Verbs of motion and location in Irish Sign Language have a characteristic lexicalization pattern, which influences the lexical choices signers make in denoting the motion and location of entities. Perceived characteristics of referents govern the type of verb root selected. Animate and inanimate referents are signified by different types of verb roots. Lexical choice is also influenced by the particular aspect of the motion event that signers wish to emphasize. Signers use plain verbs or stems that combine with manner of locomotion movements to describe the action in "close-up" terms. If the action is placed in a wider spatial environment, signers use verb stems that can combine with movements indicating motion paths. Frequently, signers use serial verb constructions to refer to motion events. The particular choices made by signers are associated with the roles they adopt in narratives. Verbs that represent a "close-up" of the action are associated with a participant role; those that represent a "long view" of the action are associated with an observer role. (MSE)
How Snowmen Move: Some Aspects of Lexical Choice in Irish Sign Language

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Introduction

In this article I want to discuss a category of verbs in Irish Sign Language which are used to denote the motion or the location of objects. But before moving on to verbs of motion and location in Irish Sign Language I would like to refer briefly to verbs of motion and location in other languages and in particular to the analysis proposed by Talmy (1985).

Firstly, therefore, I will briefly describe the kind of analysis used by Talmy and I will show where verbs of motion and location in Irish Sign Language might fit into that framework. Secondly, I will discuss how an analysis of the kind proposed by Talmy can help us to account for the lexical choices made by signers in Irish Sign Language when they refer to the motion and location of objects. I will suggest that the choices which signers make are linked to different roles which signers can adopt. In telling a story for example, signers often switch between the role of observer and the role of participant. The choice of role is closely associated with those aspects of motion or location which signers wish to emphasise. Finally, I will briefly discuss restrictions on morphological combinations imposed by certain verbs of motion and location.

Lexicalisation patterns in languages

Talmy refers to both movement and location as a motion event. Sentences (1) and (2) both refer to motion events.

(1) The snowball rolled down the hill
(2) The snowman stood in the garden

A motion event contains several different kinds of information or elements. According to Talmy a typical motion event consists of the following elements:-
the movement or the location of an object: Motion (move/be L)
an object that moves or is located: Figure
a background against which the object moves or is located: Ground
a path where the object moves or a site where it is located: Path
an external feature: Manner / Cause

We can identify these elements in sentences (3) and (4).

(3) The boy lay on the bed
    Figure Motion+Manner Path Ground

(4) The snow blew into the hall
    Figure Motion+Cause Path Ground

We can see that different elements are found in different parts of these sentences but as I have said, we are concerned with the verbs. We notice that in English, information about Motion and Manner/Cause is packaged in the verbs. Talmy finds that this is a consistent pattern for the expression of Motion in English whereby English verbs typically conflate (to use Talmy's term) Motion and Manner/Cause. This lexicalisation pattern is evident in examples (5) - (10) and is illustrated in Figure 1.

(5) The lamp leaned against the wall (be L + Manner)
(6) The rock bounced down the hill (move + Manner)
(7) Keane kicked the ball across the field (move + Cause)
(8) I twisted the cork out of the bottle (move + Manner)
(9) I stumbled down the stairs (move + Manner)
(10) I hammered the nail into the board with a mallet (move + Cause)

Figure Motion Path Ground Manner/Cause
    move
    be L

Figure 1 (Figure 2.1 in Talmy, op. cit., 62)
Other languages have a different lexicalisation pattern. In expressing Motion, verbs in Spanish conflate Motion and Path rather than Motion and Manner/Cause. This pattern is clear in examples (11) - (16) and is illustrated in Figure 2.

(11) entrar: move-in
(12) salir: move-out
(13) pasar: move-past/through
(14) subir: move-up
(15) bajar: move-down
(16) volvix: move-back
(Adapted from Talmy, 69-70)

<table>
<thead>
<tr>
<th>Figure</th>
<th>Motion</th>
<th>Path</th>
<th>Ground</th>
<th>Manner / Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>move</td>
<td>be L</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2 (Figure 2.2 in Talmy, 69)

A third lexicalisation pattern is found in Atsugewi, a language of northern California. In this language Motion is conflated with Figure as shown in the verb roots (17) - (22)

(17) -t'- small flat entity (e.g. stamp, cloth patch, button) move/be-located
(18) -lup- small shiny spherical entity (e.g. eyeball, hailstone, round sweet) move/be-located
(19) -caq- slimy lump-like entity (e.g. toad, cowpat) move/be-located
(20) -swal- limp linear entity (e.g. a hanging dead rabbit, a shirt on a clothesline) move/be-located
(21) -qput- loose dry dirt move/be-located
(22) -staq- runny icky entity (e.g. mud, rotten tomatoes, guts, manure) move/be-located
(Adapted from Talmy, 73)

In Atsugewi, these verb roots combine with other grammatical features to express events of motion or location. Talmy (p. 74) gives the following example:

' - w- - a 3rd person subject
uh- as a result of an object's own weight
The sequence /-w-uh-staq-ik- a/ is realised as [wostaqika] (23).

(23) Literally: Runny icky material is located on the ground from its own weight acting on it
'Guts are lying on the ground'

The typical lexicalisation pattern in Atsugewi is illustrated in Figure 3.

Talmy claims that these are three basic lexicalisation patterns for Motion verbs and that all languages accommodate to one or other of these patterns. In the next section we will examine the lexicalisation patterns of verbs of motion and location in Irish Sign Language and show where they might fit in Talmy's framework.

**Lexicalisation patterns in Irish Sign Language**

Sentence (24) contains a typical example of a verb of motion in Irish Sign Language; (25) contains an example of a verb of location. According to Talmy's analysis both (24) and (25) denote a motion event.

(24) V-CL + (c+PATH+f) OUT^FOR
(The boy) went outside

(25) COUNTRY HOUSE FAR 3D-ENTITY-CL + (BE-LOCATED+fr)
The house was situated in the middle of the countryside

![Diagram of motion and location signs]
Researchers in other sign languages have identified verb forms similar to those in examples (24) and (25). There is general agreement among researchers that verb forms of this kind have two main components - a hand configuration component and a movement component. Hand configuration refers to the shape and orientation of the hand(s); movement refers to the movement or location of the hand(s) in signing space. In examples (24) and (25) the movement component is placed in brackets to show the features that co-occur with a particular hand configuration.

Let us look at example (24) in more detail. V-CL is the hand configuration component. V refers to the V handshape which in Irish Sign Language denotes entities that are animate and saliently two-legged; CL indicates this classifying function. In (25) the handshape denotes a three-dimensional entity.

The movement component in example (24) consists of three features - a locus 'c', a movement, glossed as PATH, and a second locus, 'f'. The direction of the PATH movement is determined by the relative positions of the two loci. While PATH is executed by the dominant hand moving through signing space from 'c' to 'f', BE-LOCATED in (25) is executed by moving the hand to the locus 'fr', the movement being characterised by an abrupt end or 'stamping' feature.

A locus is a characteristic grammatical feature of sign languages and at this point it would be useful to give a very brief definition; more detailed discussion can be found in Liddell (1990) and Engberg-Pedersen (1993). Firstly, a locus may be a point, an area or a particular direction in signing space. Usually, points or areas in signing space refer to the idea of location; directions are frequently, but not always, associated with the idea of motion. Secondly, a locus is identified as being in contrast with other loci. The locus we have identified as 'c' represents the sender locus and signifies a location in contact with or close to the signer. Other loci may be described as forward (f), forward right (fr), forward left (fl), sideward right (sr) and sideward left (sl). These are loci on a horizontal plane. There are also loci on a vertical plane. The locus 'hi' represents a significantly high location in signing space relative to a neutral location (i.e. at chest level); 'lo' represents a relatively low location.

An important issue to be considered here is the identification of the verb root in verbs of motion and location. Do we look for the verb root in the hand configuration component or in the movement component? There has been considerable disagreement among researchers on this point. McDonald (1983) and Engberg-Pedersen (1993), for example, argue that
the verb root is to be found in the hand configuration component; Supalla (1978, 1986) concludes that the movement component incorporates the verb root.

Although we might expect to find the verb root in the movement element the argument that the verb root is incorporated in the movement component creates a major problem. The same type of movement can signify different meanings. A linear movement, for example, can denote an entity's own motion (26), the motion caused by an agent (27), the distribution of an entity (28), or the extent of an entity (29). The particular meaning that is expressed depends on the specific hand configuration with which the movement is combined. For the purpose of illustration in the examples below, the linear movement is glossed as '-line'. The gloss in example (29) is given on two lines to signify the action of the two hands as articulators, the top line representing the primary articulator.

(26) V-CL + ('motion'-line+sr)
(A person) moved away

(27) HANDLE-SMALL-ENTITY-CL + ('motion caused by agent'-line+sr)
(Someone) moved a bead along

(28) TWO-DIMENSIONAL-ENTITY-CL + ('distribution'-line+sr)
(The books) were on the shelf

(29) BROAD-FLAT-ENTITY-CL + ('extent'-line+sr)
VERTICAL-2D-ENTITY-CL + (hold -----------)
The shelf was at right angles to the wall ...

Examples (26) - (29) suggest that the hand configuration has a controlling influence on the meaning of the verb and that the movement component derives its meaning from the particular hand configuration with which it combines. Thus, the hand configuration component should be seen as
How snowmen move: some aspects of lexical choice in ISL

incorporating the verb root. In terms of this analysis, hand configurations therefore incorporate classificatory and predicative features and configurations such as V-CL and 3D-ENTITY-CL are best described as verb stems (Engberg-Pedersen, 1993).

The following are typical examples of stems in Irish Sign Language which incorporate both classificatory and predicative meaning:

Index-CL: Vertical one dimensional animate entity (e.g. a person)
V-CL: Saliently two-legged animate entity (e.g. a person)
Multiple-animate-entity-CL: e.g. a group of people - move/be located
Cylindrical-entity-CL: e.g. a tumbler - move/be located
Long-thin-vertical-entity-CL: e.g. a pole - move/be located
Flat-surface-entity-CL: e.g. a board - move/be located
Three dimensional entity-CL: e.g. a rock - move/be located
Vertical-two-dimensional-entity-CL: e.g. a book - move/be located

I want now to consider further expressions of motion and location in Irish Sign Language. The following examples (30) - (35) are taken from data which has been gathered as part of an on-going research project:

(30) CYLINDRICAL-ENTITY-CL + (BE-LOCATED+fr)
There was a tumbler there / in that location

(31) V-CL + (C+PATH+hi/f)
(The boy) went upstairs

(32) (D : name sign) INDEX-CL + (fr+PATH-arc+c)
D---- came in/came here

(33) MULTIPLE-ENTITY-CL + (fr+PATH+fl)
(We all) went in there
We can now consider where these verbs of motion and location fit into Talmy's framework. We have already proposed that the verb root is incorporated in the hand configuration feature and that predication is only realised when hand configuration combines with movement features which provide information about Path and/or Ground. The lexicalisation pattern in Irish Sign Language is therefore similar to the pattern in Atsugewi. In the expression of Motion in Irish Sign Language the verb roots conflate Figure with Motion, as shown in examples (35) and (36) and in Figure 4:

(35) CYLINDRICAL-ENTITY-CL + BE-LOCATED + fr  
Figure+Motion Path Ground  
There was a tumbler there / in that location

(36) V-CL + PATH + c + hi / f  
Figure+Motion Path Ground  
(The boy) went upstairs

Figure 4

Implications for lexical choice among ISL users
A pattern which conflates Figure and Motion has interesting effects on lexical choice among Irish Sign Language users. But before moving on to consider lexical choice I should say something about the source of the next series of examples. Fluent ISL signers agreed to narrate Raymond Briggs'
story, 'The Snowman'. In such a narrative the snowman is an interesting entity since in some contexts it is just a heap of snow with a roughly human-like shape while in other contexts it acquires characteristics which enable it to behave and act like a real person. In some circumstances therefore, the snowman might be perceived as an inanimate entity and in other circumstances as an animate entity. This possibility had a significant effect on the lexical choices which signers made and which are illustrated in examples (37) and (38).

In (37) the narrator first describes how the snowman stepped forward. In this context the snowman is perceived to be an animate entity. Then, in an aside, the narrator makes the comment, 'I don't know how it did so - but it moved', referring to the snowman in its inanimate state. In the second example, (38), a different narrator uses the same patterns.

(37) \[ \text{WHITE\textsuperscript{\textsc{man}}} \text{ FEET-CL+IMIT: move in steps / DON'T-KNOW HOW} \]

\[
\begin{align*}
\text{FEET-CL+IMIT: move in steps / 3D-GENERAL-ENTITY-CL + (sl+PATH+sr)} \\
\text{3D-GENERAL-ENTITY-CL + (sl+PATH+sr)}
\end{align*}
\]

The snowman stepped forward - I don't know how it did so - but it moved

[The gloss IMIT: refers to a type of motion which is "a stylised imitation of real-world action" (Schick, 1990, 17)]

(38) \[ \text{BOY c+LOOK-AT+f / NOTHING FEET-CL+IMIT: move in steps /} \]

\[
\begin{align*}
\text{3D-GENERAL-ENTITY-CL+(sr+PATH+sl+PATH+neu) STAY} \\
\text{3D-GENERAL-ENTITY-CL+(sr+PATH+sl+PATH+neu)}
\end{align*}
\]

STAND-STILL

The boy looked at (the snowman). It had not moved at all. It was still in the same position, motionless.
I now want to move on to a different aspect of lexical choice in Irish Sign Language. In utterances (39) - (40) the narrators describe how the snowman moved.

The signers are referring to the same general type of motion event but each has chosen to highlight a different aspect of that event. In the next example, (39), the narrator focuses on specifics of the action, that is, the manner of locomotion - 'stepping'.

(39) SNOW^MAN FEET-CL + (IMIT: move in steps)
The snowman stepped (forward).

In (40) the narrator refers to the action in a more general way. This predicate has a distancing effect so that the action is placed in a wider frame of reference.

(40) WHITE^MAN V-CL + (fr+PATH+c)
The snowman came forward.

In fact these two examples illustrate two broad choices that signers can make when they describe motion events. There is one predicate choice which offers a 'close-up' view of the action and there is another choice which incorporates the wider spatial environment in which the action occurs. These two choices are also linked with another important feature: restrictions on combining certain movement components with certain hand configurations. Stems such as Feet-CL can combine with movement elements which denote manner of locomotion but not with elements which denote motion paths. On the other hand stems such as V-CL can combine with movements which refer to motion paths but not with movements which refer to manner of locomotion.
Therefore, when signers wish to provide information about the manner of locomotion and the path of motion, a serial verb construction is necessary (see Supalla, 1990). Serial verb constructions are illustrated in examples (41) - (44).

(41) **BOY RUN V-CL + (c+PATH+f)**

The boy ran forward.

(42) **RUN V-CL + (hi / c+PATH+lo / f)** ...

(The boy) rushed downstairs ...

(43) **RUN c+IGNORE+fl MOTHER^FATHER (-fl) ... INDEX-CL+(sr+PATH+sl)**

RUN / OPEN-DOOR

(The boy) hurried out, ignoring his parents. He ran past and opened the door.

(44) **BOY RUN V-CL + (hi / c+PATH+neu) YARD**

The boy rushed down to the yard.

In examples (41) - (44) above, two different types of verbs are used to refer to motion. One type, as we have described already, offers a distanced view of the action and consists of a hand configuration component (V-CL and Index-CL in the above examples) and a movement component which refers to a motion path. The second type, which is glossed as **RUN**, expresses a close-up perspective on the action and refers to manner of locomotion.

**RUN** belongs to a small group of verbs in Irish Sign Language which share certain phonological and semantic properties. Other verbs of this kind which occur in the data are **STAND-STILL, WAIT, and STAND-**
WITH-HANDS-ON-HIPS. In semantic terms these verbs refer to motion and location; in phonological terms, the signer's body has a function that can be compared to the function of the non-dominant hand in the production of 'manual' signs such as ARRIVE, BELIEVE and STOP.

In morphological terms verbs such as RUN, WAIT and STAND-STILL differ from the verb roots we have discussed and are best analysed as plain verbs, that is verbs which do not accept agreement affixes. As such, they differ from verbs such as V-CL + (PATH+sr) which do take locative agreement. However, a verb such as RUN can be modified by non-manual features. The non-manual feature 'ee', signifying 'with effort', modifies RUN in example (44).

In terms of Talmy's analysis however, both RUN and V-CL + (PATH+sr) have the same lexicalisation pattern. Both verbs conflate Figure and Motion. In verbs such as RUN, WAIT and STAND-STILL, Figure is expressed through general body posture and through the disposition of the signer's arms and hands.

**Perspectives in narrative discourse**

Signers frequently use a serial verb construction to describe a motion event. This strategy enables signers to describe the event from different perspectives and in their narratives signers may switch from one perspective to another. Particular perspectives are expressed through the roles which signers can adopt. In examples (41) - (44) above, signers switch between the role of narrator and that of participant.

The narrator role creates a distancing effect, the participant role a close-up effect. Each perspective is associated with particular kinds of verbs. The choice of a verb root such as V-CL or Index-CL creates a distancing effect and permits a signer to situate the action in a particular environment. These roots can take locative affixes which are used to express spatial features such as location in space, presence or absence of movement, direction of movement and so on.

Plain verbs such as RUN or WALK do not accept locative affixes and therefore cannot be used to express location or direction of motion. However, they do allow signers to provide detailed information about the manner of locomotion. The inclusion of non-manual features permits signers to indicate that a person runs 'with ease' or 'with effort', walks 'nonchalantly' or 'determinedly'. Example (45) illustrates how manual and non-manual articulation is carefully co-ordinated. (The 'whq' gloss refers to a set of non-manual features which denote wh-questions.)
Conclusion

Verbs of motion and location in Irish Sign Language have a characteristic lexicalisation pattern. These verbs conflate Motion and Figure. A lexicalisation pattern of this kind influences the lexical choices which signers make in denoting the motion and location of entities. Perceived characteristics of referents govern the type of verb root that is selected. Animate and inanimate referents, for example, are signified by different types of verb roots.

Lexical choice is also influenced by the particular aspect of the motion event which signers wish to emphasise. Signers use plain verbs or stems which combine with manner of locomotion movements to describe the action in 'close-up' terms. If the action is placed in a wider spatial environment signers use verb stems which can combine with movements indicating motion paths. Frequently, signers use serial verb constructions to refer to motion events.

The particular choices made by signers are associated with the roles which they adopt in narratives. Verbs which represent a 'close-up' of the action are associated with a participant role; verbs which represent a 'long view' of the action are associated with an observer role.

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References
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