Motion Verbs in Italian and the Manner/Direction Complementarity

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Abstract

This paper presents an empirical analysis of Italian directed motion verbs and manner of motion verbs; the research is based on a lexical resource of 234 verbs subdivided into six classes. Directed motion verbs are analysed according to their argument structure and to the type of path PP they take: both source and goal PPs, only source PPs or only goal PPs. Furthermore, I have highlighted how the morphological, distributional and semantic properties of these verbs have an impact on their argument structure.

Manner of motion verbs are analysed according to their unaccusative/unergative structure and on the semantic components they entail: only Manner or Manner and Direction. Analysis of the data shows that the semantics of both types of motion verbs depends in many cases on the distributional context in which they occur. As a result, it is not always an easy task to generalize the semantic components the verbs lexicalize. The Italian data also show that, contrary to the hypothesis proposed by Rappaport Hovav & Levin (2010) and Levin & Rappaport Hovav (2013) on the opposition between manner and direction, a subset of Italian motion verbs encodes both manner and direction. Moreover, the Italian lexicon shows an abundance of manner of motion verbs that can resort to a *satellite-framed* strategy, suggesting that the clearcut opposition between *satellite-framed* and *verb-framed* languages claimed in Talmy (1985) boils down to a tendency.

Keywords: Directed motion verbs, Manner of motion verbs, Directed manner of motion verbs, Source PP, Goal PP.

1. Introduction

The aim of this article is to show that the lexicon of Italian motion verbs includes not only directed motion verbs (*andare* 'go') and manner of motion verbs (*camminare* 'walk'), but

also manner of motion verbs that entail direction, that is, directed manner of motion verbs (*ruzzolare* 'tumble'). Examination of the data shows that the opposition between manner and direction hypothesised in Rappaport Hovav & Levin (2010) and Levin & Rappaport Hovav (2013) does not hold in Italian, whereas it totally supports Goldberg (2010) and Beavers & Koontz-Garboden (2012, 2017) who argue that a subset of manner of motion verbs also encode direction.

The analysis I present is based on a taxonomy of Italian motion verbs that I constructed on the basis of a lexical resource of about 234 verbs subdivided into six classes. I adopted the principles and criteria of the Lexicon-grammar (LG) methodology, developed by Maurice Gross since the early 1970s. The aim of LG consists in the construction of taxonomies of syntactic and semantic classes of predicative lexical items (Gross 1975, Boons 1987).

In particular, I have examined directed motion verbs like *entrare* 'enter, go in', *tornare* 'go back', *uscire* 'go out' on the basis of their elementary structure, i.e. determining the type and number of argumental PPs they take. The data show also that the semantics encoded in directed motion verbs is in many cases dependent on the distributional context in which they occur, which means it is not always possible to generalize the semantics characterizing motion verbs.

As regards manner of motion verbs, I have investigated: (a) unergative verbs like *vagabondare* 'wander' and *nuotare* 'swim', which do not entail the direction component (although the latter can express direction by means of a PP headed by a complex preposition); (b) verbs like *correre* 'run', which only entail manner when unergative (auxiliary HAVE) but entail manner and direction when unaccusative (auxiliary BE); (c) unaccusative-only verbs like *capitombolare* 'tumble', *scappare* 'escape, run', which entail manner and direction. In analysing them, I have taken into account not only their unergative and/or unaccusative argument structure but also their aspectual properties when needed.

Throughout the analysis I also consider those syntactic and semantic properties that highlight differences even among verbs within the same class, which depends on their distributional context and on the semantic information the verbs encode. Moreover, the morphological structure of some verbs may impact the type of arguments they take.

The data on which my research is based is drawn mainly from Italian dictionaries (Devoto-Oli, De Mauro, Zingarelli, Treccani online) and from the Italian Web Corpus 2020 accessible through the application Sketch Engine (www.sketchengine.eu). The 234 verbs I collected and analysed is a significant sample of motion verbs although it is not intended to be exhaustive. The taxonomy includes some motion verbs that show both an intransitive (pronominal) and a caused motion construction. (Note 1) The acceptability judgments on sentences are mine and, in the event of any doubts I searched the Italian Web Corpus.

This article is structured as follows. In Section 2, I will present the typological distinction between *satellite-framed* and *verb-framed* languages made by Talmy (1975, 1985, 2000), the hypothesis advanced by Rappaport Hovav & Levin (2010) and Levin & Rappaport Hovav (2013) about the complementarity of Manner and Result and the counterarguments advanced

by Goldberg (2010) and Beavers & Koontz-Garboden (2012, 2017). In Section 3, I present the classification of directed motion verbs which fall into three classes according to their definitional elementary structure, thus taking both source and goal PPs, only source PPs or only goal PPs (Note 2). I will also point out that although verbs included in the same class share the elementary structure, they may display semantic differences due to the distributional context within which they occur. In Section 4, I present the classification of manner of motion verbs, which fall into three main classes according to the unergative and/or unaccusative structure they show and according to the manner and direction components they entail. Section 5 draws some conclusions, while the Appendix includes the Lexicon-grammar tables of each class. (Note 3)

In the literature, path verbs and directed motion verbs (or directional verbs of motion) often refer to the same object of analysis (Note 4). I will adopt the term 'directed motion verbs', as in Rappaport Hovav & Levin (2010) and Levin & Rappaport Hovav (2013). However, I will often use either Direction or Path in accordance with the terminology adopted by the authors I cite throughout the paper.

2. Background

Talmy (1975, 1985, 2000) defines a motion event as being formed of the components Figure, Motion, Ground and Path, that is, an entity moving with respect to a reference point along a Path. He also states that a Motion event can conflate with a semantic component that conveys information about manner, i.e., a co-event, as in the sentence *The rock bounced down the hill* and *I ran my way down the stairs* (Talmy 1985: 28). Furthermore, Talmy proposes a typological distinction between *satellite-framed* (s-framed) languages (Germanic languages as well as Japanese and Korean) and *verb-framed* (v-framed) languages (Romance and Chinese). In s-framed languages verbs conflate Manner and Motion while a satellite element (particle, prefix) (Note 5) encodes Path information within a single clause, as in (1). In v-framed languages, on the other hand, verbs conflate Motion and Path, while Manner is expressed in a subordinate clause as in (2)-(4). Therefore, sentence (5) does not encode any Path information in Italian, since the PP *nella grotta* 'in the cave' is an adjunct that denotes the location (and not the goal) of the event. The same happens in Spanish (3) and French (4). The English sentence (6) - the counterpart of (2) - is grammatical in English but its use is less frequent than (1). Since the encoding of Manner outside the main clause imposes greater processing demands, speakers of s-framed language show infrequent use of sentences like (4), while speakers of v-framed languages tend to leave out Manner from their description of Motion (Slobin 1991; Özçalışkan & Slobin 1999, 2003, Madlener-Charpentier & Liste Lamas 2022):

1. The bottle floated into the cave

2. La bottiglia entrò   nella   grotta   galleggiando

    The bottle   enter.PST.3SG in.the   cave   float.GER

    'The bottle entered the cave floating'

3. La botella entrò a la cueva flotando

4. La bouteille est entrée dans la grotte en flottant

5. La bottiglia   galleggiò   nella   grotta

    The bottle   float.PST.3SG   in.the   cave

    'The bottle floated into the cave'

6. The bottle entered the cave floating

According to Talmy's typology, s-framed and v-framed languages show distinct lexicalization patterns of motion: the lexicons of the former are rich in manner of motion verbs and particle verbs, while the lexicons of the latter have few such verbs. Higginbotham (2009:118) refers to s-framed languages as '*give up*', '*come in*' languages and to v-framed languages as '*resign*', '*exit*' languages.

Nonetheless, numerous studies have raised objections to Talmy's binary distinction, such as Slobin (2004), Zlatev & Yangklang (2004), Fàbregas (2007), Beavers *et al.* (2010), Filipovic & Ibarretxe (2015) and Levin & Rappaport Hovav (2019), among others. Moreover, it has been pointed out that, among Romance languages, Italian is not a typical v-framed language since it shows s-framed constructions (Schwarze 1985; Simone 1997; Iacobini & Masini 2006, 2007; Iacobini & Vergaro 2012). Folli (2008: 198) states that "the crucial thing for Talmy is that languages like English prefer to express the path and the goal of motion in prepositional phrases or verbal particles. This is contrary to what happens in Italian, where the broad use of verbs like *enter, exit* to express the goal of motion is an indication of the *verb-framed* nature of this language". For example, the counterpart of the Italian construction *Gianni è entrato nella stanza* (lit. Gianni-is-entered-in.the-room) in English would be *Gianni came into the room* rather than *Gianni entered the room*. However, Folli (2008: 198) suggests considering Talmy's distinction as a tendency rather than a binary distinction and shows that Italian can resort to a *satellite-framed* strategy to express the goal of motion.

Rappaport Hovav & Levin (2010:7) affirm that even though Talmy does not state it explicitly, motion verbs fall into either directed motion verbs (*arrive, ascend, enter*) or manner of motion verbs (*amble, dance, jog, run*); the authors develop the notions of scalar and nonscalar change which are claimed to be in complementary distribution (see also McClure 1994, Rappaport Hovav 2008). According to Rappaport Hovav & Levin (2010: 9), a root can only lexicalize either direction or manner. Directed motion verbs are verbs of scalar change since "the points constituting the scale in the motion domain are a set of contiguous locations which together form a path. […]. In order for the lexicalized path to constitute a scale, its points must be ordered". Verbs like *ascend, descend, fall* and *rise* fully lexicalize direction of motion (with or against the direction of gravity). Furthermore, for verbs like *arrive* and *enter* the points on the path are ordered as closer to the reference object, while for verbs like *leave* and *exit* the points on the path are ordered as further away from the reference object. Rappaport Hovav & Levin (2010: 9-10, 12) claim that directed motion verbs fall into two classes: those associated with two-point scales such as *arrive* are true achievements and the

transition from one value to the other is conceptualized as instantaneous (Beavers 2008). Those associated with multiple-point scales are named 'degree achievements' or 'gradual change' verbs. Verbs like *advance, descend, fall, recede* and *rise* all describe the gradual traversal of a path. Multiple-point scales can be subdivided into verbs that lexicalize a bounded path (closed scales), such as *come* and *return,* and those that lexicalize an unbounded path (open scales), such as *descend* and *rise*. (Note 6)

On the other hand, manner of motion verbs lexicalize nonscalar change. Verbs like *run* and *walk* involve two different and specific patterns of movement of legs and specify a sequence of changes, although "collectively these changes do not represent a change in the values of a single attribute, nor is any one element in the sequence of changes privileged as being the necessary starting point of motion". Rappaport Hovav & Levin (2010) claim that scalar verbs (directed motion) and nonscalar verbs (manner of motion) are in complementary distribution. (Note 7)

Goldberg (2010) argues against this opposition since this generalization is not exceptionless and she points out that "*scale* as in *She scaled the mountain* implies moving upward in a particular (full-bodied) manner. The ski term, to *schuss* means to ski straight downhill (directed change of location) intentionally and very fast (manner)". Rappaport Hovav & Levin (2010: 16-17) claim that "when a manner has a conventionally associated result, the result may get lexicalized in some uses of the verb, but only if the manner component drops out. Thus, with *climb* in precisely those uses in which the upward motion is lexicalized, such as *The plane climbed to 9000 feet*, the clambering manner is absent, as shown by the wider range of permitted subjects".

Beavers & Koontz-Garboden (2012, 2017) argue that there is no opposition between manner of motion verbs and path verbs and demonstrate – through a detailed analysis of the verb *climb* - that a subset of manner of motion verbs entails a scalar change and argue against the clear-cut division between path and manner verbs. The debate on the opposition between manner and result verbs is still ongoing.

Many studies have been carried out on Italian motion verbs: Cardini (2008) and Iacobini & Vergaro (2012) examine mainly manner of motion verbs, Iacobini & Masini (2006) claim that there are phrasal verbs in the Italian lexicon, Romagnoli (2017) investigates the acquisition of motion events in Chinese and Italian as L2, while Cominetti & Panuzzi (2020) focus on manner and result, taking into account Chinese, English and Italian. Folli (2001, 2008), and Folli & Ramchand (2005) examine the syntactic behaviour of manner of motion verbs that take the auxiliary HAVE and manner of motion verbs that can take both auxiliaries HAVE and BE. Cennamo & Lenci (2019) carry out a corpus-based investigation of verbs of motions in Italian subdivided into three classes. Verbs that lexicalize the direction and/or the result of motion (*arrivare* 'arrive'*, partire* 'depart'*, scendere* 'descend, go down'*, scivolare* 'slip, slide') and that select the auxiliary BE in compound tenses. Manner of motion verbs (*correre* 'run'*, rotolare* 'roll') that select HAVE in compound tenses; when selecting BE these verbs undergo aspectual reclassification and exhibit a path/result PP. Manner of motion verbs that do not get reclassification and take the auxiliary HAVE (*camminare* 'walk'*,

nuotare 'swim').

3. Directed Motion Verbs

The Source – Path – Goal schema, which Lakoff (1987: 275) describes as one of the kinaesthetic image schema, represents directed motion verbs from a cognitive point of view, i.e., "when we move there is a place we start from and a place we wind up at, a sequence of contiguous locations connecting the initial and the final places, and a direction" (see also Walinski 2020). However, not all directed motion verbs assert and express both source and goal in the surface structure. Verbs like *arrivare* 'arrive' and *partire* 'leave, depart' can take both source and goal PPs in (7)-(8), although these verbs are described in the literature as focusing on the goal and on the source, respectively: *arrive* is bounded at the upper end, while *depart* is bounded at the lower end (Rappaport Hovav 2014):

7. Gianni   arrivò   a   Roma   da   Londra

   Gianni   arrive.PST.3SG   at   Rome   from   London

   'Gianni arrived in Rome from London'

8. Gianni part ì   da   Roma   per Londra

   Gianni depart.PST.3SG   from   Rome   for London

   'Gianni left Rome for London'

On the other hand, verbs like *uscire* 'leave, go out, exit' can take and express only a source PP, while *entrare* 'enter, go in' surfaces only a goal PP; in these cases, the goal and the source PPs are only implied and cannot be asserted:

9. Gianni   usc ì   (di casa   +   dal   cinema)

   Gianni   exit.PST.3SG   (of house   +   from.the   cinema)

   'Gianni went out (of the house + of the cinema)'

10. Gianni entr ò   (nell'   aula   +   a   casa)

    Gianni enter.PST.3SG   (in.the classroom   +   at   home)

    'Gianni came (into the classroom + home)'

Unlike English, the prepositions that introduce path PPs in Italian are ambiguous since they are also used to indicate locative PPs (Zwarts 2005; Beavers *et al.* 2010). For example, the preposition *da* 'from' can head a PP that refers to source (*uscire dal cinema* 'go out from the cinema'), to goal (*andare da Gianni* 'go to Gianni's'), to location (*vivere da Gianni* 'live at Gianni's) and also to a passage (*entrare/uscire dalla finestra* 'enter/exit through the window'). In the same way, the prepositions *a* 'at, to', *in* 'in, into', *su* 'on, onto, over' can head goal PPs as well as locative PPs.

I have subdivided directed motion verbs into three main classes on the basis of their elementary sentence structure. However, each class contains a heterogeneous set of verbs

whose behaviour has been further analysed by taking into account morphological, distributional, semantic and syntactic properties. The main properties are formalized in the Lexicon-grammar tables I have constructed for each class (see the *Appendix*).

3.1 Class 1: Source and Goal PPs

This class contains a rich variety of verbs that do not behave uniformly, as they show semantic differences due to the distributional context in which the verbs occur. Besides the achievement verb *arrivare* 'arrive', the deictic verbs *andare* 'go' and *venire* 'come' and non-deictic verbs as *salire* 'ascend, go up' and *scendere* 'descend, go down', most of them occur with bounded path PPs as in (7)-(8) and with unbounded path PPs in (11)-(15), even in the case of *arrivare* 'arrive' in (11)*,* although this verb is regarded as a punctual achievement verb. This is due to the presence of the preposition *verso* 'towards' that heads the PP expressing the intentional goal; I name it a *towards*-PP:

11. I   rifugiati   arrivano   verso   l'   Europa   dall'   Africa

    The   refugees   arrive.PRS.3SG   towards   the   Europe   from.the   Africa

    'The refugees arrive in Europe from Africa'

12. I   ragazzi   vanno   dalla   chiesa   di   San Jacopo   verso   Piazza Santa Croce

    The guys   go.PRS.3PL   from.the church   of   San Jacopo   towards   Piazza Santa Croce

    'The guys go from the church of San Jacopo towards Piazza Santa Croce'

13. Gianni   veniva   dalla   piazza   verso   casa   nostra

    Gianni   come.PST.3SG   from.the   square   towards   home   ours

    'Gianni was coming from the square towards our house'

14. Gianni   salì   dal   Circo   Massimo   verso   il   Quirinale

    Gianni   ascend.PST.3SG   from.the   Circus   Maximus   towards the   Quirinale

    'Gianni went up from the Circus Maximus towards the Quirinale'

15. Gianni   scese   dalla   montagna   verso   valle

    Gianni   ascend.PST.3SG   from.the   mountain   towards   valley

    'Gianni came down from the mountain to the valley'

Directed motion verbs that take both source and goal PPs may also take a source PP and a *towards*-PP in most cases. In this regard, Martin *et al.* (2021) analyse English and German and claim, following Zwarts (2005), that goal/endpoint PPs do not entail *towards*-PP, given the acceptability of (16). Both types of PP "are on the same scale, with *to/zu*-PPs being the stronger alternative (despite not entailing *towards*-PPs)" as sentence (17) shows (Martin *et al.* 2021, example (ii), fn. 6):

16. Ziggy is driving to Berlin, although right now he's not driving towards Berlin

17. Hans didn't only go TOWARDS the police station, he went TO the police station

Source and goal PPs can be inverted or omitted as in (18)-(19) with respect to (7)-(8), although some verbs need linguistic or extra-linguistic context to be accepted with no PPs, as in the case of *andare* 'go' in (20) with respect to (20a):

18. | Gianni | arrivò | (da | Londra) | (a | Roma) |
|---|---|---|---|---|---|
| Gianni | arrive.PST.3SG | (from | London) | (at | Rome) |

'Gianni arrived from London in Rome'

19.	Gianni	partì	(per Londra)	(da | Roma)
Gianni	depart.PST.3SG	(for London)	(from	Roma)

'Gianni departed for London from Rome'

20.	I	ragazzi	andarono	(da | Londra)	a	Roma
The guys		go.PST.3PL	(from	London)	at	Rome

'The guys went from London to Rome'

20a. | ?I | ragazzi | andarono |
|---|---|---|
| The | guys | go.PST.3PL |

'The guys went'

In the literature directed motion verbs like *salire* 'ascend, climb and *scendere* 'descend, climb down' are considered to be upward/downward verbs. Rappaport Hovav & Levin (2010) affirm that these verbs refer to a displacement along a vertical axis and require motion that resists the pull of gravity or is in the direction of the pull of gravity or, as in (21)-(22): (Note 8)

21. | Il | ragazzo salì | sulla | scogliera | direttamente | dal | mare |
|---|---|---|---|---|---|---|
| The guy | ascend.PST.3SG | on.the | cliff | directly | from.the | sea |

'The guy climbed the cliff directly from the sea'

22. | Il | ragazzo scese | dalla | scogliera | direttamente a | mare |
|---|---|---|---|---|---|
| The | guy | descend.PST.3SG | from.the | cliff | directly | to sea |

'The guy climbed down the cliff directly to the sea'

However, the Italian data show that the semantics these verbs encode depends on their distributional context and this has an impact on their argument structure. For example, the verbs *salire* 'ascend, go up' and *scendere* 'descend, go down' can also occur with means of transportation, where the vertical direction can be equal almost to zero in the case of (23)-(24)

or higher in (25)-(26), depending on the means of transport. Unlike (21)-(22), the source PP in (23) and (25) and the goal PP in (24) and (26) are implied, as they are not always easily (or frequently) expressed:

23. Gianni   sal ì   in   macchina

    Gianni   ascend.PST.3SG   in   car

    'Gianni got in the car'

24. Gianni   scese   dalla   macchina

    Gianni   descend.PST.3SG   from.the   car

    'Gianni got out of the car'

25. Gianni   sal ì   (a   cavallo +   in   carrozza)

    Gianni   ascend.PST.3SG (at   horse   +   in   carriage)

    'Gianni got (on the horse + into the carriage)'

26. Gianni   scese   (da   cavallo +   dalla   carrozza)

    Gianni   descend.PST.3SG   (from   horse   +   from.the   carriage)

    'Gianni got off the (horse + carriage)'

Furthermore, *salire* 'ascend, go up' and *scendere* 'descend, go down' refer to northward/southward direction in (27)-(28); in this case the 'motion that resists or is in the direction of the pull of gravity' is not a component that distinguishes these verbs, nor is the vertical axis:

27. Gianni   sal ì   da   Roma   a   Milano per vedere la   famiglia

    Gianni   go-up.PST.3SG   from   Rome   at   Milan   for see   the family

    'Gianni went up from Rome to Milan to see the family'

28. Gianni   scese   da   Milano a   Roma   per salutare la   famiglia

    Gianni   go-down.PST.3SG   from   Milan   at   Rome   for see   the   family

    'Gianni went down from Milan to Rome to see the family'

In (29) the verb *scendere* 'go down, descend' does not necessarily refer to the downward direction since this sentence is also appropriate for someone who lives on the ground floor:

29. Mara   è   scesa   a   prendere   il   latte

    Mara   be.PRS.3SG descend.PTCP   at   get   the milk

    'Mara went to get the milk'

Likewise, the verb *scendere* 'go down, descend' in (30)-(32) does not refer to a downward

direction when used in constructions that belong to the language of sport:

30. Casey   Stoner   scese   in   pista

    Casey   Stoner   descend.PST.3SG   in   track

    'Casey Stoner went down onto the track'

31. Ibrahimović scese   in   campo

    Ibrahimović descend.PST.3SG   in   field

    'Ibrahimović took the field'

32. Le   ginnaste   scesero   in   pedana

    The   gymnast   descend.PST.3SG   in   floor

    'The gymnasts took the floor'

The data show that *salire* 'ascend, go up' and *scendere* 'descend, go down' occur in various constructions whose semantics does not necessarily entail a (clearcut) vertical dimension, and this depends on the type of noun and on the preposition heading the PP. For example, if the preposition *in* 'in' is substituted with *su* 'on, onto' in (30)-(32) the sentences entail downward direction.

Class 1 also includes verbs that incorporate a noun root referring to a vehicle as in the case of *imbarcarsi* 'embark' and *sbarcare* 'disembark' both derived from the noun *barca* 'boat'. These verbs refer to the disembarkation and embarkation (depending on the type of prefix), respectively from/onto boats, ships and any kind of aircraft. They may occur with a source and a goal PP, respectively, where the N is a toponym as in (33)-(34) or refers to a specific boat/aircraft as in (35)-(36) (Note 9):

33. I   rivoluzionari   sbarcarono   a   Cuba   dal   Messico

    The   revolutionaries disembark.PST.3PL   at   Cuba   from.the Mexico

    'Revolutionaries disembarked in Cuba from Mexico'

34. I   rivoluzionari   si   imbarcarono   in   Messico per Cuba

    The   revolutionaries si   embark.PST.3PL   in   Mexico for Cuba

    'Revolutionaries embarked from Mexico to Cuba'

35. I   due uomini si   imbarcarono   sul   volo   703 della   British   Airways
    per New York

    The two men   si   embark.PST.3PL on.the   flight   703 of.the   British   Airways
    for New York

    'The two men boarded British Airways flight 703 for New York'

36. I   padri   pellegrini   sbarcarono   dalla   famosa Mayflower a   New
    Plymouth

    The fathers pilgrims   disembark.PST.3PL   from.the famous Mayflower   at   New
    Plymouth

    'The Pilgrim Fathers disembarked from the famous Mayflower in New Plymouth'

Likewise, the verbs *atterrare* 'land'*, espatriare* 'expatriate', *rimpatriare* 'repatriate' in (37)-(39) incorporate a root noun that refers to source or goal depending on the type of prefix. However, a further source and goal PP can be overtly expressed only if the PP is more specific with respect to the base noun *terra* 'ground' or *patria* 'homeland':

37. (L'   aereo   + Gianni) atterrò   a   Roma   da   Londra

    (The   plane   + Gianni) land.PST.3SG   at   Rome   from   London

    '(The plane + Gianni) landed in Rome from London'

38. Gianni espatriò   da   Varsavia   a   Parigi

    Gianni expatriate.PST.3SG from   Warsaw   to   Paris

    'Gianni expatriated from Warsaw to Paris'

39. Gianni rimpatriò   dal   fronte italiano   a   Vienna

    Gianni repatriate.PST.3SG from.the   front   Italian   at   Vienna

    'Gianni repatriated from the Italian front to Vienna' (Note 10)

The intransitive pronominal verb *avvicinarsi* 'move close' incorporates the adverb *vicino* 'close' and denotes direction from a source PP to an area CLOSE to a goal PP as in (40), while the verb *dirigersi* 'head' in (41) does not necessarily entail that the endpoint was reached. However, both verbs occur with a PP headed by the proposition *a* 'to', though this is generally associated to goal PPs:

40. Gli spacciatori si avvicinarono   dal   quartiere   universitario alla   zona
    del   centro città

    The drug dealers SI   approach PST.3PL from.the district   university   to.the   area
    of.the   center city

    'The drug dealers approached the downtown area from the university district'

41. I   ragazzi si diressero   da   Londra a   Liverpool

    The   guys   SI head.PST.3PL   from   London at Liverpool

    'The boys headed/made their way from London to Liverpool'

A corpus search has shown that the verb *accedere* 'access' very frequently occurs with a goal PP and a *through*-PP, while the source PP is left out as in (42). *Through*-PPs refer to crossing

a boundary (see Ibarretxe 2015 for Basque, Stosic 2007 for French) and are headed by *attraverso* 'through' or *da* 'from'; the latter should be avoided if the source PP is already present, as in (43):

42. Noi accedemmo   al   terrazzo da una scala   a   chiocciola

    We access.PST.1PL   at.the   terrace by a   staircase   at   snail

    'We accessed the terrace from a spiral staircase'

43. Attraverso il   giardino è   possibile   accedere   da   Palazzo Pitti a Villa   Bardini

    Through   the garden be.PRS.3SG possible   access.INF   from   Palazzo Pitti at Villa   Bardini

    'Through the garden it is possible to access Villa Bardini from Palazzo Pitti'

Class 1 includes about 56 directed motion verbs that in most cases take the auxiliary BE in compound tenses. However, the verbs *traslocare* 'move' and *viaggiare* 'travel' only take HAVE, while some verbs may take both auxiliaries, as in the case of *approdare* 'arrive, land', *emigrare* 'migrate', *atterrare* 'land', *decollare* 'take off', *espatriare* 'expatriate', *sfollare* 'disperse, get away'. It is worth pointing out that a search in the SketchEngine Italian Web Corpus 2020 shows a more frequent use of the auxiliary BE. For example, *approdare* 'arrive, land' shows only 322 occurrences with HAVE and 30,688 occurrences with BE. The verb *emigrare* 'migrate' shows 10,000 occurrences with BE and 261 occurrences with HAVE, while *decollare* 'take off' shows 6,781 occurrences with BE and 277 occurrences with HAVE. The result data confirms Sorace (2000) who states that Italian activity and manner of motion predicates select HAVE more consistently, while change of state and change of location predicates select BE more consistently.

3.2 Classes 2 and 3: Goal PP or Source PP

Class 2 includes 15 verbs that can only take a goal PP like *entrare* 'enter, go in', *montare* 'mount', *allunare* 'land on the moon', *ammarare* 'land on water', i.e., they are bounded at the upper end. The result verb *entrare* 'enter, go in' occurs very frequently also with a *through*-PP which refers to crossing a boundary or a passage, as in (44) (see also example (43)). Furthermore, the corpus shows that the verb *entrare* 'enter, go in' can occur with both source and goal PPs only in constructions belonging to the language of football as in (45):

44. Gianni entrò   in casa   (dalla   +   attraverso) la   finestra

    Gianni enter.PST.3SG   in house   (from.the   +   through)   the window

    'Gianni entered the house through the window'

45. [Zaniolo] è   entrato   in   campo   dalla   panchina   al   posto   di Rashica (sky.it)

     [Zaniolo] be.PRS.3SG enter.PTCP   in   field   from.the bench   at.the   place   of Rashica

     'Zaniolo came on as a substitute in Rashica's place'

The verb *montare* 'mount' occurs with a goal PP where the noun refers to a means of transportation; in this case the preposition that heads the PP is selected by the noun. This verb shows similarities with *salire* 'ascend, go up' in examples (23) and (25):

46. Gianni mont ò   (a   cavallo + in   macchina   +   sul   bus)

     Gianni mount.PST.3SG   (at   horse   + in   car   +   on.the   bus)

     'Gianni got (on horseback + into the car + on the bus)'

The verbs *allunare* 'land on the moon' and *ammarare* 'land on water' in (47)-(48) incorporate the nouns *luna* 'moon' and *mare* 'sea', respectively; they denote (via a prefix) an endpoint; however, they can occur with a further goal PP only if this identifies the base noun more precisely (see Alonge 1994: 31, Vietri 2021). The verbs *allunare* 'land on the moon' and *ammarare* 'land on water' can take either the auxiliary HAVE or BE in compound tenses. A Corpus search shows that the auxiliary BE is much more frequent than HAVE (35 occurrence show HAVE, 130 occurrences show BE), both types of compound tenses can occur with or without the goal PP (see Schwarze 1996, Sorace 2000):

47. Il   LEM   allun ò   sul   nostro   satellite nel   1969

     The   LEM   land.PST.3SG   on.the   our   satellite in.the   1969

     'The LEM landed on our satellite in 1969'

     Il   lander   doveva   allunare   sul   Sinus   Iridum

     The   lander   have.IMP.3SG   land.INF   on.the   Sinus   Iridum

     'The lander was to land on the Sinus Iridum'

48. L'   aereo   ammar ò   nell'   Hudson

     The   plane   land.PST.3SG   in.the   Hudson

     'The plane landed in the Hudson'

Class 3 includes 7 verbs such as *evadere* 'escape', *uscire* 'leave, go out, exit', *provenire* 'come from', *smontare* 'dismount', *allontanarsi* 'move away', *rincasare* 'return home' that occur with a source PP. Each of them shows properties that highlight semantic and syntactic differences. The verb *evadere* 'escape' in (49) combines with a restricted number of nouns which denote 'confinement and control'. On the other hand, the verb *uscire* 'leave, go out, exit' in (50) does not show such semantic and distributional restrictions; it can also take a PP headed by the preposition *di* 'of' with the nouns *casa* 'home', *carcere/prigione* 'prison, jail'.

It is worth mentioning that a construction like *uscire di prigione* 'get out of jail' entails motion but mainly indicates 'to be released (after serving a sentence)':

49. Gianni   evase   dal   (carcere +   riformatorio)

    Gianni   escape.PST.3SG from.the   (prison +   reformatory)

    'Gianni escaped from (prison + reformatory)'

50. Gianni   uscì   (di casa   +   dall'   ufficio)

    Gianni   get-out.PST.3SG (of house   +   from.the   office)

    'Gianni left (the office   + home)'

The verb *smontare* 'dismount' (of which *montare* 'mount' in Class 2 is the antonym) only occurs with PPs whose noun refers to a means of transport as in (51). The verb *provenire* 'come from' in (52) mostly co-occurs with a means of transport in subject position:

51. Gianni smontò   (da   cavallo +   dall'   auto + dal   tram)

    Gianni dismount.PST.3SG (from   horse   +   from.the car + from.the   tram)

    'Gianni got (off his horse + out of the car + off the tram)'

52. (Il   treno   +   l' aereo)   proveniva   da   Roma

    (The   train   +   the flight) come.IMP.3SG from   Rome

    'The (train + flight)   came from Rome'

The intransitive pronominal verb *allontanarsi* 'move away' in (53) incorporates the adverb *lontano* 'away' and it is the antonym of *avvicinarsi* 'move close', which incorporates the adverb *vicino* 'close' (see Class 1). The verb *rincasare* 'return home' in (54) incorporates the noun *casa* 'home' that (via a prefix) denotes an endpoint. Besides the source PP, it can also occur with a goal PP only if this identifies the base noun more precisely, as in (55):

53. Gianni si   allontanò   dall'   ufficio

    Gianni si   walk-away.PST.3SG from.the   office

    'Gianni left the office'

54. Il   ragazzo non rincasò   da   scuola

    The   guy   not come-home.PST.3SG   from   school

    'The guy didn't come home from school'

55. Lui rincasò   (*a casa   +   a   Roma   +   nella   sua casa   di
    campagna (da   Londra)

    He come-home.PST.3SG (*at home   +   at Rome   +   in.the   his house of
    country   (from   London)

    'He went back (home + to Rome + to his country house)'

In most cases the source PP can be omitted as in (56), except for the verb *provenire* 'come from' in (57):

56. Gianni smontò

    Gianni dismount.PST.3SG

    'Gianni dismounted'

57. *Il treno proveniva

    The train come-from.PST.3SG

    '*The train came from'

A few directed motion verbs are cross-listed since they may occur with either a goal PP or a source PP, but not with both of them in the same elementary sentence. In this case I have listed them in both classes 2 and 3. For instance, the verb *ritirarsi* 'go back, get out, withdraw' occurs with a goal PP in (58), and a source PP in (59)-(60), and it encodes distinct paths, depending on the type of noun in the PP: in (59) a source PP occurs, while in (60) the verb encodes a backward motion ('back away, withdraw'). However, this verb cannot occur with both a source and a goal PP in the same sentence; in fact (61) is not accepted:

58. Lei   si   ritirò   in   albergo   a   tarda ora

    She   SI   come-back.PST.3SG   in   hotel   at   late   hour

    'She went back to the hotel at a late hour'

59. I diplomatici   si   ritirarono   dalla   sala

    The diplomats   SI   get-out.PST.3SG   of.the   hall

    'The diplomats retired from the hall'

60. I   soldati   si   ritirarono   dal   fronte

    The soldiers   SI   back-away.PST.3SG   from.the front

    'The soldiers withdrew from the front'

61. *I   diplomatici si ritirarono   dalla   sala   nelle   loro   camere

    The diplomats SI go-out.PST.3SG   from.the   room   in.the   their   rooms

    'The diplomats retired from the hall to their room'

The verb *uscire* 'leave, go out, exit' in (62) is the prototypical source PP verb; however, it can also occur with a goal PP as in (63) only if the noun in the PP denotes an 'extended location' (see Folli 2008: 209), but it cannot occur with both a source and a goal PP in the same sentence; in fact (64) is not accepted. The data show that the meaning of motion verbs is determined by the noun and the preposition heading the PP with which they combine: (Note 11)

62. Mara usc ì   (da   +   di) casa

Mara get-out PST.3SG (from   +   of) home

'Mara left home'

63. Mara   usc ì   (sul   pianerottolo + in giardino)

Mara   go-out.PST.3SG (on.the   landing   + in garden)

'Mara went out (onto the landing + into the garden)'

64. ?*Mara usc ì   da   casa   in giardino

Mara   go-out.PST.3SG from   home   in garden

'Mara   went out of the house and into the garden'

4. Manner of Motion Verbs

Folli (2001, 2008) and Folli & Ramchand (2005) state that Italian manner of motion verbs split into two classes: verbs that allow a goal of motion reading with simple prepositions (*in* 'in', *a* 'at', *sotto* 'under'), such as *correre* 'run' in (65), and verbs that do not, such as *camminare* 'walk') in (67). Verbs of the first type are ambiguous since they can be unaccusative (auxiliary BE) as in (65) or unergative (auxiliary HAVE) as in (66). When unaccusative, they can combine with an argumental PP and receive a directed motion interpretation as in (65); when unergative, they express an activity and the PP is an adjunct which denotes the location of the motion event, as in (66). Moreover, goal of motion verbs are telic and compatible with the adverb 'in X time'. On the other hand, verbs like *camminare* in (67) only have an unergative structure (auxiliary HAVE):

65. Gianni è   corso   in ufficio (in pochi   minuti + *per mezz'ora)

Gianni be.PRS.3SG run.PTCP   in office   (in few   minutes + *for half hour)

'Gianni ran to the office (in a few minutes +   *for half an hour)'

66. Gianni ha   corso   nel   parco   (*in pochi minuti+ per mezz'ora)

Gianni have.PRS.3SG   run.PTCP in.the   park   (*in few minutes + for half hour)

'Gianni ran in the park (*in a few minutes + for half an hour)'

67. Gianni (ha   + *è)   camminato al   parco   (*in pochi minuti + per   mezz'ora)

Gianni (have.PRS.3SG +   *be.PRS.3SG) walk.PTCP at.the   park   (*in few minutes + for   half hour)

'Gianni walked to the park (in a few minutes)/Gianni walked in the park (for half an hour)'

In Section 2, I presented the debate on manner and direction complementarity, with reference

mainly to Rappaport Hovav & Levin (2010) and Levin & Rappaport Hovav (2013), who hypothesise this opposition, and Goldberg (2010) and Beavers & Koontz-Garboden (2012, 2017), who argue against it. In accordance with Goldberg (2010) and Beavers & Koontz-Garboden (2012, 2017), I will show that the Italian lexicon includes a subset of motion verbs that entail both manner and direction (see also Iacobini & Vergaro 2010). Therefore, I have subdivided manner of motion verbs into three classes on the basis of their unaccusative and/or unergative structure and their entailing only manner or both manner and direction.

Among the unresolved issues on motion verbs, Zlatev *et al.* (2010: 3) cite 'manner' and raises the question of the information 'manner' includes. The authors pose questions such as "Does this include information pertaining to the vehicle of motion (e.g. fly vs. ride), the speed (e.g. stroll vs. run), the body parts (e.g. hop vs. climb), the medium (sink vs. fall) or all of them?". I will adopt the definition of 'manner' provided in Cardini (2008) and Slobin (2008), while referring the reader to the cited authors for a detailed discussion on the topic. Among the types of information manner includes, I will consider, for example, body movements (*correre* 'run'), vehicles (*sciare* 'ski'), aspects of motion such as *speed* (*sfrecciare* 'whiz, dart'), *force* (*irrompere* 'burst in'), *effort* (*arrancare* 'limp'); more importantly manner verbs can entail a combination of these.

4.1 Class 4: Unergative vs Unaccusative Verbs

Folli (2001) and Folli & Hurley (2020: 74) argue that in Italian the verb *correre* 'run' and *volare* 'fly' are manner of motion verbs in (68) and (70), while in sentences (69) and (71) they are 'apparent' manner verbs, i.e., they are not manner verbs at all since they lexicalize only the Path component. Moreover, the verbal root in (69) communicates that Gianni 'travelled rapidly' along the path, not that he actually ran using his legs as in (68). Likewise, the verbal root in sentence (71) communicates that Gianni 'went home speedily', not that he got a plane as in (70). Folli & Hurley's (2020) hypothesis - albeit from a syntactic perspective - is close to that of Levin & Rappaport Hovav (2013), who claim that in some cases (e.g., *climb*) verbs drop the manner component. Similarly, Cennamo & Lenci (2019) state that verbs like *correre* 'run' and *volare* 'fly' allow aspectual reclassification:

68. Gianni ha   corso   al   parco

    Gianni have.PRS.3SG   run.PTCP   at.the park

    'Gianni ran in the park'

69. Gianni è   corso   al   supermercato

    Gianni be.PRS.3SG run.PTCP   at.the supermarket

    'Gianni ran to the supermarket'

70. Gianni ha   volato sul   Concorde   molte   volte

    Gianni have.PRS.3SG fly.PTCP on.the   Concorde   many   times

    'Gianni has flown on Concorde many times'

71. Gianni è   volato a   casa

    Gianni be.PRS.3SG fly.PTCP at   home

    'Gianni flew home'

According to Folli & Hurley (2020) *correre* 'run' and *volare* 'fly' are manner verbs when they communicate 'run with legs' and 'get a flight', while they are Path verbs when they communicate 'to go somewhere speedily'. However, the claims that Folli and Hurley make are not completely founded since what *correre* 'run' and *volare* 'fly' communicate depends on the discourse context. The reading the authors associate to (69) and (71), that is 'go somewhere speedily' is certainly true, but it is not the only one these verbs can entail. For example, *correre* 'run' in (72) presumably communicates that Gianni 'ran using legs', while *volare* 'fly' in (73) communicates that he actually got on a plane to get home. Therefore, in both cases, manner and direction conflate (see also Zubizarreta (2007:320); furthermore, *speed* is certainly a dimension of manner related to motion:

72. Gianni è   corso   a   casa   dal   lavoro preoccupato perché la
    mamma non rispondeva   alle   sue telefonate,   arrivò   senza   fiato

     Gianni be.PRS.3SG run.PTCP at home   from.the work   worried   because the
     mum   not answer.IMP.3SG at.the   his phone calls, arrive.PST.3SG   without breath

    'Gianni ran home from work worried because his mum didn't answer his phone calls; he
     arrived breathless'

73. Dopo   essere   approdato   in   Australia,   [lui]volò   a   casa   sua in
    California

     After   be.INF   land.PTCP   in   Australia,   [he]fly.PST.3SG at   home   his in
    California

    'After landing in Australia, he flew home to California'

It is also worth noting that the (unergative) manner of motion verb *volare* 'fly' in (74) can communicate only the speediness of the activity, with no reference to real flying:

74. Le   Ferrari oggi   hanno   volato   sulla   pista   ungherese

    The   Ferraris today   have.PRS.3PL   fly.PTCP   over.the track   Hungarian

    'The Ferraris flew round the Hungarian track today'

A close examination of the list of *correre*-type verbs mentioned in Folli & Ramchand (2005) shows that verbs like *rotolare* 'roll', *saltare* 'jump', *scivolare* 'slide, slip' do not raise any doubts on the manner component they entail when unaccusative. For example, in both sentences (75)-(76) the verb *rotolare* 'roll' communicates the manner in which the ball moves, that is, it turns over on itself. However, *rotolare* 'roll' in (75) shows an ergative structure (auxiliary HAVE) and is atelic, while in (76) the same verb shows an unaccusative structure (auxiliary BE), is telic and also communicates the direction the ball follows

(examples (75)-(76) corresponds to (27)-(28) in Folli & Ramchand 2005):

75. La palla ha rotolato sotto il tavolo (per un minuto + *in un minuto)

     The ball have.PRS.3SG roll.PTCP under the table (for one minute + *in one minute)

     'The ball rolled under the table (for one minute/*in one minute)'

76. La palla è rotolata sotto il tavolo (*per un minuto + in un minuto)

     The ball be.PRS.3SG roll.PTCP under the table (*for one minute + in one minute)

     'The ball rolled under the table (*for one minute + in one minute)'

Furthermore, the verb *rotolare* 'roll', depending on the context, may also indicate a downward direction:

77. La valanga è rotolata a valle

     The a valanche be.PRS.3SG roll.PTCP at valley

     'The avalanche rolled down the slope'

Likewise, the verb *saltare* 'jump' is a manner of motion verb in (78) while it entails manner and direction in (79)-(80): both sentences share the meaning that the Agent 'moves quickly into the air'. The difference is that Gianni can also jump in one place in (78), while in (79)-(80) the Agent moves from one place to another, either downward or upward. Therefore, *saltare* 'jump' can encode only manner, as in (78), or manner and direction, as in (79)-(80):

78. Gianni ha saltato (per casa) tutto il pomeriggio

     Gianni have.PRS.3SG jump.PTCP (for house) all the afternoon

     'Gianni jumped (around the house) all afternoon'

79. Gianni è saltato da un ponte sul tetto di un treno

     Gianni be.PRS.3SG jump.PTCP from a bridge on.the roof of a train

     'Gianni jumped from a bridge onto the roof of a train'

80. Il gatto è saltato dalla sedia sul tavolo

     The cat be.PRS.3SG jump.PTCP from.the chair on.the table

     'The cat jumped from the chair onto the table'

Furthermore, the verb *saltare* 'jump', when occurring with means of transport, entails speediness with or without jumping, depending on the height of the means of transport, as in (81); this verb can also occur in transitive constructions such as (82) where it communicates

that Mara jumped over an obstacle.

81. Mara è   saltata   (in bici + a   cavallo + sul   treno + in auto)

    Mara be.PRS.3SG jump.PTCP (in bike+   at horse   + on.the train + in car)

    'Mara jumped (on her bike + on her horse + on the train + into the car)'

82. Mara   ha   saltato   (la siepe   + il   muretto)

    Mara   have.PRS.3SG   jump.PTCP   (the hedge   + the wall)

    'Maria jumped the (hedge + the wall)'

The verb *scivolare* 'slip, slide, glide' shows some semantic differences depending on the context in which it occurs. First, in sentences (83)-(85) *scivolare* 'slip, skid' refers to a loss of balance, with or without falling, on a presumably smooth surface. Secondly, this verb is a non-agentive verb (like *rimbalzare* 'bounce', *rotolare* 'roll', see Zubizarreta (2007: 319)) that takes the auxiliary BE in (83)-(84), regardless of the presence of a path PP (Cowper 1991). However, if the sentence is clearly durative as in (85) the verb *scivolare* 'slip, skid' may take HAVE (Note 12). It is worth mentioning that a corpus search shows a very low frequency of HAVE: about 150 occurrences while there are19,296 occurrences with BE:

83. Gianni è   scivolato   dal   tetto   ricoperto di neve   su
    un   terrazzino

    Gianni be.PRS.3SG slip.PTCP   from.the roof   covered   of snow   on
    a   terrace

    'Gianni slipped from the snow-covered roof onto a small terrace'

84. Gianni è   scivolato   sul   pavimento bagnato

    Gianni be.PRS.3SG slip.PTCP   on.the   floor   wet

    'Gianni slipped on the wet floor'

85. La   moto ha   scivolato sulla   strada bagnata per parecchi metri

    The bike have.PRS.3SG   skid.PTCP on.the road   wet   for several   meters

    'The bike skidded on the wet road for several meters'

On the other hand, the verb *scivolare* 'slide, glide' in (86)-(87) only takes HAVE and does not entail any loss of balance, on the contrary it communicates that the entity 'moves smoothly over a surface', where the surface can be even as in (86)-(87) or rough as in (88):

86. La slitta   ha   scivolato   sulla   neve   per mezz' ora

    The sled   have.PRS.3SG   slide.PTCP   over.the snow   for half   hour

    'The sled slid over the snow for half an hour'

87. I   pattinatori hanno   scivolato   sul   ghiaccio con   mille   piroette

     The skaters   have.PRS.3PL glide.PTCP   on.the   ice   with   thousand pirouettes

      'The skaters glided over the ice with a thousand pirouettes'

88. La barca   ha   scivolato   sulle   onde

     The boat   have.PRS.3SG   glide.PTCP   on.the   waves

      'The boat glided over the waves'

Therefore, I consider this to be a case of polisemy and I distinguish three uses of *scivolare*. In (83) *scivolare* 'slip, skid' (lose balance and (optionally) fall) entails manner and direction, while in (84)-(85) it entails only manner; in both cases it can take the auxiliary BE. On the other hand, *scivolare* 'slide, glide' (move smoothly over a surface) in (86)-(88) can only be a manner verb and takes the auxiliary HAVE.

Among the verbs not included in Folli's typology that show unergative and unaccusative structures the verb *sfrecciare* 'dash, whiz, dart' communicates speediness (when flying, driving, running, etc.) either in (89) or in (90) and, as in the previous cases, it is a manner of motion verb in (89), while it entails manner and direction in (90): (Note 13)

89. La Lamborghini   squadra corse   ha   sfrecciato   sul   circuito di Silverstone

     The Lamborghini   racing   team   have.PRS.3SG   whiz.PTCP   on.the   circuit   of Silverstone

      'The Lamborghini racing team whizzed around the Silverstone circuit'

90. Prima di   arrivare in Toscana, lui è   sfrecciato da Milano a   Verona

     Before of   arrive.INF in Tuscany, he be.PRS.3SG dash.PTCP from Milan to   Verona

      'Before arriving in Tuscany, he dashed from Milan to Verona'

Furthermore, *sfrecciare* 'dash, dart, whiz' (as well as *filare* 'run, speed') can combine with the particle *via* 'off', giving rise to verb-particle constructions as in (91): in this case Italian shows an s-framed strategy, where the verb entails manner, and the particle entails direction (Iacobini & Masini 2006).

91. Appena   l' arbitro ha fischiato la fine del   primo tempo   è
     sfrecciato   via dal campo ed   è   filato   via in moto   per
     fare   una consegna

     As-soon-as the referee blow.PST.3SG the end of.the   first half   be.PRS.3SG
     dart.PTCP   off the field   and   be.PRS.3SG go.PTCP off in motorbike   for
     make   a   delivery

    'As soon as the referee blew the whistle for the end of the first half, he darted off the field and went off on his motorbike to make a delivery'

Summarizing, Class 4 includes 16 verbs that according to their unaccusative vs unergative

structure can be considered manner of motion verbs or directed manner of motion verbs. Among them, *correre* 'run', *rimbalzare* 'bounce', *rotolare* 'roll', *saltare* 'jump', *saltellare/salterellare* 'skip', *scivolare* (slip, skid, slide, glide), *scrosciare* 'pour', *sfrecciare* 'dash, whiz, dart', *volare* 'fly', *zompare* 'leap. With respect to Folli's list (Note 14), I have added a few verbs and excluded *gattonare* 'crawl on all fours'. As already noted in Zubizarreta (2007: 317), *gattonare* 'crawl on all fours' should not be included in this class since it only entails manner as in (92), in fact (93) is not accepted:

92.

Il	piccolo	Luca	ha	gattonato	come	una scheggia	per mesi
The	little	Luca	have.PRS.3SG	crawl.PTCP	like	a splinter	for months

'Little Luca sped around on all fours for months'

93.

*Il	piccolo	Luca	è	gattonato	fino	alla	porta
The	little	Luca	be.PRS.3SG	crawl.PTCP	up	at.the	door

'Little Luca crawled up to the door'

It is worth pointing out that the dictionaries I consulted (Treccani, De Mauro, Devoto-Oli, Zingarelli) do not always indicate that both auxiliaries BE and HAVE can be selected in compound tenses. For example, the dictionaries indicate only the auxiliary HAVE for *rotolare* 'roll' and *saltellare* 'skip'. On the other hand, for *rimbalzare* 'bounce', *correre* 'run', *volare* 'fly, *scivolare* 'slide, slip, glide', and *saltare* 'jump', both auxiliaries are indicated. In order to verify the selection of the auxiliaries, I searched the Web and the Italian Web Corpus 2020 by means of SketchEngine. If an auxiliary is not found either in dictionaries or in corpora, I did not consider it, except in the case of incongruences between synonyms. For example, *saltellare* 'skip' and *salterellare* 'skip' are synonyms but the former occurs with HAVE and BE in the corpora while the latter does not. This might be due to the fact that *saltellare* 'skip' is much more frequent than *salterellare* and this may have an impact on the search results; in fact, a Web search on the infinitive of both verbs returns 159,000 results for *saltellare* 'skip' and 9,250 results for *salterellare* 'skip'. With respect to the auxiliary selection, Zubizarreta (2007: 319) states that some speakers much prefer the unaccusative use for the verbs *rotolare* 'roll' and *scivolare* 'slide, glide, slip'. The Corpus search confirmed Zubizarreta's claim: 1992 occurrences for unaccusative *rotolare* 'roll' and 332 occurrences for unergative *rotolare* 'roll', and 19,992 for unaccusative *scivolare* 'slide, glide, slip' and 150 occurrences for unergative *scivolare* 'slide, glide, slip'.

Exceptions

The verbs *filare* 'run, speed', and *saettare* 'dart' can be manner of motion verbs in (94) or directed manner of motion verbs in (95)-(96). In both cases they take only the auxiliary BE (unlike the previous verbs) and entail speediness:

94.

Le	auto	(filavano	+	saettavano)	sulla	pista	a	200 all'	ora
The	cars	(speed.IMP.3PL	+	dart.IMP.3PL)	on.the	track	at	200 at.the	hour

'The cars were (speeding + darting) around the track at 200 per hour'

95. Gianni   è   filato   a   casa

    Gianni   be.PRS.3SG run.PTCP   at   home

    'Gianni ran home'

96. Una simpatica   donna   tipicamente Yankee saettava   dalla   cucina   alla sala

    A   nice   woman   typically   Yankee dart.IMP.3SG from.the kitchen at.the hall

    'A nice typical Yankee woman darted from the kitchen to the hall'

4.2 Class 5: Unergative Verbs

Class 5 includes 70 manner of motion verbs that select only the auxiliary HAVE in compound tenses and that, unlike English, cannot express direction: *to the park* and *to the shore* are goal PPs in (97)-(98), while *al parco* 'at the park' and *nella baia* 'in the bay' cannot be goal PPs in (99)-(100), they are adjuncts that denote the location of activity. In fact (97)-(98) are telic and compatible with the adverb 'in X time', while (99)-(100) are atelic and compatible with the adverb 'for X time'. According to Cennamo & Lenci (2019), this verb type does not allow aspectual reclassification:

97. Mara walked to the park in an hour

98. Mara swam to the shore in a few minutes

99. Mara   ha   camminato al   parco   per un'ora

    Mara   have.PRS.3SG   walk.PTCP at.the park   for an hour

    'Mara walked in the park for an hour'

100. Mara ha   nuotato   nella   baia   per alcuni   minuti

    Mara have.PRS.3SG   swim.PTCP in.the   bay   for few   minutes

    'Mara swam in the bay for a few minutes'

It is possible to express a goal PP by means of the compound preposition *fino a* 'up to, until' in (101)-(102): the verb encodes manner while the PP headed by *fino a* 'up to, until' encodes the goal. (Note 15) In this case, Italian adopts a satellite-framed strategy in order to express the endpoint of the path of motion. In the literature, there is no agreement on telicity as regards manner of motion verbs combining with complex prepositions. Folli & Ramchand (2005:14. es. (35b)) and Folli (2008:213, es. (23a)) state that (101) and (102) are telic:

101. Mara   ha   camminato fino al   parco   (in un' ora +   *per un' ora)

    Mara   have.PRS.3SG walk.PTCP up   at.the park   (in an hour + *for an hour)

    'Mara walked up to the park (in an hour + for an hour)'

102. Gianni ha   nuotato   fino   al   porto (in un' ora   +   *per un'ora) (Note 16)

  Gianni have.PRS.3SG swim.PTCP up   at.the port   (in an hour   +   *for an hour)

  'Gianni swam up to the port (in an hour + *for an hour)'

However, the analysis I carried out on the data shows that some manner of motion verbs, such as *gironzolare* 'wander' and *vagabondare* 'wander' in (103)-(104) are atelic, even though Folli & Ramchand (2005) never mention this distinction:

103. Mara ha   gironzolato fino al   Duomo (*in un' ora + per un'ora)

  Mara have.PRS.3SG stroll.PTCP up   at.the Duomo (*in an hour + for an hour)

  'Mara strolled up to the Duomo (in an hour + *for an hour)'

104. Mara   ha   vagabondato fino   al   parco   (*in un' ora + per un' ora)

  Mara   have.PRS.3SG wander.PTCP up   at.the   Duomo (*in an hour + for an hour)

  'Mara wandered up to the Duomo (in an hour + *for an hour)'

Unlike Folli & Ramchand (2005) and Folli (2008), a different judgement on telicity is expressed by Aske (1989:7, examples (24a) and (24d)) who analyses Spanish. He claims that when combining with manner of motion verbs "the preposition *hasta*, 'up to', 'until' […] contrary to what one might have thought, is not telic and doesn't 'predicate' a final location of the Figure, that is the final location is not asserted, though it certainly may be implied":

105. Juan caminó hasta la   cima   (?*en dos horas)

  'Juan walked up to the summit (in two hours)'

106. Juan subio a/hasta la cima en dos horas

  'Juan went to/up-to the top in two hours'

Likewise, Zubizarreta & Oh (2007, examples 544a-c) state that the Italian *fino a* 'up to, until', as well as Spanish *hasta* 'up to, until' and French *jusqu'à* 'up to, until', combining with manner of motion verbs produce atelic readings:

107. Camminerà fino alla scuola (*in trenta minuti)

108. Caminará hasta la escuela (*ent treinta minutos)

109. Il marchera jusqu'à l'école (*en trente minutes)

  'He will walk up to the school (in thirty minutes)'

Moreover, when analysing Spanish and Italian, Zubizarreta & Oh (2007, examples 475a,

478a-b, 540b) argue that *fino a/hasta* 'up to, until' introduce temporal adjuncts in (110)-(111), whereas they introduce a spatial complement in (112). More precisely, only (110)-(111) are the result of a reduction from a complex sentence:

110. Juan caminó hasta (llegar a) Paris (*en treinta días)

  Juan walk.PST.3SG until (arrive.INF at) Paris (in thirty days)

  'Juan walked until he arrived in Paris (*in thirty days)'

111. Gianni ha camminato (per un' ora) fino ad (arrivare) alla spiaggia

  Gianni have.PRS.3SG walk.PTCP (for an hour) until at (arrive.INF) at.the beach

  'Gianni walked (for an hour) until he arrived at the beach'

112. *Juan fué hasta llegar a Paris

  Juan go.PST.3SG until arrive.INF at Paris

  '*Juan went until he arrived in Paris'

Boons (1987: 21, examples (37a-b)) states that in French *jusqu'à* (until, up to) entails an endpoint when combining with *ramer* 'row', whereas it only indicates the end of an activity when combining with *vadrouiller/errer* 'wander':

113. Pierre a (vadruoillé + erré) jusqu'à l' étang (*en vingt minutes)

  Pierre have.PRS.3SG wander.PTCP up to the pond (*in twenty minutes)

  'Pierre wandered up to the pond (*in twenty minutes)'

114. Pierre a ramé jusqu' au rocher (en vingt minutes)

  Pierre have.PRS.3SG row.PTCP up to.the rock (in twenty minutes)

  'Pierre rowed to the rock (in twenty minutes)'

As I have already pointed out for examples (103) and (104), in accordance with Boons (1987) I claim that in Italian *fino a* 'up to, until' is bounded/telic when combining with manner of motion verbs like *camminare* 'walk', and *nuotare* 'swim', but it is unbounded/atelic when combining with manner of motion verbs like *vagabondare* 'wander', *gironzolare* 'wander'. This means that *fino a* 'up to, until' encodes direction depending on the type of verb with which it combines.

Manner verbs can also combine with the discontinuous prepositions *da…*(*fino*) *a* 'from…(up) to' which express the starting point and the endpoint of the path of motion in (115)-(116); in this case, both sentences can be telic or atelic:

115. Mara   ha   camminato da   Via dei Mille   (fino)   a   Piazza
    Cavour (in un' ora   +   per un ora)

    Mara   have.PRS.3SG   walk.PTCP   from   Via dei Mille   (up)   to   Piazza
    Cavour (in one hour   +   for one hour)

    'Mara walked from Via dei Mille (up) to Piazza Cavour (in one hour + for one hour)'

116. Mara   ha   nuotato   da   Amalfi   (fino)   a   Positano
    (in un' ora   +   per un' ora)

    Mara   have.PRS.3SG   swim.PTCP   from   Amalfi   (up)   to   Positano
    (in one hour   +   for one hour)

    'Mara swam from Amalfi (up) to Positano (in one hour + for one hour)'

Zubizarreta & Oh (2007: 479, examples (479)-(480)-(481)) affirm that in Spanish (they do not analyse Italian in this case) discontinuous prepositions are unbounded/atelic, although "for some (but not all) speakers, it is easier to get the bounded interpretation". The authors hypothesize that (117) has an ergative structure and the PP is an outer adjunct, while (118) is a covert transitive: in the latter case, the PP is "the complement of a covert distance-denoting object", as in (119):

117. Juan caminó   un montón de   París   a/hasta Madrid (*en treinta días)

    Juan walk.PST.3SG   a   lot   from   Paris   at/until Madrid (*in thirty days)

    'Juan walked a lot from Paris to Madrid (*in thirty days)'

118. Juan   caminó   de   París   a/hasta   Madrid   en   treinta   días

    Juan   walk.PST.3SG   from   Paris   at/until   Madrid   in   thirty   days

    'Juan walked from Madrid (up) to Paris in thirty days'

119. Juan caminó   el   trecho de   Paris   a/hasta Madrid en treinta dias

    Juan walk.PST.3SG   the distance from   Paris   at/until Madrid in thirty   days

    'Juan walked the distance from Paris to Madrid in thirty days.'

However, in Italian the discontinuous prepositions *da…*(*fino*) *a* 'from…(up) to' can be bounded/telic or unbounded/telic with verbs like *camminare* 'walk' and *nuotare* 'swim' as in (120), while they are only unbounded/atelic with verbs like *vagabondare* 'wander' and *gironzolare* 'wander' as in (121). In the case of bounded paths, these prepositions denote the starting point and the endpoint (*da...a* 'from…to') and produce a telic reading. In the case of unbounded paths, the discontinuous prepositions delimit an area within which the Agent is moving without any direction and produce an atelic reading. Therefore, discontinuous prepositions show aspectual variability depending on the manner of motion verb with which they combine:

120. Mara   ha   (camminato + nuotato)   da   Amalfi a   Positano
    (in un' ora   +   per un' ora)

    Mara   have.PRS.3SG   (walk   +   swim).PTCP from   Amalfi   to   Positano
    (in an hour   +   for an hour)

    'Mara (walked + swam) from Amalfi to Positano (in one hour + for one hour)

121. Mara   ha   (vagabondato+gironzolato)   da   Via   dei   Mille   a
    Piazza Cavour   (*in   un' ora   +   per un' ora)

    Mara   have.PRS.3SG   wander.PTCP   from   Via   dei   Mille   at
    Piazza Cavour   (*in   an hour   +   for an hour)

    'Mara wandered from Via dei Mille to Piazza Cavour (*in an hour + for an hour)'

Summarizing, both discontinuous prepositions like *da…a* 'from…to' and the complex preposition *fino a* 'up to, until' can denote a bounded path or the delimitation of an area. The difference between the two types is that *fino a* 'up to, until' is bounded with verbs like *camminare* 'walk' and unbounded with verbs like *vagabondare* 'wander'. On the other hand, the discontinuous prepositions *da…a* 'from…to' can be bounded/unbounded with verbs like *camminare* 'walk' and only unbounded with verbs like *vagabondare* 'wander'. The data shows that telicity and boundedness depend on complex and discontinuous prepositions and on the type of verb with which they co-occur.

Folli (2008: 205) lists a few verbs belonging to this verb-type: *galleggiare* 'float', *camminare* 'walk', *galoppare* 'gallop', *danzare* 'dance', *nuotare* 'swim', *sciare* 'ski', *passeggiare* 'walk', *vagabondare* 'wander'. However, the taxonomy I have constructed includes more than 70 manner of motion verbs in Class 5, which shows the abundance of manner of motion verbs in Italian (see the Appendix) and also aspectual distinctions among them.

Exceptions

The pronominal verbs *trascinarsi/strascicarsi* 'drag oneself, crawl', *scorrere* 'flow', *aggirarsi* 'hang around', though selecting the auxiliary BE are manner of motion verbs. Unlike *aggirarsi* 'hang around' in (122), the verbs *trascinarsi/strascicarsi* 'drag oneself' and *scorrere* 'flow' in (123)-(125) can combine with the complex preposition *fino a* 'up to, until'*:

122. I   ladri   si   sono   aggirati   (nella zona + *fino   alla   chiesa)

    The thieves SI   be.PRS.3SG   hang-around.PTCP (in.the area + *up   to.the church)

    'The thieves hung around (in the area + *up to the church)'

123. Mara   si   è   strascicata   (per la casa   +   fino alla   cucina)

    Mara   SI   be.PRS.3SG   drag-on.PTCP   (for the house   +   up to.the   kitchen)

    'Maria dragged on (around the house + up to the kitchen)'

124. Il   ferito   si è   trascinato (sul   pavimento + fino alla   porta)

    The wounded man SI be.PRS.3SG crawl.PTCP (on.the floor   + up to.the   door)

    'The wounded man crawled (on the floor + up to the door)'

125. Le auto   scorrono   veloci (sull'   autostrada + fino all'   imbocco dell'
    autostrada)

    Thecars   flow.PRS.3PLfast   (on.the highway   + up   to.the   entrance of.the
    highway

    'The cars flow (along the highway + up to the highway entrance)'

The verbs *sfilare* 'parade' and *slittare* 'skid' are manner of motion verbs only, however they may take HAVE or BE:

126. (Max   + il   motorino) (ha + è)   slittato   sull' asfalto bagnato

    (Max   + the scooter)   (have + be).PRS.3SG skid.PTCP   on.the asphalt   wet

    '(Max + the scooter) skidded on the wet asphalt'

127. Alcune centinaia   di persone (sono sfilate + hanno sfilato)   a   Tel Aviv

    Few   hundreds   of people (have   +   be).PRS.3SG parade.PTCP at Tel Aviv

    'A few hundred people paraded in Tel Aviv'

4.3 Class 6: Unaccusative Verbs (Manner and Path)

As already reported in Section 2, Rappaport Hovav & Levin (2010) and Levin & Rappaport Hovav (2013) claim that motion verbs cannot conflate manner and direction, while Beavers & Koontz-Garboden (2012, 2017) show that both components can coexist. As regards Italian, Alonge (1994) and Iacobini & Vergaro (2014: 75) state that motion verbs can encode both manner and direction. In Section 4.1, I have already shown that, in accordance with Beavers & Koontz-Garboden (2012, 2017), manner and direction coexist when verbs like *correre* 'run' have an unaccusative structure.

Class 6 includes about 70 verbs that only show an unaccusative structure and select the auxiliary BE in compound tenses. These are verbs like *fiondarsi* 'rush', *piombare* 'burst', *ruzzolare* 'tumble', *sbalzare* 'leap', *schizzare* 'dart', *scappare* 'escape, run', *passare* 'pass, stop', *scaraventarsi* 'rush', *scapicollarsi* 'rush down', among others. I claim they all encode both manner and direction, i.e. they are directed manner of motion verbs.

Both *fiondarsi* 'rush' and *piombare* 'drop in' (128)-(129) entail direction and manner since they communicate that the event happened rapidly and suddenly; moreover, in (130) the verb *piombare* 'plummet, drop' also entails the force with which the nonagentive subject has fallen:

128. Gianni è   piombato   a   casa   mia   (da   Roma)

     Gianni SI be.PRS.3SG burst.PTCP   at   house   mine   (from   Rome)

     'Gianni dropped into my house (from Rome)'

129. Gianni si è   fiondato   in   giardino sentendo   quelle   urla

     Gianni SI   be.PRS.3SG rush.PTCP   in   garden hear.GER   those   screams

     'Gianni rushed into the garden on hearing those screams'

130. Il   vaso   è   piombato   dal   tetto   sul   terrazzo di   casa   mia

     The vase   be.PRS.3SG fell.PTCP   from.the roof   on.the terrace   of   house my

     'The vase plummeted from the roof onto the terrace of my house'

The verb *ruzzolare* 'tumble' in (131) entails manner (Gianni turned over himself) and (downward) direction; the latter is also overtly expressed in (132) by the particle *giù* 'down' which very frequently combines with this verb (see Iacobini & Masini 2006): (Note 17)

131. Gianni è   ruzzolato   da   un pendio in   un   burrone

     Gianni be.PRS.3SG tumble-down.PTCP   from   a   slope   in   a   ravine

     'Gianni tumbled down a slope into a ravine'

132. Gianni è   ruzzolato   giù   dalla   duna   del   deserto

     Gianni be.PRS.3SG tumble.PTCP down   from.the   dune   of.the   desert

     'Gianni tumbled down the sand dune'

This class also includes a verb like *sbalzare* 'leap' in (133) which entails (non-volitional) 'jumping' due to an external force or event. On the other hand, *schizzare* 'dart' encodes moving from one point to another by jumping in (134), while speediness (with or without jumping) is encoded in the context of (135):

133. La ragazza è   sbalzata   dallo   scooter sul   parabrezza dell'   auto

     The girl   be.PRS.3SG leap.PTCP   from.the scooter on.the windshield of.the   car

     'The girl was thrown off the scooter onto the windshield of the car' (Note 18)

134. La lepre   è   schizzata   dal   cespuglio   in   mezzo   alla   strada

     The hare   be.PRS.3SG dart.PTCP   from.the bush   in   middle   at.the   road

     'The hare darted from the bush into the middle of the road'

135. Gianni è   schizzato   in   strada

     Gianni be.PRS.3SG dart-out.PTCP   in   street

     'Gianni darted into the street'

The verbs *scappare* 'escape' and *passare* 'pass' denote distinct events depending on the constructions in which they occur. The unaccusative verb *scappare* 'escape' in (136) takes a

source PP and a restricted number of nouns like 'prison' which denote 'confinement and control' or that the agent perceives this, as in the case of 'home'. If *scappare* 'escape' occurs with toponyms indicating source and goal PPs, then the construction may communicate that the Agent is wanted, as in (137); speediness is not necessarily coded in (136)-(137), rather the constructions communicate a stealthy/furtive action. On the other hand, *scappare* 'run away' may entail only speediness without any form of escaping in (138), or it may communicate that Gianni made a brief stop at the reference object, as in (139). The semantics of *scappare* 'escape, run away' is strictly dependent on the context:

136. Gianni   è   scappato   (di casa   +   dal   carcere)

     Gianni   be.PRS.3SG   escape.PTCP   (of   home   +   from.the   prison)

     'Gianni escaped from (home + prison)'

137. Gianni   è   scappato   in   Messico/dall'   Italia

     Gianni   be.PRS.3SG   escape.PTCP   in   Mexico/from.the   Italy

     'Gianni escaped to Mexico/from Italy'

138. Gianni   è   scappato   dall'   ufficio/   a   casa

     Gianni   be.PRS.3SG   run.PTCP   from.the   office/   at   home

     'Gianni ran home/away from the office'

139. Gianni   è   scappato   a   casa   del   figlio

     Gianni   be.PRS.3SG   run.PTCP   at   home   of.the   son

     'Gianni ran to his son's house'

The verb *passare* 'pass' is cross-listed; it is a directed motion verb in (140), however it entails manner and direction in (141) (Note 19); similarly to (139), it communicates that Gianni made a brief stop at the reference object ('drop in'):

140. Gli invitati   sono   passati   (dal   salotto)   nella   sala da pranzo

     The guests   be.PRS.3SG   pass.PTCP   (from.the living room)   in.the   dining-room

     'The guests passed (from the living room) into the dining room'

141. Gianni   è   passato   al   supermarket prima   di   tornare   a   casa

     Gianni   be.PRS.3SG   pass.PTCP   at.the   supermarket before   of   go-back   at   home

     'Gianni stopped at the supermarket before going back home'

Class 6 also includes pronominal verbs like *scapicollarsi* 'run' in (142) and *scaraventarsi* 'rush' in (144) that encode speediness and direction (a goal PP); if co-occurring with the adverb *giù* 'down', both verbs indicate a downward direction, as exemplified in (143)-(144):

142.Gianni si   è   scapicollato a   casa

   Gianni SI   be.PRS.3SG   run.PTCP   at   home

   'Gianni ran home'

143.Gianni si   è   scapicollato in   giardino (giù)   per le   scale

   Gianni SI   be.PRS.3SG   run.PTCP   in   garden (down) for the stairs

   'Gianni ran down the stairs into the garden'

144.Gianni si   è   scaraventato (fuori   di   casa   +   giù   per le   scale)

   Gianni SI   be.PRS.3SG   rush.PTCP   (out   of   house   +   down   for the stairs)

   'Gianni rushed (out of the house + down) the stairs' (Note 20)

Exceptions

A few achievement verbs denote manner and direction. However, they either select the auxiliary HAVE, although the frequency of compound tenses is very low, such as *prorompere* 'burst' and *irrompere* 'burst' in (145)-(146), or do not form compound tenses at all, as in the case of *erompere* 'erupt' in (147). They are all derived by prefixation from the verb *rompere* 'break', a result verb:

145.I   soldati proruppero   dalle   trincee

   The soldiers burst.PST.3PL   from.the   trenches

   'Soldiers burst from the trenches'

146. La folla   irruppe   nello   stadio

   The crowd   burst.PST.3PL   in.the   stadium

   'The crowd burst into the stadium'

147.La   folla   eruppe   dai   cancelli

   The   crowd   erupt.PST.3PL   from.the   gates

   'The crowd erupted from the gates'

5. Conclusions

In this paper I have presented a classification of Italian motion verbs based on a dataset of 234 verbs whose morphological, distributional, semantic and syntactic properties I have described. According to the analysis I have carried out, motion verbs include directed motion verbs, manner of motion verbs and directed manner of motion verbs. They all fall into six classes, each of which corresponds to a Lexicon-grammar binary matrix that formalizes the main syntactic and semantic information of each verb.

Directed motion verbs subdivide into three classes on the basis of their elementary structure,

for which I have taken into account the type of argument they select: both source and goal PPs (*andare* 'go'), only source PPs (*uscire* 'leave, go out, exit') and only goal PPs (*entrare* 'enter, go in'). On the other hand, manner of motion and directed motion verbs subdivide into three classes on the basis of their unergative/unaccusative structure and the semantic component/s they entail. Verbs like *correre* 'run' are ambiguous, i.e. they can be considered manner of motion verbs or directed motion verbs. Verbs like *camminare* 'walk' have only an unergative structure and entail only manner. Verbs like *scappare* 'escape, run' have only an unaccusative structure and entail manner and direction. I have also shown that some verbs entail different types of 'manner' depending on the linguistic context in which they occur (*scappare* 'escape vs *scappare* 'drop in')

The analysis of the data on Italian manner of motion verbs contributes to the debate on the hypothesis advanced by Rappaport Hovav & Levin (2010) and Levin & Rappaport Hovav (2013) on the opposition between manner and direction. This study provides evidence in favour of the hypothesis of Goldberg (2010) and Beavers & Koontz-Garboden (2012, 2017) who argue against the polar opposition of manner and direction. However, further research on motion verbs in Romance needs to be conducted in order to verify furtherly the (non-)opposistion between manner and direction. In addition, the availability of more data on motion verbs would highlight differences and similarities in Romance.

The data I provide also show that the Italian lexicon is rich in manner of motion verbs which amount to more than 150 verbs, half of which entail manner and direction. I have also shown that the semantics of motion verbs is strictly dependent on the distributional context. For example, verbs like *scendere* 'descend' and *salire* 'ascend' occur in various constructions whose semantics differ from going upward/downward, and this depends on the type of noun and the preposition heading the PP. Therefore, it is not always possible to identify the generic semantic component that characterizes motion verbs.

The data I provide also show a decreasing number of directed motion verbs when passing from verbs that can take source and goal PPs to verbs that only take goal PPs and those that take only source PPs. This means that Italian shows the prominence of verbs that correspond to the Source-Path-Goal schema and the paucity of verbs that can assert either Goal or Source:

  Source-Goal (56 verbs) > Goal (15 verbs) > Source (7 verbs)

Levinson (2009) points out that "spatial cognition is central to human thinking, and spatial language is thus an important area of study, as it may reveal fundamental properties of human thought". I have collected 234 Italian motion verbs in this research which, together with the 500 caused motion verbs I described in Vietri (2020), show that a very high number of verbs in the lexicon refer to motion.

In order to gain a broader perspective on motion, further research needs to be carried out on noun predicates that express motion. For example, the support/light verb constructions (148a)-(150a) formed of the support/light verb *fare* 'make' and the nouns *rientro* 'return', *scappata* 'pop out (verb)', *giro* 'stroll' are paraphrastically equivalent to (148b)-(150b). On

the other hand, the support/light verb construction (151a) in which the noun *salto* 'jump' (derived from *saltare* 'jump') occurs communicates that Gianni went to the office for a brief stop and it is not paraphrastically equivalent to (151b); in the latter case, the verb *saltare* 'jump' does not encode the same meaning:

148 a. Gianni   fece   rientro a   casa

       Gianni   make.PST.3SG   return   at   home

       'Gianni returned home'

    b. Gianni   rientrò   a   casa

       Gianni   return.PST.3SG   at   home

       'Gianni returned home'

149 a. Gianni   fece   una scappata   al   market a   prendere il latte

       Gianni   make.PST.3SG   a   quick trip   at.the   market at get   the milk

       'Gianni popped out to the market to get some milk'

    b. Gianni   è   scappato   al   market a prendere   il   latte

       Gianni   be.PRS.3SG run-away.PTCP   at.the   market at get   the milk

       'Gianni popped out to the market to get some milk'

150 a. Gianni fece   un   giro   per la città

       Gianni make.PST.3SG a   tour   for the city

       'Gianni went for a stroll around the city'

    b. Gianni   ha   girato   per la città

       Gianni   have.PRS.3SG   go-around.PTCP for the city

       'Gianni strolled around the city'

151 a. Mara fece   un salto   in ufficio per ritirare dei   documenti

       Mara make.PST.3SG   a   jump   in office   for pick-up of.the   papers

       'Mara popped into the office to pick up some papers'

    b. *Mara   saltò   in ufficio per ritirare dei   documenti

        Mara   jump.PST.3SG   in office   for pick-up of.the   papers

       'Mara   popped into the office to pick up some papers'

The comparison between motion nouns in support/light verb constructions and motion verb constructions will clarify differences and similarities in their semantic and syntactic properties.

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Appendix

Class 1 through Class 6 are represented by means of a binary matrix where each row corresponds to a verb and each column refers to a property. If a verb accepts a property, a '+' sign is placed at the intersection of the corresponding row and column. If a verb has more than one usage it is cross-listed. The auxiliaries *avere* 'have' and *essere* 'be' are abbreviated as A (*avere*) and E (*essere*), respectively. I keep trace of caused motion constructions in the table, even though the intransitive and transitive constructions are not necessarily related to one another:

Class 1 (56 verb uses) (Source and Goal PPs)	Auxiliary	Nonagentive Subject	Noun Root	Adverb Root	More specific PP	Means of Transport	Downward	Upward	Southward/Northward	Language of sports	Circular	Caused motion verb
accedere 'access'	E											
affiorare 'surface'	E	+										
affluire 'flow'	E											
andare 'go'	E											
andarsene 'go away'	E											
approdare 'land'	AE											
arrivare 'arrive'	E											
ascendere 'ascend'	E							+				
atterrare 'land'	AE		+		+							
avanzare 'advance'	E											
avviarsi 'set off'	E											
avvicinarsi 'approach'	E			+								+
colare 'drip'	E	+					+					+
confluire 'merge'	AE	+										
decollare 'take off'	AE											
defluire 'flow out'	E											
dilagare 'spread, flood'	AE											
dirigersi 'head'	E											
discendere 'descend'	E						+					
effluire 'flow out'	E											
emergere 'emerge'	E											
emigrare 'emigrate'	AE											
espatriare 'expatriate'	AE		+									+
fluire 'flow'	E											
fuoriuscire 'fall out of'	E											
giungere 'arrive'	E											
imbarcarsi 'embark'	E		+		+							+
immettersi 'enter'	E											+
immigrare 'immigrate'	E											
migrare 'migrate'	E											
muovere 'move'	AE											
partire 'leave, depart'	E											
passare 'move'	E											
portarsi 'run.go'	E											
procedere 'proceed forward'	E											
proseguire 'proceed forward'	A											
retrocedere 'go backwards'	E											
rientrare 'return'	E		+									
rifluire 'flow'	AE											
rimpatriare 'repatriate'	E				+							+
ripartire 'leave'	E											
ritornare 'return'	E											
ruotare 'rotate'	A										+	
salire 'get in, ascend, climb/come up'	E					+		+	+			

Class 1 (56 verb uses) (Source and Goal PPs)	Auxiliary	Nonagentive Subject	Noun Root	Adverb Root	More specific PP	Means of Transport	Downward	Upward	Southward/Northward	Language of sports	Circular	Caused motion verb
sbarcare 'disembark'	E		+		+							+
sboccare 'end up'	E											
scaturire 'spring'	E	+										
scendere 'descend, go/climb down'	E					+	+		+	+		
scolare 'drip'	E	+					+					
sfollare 'displace'	EA*											
tornare 'return'	E											
tornarsene 'return'	E											
traslocare 'move'	A											
trasmigrare 'emigrate'	EA											
venire 'come'	E											
viaggiare 'travel'	A											

*the auxiliary HAVE (A) is rare

Class 2 (15 verb uses) (Goal PP)	Auxiliary	Noun root	Other Class
accostarsi 'approach'	E		
allunare 'land on the moon'	AE*	+	
ammarare 'land on water'	AE*	+	
apparire 'appear'	E		
appropinquarsi 'approach'	E		
approssimarsi 'approach'	E		
arenarsi 'strand, run aground'	E		
arrestarsi 'stop'	E		
entrare 'enter'	E		
fermarsi 'stop'	E		
immergersi 'plunge'	E		
montare 'get on, mount'	E		
ritirarsi 'retire, return home'	E		C3
scantonare 'move away'	A		
uscire 'leave, go out, exit'	E		C3

*the auxiliary BE (E) is not commonly used

Class 3 (7 verb uses) (Source PP)	Auxiliary	Adverb Root	Noun Root	Caused motion	Cross-listed
allontanarsi 'move away'	E	+		+	
evadere 'escape'	E				
provenire 'come from'	E				
rincasare 'return home'	E		+		
ritirarsi 'withdraw, exit'	E				C2
smontare 'dismount'	E				
uscire 'exit, go out'	E				C2

Class 4 (16 verb uses)	Auxiliary	Manner	Manner and Direction
balzellare 'skip, jump'	AE	+	+
correre 'run'	AE	+	+
filare 'run, speed'	E	+	+
guizzare 'dart'	*AE	+	+
planare 'glide, plane'	AE*	+	+
rimbalzare 'bounce'	AE	+	+
rotolare 'roll'	AE	+	+
saettare 'dart'	E	+	+
saltare 'jump'	AE	+	+
saltellare 'skip, jump'	AE*	+	+
salterellare 'skip, jump'	AE	+	+
scivolare 'slip, skid'	AE	+	+
scrosciare 'pour down'	AE	+	+
sfrecciare 'whiz'	AE	+	+
volare 'fly'	AE	+	+
zompare 'leap'	AE	+	+

*the auxiliary BE or HAVE is not signalled in dictionaries but it is found in corpora

Class 5 (70 verb uses)	Auxiliary	Fino a/Da …a = Telic	Fino a/Da …a = Atelic	Caused motion verb
ancheggiare 'sway'	A		+	
arrancare 'trudge, plod'	A		+	
ballare 'dance'	A	+	+	
barcollare 'stagger'	A		+	
bighellonare 'loiter'	A		+	
brancicare 'grope'	A		+	
brancolare 'grope'	A		+	
camminare 'walk'	A	+	+	
caracollare 'prance'	A	+	+	
cavalcare 'ride'	A	+	+	
ciabattare 'slip'	A		+	
ciondolare 'dangle'	A		+	
claudicare 'limp'	A		+	
danzare 'dance'	A	+	+	
deambulare 'walk'	A	+	+	
errare 'roam, wander'	A		+	
galoppare 'gallop'	A	+	+	
galleggiare 'float'	A	+	+	
gattonare 'creep, drawl on all fours'	A		+	
girare 'wander'	A			
girellare 'hang around'	A		+	
girandolare 'hang around'	A		+	
gironzolare 'hang around'	A		+	
girovagare 'wander'	A		+	

Class 5 (70 verb uses)	Auxiliary	Fino a/Da …a = Telic	Fino a/Da …a = Atelic	Caused motion verb
incedere 'walk (solemnly)'	A	+	+	
marciare su 'march'	A	+	+	
navigare 'navigate'	A	+	+	
nuotare 'swim'	A	+	+	
ondeggiare 'sway one's hips'	A		+	
pagaiare 'paddle'	A	+	+	
passeggiare 'walk, stroll'	A	+	+	
pattinare 'skate'	A	+	+	
pedalare 'pedal'	A	+	+	
peregrinare 'roam, wander'	A		+	
piroettare 'piroutete'	A		+	
remare 'row'	A	+	+	
ronzare 'hang/hover around'	A		+	
salterellare 'skip'	A		+	
salticchiare 'skip'	A		+	
sbarellare 'stumble, stugger'	A		+	
scalpicciare 'shuffle, patter'	A		+	
scarpinare 'trek'	A		+	
scarrozzare 'drive around'	A		+	+
schettinare 'skate'	A	+	+	
sciare 'ski'	A	+	+	
scivolare 'slide, glide'	A	+	+	
scorrazzare 'rush about'	A		+	
sculettare 'sashay'	A		+	
serpeggiare 'meander'	A		+	
sfarfallare 'flit about, flutter'	A		+	
sgambare 'stride'	A	+	+	
sgambettare 'toddle'	A		+	
slittare 'slip, skid'	A	+	+	
sorvolare 'fly over'	A		+	+
sprintare 'sprint'	A		+	
strisciare 'crawl, slither'	A		+	
tacchettare 'walk clinging one's heels'	A		+	
traballare 'totter'	A		+	
trottare 'trot'	A	+	+	
trotterellare 'trot, toddle'	A	+	+	
vacillare 'sway'	A		+	
vagabondare 'wander'	A		+	
vagare 'roam'	A		+	
veleggiare 'sail'	A	+	+	
vogare 'row'	A	+	+	
volteggiare 'whirl'	A		+	
zampettare 'scamper, scurry'	A		+	
zigzagare 'meander'	A	+	+	
zoccolare 'walk in clogs'	A		+	
zoppicare 'limp'	A		+	

Class 6 (70 verb uses)	Auxiliary	Source-Goal	Source	Goal	ProCompl	Caused Motion
accorrere 'rush'	E	+	+	+		
addentrarsi 'go into'	E			+		+
appartarsi 'seclude oneself'	E			+		
arrampicarsi 'climb'	E	+	+	+		
avventarsi 'pounce'	E	+		+		+
avventurarsi 'venture'	E	+		+		
balzare 'pounce'	E	+	+	+		
battersela 'leave'	E		+	+	+	
cacciarsi 'get into'	E			+		+
cadere 'fall'	E	+	+	+		
calare 'descend'	E	+	+	+		
calarsi 'lower oneself'	E	+	+	+		
capitombolare 'tumble'	E	+	+	+		
cascare 'fall'	E	+	+	+		
catapultarsi 'catapult'	E	+	+	+		+
crollare 'collapse'	E	+	+	+		
dileguarsi 'scram'	E		+	+		
erompere 'erupt'	-	+	+	+		
ficcarsi 'get into'	E			+		+
filarsela 'get away'	E	+	+	+	+	
finire 'end up'	E	+		+		
fiondarsi 'rush'	E	+	+	+		+
fuggire 'run away'	E	+	+	+		
imboscarsi 'sneak off'	E			+		+
incamminarsi 'walk'	E	+		+		
inerpicarsi 'clamber, scramble'	E	+		+		
infilarsi 'sneak'	E	+		+		
inoltrarsi 'venture'	E	+		+		
insinuarsi 'sneak in, insinuate'	E	+	+	+		+
introdursi 'sneak in'	E			+		+
intrufolarsi 'sneak in'	E			+		+
irrompere 'burst in'	A	+	+	+		
lanciarsi 'leap, throw oneself'	E	+	+	+		+
muoversi 'move'	E	+	+	+		
paracadutarsi 'parachute'	E	+	+	+		+
passare 'go (brief stop)'	E			+		
penetrare 'enter (furtively)'	E	+	+	+		
piombare 'show up, turn up'	E	+	+	+		
precipitare 'fall, plummet'	E	+	+	+		
precipitarsi 'rush, hurry'	E	+	+	+		
prorompere 'burst into'	A	+	+	+		
rifugiarsi 'take refuge'	E			+		
riparare 'shelter'	E			+		
riversarsi 'pour around'	E	+		+		+
rovesciarsi 'pour around'	E	+	+	+		+
rovinare 'collapse'	E	+	+	+		
ruzzolare 'tumble down'	E	+	+	+		
salpare 'sail'	E	+	+	+		
sbalzare 'leap'	E	+	+	+		+
sbolognarsela 'sneak off'	E	+	+	+	+	
sbucare 'come out (suddenly)'	E	+	+	+		
scapicollarsi 'rush down'	E	+		+		
scappare 'run away'	E	+	+	+		

Class 6 (70 verb uses)	Auxiliary	Source-Goal	Source	Goal	ProCompl	Caused Motion
scappare 'escape'	E		+	+		
scaraventarsi 'throw'	E	+	+	+		+
scattare 'snap'	E	+	+	+		
schizzare 'dart, bolt'	E	+	+	+		
sgattaiolare 'sneak off'	AE	+	+	+		
sgusciare 'sneak off'	E	+	+	+		
slanciarsi 'leap, launch oneself'	E	+	+	+		
sopraggiungere 'arrive'	E	+	+	+		
sopravvenire 'arrive'	E	+	+	+		
spingersi 'push oneself to'	E			+		
sprofondare 'collapse'	E	+		+		
spuntare 'appear'	E	+	+	+		
squagliarsela* 'slip away'	E	+	+	+	+	
stramazzare 'collapse'	E			+		
svignarsela* 'slip away'	E	+	+	+	+	
tombolare 'tumble'	E	+	+	+		
tuffarsi 'dive'	E	+	+	+		

*some speakers do not accept the co-occurrence of source and goal PPs

Notes

Note 1. The two forms are not necessarily related one to the other. For example, the intransitive pronominal verb *cacciarsi* (*cacciarsi in una stradina poco frequentata* 'go down a little frequented street') is morphologically related to the transitive *cacciare* (*cacciare il prigioniero in cella* 'put/kick the prisoner into the cell'), but the two forms do not share any meaning components and therefore the derivation by reflexivization is not applicable. I described the transitive/intransitive alternation as regards caused motion verbs in Vietri (2020).

Note 2. I will not take into account those transitive motion verbs that can be bounded at the upper end (*raggiungere la città* 'reach the city') and the lower end (*evacuare lo stadio* 'evacuate the stadium') or unbounded (*costeggiare la Sicilia* 'coast Sicily'). I have not included verbs that encode a change of body posture (*inginocchiarsi* 'kneel down').

Note 3. This study presents a broader and partly revised analysis of motion verbs compared to Vietri (2019). In this study I constructed an extensive taxonomy of Italian motion verbs. Furthermore, I took into account two theoretical hypotheses on the opposition between manner and direction.

Note 4. Consequently, the terms Direction and Path are often used in the literature to refer to the same concept, i.e. the spatial orientation with which the Figure moves in relation to a reference object.

Note 5. Levin (1993: 267) suggests also including directional phrases.

Note 6. As regards the bounded/unbounded notion, I will consider Zlatev *et al.* (2010: 7): "in expressions of *bounded motion*, X (the Figure) will depart from Source, or pass through a mid-point (Via), or reach a Goal […] In *unbounded motion*, nothing of the sort is implied and in principle – though not practically – the motion can go on indefinitely".

Note 7. The distinction between scalar and nonscalar change also regards change of state verbs; the authors set up a broad generalization that opposes manner and result verbs. I will not discuss the topic any further in this study.

Note 8. Levin & Rappaport Hovav (2013: 14) argue that the upward direction is not lexicalized in *She climbed the tree* but arises from the context.

Note 9. These verbs are related to the caused motion transitive verbs *sbarcare* 'disembark' in (i) and *imbarcare* 'embark' in (ii). However, the intransitive constructions (33)-(34) are not necessarily derived one from the other since the events described in (33)-(34) are not necessarily caused by an Agent. The correlation is present only if the direct object of *sbarcare* 'disembark' is a concrete noun like *merce* 'cargo':

(i) Il   capitan ò sbarc ò   (la merce + i   passeggeri) sulla   spiaggia

The captain disembark.PST.3SG (the cargo + the passengers) on.the   beach

'The captain disembarked the (cargo + passengers)   on the beach'

(ii) Il   capitan ò   imbarc ò   (la merce + i   passeggeri) a   Singapore

The captain   embark.PST.3SG (the cargo + the passengers) at Singapore

'The captain embarked the (cargo + passengers) in Singapore'

Note 10. The verbs *espatriare* 'expatriate' and *rimpatriare* 'repatriate' in (38)-(39) can also be transitive caused motion verbs. As also pointed out in the endnote (9), the two constructions are not necessarily related to one another:

(iii) Il   ministro   (espatri ò   +   rimpatri ò)   i   profughi   dall'   Italia
ai   loro   paesi   di origine

The minister   (expatriate +   repatriate).PST.3SG the refugees   from.the Italy
at.the   their   countries   of origin

'The minister expatriated/repatriated the refugees from Italy to their countries of origin'

Note 11. The verbs *entrare* 'enter', *uscire* 'exit', *scendere* 'descend' also show a caused motion construction in variants of Italian (see Busso & Romagno 2022).

Note 12. As pointed out in Treccani Grammatica.

Note 13. Dictionaries do not indicate the auxiliary HAVE for the verb *sfrecciare* 'whiz, dart'. However, this verb form is very frequently found in texts, as in the following example drawn from Marco Damilano, *Eutanasia di un potere,* 2012, Laterza:

(iv) Tutti   i   politici   […]hanno   sfrecciato   e   sfrecciano   sulla Serravalle

   All   the politicians   […]have.PRS.3PL   whiz. PTCP and   whiz.PRS.3PL   on.the Serravalle

   'All the politicians [...] have whizzed and are whizzing along the Serravalle highway'

Note 14. Folli (2008: 205) lists the following verbs: *correre* 'run', *rotolare* 'roll', *rimbalzare* 'bounce', *scivolare* 'glide, slide', *gattonare* 'crawl on all four', *saltare* 'jump', *volare* 'fly', *saltellare* 'skip.

Note 15. The *until*-marker is not a goal-marker per se, since it expresses general delimitation (see Beavers et al. 2010). In many languages (Italian included) it denotes various types of boundaries: temporal (*fino alle 15:00* 'until 3 pm'), spatial (*dal pavimento fino al soffitto* 'from floor to ceiling'), numerical (*l'ascensore regge fino a 300 kg* 'the lift bears up to 300 kilos') and propositional (*Rimasi lì fino al decollo dell'aereo* 'I stayed there until the plane took off').

Note 16. However, *fino a* 'up to, until' does not necessarily entail that the agent has overcome the external limit of a location and, in fact it may negate it. Therefore, *fino a* 'up to, until' denotes a Path without necessarily entailing a change of location. On the other hand, the compound preposition *fin dentro* 'inside' in (vi) entails a change of location (see also Folli 2008):

(v) Lei ha   camminato fino al parco,   ma non è   entrata

   She have.PRS.3SG   walk.PTCP   up   at park,   but not be.PRS.3SG   enter.PTCP

   'She walked up to the park, but she did not enter'

(vi) #Lei ha   nuotato   fino dentro   il   porto,   ma non è   entrata

   She have.PRS.3SG swim.PTCP up   inside   the port,   but not be.PRS.3SG   enter.PTCP

   'She swam inside the port, but she did not enter it'

Note 17. The verb *ruzzolare* 'tumble' also displays two transitive constructions like (vii) and (viii). The former has a meaning close to (131) but is 'uncommon' according to the Devoto-Oli dictionary. The latter is a causative construction where the Agent causes the motion of an object:

(vii) Paolo   ruzzolò   le   scale

   Paolo   tumble-down.PST.3SG   the   stair

   'Paolo tumbled down the stair'

(viii) Paolo   ruzzolò   un   barile

   Paolo   roll.PST.3SG   a   barrel

   'Paolo rolled the barrel'

Note 18. The verb *sbalzare* 'hurl' has also a caused motion construction where the external

force is the Causer of this motion event:

(ix) L' esplosione   sbalzò   Maria   contro   il   muro

   The explosion   hurl.PST.3SG Maria   against the wall

   'The explosion hurled Maria against the wall'

Note 19. The verb *passare* 'cross' also show a transitive construction:

(x) La   nave   ha   passato   lo   stretto

   The   ship   have.PRS.3SG   cross.PTCP   the strait

   'The ship crossed the strait'

Note 20. The pronominal verb *scaraventarsi* 'rush' is not necessarily related to the caused motion verb *scaraventare* 'throw away', since the event described in (144) encodes that Gianni went out very speedily, while the caused motion construction (xi) encodes that Paolo used 'force'; therefore, the derivation of the pronominal verb by reflexivazation is not plausible:

(xi) Paolo   ha   scaraventato   Gianni   fuori   di   casa

    Paolo   have.PRS.3SG   throw.PTCP   Gianni   out   of   house

    'Paolo threw Gianni out of the house'

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