

The expression of instrumentality in Dutch and Italian cut and break sequences: a cross-linguistic analysis

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ABSTRACT

Instrumentality, a topic often mentioned in one and the same breath as agents and patients in thematic analyses, is rarely considered a linguistic element in its own right. In the context of everyday language use, instrumentality is a very broad concept and is illustrated frequently, be it overt or not. The purpose of this article is to analyse the different linguistic typologies and patterns that underlie the expression of different instrumental roles in Dutch and Italian. Paradigms originating from cognitive and construction grammar are used to shed light on the processes that impact the expression and various typologies of instrumentality. This paper targets cut and break (C&B) verbs since they show particularly interesting characteristics. The analysis of a usage-based corpus, that consists of the free description of stimuli representing C&B events by native speakers, shows that instrumentality can assume almost all grammatical functions and is shown to be the result of joint meaning-construction between two participants in search of shared assumptions.

KEYWORDS

cut and break, cognitive grammar, multimodal discourse analysis, instrumentality

ABBREVIATIONS

Adj	adjective
ADJ ADV	adjunct adverbial
Adv	adverb
AG	agent
C&B	cut and break
CxG	construction grammar
DO	direct object
INS	instrument
IT	Italian
IO	indirect object
IU	intonation unit
LOC	locative
NL	Dutch
NP	noun phrase
PAT	patient
PP	prepositional phrase
Prep	preposition
Pron	pronoun
S	subject
V	verb
VP	verb phrase

1. INTRODUCTION

This article discusses instrumentality, a multifaceted concept omnipresent in everyday language, with a specific focus on the linguistic encoding of events of CUTTING and BREAKING, a particular domain of events involving “separation in the material integrity of objects” (Majid et al., 2007, p. 134), henceforth cut and break, or C&B events (Majid et al., 2007). Given the linguistic variation in expressing these concepts across languages and the varying criteria used to interpret them, cross-linguistic approaches have often been adopted: for instance, the specificity of the verbs used in different languages (Schoonjans et al., 2016) or the underlying semantic structures for cut and break verbs (Majid et al., 2008). Often, the aim is to debunk or support the theory of language universals. In this article, the cut and break events are used as a framework and context for the multimodal expression of instrumentality. By using precisely these sequences, one can focus on constructions that contain an instrument and in which way the latter is precisely expressed.

As an instrument for the structure analysis, empirical data will be drawn from a multimodal corpus generated through experiments involving twelve native speakers of Italian and Dutch. The aim is to get a complete overview of how instrumentality can be expressed in Dutch and Italian, and the differences and similarities be-

tween patterns. The article focuses on constructions that contain an instrument and in which way it is precisely expressed.

2. THEORETICAL FRAMEWORK

This literature review outlines a theoretical framework for the study of instrumentality and cut and break sequences. First of all, cognitive grammar is applied to the concept of instrumentality, which illuminates how cognitive processes influence the expression of instrumentality. Then, construction grammar is employed to elucidate how instrumentality manifests itself within linguistic constructions. Subsequently, the review investigates the concept of causality and the role of instruments within it, followed by an examination of instrumentality itself, focusing on the properties of grammatical instruments and their interactions with other thematic roles. The article then zooms in on the unique characteristics of “cut and break” verbs. It subsequently discusses theoretical approaches to expressing instrumentality in C&B verbs in both Dutch and Italian, offering illustrative sentences for clarification. The exploration of these concepts serves as the foundation for the analysis of verbal instrumental structures and the intricate processes involved in the spontaneous production of language.

2.1 COGNITIVE LINGUISTICS

“You can use the knife to slice the bread either this way [gesture], or horizontally, or chop it into little cubes.” Or “you use the knife to slice it.” The linguistic encoding, which does not consist exclusively of the combination of words and sounds, chosen by the two speakers in the same conversation, gives an insight into how they construct their mental image of slicing bread (Taylor, 2002). Notwithstanding, the mental processes show similarities because speakers in interaction often tend to create consensus and seek to comprehend the constructions someone opts for to describe their mental image. Therefore, meaning is a consequence of the dynamic between the interlocutors and highly depends on context, including the linguistic context but also on socio-cultural and spatial-temporal factors (Langacker, 2008). Despite the great differences in specificity, originating from varying mental images, based on one’s worldview, past experiences, and any specific knowledge, the previous examples accentuate that an event will take place in which a person will perform an action using a knife and the bread will undergo said action. This can be represented schematically as follows, in which a source has a goal and in order to reach that goal it follows a certain path:

[Event GO ([Thing X], [Path TO ([Place IN ([Thing Y])])])] (Jackendoff, 1983 cited in Langacker, 2008).

Besides specificity, Langacker (2008) formulates other three labels: focusing, prominence, and perspective. In the context of instrumentality, instruments can be de-

scribed with a fine-grained high-resolution description, e.g., “a serrated kitchen knife with a long blade”, or a coarse-grained description, e.g., “a knife”. Alternatively, a speaker could opt for a schematic approach when unfamiliar with the proper vocabulary: “a tool to slice the bread.” The descriptions of instruments can be expanded as much as desired, though there are practical limits to a conversation. Hence interlocutors choose what elements they want to bring to the foreground. When talking about focusing, Langacker discusses “the selection of cognitive content for linguistic presentation” (Langacker, 2008, p. 57). Each lexical component gives immediate access to several cognitive domains, which, when combined, form the context for reaching a deep understanding of that semantic unit and through which conceptualisation is achieved (Langacker, 2008). Some domains come to the foreground and are thus more easily activated when being exposed to the lexical units. Other domains in the matrix, given the limited number of domains that can be activated at once, are placed further in the background and are only weakly activated in our cognition. However, this does not mean that all the domains in the matrix are completely separate from each other; on the contrary, the domains overlap and interact with each other (Taylor, 2002). The degree of focusing is partly determined by what has been built up in the conversation up to that point. And therefore, what remains in the background or what is being mentioned explicitly, depends on the common knowledge participants have established so far. However, a conversation continues to build on that implicit common ground and facilitates the emergence of new elements. Two conversating participants who are introduced to an element they are not familiar with, fall back on this common ground and continue the conversation co-creating a shared assumption of the object’s function (Chui, 2014). Another aspect of focusing is the choice of words and expressions that evoke a certain frame. Each frame recalls other conceptual information that is activated in the background of our minds, not only on a semantic level but also syntactically. A verb implies a subject, an instrumental verb implies an instrument, a C&B verb implies someone who is executing the action and an object that undergoes the action, etc. These abstract categories are expressed by semantic roles, or thematic relations, which will be a focal point in the analysis.

2.2 CONSTRUCTION GRAMMAR

Lexical components frequently include a lot of conceptual information, but the constructions applied in conjunction with the lexical content carry meaning as well (Talmy, 2000) and provide insight into cognitive processes. The notion of perspective specifically but not exclusively impacts the construal character of a phrase, as it depicts the relation between the subject observing and the salient object being focalised. Most often, the subject remains in the background of the conversation, as long as it is not a crucial part of the situation that is being described, and therefore remains covert (Langacker, 2008). Depending on the viewing arrangement of the description, the subject can become part of the immediate scope of the expression. That viewing

arrangement is defined by the speaker, who decides the point of reference for the illocutions. This all results in the ability to form different constructions that differ from each other when it comes to immediate scope or differences in viewing arrangements, while strictly depending on the lexical units within the constructions and thus creating a lexicon-syntax continuum (Hoffman, 2017), one of the basic assumptions of construction grammar. CxG analyses form-meaning pairings, so-called constructions, at the morphological, semantic, sentence, and textual levels. They are completely arbitrary pairings that have become conventionalised, but which can, even without an interpretation of real content, carry meaning of their own. According to CxG, the brain stores all of its knowledge of grammar as constructs (Croft & Cruise, 2004, mentioned in Hoffmann, 2017), forming a “constructicon”, i.e. the collection of constructions that comprise a person’s mental grammatical knowledge. Of particular interest for instrumentality is the resultative construction entailing a causative event, schematized by Goldberg (1995) as FORM: X (the cause) V (the verb) Y (the complement undergoing the action expressed by V) Z (the result), where each letter represents a slot, which can be filled by the speaker (Hoffmann, 2017).

2.3 INSTRUMENTALITY AND C&B

Instruments as a thematic role have particular characteristics, which means that there is little consensus in the research domain. Some consider instruments as non-essential arguments that modify the verb (Rissman et al., 2015), while others perceive them as equally important participants that have an equal amount of proto-agent and proto-patient properties (Dowty, 1991, cited in Van Hooste 2018, p.2). Following Dowty’s hierarchy, instruments prototypically entail a combination of “causation, meaning causing an event or change of state in another participant (agent proto-role), and movement relative to the position of another participant (agent proto-role), without volition or sentience (patient proto-roles)” (Dowty, 1991, p.577). Croft (Figure 1) points out how different arguments and thematic relations are distributed throughout a sentence. The arrows pointing to the right represent the causal chain. The elements left of the vertical line are believed to have proto-agent characteristics. It shows that instruments can take both the position of the subject as well as the position of the object and that their presence induces a result.

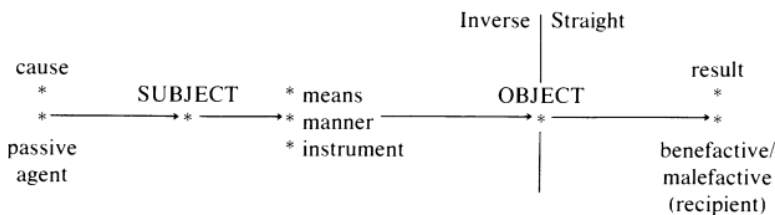


Figure 1: Organization of causal chains (Croft, 1991)

Instruments tend to have several additional characteristics that make them stand out from other thematic relations, which confirm the twofold process of force dynamics.

- “1) The instrument plays a role in the means by which the agent/actor carries out a certain action,
- 2) the agent/actor acts on the instrument and as a consequence,
- 3) the instrument acts on the patient/undergoer and
- 4) agents and instruments have some semantic similarities (Levin & Rappaport Hovav 2005, p. 45, cited in Van Hooste, 2018).”

Furthermore, break verbs encode a change in the state without assigning a cause, or semantically monadic verbs. Cut verbs imply an instrument because they lexicalise the causal impact on a theme as a result of the contact between the theme and that instrument - whether or not verbally expressed - and are therefore semantically dyadic. They also imply a property of the instrument or the way it is handled (chopping and mincing imply handling an instrument with some kind of knife, pricking and piercing, on the other hand, imply a sharp point of an instrument that performs the expressed action). Bohnemeyer concludes that C&B verbs fall into two semantic classes:

“Those that specify the use of a particular kind of instrument and a generic state change (cut verbs) and those that specify a particular kind of change or a particular type of theme argument but are nonspecific regarding instruments involved (break verbs).” (Bohnemeyer, 2007, p. 160)

Yet, that does not mean instruments cannot be expressed when using break verbs, to cut verbs semantically require an instrument, whereas break verbs allow an instrument (Koenig et al., 2002).

Instrumental verbs can further be divided into different non-language related categories according to degrees of specificity, ranging from generic verbs such as *to do* or *to use* to specific C&B variants like *to shred* (Sambre, Brône et al., 2019). When using specific C&B verbs, the result of the action most often is not encoded explicitly, since that information is already activated by the verb (Koenig, 2002). This is also the case for verbs that are derived from nouns referring to instruments, for example, *to saw*, *to mow*, *to shave*. They make it impossible to express the instrument without creating a form of redundancy (Dowty, 1991). However, when narrowing down the scope of instrumentality to the C&B domain, it is widely accepted that the underlying semantic structures vary between the two categories with distinct argument structures and syntactic privileges (Guerssel et al., 1985; Levin & Rappaport, 1995, cited in Majid et al., 2007), validating the assumption that not every language has the same distinction between the two categories of to cut and to break, nor do they express instrumentality equally.

3. MATERIALS AND METHOD

Cognitive grammar aims to provide insights into how speakers structure and process information. For this reason, the study opted to analyse usage-based data gathered

during experiments. As a consequence, the data of these experiments might be complexly constructed and not always conventional. Disparities, though, are common and can go unnoticed due to the demands of language usage (Langacker, 2017). The goal of the experiment is to elicit natural speech in a given context and to create a multimodal corpus describing cut and break actions. The population that is being studied includes all native speakers of Italian and Dutch. With a view to the feasibility of this study, a convenience sample of six native Dutch speakers and six native Italian speakers between 21 and 23 years old was selected out of all linguistics students at the University of Leuven, campus Antwerp. In order to create a conversational setting, in which participants can complement or correct each other and avoid short artificial answers, all participants were divided into groups of two. During the experiment, slides were shown, depicting two instruments and two objects. All verbs symbolised by the instruments are part of the cut and break category, meaning they are semantically related to actions such as cutting and breaking. The participants were asked to combine the instruments with the objects and talk about all the possible actions and outcomes, of combining objects and instruments. The conversations were recorded and transcribed using the automated transcription service *Sonix*, resulting in six transcriptions with grammatical constructions used by the students to describe the actions. These transcriptions were thereafter divided into 1993 Dutch and 1659 Italian intonation units (IU), which formed the analysable data for this study. That is because the grammatical structures in a conversational setting differ from regular argument structures, often slots are left empty, and repetitions and repairs are frequent (Cienki, 2015). Moreover, the utterances are a result of the collaboration of the participants in the conversation, and consequently so is the grammar. Participants correct each other, complement utterances, repeat utterances they agree with, etc. This leads to a collection of IUs that cannot be analysed without context. Therefore, instead of analysing turn by turn, it is more useful to focus on IUs, as they impact the grammatical structure of the discourse.

4. ANALYSIS

Of the 1993 Dutch IUs, 545 units contained a trace of instrumentality linked to C&B. For the Italian corpus, there were 592 units expressing instrumentality in some way. IUs containing neither a trace of instrumentality nor a causing or caused event were disregarded in the analysis.

4.1 VERB SPECIFICITY

First of all the verb specificity was examined. As mentioned earlier, verbs can be divided into categories according to a degree of specificity. Figure 2 compares the specificity of the instrumental verbs in Dutch and Italian. Following the general trend,

it becomes clear that the distribution across the three verb categories is proportional for Italian. However, this is not the case for Dutch. In 21,48% of the IUs, the Dutch speakers used a generic verb like ‘to use’ or ‘to do’. In 27,69% of the IUs, Italian speakers used such verbs. A greater distinction, however, can be found in the cut or break category, resulting in a relatively small but considerable difference of 6,21%. 18,02% of the Dutch speakers elicited the C&B-related actions using the verbs to cut or to break, while the Italian speakers used those verbs in 33,80% of the IUs.

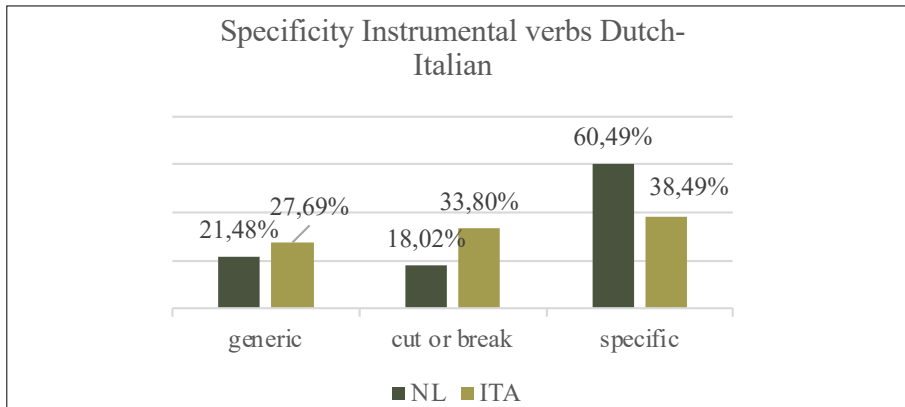


Figure 2: Specificity of instrumental verbs in Dutch and Italians

The greatest difference can be seen in the final category, or rather the specific instrumental verbs, that express a specific action that can be performed by the use of an instrument, such as ‘to sharpen’, ‘to dice’, ‘to muddle’, ‘to grate’, etc. 60,49% of the Dutch IUs contained a verb from the third category versus 38,49% of the Italian IUs. A possible explanation for this phenomenon can be found in the systematic differences between Romance and Germanic languages:

“The Germanic languages display a default encoding preference for manner in linguistic event representation, which turns this semantic component into a cognitively salient feature in the Germanic clause system, i.e., an event structuring pivot which must be highlighted by speakers in order not to deviate from the standard form of expression. By contrast, the exocentric Romance languages are inclined to use non-manner-verbs as main predicates and encode manner in peripheral linguistic items such as adverbial satellites, which indicates a minimal focus on the way in which events evolve. (Høeg Müller, 2019, p.56)”

However, that does not at all mean that Italian, and by extension other Romance languages, do not have a large and diversified group of specific motion verbs, on the contrary. But unlike Dutch, and by extension other Germanic languages, their distribution is limited in that they do not tend to express a change of state or place (Høeg Müller, 2019). This results in expressions like (1) and (2), both examples from the corpus with the instrument being the focal point, being much more frequent in

Italian than in Dutch. In NL on the other hand, it is more common to find expressions such as (3) and (4), where the focus is on the instrumental verb, rather than on the instrument itself. It is apparent that the NL speakers resort mostly to specific C&B verbs, where the trend is more equally spread out in Italian.

1. Puoi anche usare il martelletto.
You can also use the little hammer.
2. Puoi usare la pelapatate su entrambi.
You can use the peeler for both.
3. Je kan de chocolade ook raspen.
You can also grate the chocolate.
4. Oké dus groenten en fruit schillen op verschillende manieren.
Okay so peeling fruit and vegetables in various ways.

4.2 THE INSTRUMENT AS A THEMATIC ROLE

The last thematic role included in the analysis was the instrument. The morphology of the instruments was examined as well as their grammatical function. Table 3 shows the distribution of the morphological expression of instrumentality. The percentages refer to the share per category of the total amount of expressed instruments.

Morphological expression instrumentality	NL	%NL	IT	%IT	Total	Total %
noun	195	47,22%	222	60,00%	416	53,20%
noun+pp	1	0,24%	0	0	1	0,13%
noun+clause	9	2,18%	0	0	9	1,15%
pron	26	6,30%	37	10,00%	63	8,06%
pron+noun	0	0	1	0,27%	1	0,13%
pron+clause	4	0,97%	0	0	4	0,51%
pp	37	8,96%	17	4,59%	54	6,91%
pp+v	70	16,95%	56	15,14%	126	16,11%
v+pp	57	13,80%	35	9,46%	92	11,76%
verbal	0	0	2	0,54%	2	0,26%
adverb	2	0,48%	0	0	2	0,26%
prep	2	0,48%	0	0	2	0,26%
pron adverb	10	2,42%	0	0	10	1,28%
Total	413	100%	370	100%	782	100%

Table 3: The morphological expression of the instrument in Italian and Dutch

At first glance, there are multiple morphological means through which the instrument can be expressed in both languages. For both languages, the instrument is most often encoded by a noun (60% of IT IUs) or by a combination of a noun and a clause or PP (nouns and combinations together accounting for just under 50% in the NL IUs). Alternatively, a pronoun or a pronoun combined with a noun or clause can also be used, accounting for 6,3% in NL and 10% in IT. A third option is coding with the aid of a PP. In 39,71% of the NL IUs, the instrument was expressed by a PP, whether or not followed or preceded by the main verb. In the Italian corpus, this share was 29,19%. In two instances in Italian, the INS was expressed as the subject encoded in the verb, which is not possible in Dutch, where the subject must always be expressed overtly. Finally, in 10 IUs, pronominal adverbs were used with instrumental meaning, two prepositions and two adverbs, three features that did not occur in Italian. It becomes clear that the total corpus mainly consists of three morphological expressions, namely the expression through a noun (53,20% of the total IUs), a pronoun (8,06% total), and a prepositional phrase (6,91%), followed by the main verb (16,11% of the time) or preceded by the main verb (11,76% of the IUs). Important to notice is that the Dutch-speaking participants used almost double the number of morphological constructions in comparison to the Italian participants. Furthermore, it can be deduced from the data that a noun (5)-(6) is the most common way to express an instrument in both languages. That noun can be preceded by a pronoun (7). Another commonly used option is by articulating a prepositional phrase (8)-(9), either preceded by the main verb (10)-(11) or followed by it (12)-(13). Another possibility is a pronoun (14)-(15), potentially followed by a clause (16). Less common alternatives are an instrument verbalised by the verb itself (17), an adverb (18), the combination of a noun followed by a clause (19), a preposition (20), or a pronominal adverb (21).

5. Het is wel echt een broodmes.
It really is a bread knife.
6. Oppure usare una forchetta per tagliare il ghiaccio.
Or use a fork to break the ice.
7. Penso che anche quello piccolo potrebbe essere usato per tagliare qualsiasi cosa.
I think the small one could be used to cut anything.
8. Vooral met het grote mes.
Especially with the big knife.
9. Col tosapecore.
With the sheep shearer.
10. Ja, dus je kan die aardappelen schillen met dat mes.
Yes, so you can peel those potatoes with that knife.
11. Quindi si può usare i fogli per prendere le misure con quello strumento.
So, you can use the sheets to take measurements with that tool.
12. Oké, dus ge kunt met uw handen het brood breken.
Okay, so with your hands you can break bread.

13. Mentre con l'ascia puoi tagliare il tronco.
With the axe you can cut the trunk.
14. Die kan een deur inslaan.
It can slam a door.
15. Li userei entrambi cioè intercambiabili.
I would use them both interchangeably.
16. Ik denk dat dat is om het klokhuis eruit te halen.
I think that is to get the core out.
17. Non so se serve tipo a tagliare
I don't know if that serves to, like, cut.
18. Da moet ge daar toch al in steken.
You have to insert that there.
19. Dit is gewoon een soort van potje om dat te pletten.
This is just a kind of bowl to crush that.
20. Dus wat ge doet, is die walnoot ertussen steken.
So, what you do is you put the walnut in between.
21. Je kan ook de aardappel schillen daarmee.
You can also peel the potatoes with that.
22. Olie om de ketting van de haagschaar in te smeren.
Oil to grease the chain of the hedge trimmer
23. Dat ene instrument waarmee je iets kan uiteen hakken zeg maar.
That one instrument with which you can break it up so to speak.

The next stage was to look at the syntax of the instrument as a thematic role. In NL, the instruments are expressed as an adjunct adverbial in 42,86% of the IUs (90-95), a function that also occurred in 31,71% of the Italian IUs. The second most frequently used function is the instrument as the subject of the phrase (14)-(16)-(17)-(19). The latter function is used most frequently in Italian with 129 IUs, accounting for 34,96% of the total IUs, and 115 times in NL, responsible for 27,85%. A third option is the instrument as a direct object (15), which was common in the corpus of both languages, accounting for about a fourth of the total NL IUs and roughly a third of IT IUs. Some less common features are the instrument as a non-essential phrase complement, where a further distinction was made between locative phrases (20) and other phrase complements (21). Finally, there are also 2 IUs where the instrument acts as an NP-modifier (22)-(23). When examining the distribution of all categories throughout the whole corpus, it becomes apparent that for the most part, the INS is expressed by three syntactic functions: 31,20% of the INS is expressed by the S, 37,60% is expressed by an adjunct adverbial, and 28,64% by the use of a DO.

Syntactical expression INS	NL	% NL	IT	% IT	Total	% Total
S	115	27,85%	129	34,96%	244	31,20%
Adjunct adverbial	177	42,86%	117	31,71%	294	37,60%
DO	104	25,18%	120	32,52%	224	28,64%
NP modifier	2	0,48%	0	0	2	0,26%
locative	9	2,18%	2	0,54%	11	1,41%
complement	6	1,45%	1	0,27%	7	0,90%
Total	413	100%	369	100%	782	100%

Table 4: The syntactical expression of the instrument in Dutch and Italian

The last parameter used to examine the thematic role of the instrument was its specificity. Just as the specificity of the verbs mentioned earlier, it can be opportune to analyse how specific speakers of NL and IT articulate the instruments. Following the example of the graph on verb specificity, a similar graph was drawn up (*Figure 5*), which divides the instruments into three categories. Category 1 includes generic, general expressions such as: “an instrument/thing/object to perform action X.” Category 2 includes expressions that are hyperonyms of the depicted instrument, as well as ad hoc expressions created by the speakers to build up common ground, such as “the crusher”. The last category contains the specific, conventional names of instruments, such as “the scalpel”, “the peeler”, “the baseball bat”, etc.

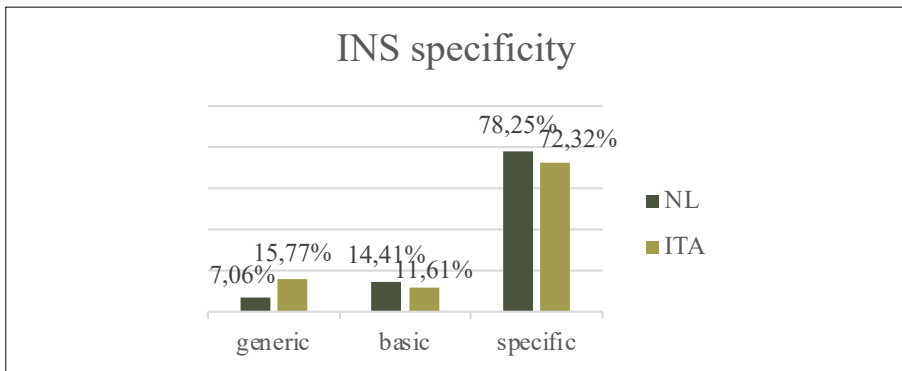


Figure 5: Instrument specificity in Dutch and Italian

From the abovementioned figure, it can be deduced that most speakers use the most specific terminology to name the instrument, both in NL and in ITA, with respectively 78,25% and 72,32% of the IUs. A small difference can be noticed between the two languages in the first category. There, it can be established that the Italian speak-

ers use 8,71% more generic statements, such as: “a thing/instrument” followed by a description. 14,41% of the NL IUs contain a simple description of the instruments. In Italian, that share was 11,61%.

4.3 CORRESPONDING PATTERNS FOR INSTRUMENTALITY

The previous section discussed the verbs and main thematic roles used in expressing instrumentality. Combining the morphologic character with the syntactic function of the thematic roles creates a three-dimensional relationship that can be encompassed in instrumental patterns, which can be both language-specific and cross-linguistic. As the number of patterns and the variations on each pattern are almost uncountable, a qualitative approach is chosen in this section. This section aims to discuss the differences and similarities between the patterns in Dutch and Italian. To do so, a number of patterns originating from the corpus are talked about, ranging from fairly simple to rather complex patterns. A follow-up study could, for instance, look at general trends per language or cross-linguistic patterns and any interesting deviating patterns.

4.3.1 PATTERNS IN DUTCH

1. S_{AG} (NOUN) V DO_{INS} (COMPOUND)

Een vader gebruikt de slijpschijf.

A father uses the grinding machine.

2. S_{AG} (PRON 2nd PERS SINGULAR)+V_{AUX} (DYNAMIC MODALITY)+DO_{PAT} (NOUN)+V_{INS}+ADJ ADV_(PREPOSITIONAL PHRASE) [PREP+DO_{INS} (COMPOUND)].

Je kan het brood snijden met een broodmes.

You can cut the bread with the breadknife.

3. ADJ ADV_(PREPOSITIONAL PHRASE) [PREP+DO_{INS} (DIMINUTIVE)] V_{AUX} (DYNAMIC MODALITY) S_{AG} (PRON 2nd PERS SINGULAR) V_{INS}

Met het scheermesje kunt ge u scheren.

With the razor, you can shave.

The first three patterns are basic patterns that often recur when thinking about instrumentality. Pattern 1 clarifies who performs the action by means of a noun. Patterns 2 and 3 use a pronoun to do so. Further, the patterns differ from each other with respect to the verbs. Pattern 1 uses a verb from the generic category and does not specify which action the agent performs exactly. In patterns 2 and 3, an auxiliary verb with a dynamic modality is used and the action is specified using an ADJ ADV. Pattern 3 can be seen as a variant of pattern 2. Special about this pattern is the specific naming

of the instrument, by means of a diminutive. Patterns 2 and 3 also show that the ADJ ADV can be expressed both at the beginning of the sentence and at the end.

4. DO^{PAT (NOUN)} V^{INS}

De haag snoeien.

To prune the hedge.

5. S^{INS (DIMINUTIVE)} CLAUSE^{PURPOSE} [PREP+DO^{PAT (NOUN)+V^{INS}}]

Het mesje om de brief open te maken.

The little knife to open the letter.

In patterns 4 and 5, it is notable that there is no need to express an agent when it comes to instrumentality. In pattern 4 the instrumentality is expressed by the verb, in pattern 5 the instrument is overtly expressed by a diminutive and behaves as the subject of the sentence, followed by a clause of purpose. Both patterns show that the presence of a finite verb is not essential for expressing instrumentality.

6. S^{AG (PRON 2nd PERS SINGULAR)} V^{CONDITIONAL AUX} DO^{PAT (NOUN)} V^{AUX (DYNAMIC MODALITY)} V^{INS}
ADJ ADV^(PREPOSITIONAL PHRASE) [PREP+DO^{INS (NOUN)}]

Ge zou het brood ook kunnen platkloppen met de hamer.

You could also smash the bread with the hammer.

7. S^{AG (PRON 2nd PERS SINGULAR)} V^{AUX (DYNAMIC MODALITY)} DO^{INS (NOUN)} V^{INF} CLAUSE^{PURPOSE}
[PREP+DO^{PAT (NOUN)+V^{INS}+DO^{PAT (NOUN)}]}

Je kan de rasp ook gebruiken om de kaas te raspen of ander eten.

You can also use the grater to grate the cheese or other food.

Patterns 6 and 7 are slightly more complicated. They are fairly similar at first glance, but the instrument in pattern 6 is expressed by the verb, followed by an ADV ADJ as in patterns 2 and 3, while pattern 7 expresses the instrument with the DO, followed by a clause of purpose.

4.3.2 PATTERNS IN ITALIAN

8. S^{INS (NOUN)} CLAUSE^{PURPOSE} [PREP+V^{INS}+DO^{PAT (NOUN)}]

La grattuggia per grattuggiare il cioccolato.

The grater to grate the chocolate.

Pattern 8 is very similar to pattern 5. The difference is that here the subject is expressed by a noun, and not by a diminutive.

9. V^{AG+AUX} (DYNAMIC MODALITY) V^{INS} DO^{INS} (NOUN)

Puoi usare la falce.

You can use the scythe.

10. S^{INS} (NOUN) V^{AUX} (DYNAMIC MODALITY) V^{INS} DO^{PAT} (NOUN)

L'autobus può schiacciare delle noci.

The bus can crush walnuts.

Pattern 9 uses a verbal subject followed by a generic verb but does not specify the action that will be executed by means of the instrument. Both patterns 9 and 10 make use of the dynamic modality, to make sure that these utterances express possible actions, without excluding alternatives. Pattern 10 on the other hand, starts with the instrument that is expressed by the subject, but instrumentality is also expressed through the verb.

11. ADJ ADV^(PREPOSITIONAL PHRASE) [PREP+DO^{INS} (COMPOUND)] V^{AG+AUX} (DYNAMIC MODALITY) V^{INS} PRON^{CI ATTUALIZZANTE} DO^{PAT} (NOUN)

Con il pelapatate puoi sbucciarci la mela.

With the peeler, you can peel the apple.

Pattern 11 starts with ADJ ADV and is followed by an auxiliary verb that again expresses the dynamic modality. Next, an instrumental verb is expressed that contains a pronoun at the end.

12. V^{AG+AUX} (DYNAMIC MODALITY) V^{INS} PP^{LOC} [PREP+DO^{PAT} (NOUN+ADJ)+DO^{PAT} (PRON +CLAUSE)] V^{RESULT}

Puoi comunque sbattere sia sul marmo levigato che su quello, sia su quello ancora da levigare, rovinandolo.

You can still bang on the polished marble as well as on the marble yet to be polished, ruining it.

Pattern 12 is again a slightly more complex pattern, given the double locative PP. What is special about this pattern is the last verb that also expresses the resultative state resulting from the action expressed by the first verb.

As can be deduced from the patterns above in combination with *Table 3*, in most cases Dutch uses a noun or pronoun to express the agent, whereas Italian encapsulates the agent in the conjugation of the verb. It must be noted as well that Dutch syntactic slots occupy a preferred position in the sentence, whereas Italian grammar allows sentence slots to switch sentence position to a certain degree (Grandi, 2011). This is illustrated by patterns 2 and 11.

In both patterns 5 and 10, the INS is the syntactical subject of the sentence, but in IT the INS performs the action, whereas in NL speakers would formulate a clause that expresses the purposed use of the INS. A sentence like pattern 10, in which the INS acts as if it were the agent, was not detected in the Dutch corpus.

4.3.3 CROSS-LINGUISTIC PATTERNS

Taking into account the linguistic differences, there are still many similarities between the IT and NL patterns. For example, in patterns 1 and 9, apart from the auxiliary verb, and the covert agent in the IT IU, the pattern remains the same. Other similarities can be found between patterns 3 and 11. Both use an ADJ ADV to express the INS, which showed to be a very common pattern (Table 4). Below are 6 examples that show that despite any differences in word order, there are still significant similarities between the two languages, whether the INS is expressed by an ADJ ADV as in 13 and 14, a DO as in 15 and 16, by a DO followed by a clause of purpose as in 17 and 18, or by a LOC ADV as in 19 and 20.

13. ADJ ADV^(PREPOSITIONAL PHRASE) [PREP+DO^{INS}] V^{AUX (DYNAMIC MODALITY)} S^{SAG (PRON)}
DO^{PAT (NOUN)} V^{INS}

Met de notenkraker kunt ge de noot kraken.
With the nutcracker, you can crack nuts.

14. ADJ ADV^(PREPOSITIONAL PHRASE) [PREP+DO^{INS (NOUN)}] V^{AG+AUX (DYNAMIC MODALITY)}
V^{INS} DO^{PAT (NOUN)}

Con i picconi puoi levigare una roccia.
With pickaxes you can pound a rock.

15. S^{SAG (PRON)} V^{AUX (DYNAMIC MODALITY)} DO^{INS (NOUN)} V^{INF}

Je kan de bijl gebruiken.
You can use the axe.

16. V^{AG+AUX (DYNAMIC MODALITY)} V^{INF} DO^{INS (NOUN)}

Puoi usare la mela.
You can use the apple.

17. S^{SAG (PRON 2nd PERS SINGULAR)} V DO^{INS} CLAUSE^{PURPOSE} [PP+DO^{PAT}+V^{INS (INF)}]

Je gebruikt de zaag om de haag te trimmen.
You use the saw to prune the hedge.

18. V^{AG+AUX (DYNAMIC MODALITY)} V DO^{INS (NOUN)} CLAUSE^{PURPOSE} [PP+V^{INS (INF)}+DO^{PAT (NOUN)}]

Puoi usare la falce per tagliare l'erba.
You can use the scythe to cut the grass.

19. S^{SAG (PRON 2nd PERS SINGULAR)} V^{CONDITIONAL AUX} DO^{PAT (NOUN)} V^{AUX (DYNAMIC MODALITY)}
V^{INS} LOC ADV^(PREPOSITIONAL PHRASE) [PREP+DO^{INS}]

Je zou een potlood kunnen pletten in de pletter.
You could crush a pencil in the mortar.

20. V^{AG+AUX} (DYNAMIC MODALITY) V^{INF} DO^{PAT} (NOUN) LOC ADV^(PREPOSITIONAL PHRASE)
 [PREP+DO^{INS}] V^{INS} DO^{PAT} (PRON)

Puoi mettere il salame nella macchina e affettarlo.

You can put a salami in the machine and slice it.

As can be seen from the examples, there is no single pattern for expressing instrumentality. Its expression goes beyond [S^{AG} + V + DO^{PAT} + ADJ ADV [PREP + DO^{INS}]]. The examples given above are by no means a complete overview, as countless variants can be produced on the listed patterns.

5. CONCLUSIONS

This research complements the existing literature on instrumentality and its expression focused on cut and break actions. Although cross-linguistic research on the C&B verbs has been carried out frequently, other studies have often omitted in their conclusion an analysis of the concrete verbal expression in NL and IT from a cognitive linguistic point of view. From several analyses of the multimodal corpus that was compiled, it appears that the thematic role instrument goes far beyond a prepositional phrase. Almost any word type can be used to express instrumentality. Moreover, the instrument can perform several sentence functions such as subject, complement, direct object, NP-modifier, various sentence complements and adjunct adverbial, both in Dutch and Italian. This results in a wide range of patterns, both language-specific and cross-linguistic, in which the INS takes on many different syntactic functions, for example, an INS expressed by an ADJ ADV, a DO, or by a DO followed by a clause of purpose. All these grammatical possibilities are present both in Italian and Dutch. Finally, it has been shown that a conversational corpus cannot be analysed separately for every individual; a conversation is the product of the two participants together, whose cognitive processes are mutually dependent in order to be able to jointly create meaning. Further research could be conducted to determine how instrumentality and causality are expressed outside the cut and break category, or how much of a conversation is created through the joint construction of meaning. Finally, it could be useful to explore how instrumentality is expressed throughout other languages in the light of the research of linguistic universals in general or research possible cross-linguistic typologies.

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