the actual use of this dialect. Accordingly, the experiments will be carried out to assess "ease of lexical access", which helps us to understand how readily participants (children and adults) can retrieve manner verbs from memory. Cross-linguistic analysis of Ilami Kurdish shows that this dialect is a relatively highly manner salient language, in which the elaboration of the manner component is rich and pervasive. This finding is supported by the dictionary-based lexical survey as well as ease of lexical access trials. Use of various strategies by Ilami Kurdish speakers to express manner sheds some light on the fact that manner salience is not solely affected by the lexicalization patterns of languages, as this component can also be encoded regardless of the path coding position.

Keywords: experimental trial, Ilami Kurdish, manner, motion event, salience

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Ориентация на способ движения в иламском диалекте курдского языка: сопоставительное исследование

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Аннотация: В данной статье ставится цель оценить степень «ориентации на способ движения» в одном из южных диалектов курдского языка — иламском. В языках мира компонент способа движения может выражаться, среди прочего, основным глаголом, подчиненным глаголом способа, превербом или идеофоном. Вначале мы обсуждаем средства выражения этого семантического компонента в иламском курдском. Затем, чтобы измерить ориентацию на способ движения, мы проводим исследование лексики по словарям, а также несколько экспериментов с участием носителей языка. Вслед за Ф. Э. Кардини, автором статьи «Manner of motion saliency: An inquiry into Italian» (2008), мы обращаемся к словарям, чтобы подсчитать количество глаголов способа

действия в иламском курдском, а затем сравниваем результаты с данными итальянского и английского языков (относящихся к «глагольному типу» и «сателлитному типу» соответственно). Эксперименты с носителями призваны исследовать выражение способа движения в реальном узусе этого диалекта: оценивается степень «лексической доступности» глаголов способа движения, которая отражает то, насколько легко носители (взрослые и дети) могут извлекать эти глаголы из памяти. Сопоставительный анализ показывает, что иламский курдский достаточно сильно ориентирован на способ движения и имеет обширный и детализированный инвентарь средств для его выражения. Об этом говорит как исследование словарей, так и эксперименты на лексическую доступность. Использование носителями различных стратегий для выражения способа движения свидетельствует о том, что ориентация на способ движения обусловливается не только паттернами лексикализации в языке, поскольку она может кодироваться вне зависимости от локуса выражения маршрута.

Ключевые слова: эксперимент, иламский курдский, способ действия, ситуация движения

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Introduction

A motion event is a basic, common phenomenon; however, the way in which a motion event is encoded in the world's languages is not necessarily the same. According to Verkerk [2014], in the English sentence in (1), the way in which the Knight is moving is expressed by the main verb of the sentence, *ride*, whereas this information is encoded by the adverbial-like gerund *cavalgando* in the Portuguese equivalent in (2). Therefore, it can be said that the same semantic component can be expressed by different linguistic elements in different languages:

(1) *...and then the Knight rode slowly away into the forest.*

(2) *e* *o* *cavaleiro* *afastou-se,*
and DEF.ART.M.SG knight.M move.away.INDEF.PFV.3SG-REFL
cavalgando *lentamente* *pela* *floresta.*
ride.horseback.PRS.PTCP slow.F.ADV through.DEF.ART.F.SG forest.F
'And the knight moved away, riding slowly through the forest' (cited in [Verkerk 2014]).

Talmy [1991; 2000] distinguishes between four core components of a motion event: the person or object that moves (figure), the path or direction that he takes (path), reference objects in the environment (ground) and the fact of motion. There could be also external "co-events" which usually encode information concerning manner and/or cause of motion. How languages encode these components may be totally different and, in some languages, these semantic components may not be encoded at all.

Based on the dichotomous typology proposed by Talmy [1985], the languages in which the direction or path of motion is encoded in the verb root are called **verb-framed** languages. Also, those which encode the manner component in the verb root and allow the path information to be expressed by means of satellites are named **satellite-framed** languages. However, some languages, due to blurry situations, cannot be classified as purely verb-framed or satellite-framed. For example, as Chinese is a serial verb language, it is not possible to determine the main verb among a series of verbs in this language. This has led Slobin [2004] to propose a tripartite typology, which has an additional language type, namely **equipollently-framed** languages, encompassing a wide set of languages such as Chinese, the languages of Niger-Congo and Tai-Kadai families, and also a number of languages in western North America.

In addition to the third class, Slobin [2004; 2006a; 2006b] also proposes a cline of manner salience. He argues that languages can be placed alongside this continuum regardless of the lexicalization pattern shown. Accordingly, languages can be classified as **high-manner-salient** and **low-manner-salient**, depending on the amount of elaboration they provide about the manner component. Slobin [2004: 250] makes it clear that in high-manner-salient languages speakers are capable of providing rich and pervasive information about manner of motion, while in low-manner-salient (i.e. verb-framed) languages manner is expressed only when it is foregrounded for some reason. Additionally, in high-manner-salient languages, there are fine-grained distinctions observed in manner verbs, and speakers of those languages pay more attention to the manner of motion. On the contrary, in low-manner-salient languages, the semantic distinctions among manner verbs are limited and speakers focus less on the manner of motion. In this respect, Slobin [Ibid.] points to some factors which can affect manner salience in language, including **lexical and morphemic availability**, **semantic constraints** and **processing load**. In a language in which the semantic component of manner is more codable and accessible, manner is more salient. According to Slobin [Ibid.], manner of motion is more codable in a language, when it is expressed 1) by a finite rather than non-finite verb, 2) by a single word rather than a phrase or clause, and 3) by a high-frequency rather than low-frequency lexical item. In high-manner-salient languages, there is an accessible slot for manner made available in a number of ways:

a) as a main verb in satellite-framed languages;
b) as a manner verb in serial-verb languages;
c) as a manner morpheme in bipartite verbs;
d) as a manner preverb (in Jaminjungan languages);
e) as ideophones or expressive forms.

By the way, some languages may have these lexical possibilities available, but their speakers are reluctant to encode the manner component in their speech, which may be due to semantic constraints and processing effort. For example, Slobin and Hoiting [1994] point to a constraint in verb-framed languages, according to which manner verbs can be licensed only when the motion event is atelic. Furthermore, verb-framed languages can encode manner through adjuncts or subordinate constructions, but they do not. According to Slobin [2006a: 67], this kind of unnecessary foregrounding of manner can increase the processing load of production and comprehension. In other words, although this strategy attracts more attention to the manner component, it also increases the processing load at the same time, which is not in accordance with the economic principle in language.

The view on the manner of motion has been an interesting element of the study of motion events. A number of researches conducted on manner focus on the salience of this semantic component in language. Lindsey [2011] investigates the motion verb system of Bulgarian, encompassing the structure of verbs of motion as well as the information encoded in these verbs. After a discussion of the Bulgarian motion verbs, there are also comparisons with two other Slavic languages, namely Russian and Serbian. Generally speaking, it can be said that there are fewer differences between Bulgarian and Serbian, simply because these languages belong to the Southern Slavic group, while Russian is one of the Eastern Slavic languages. As discussed by Lindsey, Bulgarian is a satellite-framed language. In these languages, manner of motion is encoded in the verb root, resulting in a lower cognitive load and thus facilitating language comprehension. On the contrary, Lindsey's results reveal that Bulgarian has formed more verbs for expressing the path (and not the manner component) which is considered as a discrepancy with Russian and Serbian. It is also pointed out that a vast number of these items have been borrowed from Greek and Romanian.

As a part of her research, Ibarretxe-Antuñano [2004] explores manner salience in Basque and English. She asks why and when speakers of satellite- and verb-framed languages choose to mention manner. It is stated that the speakers of verb-framed languages have a lower tendency

to mention the manner component in their speech production. In a short experiment, it is shown that Berkeley students produced a total of 106 different motion verbs, in which 14 are neutral or path verbs; the rest contain information about the manner component. Basque students, on the other hand, produced 61 motion verb of which 24 are manner verbs and the rest are neutral or path expressions. This is also the case when translating from verb-framed to satellite-framed languages, and vice versa. Indeed, translators of satellite- to verb-framed languages usually omit manner description. But, according to Slobin [2003; 2004], this is not because verb-framed language speakers suppress attention to manner, which is a core aspect of meaning to all human beings. Instead, it can be said that manner is more accessible for the speakers of some languages than others, which necessitates a cline of manner salience, alongside which languages can be classified as high-manner-salient to low-manner-salient.

Cifuentes Férez [2007] assesses three human locomotion verbs (WALK, RUN, JUMP) in Spanish and English and discusses the cross-linguistic similarities and differences in the expression of these verbs in those languages. Results reveal that both languages have similar semantic information encoded in the lexicalization patterns of these events; however, there are more fine-grained distinctions to refer to those events in English. In turn, there is specific information about the figure's noisy way of walking while wearing some kinds of shoes (*taconear* 'to tap shoes with heels when walking or dancing', *chancletear* 'to walk noisily using flip-flops', and *zapatear* 'to tap shoes while walking or dancing'), and even about the time of day when the motion takes place (*noctambular* 'to walk around at night') lexicalized in Spanish, although the latter is not very frequent. The next part of the research is devoted to measuring the variety of verbs in human motor patterns. It is argued that in both languages, WALK represents finer lexical distinctions in comparison with the RUN class, and JUMP shows the lowest diversity. It is claimed that while walking is a frequent daily activity, people might run or jump few times during the day. Naturally, most of the world's languages have a more fine-grained manner verb lexicon for walking activities than for running or jumping activities.

There are few works done on the lexicalization of motion events in Ilami Kurdish. Karimipour and Rezai [2016] assess motion events in Ilami Kurdish on the basis of the narratives produced by Ilami Kurdish speakers. They focus on the encoding of the path component. They show that Ilami Kurdish tends towards satellite-framed languages, as in this dialect, the path component is often expressed by the use of satellites. On the basis of the Ilami Kurdish data, they claim that path concept is almost always encoded through external components such as *rejaw* 'ahead', *gəʒ* 'on', *məl* 'upon', *ʃun* 'for', *xwar* 'down', and *dær* 'out'. For example, in the following illustration, path in the two motion verbs is encoded by the satellites *dær* 'out' and *xwar* 'down', showing satellite-framing patterns.

(3) jedæfæ d͡ʒoqd-e dər-ɑjgæ dær bæt͡ʃ-æ kæfegæ xwɑr dæ
suddenly owl-INDEF out-come.PRS.3SG out child-DEF fall.PRS.3SG down from
bɑn-e dɑr-æ.
above-EZ[1] tree-DEF
'Suddenly, an owl comes out and the child falls down of the tree'.
(Picture 13 of the Frog Story; [Karimipour, Rezai 2016: 420])

They further use the criteria proposed by Ibarretxe-Antuñano [2008] concerning the cline of path salience in languages to analyze path coding in Ilami Kurdish and compare the results with languages of the same or different typological classes. For example, by counting the verbs of the Kurdish corpus, they found that Ilami Kurdish speakers use both minus-ground and plus-ground verbs in their narratives. The rates of minus-ground and plus-ground verbs are 49.2 %

[1] Ezafe (= EZ) is a grammatical particle which is used to link words in different contexts in some of Iranian languages, including Kurdish. For example, this particle can be used in possessive constructions to link the possessor and the possessed, which corresponds to English *of*.

and 50.8 %, respectively. So, Ilami Kurdish is placed between Mandarin Chinese (48 % vs. 52 %) and Thai (51 % vs. 49 %) in the typological classification.

In this paper, Ilami Kurdish data will be analysed and compared with other languages to measure manner salience in this dialect. The dictionary-based lexical survey and experimental trials used in this study have been carried out by other scholars such as Cardini [2008], Slobin [2003], Ibarretxe-Antuñano [2004], and Akita and Matsumoto [in press] in other languages. Replicating these studies will help us to understand how Ilami Kurdish is distinct from languages of the same or different typological classes. Specifically, we aim to answer the following questions:

1. In what ways is the manner component encoded in Ilami Kurdish?
2. What is the status of Ilami Kurdish among other languages according to a dictionary-based lexical survey?
3. How readily can Ilami Kurdish speakers retrieve manner items from memory in comparison with speakers of Italian and English?
4. How frequently is each manner type used in a video-based experiment?
5. What factors can explain manner salience in this dialect?

This paper is structured as follows. In section 1, a brief overview of Kurdish and its variants is presented and the details of how manner is encoded in Ilami Kurdish are laid out. The discussion of parameters for identification of motion verbs in general and of manner verbs in particular is presented in section 2. In section 3, Ilami Kurdish data is analysed, and cross-linguistic comparisons are made. There is a discussion on the findings of the study in section 4. Finally, section 5 provides the conclusion of the study.

1. The Kurdish language

Kurd is a term that is traditionally used to refer to those people residing in the bordering areas of a number of Middle Eastern countries. The main places of residence include Turkey, Iran, Iraq, Syria, the former USSR, encompassing Turkmenistan, the Azerbaijan Republic, Armenia, and Georgia [Asatrian 1999; Asatrian, Arakelova 2002: 17–21; Arakelova, Davtyan 2009].

The Kurdish language belongs to the Iranian branch of the Indo-European language family and is spoken in three main variants: 1) Nothern Kurdish, comprising Kurmanji in the west and dialects spoken from Armenia to Kazakhstan; 2) Central Kurdish, spoken in Northeastern Iraq and adjacent areas in Iran, as well as in Iranian Kurdistan; and 3) Southern Kurdish, spoken in several cities of Iraq and Iran, like Kermanshah and Ilam [Skjærvø 2006]. The latter has different dialects such as Ilami, Kermanshahi, Laki, Garusi and Sanjabi. Ilami Kurdish is one of the Southern varieties of the Kurdish language that is spoken in Ilam, a small, mountainous city in Western Iran. Naturally, it shares linguistic features with other Kurdish dialects, especially those spoken in Southern Kurdistan. For example, Ilami and Kermanshahi share a great number of lexical items and syntactic patterns, which results in the mutual intelligibility of their speakers.

There are several strategies used for the expression of manner in Ilami Kurdish, which are further described below; as the encoding of manner is sometimes connected with the expression of path, the elaboration of this component in the relevant clauses will also be highlighted:

(4) kwər-æ wærɑw xwɑr pəl xwɑrd.
boy-DEF towards down roll eat.PST.3SG
'The boy rolled down.'

(5) xærguʃ-æ pərd bæsi-jæ nɑm-ə kwənɑ-gæ.
rabbit-DEF throw close.PST.3SG-towards into-EZ hole-DEF
'The rabbit jumped into its hole.'

(6) rɑnændæ tɑ ilɑm gɑzɑn.
driver.DEF towards/until Ilam gas.PST.3SG
'The driver drove fast until (he arrived to) Ilam.'

Satellite-framed constructions occur frequently in Ilami Kurdish. In (4–6), the slot of the main verb is filled by the manner component, allowing the path to be expressed outside of the verb stem by means of satellites. In these cases, the manner of motion is encoded in the main verb; examples include *pəl xwardən* 'roll', *pərd bæsin* 'jump', and *gazanən* 'drive/go fast'. For these, satellite functions must be added to express the path of motion in each case, such as *wæraw xwar* 'downwards', *nam* 'into', or *ta* 'towards'. Having said that, at least in such examples, it seems safe to claim that Ilami Kurdish tends to satellite-framed languages. However, this typology (i.e. categorization) may not be strictly applicable to all domains of motion encoding in Ilami Kurdish.

Among other idiosyncratic behaviors, for example, manner may be sometimes encoded outside of the verb root through adverbials, which is an attested behavior of verb-framed languages. This method of encoding the manner component offers a productive strategy for expressing this semantic component, as in the following examples:

(7) sænjæb-æ wæ dəzijɑw dæ dɑr-æ hɑt-ɑw xwɑr.
squirrel-DEF with furtiveness from tree-DEF come.PST.3SG-towards down
'The squirrel came down the tree furtively.'

(8) mɑʃin-æ wæ sorət dɑ nɑm-ə diwɑr-æ.
car-DEF with speed crash.PST.3SG into-EZ wall-DEF
'The car crashed into the wall speedily.'

(9) wæ jæwɑʃe t͡ʃegæ nɑm-ə ətɑq-æ.
with slow go.PST.3SG into-EZ room-DEF
'He entered the room slowly.'

As can be seen, manner adverbials are used along with the main verb to express the manner component in Ilami Kurdish. In the examples presented above, the manner adverbials *wæ dəzijaw* 'furtively', *wæ sorət* 'speedily', and *wæ jæwaʃe* 'slowly' encode different manners of motion for the relevant event. It is worth mentioning that some manner semi-adverbs are semantically mixed with the main verb to such extent that it is possible to consider them together as complex predicates.

There are also manner morphemes like *aw-*/*-aw* and *æɭ-* used to encode manner of motion in Ilami. Note also that some of these morphemes have been independent lexical items in the past, but they have undergone some semantic and functional changes during the time. They are now used as manner- and path-expressing devices in specific contexts. Examples of *aw-* and *æɭ-* morphemes are given below.

(10) ʒən-æ səfr-æ ɑw-xəs.
woman-DEF linen_cloth-DEF downwards-fall.PST.3SG
'The woman spread the linen cloth.'

(11) pejɑg-æ kɑwʃ-æ æɭ-kiʃɑ.
man-DEF shoe-DEF upwards-wear.PST.3SG
'The man put on the shoes (completely and quickly).'

(12) æɭ-gærd!
around-turn.IMP
'Turn around! (completely and quickly)'

In the illustrations given above, the prefixes *aw-* and *æɭ-* can encode manner and path simultaneously. For example, path and manner in example (10) convey the meaning of 'downwards' and 'widely', respectively, which are both packaged in the *aw-* morpheme. These meanings can

be well implied by the help of the main verb and the attached morpheme together. Similarly, in examples (11) and (12), the prefix *æl-* encodes path and manner together. It seems that *æl-* can encode different motion directions, since it implies "vertically upward direction" and "rotation" in the respective examples. It also encodes the manner component (quickly and/or completely) in each case. All the strategies discussed so far have a wide range of use in Ilami Kurdish. They can refer to physical, imaginative and fictive movements of the figure, which is by no means restricted to human referents.

In addition, Ilami Kurdish uses two other strategies for encoding the manner component. Since Ilami Kurdish and Farsi have been in contact for a long time, the former has definitely borrowed different manner verbs from Farsi, for example, *pærwaz kərdən* 'fly' and *ʃird͡ʒæ t͡ʃəgən* 'dive'. There are also pairs of synonyms in Ilami Kurdish, which depict more or less the same concept such as *dær t͡ʃəgən* and *wajin* which are used interchangeably to refer to 'flee'.

2. Parameters for identification of core and peripheral manner verbs

In this section, the following criteria concerning **motion** and **manner** mentioned by Cardini [2008] are discussed, increasing the comparability between the Ilami Kurdish data and Cardini's English and Italian data.

2.1. Basic motion verbs including "core" manner verbs

The following subsections present the specifics of core motion verbs including core manner verbs. These criteria will be exemplified by proper Ilami Kurdish illustrations.

A) The verb meaning must clearly express a change of location in space

As Talmy [2000: 25] argues, we should distinguish MOVE from BE concept, when studying motion events. The first requirement for a verb to be classified as a motion verb is that it should encode a change of location in space. For example, the following illustration does not include a clear change of location, since important components of motion including path and direction are not present in this example:

(13) pejɑg-æ qæzɑ xwɑrd.
man-DEF food eat.PST.3SG
'The man ate the food.'

According to Cardini [2008], there are several criteria which can be taken into account for defining a typical change of location event:

a) Change of location requires to be encoded by the verb root rather than verb particles or affixes.
b) Semantically, motion needs to be the first priority of the verb encoding it, as in *dæwəsən* 'run', *sərin* 'creep', etc. Therefore, the verbs such as *ʃoxm dajən* 'plow' and *kənin* 'dig', whose primary meaning is an action other than motion, would not be the ideal candidates in this research, so they are excluded from further assessment.
c) Those verbs which only focus on (or include) either the beginning or ending part of the action would not be listed as manner of motion verbs. For example, the verb *pæraʃ pæraʃ bijən* 'crash', which only focuses on the violent part of the action, not the ideal candidate for manner verb.

B) The verb meaning must involve translational movement

As Talmy [1985: 141] states, there are two different kinds of motion: translational and self-contained motions. In Talmy's [2000: 35] words, "[i]n translational motion, an object's basic location shifts from one point to another in space. In self-contained motion, an object keeps its same, or 'average' location. Self-contained motion generally consists of oscillation, rotation, dilation (expansion and contraction), wiggle, local wander, or rest". In the dictionary survey, only those verbs will enter the list, which contain translational movement. The verbs *re kərdən* 'walk' and *dæwəsən* 'run' are examples of translational movement, but *lærzin* 'tremble' is not. It is worth mentioning that the characteristic feature of translational and potentially translational (e.g. *pærəsən* 'jump') movement is that they permit path adverbs, which is in accordance with the semantics of such verbs, whereas self-contained movements are unable to do so:

(14) kwər-æ wæɾɑw mɑɭ dæwəs.
boy-DEF towards house run.PST.3SG
'The boy ran towards his house.'

(15) pærwɑn-æ bɑɭ-el-e wɑzɑw kərd.
butterfly-DEF wing-PL-DEF open do.PST.3SG
'The butterfly opened its wings.'

As can be seen above, in example (14), which contains a translational movement, the path of motion is explicitly mentioned. However, the next example, which depicts a self-contained motion, does not allow this component.

C) The motion verb must be intransitive

In order for the Kurdish data to be meaningfully compared with Cardini's [2008] results, we will enlist only those motion verbs which are intransitive, even though transitive motion verbs are also regularly used by Ilami Kurdish speakers.

2.2. More fine-grained manner verbs

In the following subsections, the characteristic traits of more fine-grained manner expressions (i.e. with additional complications) are discussed.

2.2.1. Fundamental movements as a base for creating more specific expressions

Cardini [2008] argues that "motions occurring on a surface" (there classified as the group "A1"), which actually include a limited number of manner verbs, can be classified according to three general movements: oscillation, rotation, and continuous friction. In fact, in Cardini [2008: 542] they are a subgroup of a wider class of manner of motion verbs in which information about manner "directly refers to input material perceived by our senses" (class "A"). Due to the fundamental nature of these movements, every figure shows one of the three movement types mentioned above, when moving on a surface:

(16) tup-æ kwəterijɑ zæmin.
ball-DEF kick.PST.3SG ground
'The soccer ball was kicked to the ground.'

(17) kət͡ʃəg-æ bijɑw ɡəl.
stone-DEF become.PST.3SG roll
'The stone started rolling.'

(18) dæ məl-ə wæfr-el-æ sər xwɑrd.
from on-EZ snow-PL-DEF slip eat.PST.3SG
'(S/he) slipped on snow.'

The first example depicts an oscillation movement, in which the figure object is hit and then continuously spins in a vertical direction; the next is clearly an example of a rotation event, and the figure object in the last example skates on the surface, showing continuous friction.

2.2.2. Body movements of living entities may be encoded along with the other manner components

Not all translational movements consist of a simplex manner of motion. Some body movements of human or non-human figures can be intricately encoded in the manner verbs:

(19) qɑtər-æ wær nɑ nɑm-ə bɑx-æ.
mule-DEF front put.PST.3SG into-EZ garden-DEF
'The mule went into the garden carelessly.'

(20) xær-æ sök xe.
donkey-DEF shoulder throw.PST.3SG
'The donkey attacks with its shoulder.'

Both manner verbs depict fine-grained manners of motion that are used for animals. Example (19) depicts a situation in which the figure (i.e. the mule) walks aimlessly and carelessly in the garden, which may result in damage to the trees. The next example also represents quick motion of a donkey crashing into another object.

2.2.3. Path verbs vs. trajectory verbs

As Cardini [2008] clarifies, path and trajectory verbs should be differentiated. Consider the following examples:

(21) kwər-æ dæ mɑɻ-æ t͡ʃærxi.
boy-DEF into house-DEF swirl.PST.3SG
'The boy swirled into the house.'

(22) pejɑg-æ hɑt-æ mɑɻ.
man-DEF come.PST.3SG-towards house
'The man came to the house.'

The examples mentioned so far are of path verbs, as they contain information concerning the direction in which the figure moves. When followed by satellites, these verbs convey totally redundant information.

(23) kwər-æ wæ dɑwr-ə mɑɻ-æ t͡ʃærxi.
boy-DEF with around-EZ house-DEF swirl.PST.3SG
'The boy rotated in the house.'

(24) pejɑg-æ hɑt-æ nɑm-ə mɑɻ.
man-DEF come.PST.3SG-towards into-EZ house
'The man came into the house.'

In fact, the verbs *t͡ʃærxin* ‘swirl’ and *hatən* ‘come’ inherently contain the meanings ‘to move in a circle path’ and ‘to move inside’ in their semantics, respectively. However, trajectory verbs, which are important here, lack a coarse-grained picture of the path of motion. The following examples illustrate this point.

(25) mɑʃin-æ pet͡ʃæɭpet͡ʃ t͡ʃəg-æ nɑm-ə mæsir-æ.
car-DEF zigzag go.PST.3SG-towards into-EZ route-DEF
‘The car zigzagged into its route.’

(26) xæɭifæ dɑ dɑwr-ə boxɑri-jæ.
furl give.PST.3SG around-EZ heater-DEF
‘(S/he) furled around the heater.’

pet͡ʃæɭpet͡ʃ ‘zigzag’ and *xæɭifæ dajən* ‘furl’ can be considered trajectory verbs, as they encode specific information with respect to the manner of motion, and give detailed fine-grained information about the path, but lack a coarse-grained information about this component.

2.2.4. Vehicles used during a translational motion and the actions performed on vehicles might function as a morphological base for creating new manner verbs

The diversity of this category is limited in Ilami Kurdish. The reason for this lies in the fact that, historically, Ilami Kurdish speakers have not dealt with mechanical vehicles as much as they have dealt with animals, for example. Therefore, we are only able to track a few examples of this type:

(27) kæmpɑj kərdəm.
combine_harvester do.PST.1SG
‘(I) combined (harvest).’

(28) tɑ sær-ə d͡ʒɑdæ ɢɑzɑnəm.
to head-EZ road.DEF gas.PST.1SG
‘(I) pressed the gas pedal to the top of the road.’

(29) dæ i sær-ə xejɑbɑn-æ tɑ u sær rəkɑw dɑm.
from this head-EZ road-DEF to that head pedal give.PST.1SG
‘(I) pedaled (on a bicycle) from this side to the other side of the road.’

In example (27), *kæmpa* ‘combine harvester’ is used as a motion verb to encode a specific motion event. The motion events encoded in examples (28) and (29), on the other hand, are formed on the basis of the actions (i.e. pressing the gas pedal and the bicycle pedal) performed on the respective vehicles.

2.2.5. Mimetics or ideophones in Ilami Kurdish

According to [Akita, Matsumoto (in press)], one can take two factors into account when evaluating a manner component. They distinguish between conventional and expressive mimetics and, consequently, expressiveness refers to the features of items, which are not morphophonologically conventional and are used to convey emphatic effects of increased vividness. Certain mimetics or ideophones can be considered expressive items, such as English *swoooosh*, which has an unusual prosodic feature (vowel lengthening). In contrast to such expressions, cases like English *rattle* are mimetic in nature, but lack identifying features such as vowel lengthening or reduplicative patterns and are therefore considered to be conventional mimetics. Manner expressions in the following examples convey a particular sound that usually mimics the sounds of nature:

(30) wæ tæqæ tæqæ tæq tɑ terɑn rɑni.
with clack clack clack to Tehran drive.PST.3SG
'(S/he) drove to Tehran with difficulty.'

(31) tɑ wətəm-e t͡ʃæ bi-jæ fərte hɑt.
as_soon_as told.PST.1SG-OBJPRO what happen.3SG-PRS.PERF flick come.PST.3SG
'As soon as (I) told him what has happened, (he) fled.'

The sounds conveyed by the manner expressions mentioned above reflect nature sounds, thus creating a more tangible picture of the motions described.

2.2.6. Manner verbs can evoke fundamental concepts in Ilami Kurdish

The fundamental movements can be considered a base for the encoding of several kinds of manner that are distinguished by researchers such as Slobin [1997; 2000] and Akita and Matsumoto [in press]. Slobin [1997; 2000] makes a distinction between general manner verbs, such as *walk* and *run*, and more specific manner verbs, such as *jog* and *hog*, which are semantically formed on the basis of a general verb. Moreover, as Akita and Matsumoto [in press] explain, a general manner expression can be either default or non-default. According to the former, verbs such as *walk* depict a default motion due to their frequency, usualness, and predictability, while *run* does not. This is also the case in flying for birds and swimming for fish, which are considered default manner verbs for these entities. Cardini [2008] provides a list of different semantic concepts that can be denoted by manner expressions in language. Ilami Kurdish speakers also make use of various manner expressions to encode more fine-grained concepts such as the speed of the figure, control, and continuity of motion. Below, some of these concepts are exemplified on the basis of the list provided by Cardini [2008]. As is common in Ilami Kurdish, most of these manner expressions are motion verbs, composed of a general verb of motion (the last element) and adverbials / particles, which specifically add manner information to the verb.

1) SPEED
— Fast: *fərtæ kərdən* 'flee' (lit. 'flick do'), *dær t͡ʃəgən* 'escape' (lit. 'out go'), *guzæ kərdən* 'scuttle' (lit. 'fart do')
— Slow: *qəngæ xəʃi kərdən* 'scramble, walk slowly' (lit. 'butt pull do')

2) ENERGY / FORCE
— Forceful, violent: *kərijan* 'drag', *dæɬæk dərijan* 'push' (lit. 'pull give')
— Weak, feeble: *wæ qomtæ qomt t͡ʃəgən* 'hobble' (lit. 'with small steps go')

3) WEIGHT
— Heavy: *d͡ʒəm xwardən* 'wag' (lit. 'wriggle eat')
— Light: *baɬ gərtən* 'fly quickly' (lit. 'wing get')

4) EFFORT
— Easy, effortless: *ser xwardən* 'slide' (lit. 'slide eat')
— Difficult, laborious: *kukæ kuk kərdən* 'walk hard' (lit. 'hump do')

5) CONTINUITY
— Continuous, steady: *dæ re bijən* 'walk' (lit. 'in way be')
— Abrupt, jerky: *məɬq kwətan* 'beat' (lit. 'pulse knock')

6) HARMONY
— Elegant, coordinated: *æɬpærəgæ kərdən* 'jump harmonically' (lit. 'jump do')
— Clumsy, awkward: *xənd͡ʒəgæ mənd͡ʒəgæ kərdən* 'jump clumsily' (lit. 'jump do')

7) STEADINESS
— Controlled, steady: *gam najən* 'walk in a steady manner' (lit. 'pace put')
— Uncontrolled: *gælæ ku kərdən* 'rush' (lit. 'group attack do')

2.2.7. Emotional states of a living entity can be expressed in Ilami manner verbs

Cardini [2008] believes that many motion verbs also have an additional meaning concerning the emotional states of the entities. This also highlights that such verbs necessarily depict the status of living entities, as other entities lack the psychological ability to understand the meaning of FEAR and CONFIDENCE / ARROGANCE, etc. Similar cases are found in Ilami Kurdish, which clearly provide information about the psychological condition of a living entity:

(32) mɑr-æ sərijæ nɑm-ə kwənɑ-gæ.
snake-DEF creep.PST.3SG into-EZ hole-DEF
'The snake crept into the hole.'

(33) xærguʃ-æ pərd bæsi-jæ nɑm-ə lɑn-e.
rabbit-DEF throw close.PST.3SG-towards into-EZ hole-EZ
'The rabbit jumped into its hole.'

Examples (32) and (33) both represent situations in which a snake and a rabbit move furtively into a hole to avoid being seen or caught. It should also be mentioned that the psychological status of a living entity is not necessarily a one-dimensional phenomenon. For example, in (33), in addition to FEAR, the HASTE of the rabbit is also inferable in this context, because emotions are interconnected and can be triggered simultaneously.

3. Data analysis

In this section, the specifics of the dictionary-based lexical survey and ease of lexical access trials will be presented. The dictionary-based survey is used to calculate the number of manner verbs in Ilami Kurdish. The experimental trials will also be carried out to establish how readily children and adults can retrieve manner verbs from memory.

3.1. Dictionary-based lexical survey

Due to unavailability of monolingual dictionaries, two bilingual dictionaries — *Ferhengi Bashur* [Jalilian (ed.) 2006] and *Farhang-e Farsi-Kordi* [Ruhani (ed.) 2012] — were used to measure the number of manner verbs in Ilami Kurdish. Then, to enlarge the corpus size of the study, the *Corpora Collection of Leipzig University* [Goldhahn et al. 2012] was also used. The total number of words in these resources was 69 000, which was a suitable amount for the purpose of the current research. Items considered archaic, old, poetic and those that definitely do not belong to Ilami Kurdish were excluded. We then counted the types of manner verbs. Based on the criteria introduced for manner verbs, it was revealed that 283 manner verbs were totally in accordance with the definition of manner verbs, which is a comparatively remarkable number:

Table 1

Total number of manner verbs in Ilami Kurdish, Italian and English

Language	Total number of words	Total number of manner verbs
Ilami Kurdish	69 000	283
Italian [Cardini 2008]	63 500	138
English [Cardini 2008]	74 500	251

The amount observed in Ilami Kurdish is approximately twice as many as that found in Italian and a bit more than that in the English language. As Slobin [2004] hypothesizes, the greater is the number of manner verbs in a dictionary of a specific language, the greater is the probability of high manner salience in that language. Based on this view, it can be said that Ilami Kurdish is a comparatively highly manner-salient variety, as far as this dictionary-based survey shows. Since the criteria mentioned above are naturally comparative, we asked another individual to categorize the manner verbs into the following groups: pure motion verbs, pure manner verbs, and manner and motion verbs. This enables us to measure the agreement rate for manner verbs. Put differently, this rating tests the accuracy of the categorization of the identified verbs as manner verbs. It should be pointed out that the rater was unaware of the research questions. He was only shown the criteria mentioned above plus an Ilami Kurdish example for each criterion. To compare the results with the Italian and English languages, we present the findings reported by Cardini [2008] below.

Table 2

Results of interreliability test in English and Italian [Cardini 2008: 550]

Number of verbs found to meet...	Rater 1	Rater 2	Agreement rate
motion criteria	389/389	363/389	93.3 %
manner criteria	389/389	386/389	99.2 %
both motion and manner criteria	389/389	360/389	92.5 %

Table 3

Results of interreliability test in Ilami Kurdish

Number of verbs found to meet…	Rater 1	Rater 2	Agreement rate
motion criteria	283/283	280/283	98.9 %
manner criteria	283/283	281/283	99.2 %
both motion and manner criteria	283/283	278/283	98.2 %

It can be observed that the second rater has categorized the verbs in more or less the same way. The results confirm that the criteria defined for such verbs are reliable. The only point of disagreement was related to trajectory verbs which, based on the opinion of the rater, should be categorized as path verbs rather than manner verbs.

3.2. Experiment 1: Ease of lexical access in Ilami Kurdish manner expressions

The goal of this experiment is to measure how easily and quickly Ilami speakers retrieve manner-of-motion verbs from memory. Following Cardini [2008], Slobin [2003] and Ibarretxe-Antuñano [2004], we replicate these tests for children and adults. The aim of this experiment is twofold: 1) to compare ease of lexical access in children and adults, thereby determining whether manner salience in Ilami is affected by age; and 2) to compare Ilami findings with languages of the same or different typological classes.

3.2.1. Participants

As stated earlier, the tests were carried out with two different age groups: 35 Ilami Kurdish adults (21–60 years old) and 35 Ilami Kurdish children (14 years old). All participants were native Ilami speakers with background knowledge of the Persian language. When selecting

participants, we considered the potential interference of Persian on the Kurdish language. Thus, we attempted to select only those participants who appeared to have a good command of Ilami and used it in daily conversation, although participants informed us they also spoke Persian. Furthermore, because Ilami people share a similar socioeconomic status, this criterion was not a concern, however, we did attempt to select participants from different dialectal areas of Ilam.

3.2.2. Research procedure

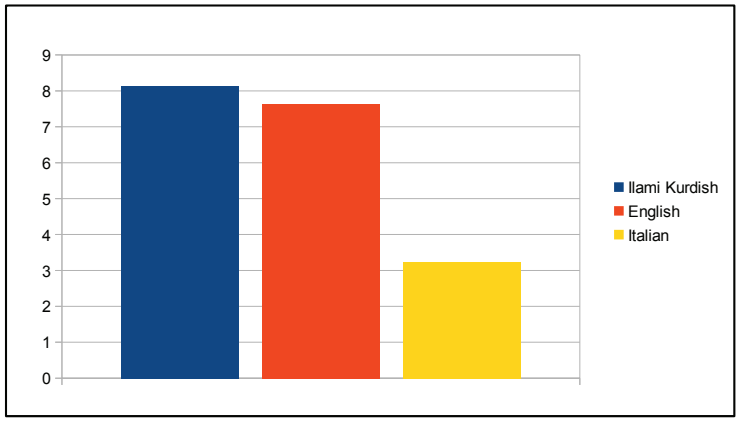
Participants were instructed to record on paper every word considered a manner-of-motion verb. The time frames were 90 and 60 seconds for children and adults, respectively. The justification for the time given for the Ilami native speakers was that the corresponding experiments with English and Italian had the same time restriction [Cardini 2008; Slobin 2003]. Before asking participants to write the verbs, brief explanations were offered to define a manner verb: "For example, we have the verb *t͡ʃəgən* 'go', which has nothing to [do with] the manner of motion; we have *dæwəsən* 'run', … which lets us know the person is in a hurry". Children participated simultaneously in the 90-second test at a junior school in Ilam; adults participated in the 60-second test in groups of three, four, or five individuals, depending on participants' availability.

3.2.3. Results

Results indicate that the mean of Ilami Kurdish manner verbs used per child is approximately 8.14, slightly higher than in English ($M = 7.63$) but much greater than in Italian ($M = 3.23$). Overall, 38 verbs were elicited (see appendix 1). Elicited verbs in English and Italian were 37 and 25, respectively, suggesting that Ilami Kurdish children can more readily retrieve manner-of-motion verbs from memory.

Figure 1

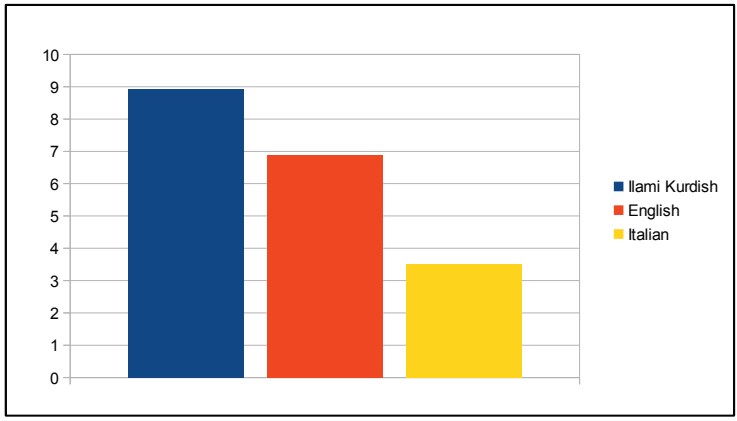
Mean of manner verbs used by Ilami Kurdish, English and Italian children



Regarding ease of lexical access in adults, they retrieved more manner verbs in a shorter time (60 seconds for adults vs. 90 seconds for children). The mean of manner verbs used by Ilami Kurdish adults is 8.94, greater than that reported for English ($M = 6.89$) and Italian ($M = 3.51$). This finding reveals that as children age, their manner verb lexicon expands and thus enables them to access such items more quickly from memory. Also, Ilami adults used 45 types of manner verbs, reflecting greater diversity compared to English ($n = 37$) and Italian ($n = 25$) (see appendix 2).

Figure 2

Mean of manner verbs used by Ilami Kurdish, English and Italian adults



As far as the data shows, Ilami Kurdish adults are more capable of retrieving manner verbs than children are (8.94 vs. 8.14). This finding has an important implication for the lexicalization pattern of Ilami Kurdish and language in general. Put differently, the Ilami Kurdish lexicalization pattern has a rather relative nature, which is differently reflected in the speech of children and adults: the manner salience of Ilami Kurdish is more limited in the speech of children, but it can be considered more detailed and expanded in the speech of adults. On the other hand, in this study, both Ilami Kurdish children and adults retrieved more manner verbs than their English and Italian peers.

3.3. Experiment 2: Ease of lexical access of motion verbs in general

Regarding the previous test, Cardini [2008] makes it clear that, since there is an explanation about manner verbs given to children and adults, there may be also a problem with task understanding. The reliability of the test will increase, if we carry out another complementary test that solves the probable problem of clear explanation. In other words, should we request the participants to write a number of "general motion verbs" from their own language in a short time frame, the results will be more reliable. Then we will be able to measure manner verbs out of mixed verbs used by each participant.

3.3.1. Participants

35 naïve Ilami Kurdish adults (20–60 years old) and 35 Ilami Kurdish children (14 years old) participated in this study. We avoided recruiting the participants that took part in experiment 1, as having participated in experiment 1 alerted these participants to the purpose of the research program and might affect their responses. All participants were native Ilami speakers with background knowledge of the Persian language. Again, we attempted to select only those participants who appeared to have a good command of Ilami and used it in daily conversation. And again, because Ilami people share a similar socioeconomic status, this criterion was not a concern, however, we did attempt to select participants from different dialectal areas of Ilam.

3.3.2. Research procedure

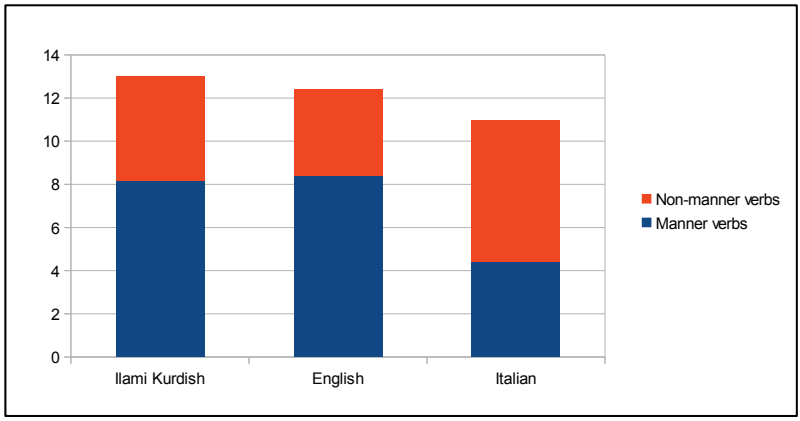
As previously observed, there may be a problem with task understanding in the previous test. We attempted to solve the probable problem in this test by asking the participants to write as many motion verbs as they could remember in 60 seconds. In this kind of test, manner verbs can be indirectly elicited without requiring any formal explanations, which may result in a task understanding problem for some participants. They started writing the requested verbs as soon as they heard the word "Start!".

3.3.3. Results

By calculating the results, we figured out that the mean of the manner verbs used by participants is 8.18, which is greater than the mean of the manner verbs reported for Italian (4.43) and a little less than the mean reported for English (8.40). It seems that there is an overt difference between Ilami Kurdish and Italian.

Figure 3

Means of non-manner and manner verbs used by Ilami Kurdish, English and Italian participants



Ilami Kurdish participants seem to be able to access their mental repertoire more quickly and easily as far as motion verbs are concerned (in particular, in comparison with Italian). These findings support (at least partly) the previous experimental trials that found that Ilami Kurdish speakers are capable of writing more accurate items in a short time frame. In total, 56 types of manner verbs were detected in the productions of Ilami informants. It should be pointed out that the reported totals of manner types used by English and Italian participants are 61 and 33, respectively (see appendix 3).

3.4. Experiment 3: Categorizing manner verbs

In this experiment, respondents produced sentences containing manner expressions and manner verbs after viewing short video clips demonstrating various motion events. The aim of the study was to reveal not only how frequently manner is included in descriptions (i.e., the frequency of all possible manner expressions), but also how frequently manner verb types and tokens were used in participants' descriptions of the videos. Particularly, we discuss how frequently

the informants used general vs. specific, default vs. non-default, and conventional vs. expressive manner expressions.

3.4.1. Participants

12 new native speakers of Ilami, including four males and eight females (23–50 years old) from Ilam, participated in this experiment. The participant selection criteria used in the previous experiments were taken into consideration for this study as well.

3.4.2. Research procedure

Respondents were requested to watch 30 short videos (5 seconds long in average) consisting of usual and unusual manners of motion, and then tell the researcher what they had seen.

Table 4

The stimulus videos used in Experiment 3, based on [Akita et al. 2010; Akita, Matsumoto (in press)]

Human Motion	Walking	A man walks by. A woman in high heels walks quickly down the stairs. A man walks by with his keys in his right hand. Three men walk out of the room one after another. A man walks toward the camera. A man with his keys in his right hand walks toward the camera.
	More marked	A man shuffles his feet through pebbles. A woman skips down a ramp. A man jumps off a low edge. A man stomps up the stairs toward the camera. Three guys comes hurrying into a room.
Object Motion	Self-motion	A stone falls into the pond. A basketball falls onto a metal plate. A leaf falls off a tree. A balloon whistles around the room. A small ball rolls across a brick ground. A small ball bounces down the metal stairs.
	Caused motion	A man pushes a cart on an uneven concrete ground. A man drags a sleeping bag down the stairs. A man tosses a key onto the floor. A man flies a paper airplane across the room. A woman rolls a basketball down the slope. A man drops an empty can down the stairs. A man hits a pingpong ball against the wall.
Filler		A woman opens an umbrella and rests it on her right shoulder. A man flips through pages of a book. A woman dials a rotary phone. A man closes a locker door. A man slams a notebook onto a desk.

The type of video scenes used were based on those prepared by Akita et al. [2010; Akita, Matsumoto (in press)], which contain various manners encompassing 11 human motion events (6 walking and 5 marked events), 14 object motion events (6 self-motion and 8 caused-motion events), and 5 non-motion fillers used for the participants' distraction. Since the set of videos

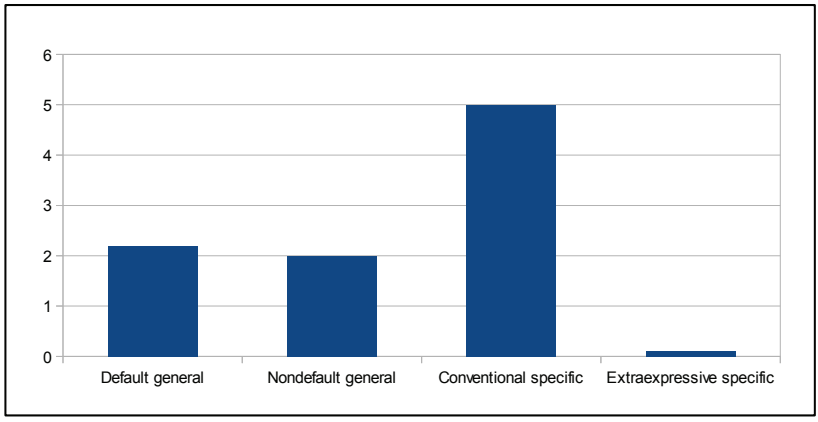
used by Akita and Matsumoto was not available for public use, we reconstructed the video clips based on the descriptions provided. On contrary to the previous experiments performed in the current study, in this experiment, 8 caused motions are also included in the video clips, which necessarily involve transitive verbs. After collecting the results, we categorized the manner expressions used by the study participants in due types, namely general vs. specific, default vs. non-default, and conventional vs. expressive, for further analysis and evaluation.

3.4.3. Results

As far as the overall frequency of the manner expressions used by participants is taken into account, it is revealed that Ilami speakers use all types of expressions, including general vs. specific, default vs. non-default, and conventional vs. expressive manner expressions. Figure 4 shows the overall frequency of all manner types used by Ilami Kurdish respondents.

Figure 4

Means of different manner types used by Ilami Kurdish participants



Reviewing Figure 4, we notice that manner expressions and manner verbs are used differently, as far as their type and token frequency is taken into account. As can be seen above, conventional specific expressions are widely used by Ilami participants, suggesting that Ilami Kurdish speakers tend to use more specific expressions to depict the motion scenes. This is likely to be due to the abundance of such items in Ilami Kurdish. Additionally, default general and non-default general manners have been used with a slight difference (2.2, or 21.67 % vs. 2.0, or 20.33 %) in the Ilami Kurdish dialect. Expressive specific constructions are less commonly used in Ilami Kurdish compared to other types, which is also the case in Japanese, as reported by Akita and Matsumoto. As they also point out, English participants have never used such expressions in their scene descriptions [Akita, Matsumoto (in press)]. In our Kurdish corpus, the few cases found are only used for self-motion events and in other domains there was no trace of them at all. Based on the data, it seems that reduplication is the most salient strategy to construct these forms. Examples of this type of manner are given below.

(34) tup-æ pəlu pəlu pəlu pəl xwɑrd-æ nɑm-ə zæmin-æ.
ball-DEF roll roll roll roll hit.PST.3SG-to into-EZ ground-DEF
'The ball rolls across the ground.'

(35) tup-æ tæqu tæqu tæq kæft-ɑw xwɑr.
ball-DEF rattle rattle rattle fall.PST.3SG-towards down
'The ball bounces down (the stairs).'

As can be seen above, in both examples, the informants have reduplicated the first parts of the adverbials (*pəl* and *tæq*) to form an expressive specific construction. Classified lists of the Ilami manner expressions and manner verbs (types and tokens) used by participants are given below:

a. General expressions (verbs; 9 types, 118 tokens):
re kərdən 'walk' (40), *i͡ʃəgən* 'go'(25), *baɭ dajən* 'cause to fly'(20), *dawəsən* 'run' (15), *pəl xwardən* 'roll'(6), *t͡ʃærxin* 'swirl' (5), *pærəsən* 'jump'(4), *pærin* 'jump'(2), *aw gəl xəsən* 'cause to roll' (1).

b. General expressions (adverbs; 2 types, 8 tokens):
wæ tən 'quickly' (5), *wæ jæwaʃ* 'silently' (3).

c. Specific expressions (verbs; 20 types, 117 tokens):
sər xwardən 'slip' (18), *rəzijan* 'fall off' (14), *xər xwardən* 'walk and search' (12), *gəl xwardən* 'roll' (12), *kəranən* 'drag' (12), *kiʃan* 'pull' (10), *dæɭæk dajən* 'push' (8), *pet͡ʃijan* 'turn' (7), *xəsən* 'drop' (6), *hæwa dajən* 'throw' (4), *pərd dajən* 'throw' (4), *aw re xəsən* 'cause to move' (2), *fərtæ kərdən* 'flee' (1), *gælæ ku kərdən* 'rush' (1), *ranin* 'haul' (1), *lez xwardən* 'slide' (1), *fəræ dajən* 'throw' (1), *gam najən* 'walk in a steady manner' (1), *waz gərtən* 'soar' (1), *dawr xwardən* 'turn' (1).

d. Specific expressions (adverbial or mimetics; 10 types, 37 tokens):
   i. Conventional (7 types, 34 tokens):
   təɭpæ 'plop' (20), *wæ rəmæ* 'noisily' (5), *wæ kəræ kər* 'skitter' (2), *wæ tupæ* 'noisily' (2), *təɭqæ* 'plop' (2), *be dæng* 'very quietly' (2), *wæ daw* 'rapidly' (1).
   ii. Expressive (3 types, 3 tokens):
   kəru kəru kər 'skitter'(1), *pəlu pəlu pəlu pəl* 'roll' (1), *tæqu tæqu tæq* 'fall noisily' (1).

4. Discussion

Part of Slobin's [2000] proposal on motion verbs is devoted to the manner component. He believes that satellite-framed languages usually encode rich and pervasive information about the manner of motion, stating that the richness of the manner in these languages is costless, since this slot must be filled anyway. However, he argues that this is not true in verb-framed languages, in which the encoding of manner typically results in a higher processing load. He says:

> "It is as if the availability of the combined slot for MOTION and MANNER in S-languages has encouraged speakers to elaborate the entries in this slot. There is no additional 'cost' to adding richer manner expressions, since the slot must be filled by some verb or other in order for a syntactically complete sentence to be produced. By contrast, the optional slot for MANNER expression in a V-language has some 'cost', in that it adds an element or phrase to the sentence. Thus it is retained for situations in which manner is truly at issue — because it is unexpected or unusual" [Slobin 2000: 113].

However, this assumption can justify only one aspect of manner salience in different languages. That is, it fails to fully explain the complexity of the manner component across languages. As shown in the present paper, in many cases in Ilami Kurdish, the manner component is encoded outside the main verb through adverbs, semi-adverbs, and preverbs; however, the path component is expressed externally, too. Therefore, evaluating manner salience on the basis of satellite-framing and verb-framing alone might be misleading, particularly in those languages in which manner is more flexibly expressed. Accordingly, it is not surprising that across satellite-framed languages, for example, some varieties are more manner-salient than others. Indeed, the findings of the current study show that Ilami Kurdish is more manner-salient than

English in part because Ilami Kurdish speakers systematically use several strategies for encoding the manner component:

1) regular filling of the manner slot in the verb stem;
2) attaching special morphemes and making new concepts (e.g. *pærin* → *æ[pærin*);
3) making new manner verbs by adding external parts (e.g. *gərtən* → *waz gərtən*; *t͡ʃəgən* → *wæ kukæ t͡ʃæmi t͡ʃəgən*);
4) using Farsi loanwords (e.g. *lez xwardən*, *d͡ʒombijan*);
5) using pairs of synonyms (e.g. *dær t͡ʃəgən* and *wajin*).

By using the strategies above, Ilami Kurdish speakers demonstrate their tendency to use the manner components in language practices. For example, if we calculate the meanings (rather than the lexemes) in the Ilami Kurdish corpus, the number of manner verbs will reduce significantly. This means that Ilami Kurdish speakers use different synonymous words for a rather similar concept, which highlights the diversity in the encoding of manner.

In addition to the linguistic factors mentioned above, we can explain the abundance of manner expressions from a geographical perspective. Ilami Kurdish and Persian are both Iranian languages, and they have been in contact for a long time. As long as Persian has been the official language of Iran, it has influenced Ilami Kurdish; consequently, Ilami Kurdish has borrowed a number of linguistic items from this language. Naturally, some of these linguistic items are manner expressions which are now used by Ilami speakers, even though Kurdish synonymous expressions exist in this dialect. This language contact and its effects on Ilami Kurdish have externally contributed to Ilami increasing its manner expressions, some of which were observed in the corpus. It should also be emphasized that the influence of Persian on Ilami Kurdish does not necessarily mean that Persian is richer than Ilami in terms of manner expressions, as the number of manner verbs are limited in Persian [Verkerk 2014]. In other words, this points to the tendency of Ilami Kurdish which lets it easily borrow manner expressions from other languages (see [Fanego 2012]) regardless of the manner salience in the donor language. A similar phenomenon of borrowing has also been reported for German. Out of 20 studied manner verbs, German has borrowed 6 from other Germanic languages, 12 from French and 2 from Italian [Verkerk 2014]. Moreover, there is also a socio-cultural tendency, among other factors, which seems to play a role in the abundance of manner expressions in Ilami Kurdish. For the speakers of this dialect, physical appearance of entities seems to be important, as may be the case in other languages, as well. The importance of physical appearance is reflected in language through numerous adjectives created specifically for this purpose. On the other hand, these adjectives have the potential to be frequently used as (semi)adverbs with encoded manner components in motion verbs. This fact certainly follows the economy principle in language, too. A more general verb such as *kərdən* ‘do’ can function as a morphological base for creating more fine-grained motion verbs using different semi-adverbial expressions (e.g. *gətæ gət* ‘slowly’, *xətæ xət* ‘slowly’ and *kukæ kuk* ‘with rounded shoulders’) which can remarkably increase manner types in this dialect.

5. Concluding remarks

This research was an attempt to determine how saliently Ilami Kurdish encodes manner of motion and which factors affect this salience. The study revealed that Ilami Kurdish takes various approaches to encode manner through verbs, (semi)adverbs, and affixes. Before measuring the level of manner elaboration, we attempted to introduce the relevant criteria concerning manner verbs in Ilami Kurdish. Following researchers such as Cardini [2008], Akita and Matsumoto [in press], and Slobin [2000], we counted several criteria highly compatible with Ilami Kurdish manner verbs. Then, in a contrastive, dictionary-based lexical survey, we determined that there is a remarkable number of manner verbs lexicalized for Ilami, and subsequently, we

compared the statistics to Italian and English data presented in [Cardini 2008]. We furthermore carried out several experimental trials to assess the ease of lexical access, and one video experiment to further examine the manner salience of Ilami observed in the dictionary-based lexical survey. All of these experiments numerically showed that Ilami Kurdish is a comparatively highly manner-salient dialect, due to the abundance of manner expressions readily used by respondents. It was also claimed that the typology of the path coding position can only partially explain manner salience in languages, as Ilami speakers regularly use various available capacities in their expression of the manner component, even ones that do not harmonize with the path coding position. It seems safe to conclude that manner salience can be also affected by such various factors as the socio-cultural background of the speakers, language contact phenomena and language-specific features that can potentially multiply manner expressions in language.

ABBREVIATIONS

1, 3 — 1st, 3rd person
ADV — adverbial
ART — article
DEF — definite
EZ — ezafe
F — feminine
IMP — imperative
INDEF — indefinite
M — masculine
OBJPRO — objective pronoun
PERF — perfect
PFV — perfective
PL — plural
PRS — present
PST — past
PTCP — participle
REFL — reflexive
SG — singular

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Appendix 1

Lists of manner verbs used by Ilami Kurdish, English and Italian children in Experiment 1. All observed in the dictionary-based lexical survey

Ilami Kurdish:
pærəsən 'jump', *re kərdən* 'walk' (30); *dæwəsən* 'run', *pəl xwardən* 'roll' (27); *wain* 'flee' (24); *t͡ʃærxin* 'swirl', *baɫ gərtən* 'fly' (21); *sərijan* 'creep' (14); *xər xwardən* 'walk and search' (11); *wær najən* 'go aimlessly' (9); *gəl xwardən* 'roll' (8); *pet͡ʃijan* 'turn', *d͡ʒəm xwardən* 'wag', *ʃəna kərdən* 'swim' (7); *ræqsin* 'dance', *sər xwardən* 'slip' (6*); gam najən* 'walk in a steady manner', *pærwaz kərdən* 'fly', *dawr gərtən* 'speed up', *xətæ xət kərdən* 'walk slowly'(3); *kukæ kuk kərdən* 'hobble', *dær t͡ʃəgən* 'escape', *tati kərdən* 'toddle', *sök xəsən* 'run and attack with shoulder', *waz gərtən* 'soar', *gaz gərtən* 'speed up', *gazanən* 'go speedily', *gæɫtaf gərtən* 'breakthrough', *ʃird͡ʒæ t͡ʃəgən* 'dive', *pa æɫxəsən* 'go quickly', *pær kiʃan* 'fly', *æɫpærəgæ kərdən* 'jump harmonically', *rəkaw kwətan* 'pedal', *d͡ʒəm xwardən* 'wiggle', *ʃælijan* 'hobble', *gærdin* 'roam', *gətæ gət kərdən* 'move slowly', *suwari dajən* 'ride' (1).

English [Cardini 2008]:
sprint (31); *walk* (30); *jog* (26); *jump* (25); *hop* (22); *skip* (20); *drive* (16); *fly* (14); *swim* (12); *crawl* (10); *bike* (9); *leap*, *roll* (7); *dance* (4); *climb*, *wobble* (3); *bounce*, *dive*, *paddle*, *skate*, *slide*, *spring*, *stagger* (2); *accelerate*, *creep*, *glide*, *pace*, *pedal*, *rattle*, *ride*, *sail*, *shoot*, *ski*, *sneak*, *stroll*, *stumble*, *zoom* (1).

Italian [Cardini 2008]:
camminare (22); *saltare* (16); *strisciare* (7); *ballare*, *nuotare*, *volare* (6); *arrampicar-e/si*, *rotolare*, *saltellare*, *scappare* (5); *pattinare*, *pedalare* (4); *gattonare*, *scorrere* (3); *danzare*, *galoppare*, *scattare*, *scivolare*, *zoppicare* (2); *barcollare*, *precipitare*, *ruzzolare*, *sgambettare*, *trottare*, *trotterellare* (1).

Appendix 2

Lists of manner verbs used by Ilami Kurdish, English and Italian adults, Experiment 1. All observed in the dictionary-based lexical survey. New Ilami verbs with respect to the children's list are given in bold

Ilami Kurdish:
pærəsən 'jump', *re kərdən* 'walk' (35); *sərijan* 'creep', *dæwəsən* 'run' (27); *pəl xwardən* 'roll' (24); ***fərtæ kərdən*** 'flee', ***firæ kərdən*** 'go angrily', ***guzæ kərdən*** 'scuttle' (13); *baɫ gərtən* 'fly', *dær t͡ʃəgən* 'escape', *wain* 'flee' (12); *gærdin* 'roam', *xər xwardən* 'walk and search' (8); *gəl xwardən* 'roll', *d͡ʒəm xwardən* 'wag', *ʃəna kərdən* 'swim', *ræqsin* 'dance' (7); *sər xwardən* 'slip', *gam najən* 'walk in a steady manner' (5); ***gælæ ku kərdən*** 'rush', *pet͡ʃijan* 'turn' (3); ***xənd͡ʒəgæ kərdən*** 'jump', *pærwaz kərdən* 'fly', *t͡ʃærxin* 'swirl', *dawr gərtən* 'speed up', *xətæ xət kərdən* 'walk slowly', *kukæ kuk kərdən* 'hobble', *waz gərtən* 'soar', (2); *sök xəsən* 'run and attack with shoulder', ***rəzæ t͡ʃəgən*** 'march', *gaz gərtən* 'speed up', *gazanən* 'go speedily', *ʃælijan* 'hobble', *gæɫtaf gərtən* 'breakthrough', *ʃirdʒæ t͡ʃəgən* 'dive', *pa æɫxəsən* 'go quickly', ***səpænd͡ʒ t͡ʃəgən*** 'move like a horse', *æɫpærəgæ kərdən* 'jump in a harmonic manner', *gətæ gət kərdən* 'move slowly', *suwari dajən* 'ride', ***paru dajən*** 'scull', *wær najən* 'go aimlessly', *tati kərdən* 'toddle', ***qəngæ xəʃi kərdən*** 'scramble', ***gənd͡ʒ gərtən*** 'jump and stand on two legs (used for animals)' (1).

English [Cardini 2008]:
walk (29); *fly*, *jump* (17); *hop*, *skip* (13); *crawl*, *drive*, *swim* (10); *jog* (9); *slide* (6); *ride* (5); *cycle*, *gallop*, *glide*, *speed*, *stroll*, *wander* (4); *bounce*, *dash*, *leap*, *race*, *rush*, *saunter*, *shoot*, *slither*, *sprint*, *trot* (3); *canter*, *climb*, *dance*, *hurry*, *row*, *stagger*, *step*, *stomp*, *stride*, *swing*, *tiptoe*, *zip* (2); *accelerate*, *amble*, *belt*, *creep*, *dive*, *ease*, *gambol*, *limp*, *mince*, *pace*, *paddle*, *potter*, *pounce*, *rocket*, *scamper*, *scurry*, *scuttle*, *shuffle*, *ski*, *slip*, *trudge*, *waddle*, *wobble*, *zigzag* (1).

Italian [Cardini 2008]:
camminare (16); *saltare* (12); *nuotare* (10); *volare* (8); *passeggiare*, *sciare* (6); *galoppare*, *pedalare*, *strisciare* (5); *marciare*, *rotolare*, *scivolare*, *trottare* (4); *cavalcare*, *navigare*, *pattinare*, *precipitarsi* (3); *arrampicare*, *schettinare*, *vogare* (2); *balzare*, *caracollare*, *fiondarsi*, *montare*, *remare*, *rimbalzare*, *saettare*, *saltellare*, *scappare*, *serpeggiare*, *sfarfallare*, *slittare*, *spaziare*, *svolazzare*, *trotterellare*, *veleggiare* (1).

Appendix 3

Lists of manner verbs used by Ilami Kurdish, English and Italian adults, Experiment 2.
All observed in the dictionary-based lexical survey

Ilami Kurdish:
re kərdən ‘walk’ (33); *pærəsən* ‘jump’, *wain* ‘flee’ (23); *dæwəsən* ‘run’ (22); *sərijan* ‘creep’ (21); *fərtæ kərdən* ‘flee’, *pəl xwardən* ‘roll’ (19); *baɫ gərtən* ‘fly’, *dær t͡ʃəgən* ‘escape’, (16); *t͡ʃærxin* ‘swirl’ (15); *xər xwardən* ‘rotate’, *gærdin* ‘roam’, *gəl xwardən* ‘roll’ (10); *d͡ʒəm xwardən* ‘wag’, *ʃəna kərdən* ‘swim’ (5); *gaməɫæ kərdən* ‘crawl’, *ræqsin* ‘dance’, *lez gərtən* ‘go to the nest’, *lez xwardən* ‘slide’, *sər xwardən* ‘slip’, *gam najən* ‘walk in a steady manner’, *gælæ ku kərdən* ‘rush’, *pet͡ʃijan* ‘turn’ (4); *xənd͡ʒəgæ kərdən* ‘jump’, *hæɫfanən* ‘run violently’ (3); *gətæ gət kərdən* ‘move slowly’, *gæz dajən* ‘move aimlessly’, *xətæ xət kərdən* ‘walk slowly’, *kukæ kuk kərdən* ‘hobble’, *sök xəsən* ‘run and attack with shoulder’, *waz gərtən* ‘soar’, *gaz gərtən* ‘speed up’, *rəkaw kwətan* ‘pedal’, *gazanən* ‘go speedily’ (2); *gæɫtaf gərtən* ‘breakthrough’, *pærwaz kərdən* ‘fly’, *ʃird͡ʒæ t͡ʃəgən* ‘dive’, *pa æɫxəsən* ‘go quickly’, *həd͡ʒum bərdən* ‘rush’, *sinæ xiz t͡ʃəgən* ‘crawl’, *suwari dajən* ‘ride’, *wær najən* ‘go aimlessly’, *paru dajən* ‘scull’, *səpænd͡ʒ t͡ʃəgən* ‘walk like a horse’, *gənd͡ʒ gərtən* ‘jump and stand on two legs (used for animals)’, *viraʒ t͡ʃəgən* ‘go speedily’, *qæɫw bijən* ‘turn’, *gələ pəl kərdən* ‘tumble’, *peʃtæɫpəʃt t͡ʃəgən* ‘go backwards’, *rəʒæ t͡ʃəgən* ‘march’, *wæ nök t͡ʃəgən* ‘move boringly’, *tati kərdən* ‘toddle’, *hez gərtən* ‘leave the ground’, *la gərtən* ‘move to left or right’, *ʃæləgæ ʃæli kərdən* ‘stagger’, *guzæ kərdən* ‘scuttle’ (1).

English [Cardini 2008]:
run (34); *jump* (29); *walk* (28); *swim* (17); *dance*, *skip* (16); *hop*, *jog* (14); *fly* (12); *leap*, *sprint* (9); *drive* (7); *crawl* (6); *bounce*, *climb*, *roll* (5); *cycle*, *slide* (4); *canter*, *skate*, *spin*, *step*, *swing* (3); *dive*, *glide*, *hurry*, *race*, *ride*, *row*, *shimmy*, *stroll* (2); *back-flip*, *bound*, *chase*, *flick*, *flow*, *gallop*, *hike*, *jive*, *limp*, *pace*, *pounce*, *prance*, *rattle*, *rush*, *saltate*, *shuffle*, *sidle*, *ski*, *slither*, *splash*, *spring*, *stagger*, *stamp*, *stumble*, *stunt*, *surf*, *trot*, *tumble*, *wander*, *wobble* (1).

Italian [Cardini 2008]:
correre (31); *camminare* (25); *saltare* (22); *nuotare* (15); *volare* (12); *ballare* (6); *scivolare* (5); *rotolare*, *sciare* (4); *accelerare*, *passeggiare* (3); *fuggire*, *pattinare*, *saltellare*, *scappare* (2); *affrettarsi*, *arrampicarsi*, *circumnavigare*, *deambulare*, *galoppare*, *marciare*, *pedalare*, *rimbalzare*, *sbandare*, *scattare*, *schizzare*, *scorrere*, *sfrecciare*, *slittare*, *strisciare*, *trottare*, *trotterellare*, *zoppicare* (1).

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