Creating MILEs
100 lexical entries for 3 languages cross-linked

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ISLE Computational Lexicon Working Group

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1 Creating Sample Entries

The task of "creating sample" of MILE-conformant lexical entries has twofold motivations:

1. on the one hand, at the beginning of the project, a case-study phase devoted to a lexicographic analysis was necessary, whose results have been used as input for the recommendations;
2. on the other hand, when the MILE design was established, the entry creation has been important to "strech" the potentialities of the model and to verify whether it was sufficiently flexible so as to permit the solving of lexicographic or translation problems emerged e.g. in the survey phase.

The document is organized in: i) a first section describing the "case study" phase –with the resulting data collected in Appendix A- , and ii) a second part introducing the "testing" of the model in a real entry-encoding scenario.

Multilingual entries for the French-Italian and Italian-English pairs are provided in enclosed files (SemUFr-It.xml and SemUIt-En.xml).

1.1   The "case-study" phase

A first, small group of words (lemmas) (the nouns *blow* and *day*, the verb *to hit* and *to play,* and the adjetive *round*) have been selected on the basis of their degree of polysemy and complexity of translation (and also because they were part of the set of entries used in the SENSEVAL-2 experiment), to build a general "test suite" of possible multilingual transfer scenarios.

The aim of the case study was the selection of the information useful to link an L1 entry to its correspondent L2 lexical entrie(s), followed by the study of the possible ways of actually representing this information for multilingual pourposes.

This experiment started with English and Italian, adopting the following procedure:

1. for each of the selected entries, we extracted the occurrences from various monolingual reference corpora (e.g. PAROLE for Italian, BNC for English);
2. the extraction results have been organised in senses, with the help of existing monolingual dictionaries and computational lexicons (e.g. SIMPLE, WordNet, EuroWordNet/ItalWordNet, ComLex);
3. the relevant syntactic descriptions and the identified senses have been encoded according to the PAROLE-SIMPLE specifications (Lenci et al., 2000). The result was a core of monolingual lexical entries described at the morphological, syntactic and semantic levels;
4. the various identified senses have been translated using bilingual dictionaries, and the translations have been revised by native language speakers;
5. on the basis of (4), the monolingual entries have been linked into bilingual entries, by focusing on the tests (the transfer conditions expressed on the SL entry) and actions (the transfer conditions expressed on the TL entry) that need to be expressed to establish proper multilingual correspondences.

In Appendix A we illustrate as exemplification the study of the noun *colpo* (roughly equivalent of the English *blow*). The senses have been circumscribed organizing the various corpus occurrences and using the sense inventories provided by monolingual dictionaries and lexicons.

For every sense the most frequent syntactic descriptions have been analyzed and described, as well as the types of translation to English, with the aim of highlighting the information that plays a role, at any levels of linguistic description, in the transfer mechanism.

1.2 Encoding entries

In the practice of entry creation, we wanted to simulate the scenario of independently built monolingual resources that are successively linked through multilingual transfer conditions. Transfer conditions have to be expressed on the monolingual information, hence a first phase of the encoding experiment has been dedicated to the creation of monolingual entries, while multilingual correspondences have been added in a second stage.

Starting from an agreed list of about 90 English lemmas (see Appendix B), we constructed three sets of SemUs (for English, French and Italian) that we used as anchor point to build two sets of multilingual entries (multi-MILEs from English to Italian and from Italian to French).

1.2.1 Encoding mono-MILEs

Following the PAROLE-SIMPLE model (which provided the bootstrapping base for the experiment) based on previous EALGES recommendations, each monolingual entry has been described in terms of three interlinked entities, i.e. Morphological Unit (*MU*), Syntactic Unit (*SynU*) and Semantic Unit (*SemU*), which encode respectively the morphological, syntactic and semantic relevant information.

When possible, the entries encoded during the PAROLE-SIMPLE project have been re-used[1].

In the SemUs, the various types of information available in the SIMPLE model (e.g. ontological types, examples, domain information, semantic features, semantic relations, thematic roles, selectional restrictions of the arguments, etc.) have been exploited to provide a formal characterisation of the selected senses of the lexical entries. On the other hand, we focused on the necessary extensions and enrichment of the original model, especially in the perspective of the jump at the multilingual level. What follows is a description of what emerged from the practice of *multi-MILEs (En-It)* creation.

1.2.2 Encoding multi-MILEs

This section contains a brief description of the strategies adopted for mapping lexical items from Italian to English.

For each meaning of an Italian entry to an English entry's meaning translation, a multi-lingual entry is constructed. So the syntactic factors associated with each individual meaning have to line up. Some mappings involve only very minor syntactic adjustments to the source or target entry. Even in such cases, there may be more than one strategy to express the syntactic differences. For the purposes of demonstrating our basic strategy, a simple entry has been included below. Complex cases such as those involving multi-word expressions can be better explored after the basic strategy we have adopted is illustrated

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[1] The entries have not been encoded using the same SGML, Entity-Relationship model of Parole and SIMPLE (since the encoding tool was not available yet at the time of the encoding phase).

colpire1 → strike [to have an impact on, to impress].

There are two facts to be captured in mapping "colpire" to "strike",
1. The transitive construction must be passive in English, while there is no such constraint in Italian.
2. Of the possible argument positions in the Italian transitive construction, the clausal subject arguments cannot be realized in the same form in English.

The input mono-lingual entries are given below.

SynU A$_{it}$:
Ex: il modo incivile di dare la notizia colpì Gianni
Description: **D_V0x1** {a construction with Position 0 and Position 1}
- Position 0 in the Construction can be realized as a that-clause, infinitive, or an NP
<position range="0" function="SUBJECT">
                                                                                                                                                           <syntagmaNT id="subj1" syntLabel="VP">
                                                    < morphoSyntFeature featureName="SYNSUBCAT" value="**THATCL**"/>
                                                    <morphoSyntFeature featureName="SYNSUBCAT" value="**SSINFINITIVE**"/>
                            <syntagmaNT id="subj2" syntLabel="**NP**"/>

- Position 1 in the Construction is realized as an NP or a gerund
<**position range="1"** function="OBJECT">
                            <syntagmaNT id="obj1" syntLabel="**NP**"/>

English SynU A$_{eng}$:
Ex: Johnny was struck by (s.o's) rude manner of giving (s.o) the news
Description: **D_V0x1**
- Position 0 in the Construction can be realized as an NP or a gerund.
<**position range="1"** function="SUBJECT">
                            <syntagmaNT id="subj1" syntLabel="**NP**"/>
                            <syntagmaNT id="subj2" syntLabel="**VP**">
                                        <morphoSyntFeature featureName="SYNSUBCAT" value="**SSGERUND** "/>

- Position 1 in the Construction is realized as an NP
        <**position range="1"** function="OBJECT">
                            <syntagmaNT id="obj1" syntLabel="**NP**"/>

MultiLingual Layer: conditions on SynU-to-SynU mapping [colpire1-strike]

<SynUMultCorresp SourceSynU="SynU-A$_{ital}$" TargetSynU="SynU-A$_{eng}$">

- SynU A$_{ital}$ maps to SynU A$_{eng}$ via the condition

     o **Add passive morphology** to English verb via the element TargetSynUActions, where the action is ConstrainSelf

    <constrainSelf>
                <addSynFeature morphoSyntFeature featureName="VOICE" value='PASSIVE'/>

English seems to accept only NP or gerund subjects for this sense of "strike". Since both the Italian and English Constructions support an NP subject, the NP subject argument need not enter into the position adjustment portion of the entry at all. Some argument mapping considerations, though, are necessary for the clausal arguments both languages exhibit in subject

position. The English clausal argument, the gerund, while it may have some of the distributional properties of noun phrases, cannot be taken as such for the purposes of translation, since the internal arguments within it correspond to arguments in the Italian construction.

The condition to be captured by the MILE model is the fact that subject arguments that are fully clausal, that is, arguments which cannot be considered as having any nominal aspects, do not appear in the English construction. However, should one of the Italian arguments in this constructions be chosen to be manipulated into a gerundival construction and if so which? It is in fact an arbitrary choice; inhibiting the Italian VP syntagma is the only possible manipulation which will block an infinitive or a that-clause. And the only way to insure that the English VP sytagma is gerundival is to constrain the position 0, add the syntagma VP and constrain *its* syntactic feature, 'GERUND'. This type of manipulation illustrates a strategy: an element whose presence is crucial in distinguishing it at the mono-lingual level (say, a syntactic position) must sometimes be constrained at the mutli-lingual layer by *adding* it, since its presence would be invisible at that layer as the result of an operation done on the other member of the mapping pair.

1.2.2.1 PROBLEMS AROSE

As we can see looking at the results illustrated in Appendix A, particularly critical issue both at the monolingual and multilingual level is represented by the dominant role of multiword expressions and collocations. These form a kind of lexicographic 'ho-man's land', which can not be easily captured with the expressive resources of standard computational lexicons. In many circumstances, it is also difficult to organise this highly context-dependent information within the main senses articulation of each word. The border between the purely lexical idiosyncrasy and the possibility of extracting useful generalisation is a very thin line, whose effective characterisation is nevertheless an important demand in multilingual computational lexicography.
Basically, two types of MWE linking problems arise. Each of them can be further divided into subcategories.

$$MWE \rightarrow MWE$$
$$MWE \rightarrow word$$

We see that the Italian noun *colpo*, which is usually translatable with the English equivalents 'blow' and 'stroke' needs, in many cases, a more specific translation, depending on the surrounding linguistic context in which this noun appears. For example, when we find *colpo* in the common context: *Colpo+ di* +INSTRUMENT ([NP[Ncolpo]] [PP[Pdi] NP[NX]]]), we usually translate it with *stroke*, but:

> if INSTRUMENT={frusta (*whip*)} then *colpo=lash*
> if INSTRUMENT={falce (*sickle*)} then *colpo=sweep*
> if INSTRUMENT={testa (*head*)} then *colpo=header*
> if INSTRUMENT={tacco (*heel*)} then *colpo=heel print*
> etc..

In the same way, when *colpo* is followed by an adjective it can be generally translated using *blow,* but:

> colpo mancino = *an underhand blow*
> colpo gobbo =a stab in the back
> colpo basso = a hit below the belt

MWEs can be handled either through additional monolingual lexicon entries beyond those needed for monolingual analysis, creating list of MW-SynUs:

> synU: "colpo_di_frusta"
> description: colpo+[prep="di"]+[N=lex] where [lex]="frusta"
> ……
> synU: "colpo_di_tacco"
> description: colpo+[prep="di"]+[N=lex] where [lex]="tacco"
> ……..
> synU: "colpo_mancino"
> description: colpo+[adj=lex] where [lex]="mancino"
> etc...

Then, in the *multi*-MILE layer we must simply record the correspondences between Italian and English SynUs:

> Mult_Usyn: <colpo-di-frusta_lash>
> Italian_Usyn: "colpo-di-frusta"
> English_Usyn: "lash"
>
> Mult_Usyn: <colpo-di-tacco_heel-print>
> Italian_Usyn: "colpo-di-tacco"
> English_Usyn: "heel_print"
>
> Mult_Usyn: <colpo-mancino_underhand-blow>
> Italian_Usyn: "colpo_mancino"
> English_Usyn: "underhand_blow"

Another possible strategy for dealing with MWs is to resort to additional information in multilingual layer, by adding or prohibiting syntactic features or positions. The correspondence established only at syntactic level is the most simple and direct, but we have to specify the whole range of transfer situations - between all the different layers of lexical description - for which we have to establish links. The MILE provide us a set of explicit *lexical objects* (entities of the ER-Model) that can be used to create new syntactic slots, new arguments, to constrain semantic and syntactic information via a powerful yet simple *lego*-mechanism of tests and actions.

When there are no corresponding monolingual MWE's, a multi-word source/target can be captured by a lexical constraint (addSyntFeature) on a slot, if the slot is already present as an argument in the monolingual dictionary. For slots not present in the monolingual entry, the element addPosition is available to create new syntactic arguments.

It is possible to identify different groups and typologies of multiword expressions and each of the types below require different mapping strategies:

a. Collocations

```
I.      noun phrase → a noun head
            un colpo di spugna -> an erasure
            un colpo di testa -> a header


II.     noun phrase  → head of a noun phrase
            colpo di falce -> a sweep [of the scythe]
            un colpo di clacson -> a blast [on the horn]
            un colpo di fucile -> a [rifle] shot
```

b. Idioms

```
III.      NP_ITidiom → NP_ENGidiom
            un colpo mancino -> an underhanded blow
            un colpo basso -> a low blow
            un colpo gobbo -> a lucky event
            un colpo di coda → a last ditch  effort
            un colpo d'occhio -> first glance
            un colpo di fulmine -> love at first sight
```

c. Support verb cases

```
IV.      support verb + NPidiom → support verb + NPidiom
 Avere un colpo di fulnine -> to fall in love at first sight
Y ha tirato un colpo mancino a X ->X has been dealt an underhanded blow


V.       support verb + NPcollocation →support verb + NPcollocation
                    support verb selection
dare un colpo di clacson       -> give a blast of the horn
far partire un colpo di fucile → give off a rifle shot

VI.      support verb + NPcollocation → lexical verb
            dare un colpo di pugnale a X -> to stab X

VII.     support verb + NPidiom → lexical verb + NPidiom
            dare un colpo basso -> to hit below the belt
```

From the point of view of a lexicographer, an idiom is the responsibility of monolingual lexicons. Thus, a fixed collocation should require no special treatment. Further, an expression's status idiomatic or collocational is a property of the source language, so any strategy taken for translation purposes ought not to alter the status itself. However, the task here is rather different. In the interest of reducing redundancy to a minimum, keeping collocational phrases from entering the mono-lingual dictionary is desirable.

During the creation of multi-MILEs for the English-Italian pair, we came up with a set of criteria which might be used to establish whether or not a MWE is a collocation. Those that meet none of the criteria below are deemed idiomatic.

1. Productive: apply to a (limited) range of arguments
2. Decomposable: individual lexical members are independently definable
3. Insertability: lexical items form modifiable constituents; e.g. adjectives and possessives can intervene
4. Argument for argument mapping

Type I: NP->N
This type meets three of the criteria for collocations
un colpo di spugna → erasure
            criteria 1 and 2 are easily met
            criterion 3: un brutto colpo di spugna

un colpo di testa → header
        criterion 3: un brutto colpo di testa
Both meet criteria 1, 2, and 3

The strategy for dealing with this type of entry requires some dexterity. In order to preserve the classification of collocation for such examples, the entry is simply "colpo". Under what conditions

can it be mapped to 'erasure'? The following MILE entry expresses the condition: if the mono-lingual entry for colpo contains the syntactic description allowing for the PP, whose head is 'di', then one can map it to erasure, just in case the 'spugna' is inserted.

Italian SynU-B*ital*:
Naming="colpo"
Description: **D_N0_PP-di**
- Head of construction is defined by Self
      \<self id="Self_N1" function="HEAD" type="SIMPLE"\>
         \<syntagmaT id="SyntagT_N0" syntLabel="N"/\>
   Position 0 in the Construction is realized as a PP

   \<Construction id="Construction_ **N0_PP-di**"\>
\<**position range="0"** id="Position_PP-di" function="OBLIQUE"
                     optional="NO"/\>
      \<syntagmaNT id="SyntagNT_PPdi" syntLabel="PP"/\>

            Position 0 within the PP-di is realized as the P-head **di**
            \<**position   range="0"**   id="Position_P0"   function="HEAD"
               optional="YES"/\>
                  \<SyntagmaT id="SyntagmaT_P0" syntLabel="P" /\>
                     \<lexFeature featureName="LEX" MU="di"/\>

            Position 1 within the PP-di is realized as a noun
                        \<**position   range="1"**   id="Position_P-N0
         function="OBJECT" optional="YES"/\>
                  \<SyntagmaT id SyntagmaT_N0 syntLabel="N" /\>

English SynU-B*eng*:
Naming="erasure"
Description: **D_Nom-head**
- Head of construction is defined by Self
      \<self id="Self_N1" function="HEAD" type="SIMPLE"\>
         \<syntagmaT id="SyntagT_N0" syntLabel="N"/\>

MultiLingual Layer   `<multiMILE id="colpo di spugna_erasure">`

SynU-to-SynU mapping conditions

`<SynUMultCorresp SourceSynU="SynU-B`*ital*`"  TargetSynU="SynU-B`*eng*`">`

- `SynU-B`*ital* `maps to SynU-B`*eng* `via 2 conditions`

    o `Map N-head`ital `to N-head`eng `via the element` **`sourceSynUTest`**`s`
        `Where the test is constrainPosition, via addPosition`

    o `Lexical insertion of "spugna" in PP-di via the element`
        `souceUsynTests``,    where    the    test    is    addSyntFeature`
        `via constrainSyntagma via the element ConstrainPosition`

`<sourceSynUTests>`

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```
  <constrainPosition       position       id="Position_PP-di"       range="0"/>
      <constrainSyntagma SyntagmaT id "SyntagmaT_N0" syntLabel="N"/>
            <addSynFeature lexFeature featureName="lex" Mu="spugna"/>
      </constrainPosition>
  </constrainPosition>
</sourceSynUTests>
```

Type I: NP->N

This type also meets 3 criteria. As before 1 and 2 are met. Examples showing how criterion 3 is met follow each example:

colpo di falce → a sweep [of the scythe]
criterion 3: un brutto colpo di falce/ un colpo della mia falce

un colpo di clacson → blast of the horn
criterion 3: un forte colpo di clacson/ un colpo del mio clacson

un colpo di fucile → a rifle shot
criterion 3: un forte colpo di fucile/ un colpo del mio falce

The strategy for this type is similar to that shown above, with some differences having to do with argument mapping. The following is a brief sketch of the translation of "colpo di clacson" to "blast of the horn"

       Mono-lingual layer:
Italian: [NPcolpo [PP di [N]] = SynU-A
       English: [NPblast [PP of [NP]] = SynU-C
Multi-lingual layer:
1.Source: test for Position PP-di; test for N terminal; add lexical feature "clacson"
2. Target: constrain Self (head) add lexical feature "blast"
3. Map Position PP-di to Position PP-of
4. Map SynU-A to SynU-C
➔Here, in the presence of **"clacson"**, **"colpo"** is mapped to **"blast"**

Idioms

III.   NP_{ITidiom} ➔ NP_{Engidiom}
```
un colpo mancino -> an underhanded blow
```

No particular problem here. Just map idiom to idiom as non-compositional wholes
Colpo mancino → low blow
Colpo basso → blow below the belt
Colpo gobbo → shrewd move

       There are cases where it is less clear what strategy to follow. These are cases involving Italian idioms which can only be translated to a long-winded English phrase. For example, "perdere qualche colpo" → "to begin to lose mental or emotional momentum, or to have mental and emotional lapses".

Support verb layer
Support Verb information cannot be added to the dictionary with the model provided by PAROLE/SIMPLE. This is because it is unpredictable which support verb a given collocation or

idiom requires, and where within the verbal structure the idiom or collocation falls. Yet this information is crucial for doing adequate translations.

An additional twist to the problem with support verbs is that some cases require mapping from one part of speech to a different one.

Two types can be seen with the collocations involving the head *colpo*.

(ital)Support verb construction → (eng)Support verb construction

Avere un colpo di fulmine → to fall in love at first sight

(ital) Support verb construction → (eng)Lexical verb construction
  Dare un colpo di pugnale a Y → to stab Y

```
IV.     support verb + NPidiom → support verb + NPidiom
 avere un colpo di fulmine -> to fall in love at first sight
```
(literally *a hit of lightening*)

The structure needed for the idiom calls for an NP Self of some type.
Selecting the support verb.
        Choice 1: put the information in the Self".

Description: **D_Nom-head**
  • Head of construction is defined by the head of Self
        <self id="Self_N1" function="**HEAD**" type="COMPLEX*">
            <syntagmaT id="SyntagT_N0" syntLabel="N"/>
                <lexFeature featureName="LEX" MU="**colpo di fulmine**"/>

The only place would be to add another Position to Self. However the function of the Self cannot be Head, since the Support Verb is the Head. Changing the function is also problematic, since the position of the subject cannot be stated

  • <self id="Self_N1" function="**SUBJECT**" type="COMPLEX*">
        <syntagmaT id="SyntagT_N0" syntLabel="N"/>
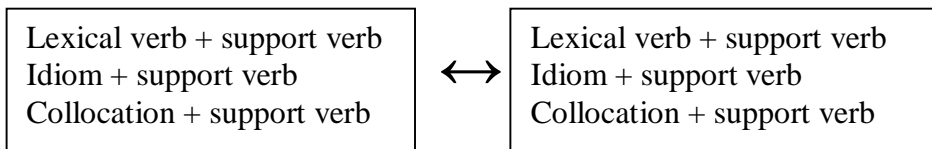   <lexFeature featureName="LEX" MU="**colpo di fulmine**"/>
    <**position range="?"** id 'Position_Vsupp" function=" **HEAD**">
    <syntagmaNT id="SyntagNT_VPsupp" syntLabel="**VP**"/>

Choice 2: put the information in the Construction. This entails that the Self would be the Support Verb and the collocation one of the arguments within. This fails to capture the fact that the choice of Support Verb information is a property of the collocation. Nothing will have been gained at all.

A possible Solution: what is needed is an extra layer in the model which will express both the lexical selection of support verb required by an entry, as well as a means of dictating the position and function within the support verb construction the entry falls. What we propose is a support verb architecture expressible at both the mono-lingual and multi-lingual levels. This architecture includes a complex SELF wherein the support verb selection is insertable, via an added element called 'SuppVerb'. This element will contain two types of positions, SuppPosition and SelfPosition. For example in order to express the fact that 'un colpo di pugnale' selects the support verb 'dare',
                [X dare un colpo di pugnale á Y]

one could express the function and position of X and Y and that of the collocation "colpo di pugnale" as well. The SuppPositions would have to be 0, function SUBJ and 2, function INDOBJ.The SelfPosition would have to be 1, function OBJ for "colpo di pugnale". Changes to the Multi-Lingual Layer would also be required. These would allow one to map the translation from:

Lexical verb + support verb Idiom + support verb Collocation + support verb	⟷	Lexical verb + support verb Idiom + support verb Collocation + support verb

In brief, these are the elements required to express the needed changes.

At the Mono-lingual level:
The Self of each candidate SynU will be a complex Self containing the element <suppVerb> , which will express
–support verb selection
–suppPosition identifies position and function of other arguments within <suppVerb>
–<selfPosition> identifies the position and function of Self within <suppVerb>

At the Multi-lingual level:
–lexical selection of <suppVerb> can be added to <Self>, or
  an existing <suppVerb> can be constrained
–suppPositions in <suppVerb> can be added or constrained
–<selfPosition> within <suppVerb> can be added or constrained
What follows is the formal additions that should be built into the present DTD:

MonoLingual Level
        <SELF>
sub-elements: <SuppVerb>(zero or one);
<syntagmaT>(one or more);
<position>(zero or more)
attributes: id, example

        <SuppVerb>
sub-elements:<SyntagmaT>(one or more);
<SelfPosition>(one);
<SuppPosition>(zero or more)
attributes: id

        <SuppPosition>
sub-elements: choice of zero or more <syntagmaT> or <syntagmaNT>
attributes: function, range, optional

        <SelfPosition>
sub-elements: choice of zero or more <syntagmaT> or <syntagmaNT>
attributes: function, range, optional

MultiLingual Level
        <ConstrainSelf>
sub-elements: <addSyntFeature>(zero or more);

<addSemFeature>(zero or more);
<addSuppVerb>(zero or one);
<constrainSuppVerb>(zero or one)

        <addSuppVerb>
sub-elements: <addSyntagma> (one or more)
<addSelfPosition>(one);
<AddSuppPosition>(zero or more);
attributes: id

        <constrainSuppVerb>
sub-elements: <addSyntagma> (one or more>
<constrainSyntagma> (one or more)
<constrainSelfPosition>(zero or one);
<AddSelfPosition>(zero or one);
<AddSuppPosition>(zero or more);
<constrainSuppPosition>(zero or more)
attributes: id

        <addSelfPosition>
sub-elements: one<SelfPosition>
attributes: SelfPosNumber, function

        <constrainSelfPosition>
sub-elements: <constrainSyntagma>(zero or more);
<addSyntagma>(zero or more)

        <addSuppPosition>
sub-elements: one<SuppPosition>
attributes: SuppPosNumber, function

        <constrainSuppPosition>
sub-elements:<constrainSyntagma>(zero or more);
<addSyntagma>(zero or more)

<posPosMultCorresp>
sub-elements: EMPTY
attributes: sourcePosNumber
        sourceSelfPosNumber
        sourceSuppPosNumber
        sourcePosLocation
        targetPosNumber
        targetSelfPosNumber
        targetSuppPosNumber
        targetPosLocation

An illustration of the above enriched model is outlined here for mapping the more complex type of case, a collocation + support verb to a lexical verb.

        dare un colpo di pugnale a Y → to stab Y

It must be borne in mind that collocations, by definition are entries whose collocative material is supplied only at the Multi-lingual layer. Thus 'colpo" is the mono-lingual entry, where it can be translated to 'stab" just in case its complement contains the PP-di, and it's an object within the support verb is 'dare".

Mono-lingual layer
–entry in the Italian lexicon:
Self [$_N$ colpo] with Construction =[$_{NP}$ [$_{PP}$ *di* [$_N$]]
–entry in the English lexicon:
Self [$_V$ stab] with Construction = [0 [$_V$] 1]

Multi-lingual layer: Source Usyn Tests
1. adding collocative material
      Test Self [$_N$ colpo] for Position PP-di: <Constrain Position>
      test for N terminal: <Constrain Syntagma>
      add lexical feature 'pugnale": <addSynFeature>, <lexFeature>
2. support verb actions:
Test for support verb: <ConstrainSelf>, <addSuppVerb>
Insert support verb selected by 'colpo di pugnale": <addSyntagma>
Add lexical feature 'dare": <addSynFeature>, <lexFeature>
      Add support verb structure: <constrainSuppVerb>,
                    <addSuppPosition>, SuppPosNumber = 0 function =SUBJ
                    <addSelfPosition>, SuppPosNumer =1, function =OBJ
                    <addSuppPosition>, SuppPosNumber = 2 function =INDOBJ
3. mapping actions
        <posPosMultCorresp>
      SourceSuppPosNumber =0 TargetPosNumber = 0
      SourceSuppPosNumber =2 TargetPosNumber = 1

If above support verb architecture were to be folded into the existent model, the simpler cases involving idiom + support verb mappings could also be captured.

Appendix A-- *Colpo*: a *case-study*

What follows is a list of collocations of the lemma *colpo* extracted from the Italian corpus, from InterNet and from the examples of the mono and bilingual dictionaries.
Each collocation has been addressed to the correspondent sense of the monolingual dictionary and the correspondent SIMPLE Usem and then have been syntactically described and translated using bilingual dictionaries.
The British National Corpus has been consulted to verify the effective use of some proposed translations.
The various collocations have been organized not only on the basis of the correspondent sense but also on the type of syntactic description and the kind of translation.

a. *Colpo sense 1 (≈ blow, stroke, knock, bang)*

Syntax 1
colpo+Adjective: $_{NP}[_N$colpo $_{ADJ}$X]

Colpo mortale	⇒ *mortal **blow***
Colpo mancino (*fig* and not *fig.*)	⇒ *an underhand blow (fig)*
Colpo basso (*fig* and not *fig.*)	⇒ *a hit the belt*
Colpo gobbo (*fig.*)	⇒ *a stab in the back*

Syntax 2
$[_{NP}[_N$*colpo*]] $[_{PP}[_P$di] $[_{NP}[_N$X]]]

The noun in the PP is a concrete entity, usually an instrument or a body part, and $[_P$di] expresses the instrument the blow is inflicted with. $[_P$con] has the same function of $[_P$di] in expressions like *dare un colpo/colpire con la mano destra* ($[_{SN}[_N$colpo]] $[_{SP}[_P$con] $[_{SN}[_N$X]]])

Colpo di spada	⇒ sword **stroke** (BNC: *he fell to the sword stroke of an ambitious young Orc Warboss*)/ **stroke of** the sword (**BNC**: *one stroke of his sword*)
{Colpo di martello, martellata}	⇒ ***stroke/blow*** *of a hammer/ hammer stroke/blow* --coup de marteau/martelement (BNC= *The hammer blow came in the 62nd minute.*)
{Colpo di frusta, frustata}	⇒ ***lash*** *of the whip,* **lash** *(five lashes for stealing ...)* --coup de fouet/fouettement
Colpo di scure/ascia	⇒ ***chop***[2] *(he split the log wit a single chop of his axe)* –
	⇒ **to axe** (only used in fig sense e.g. *hundreds of jobs were axed*)
	(but in the **BNC:** *He repositioned the larger piece for another **blow of the axe***). another blow <u>from</u> the axe-- Coup de hache
{Colpo di pugnale, pugnalata}	⇒ a stab with a dagger **coup de poignard**
colpo di baionetta	⇒**stab of a bayonet coup de baïonnette**

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[2] A chop is a vigorous downward movement for the purpose of cutting – you normally chop wood with an axe, you chop meat with a knife (*a chopper*) etc.

a stab implies the movement is downward, fast and dangerous ; *a thrust* implies the movement is sudden, forceful and either horizontal or upward : this is true of daggers, bayonets, any pointed weapon or instrument.

colpo di falce $\Rightarrow$**sweep of a scythe** --coup de faux
Colpo di testa (*calcio*) $\Rightarrow$ ***header*** --coup de tête (football)

$[_{NP}[_N colpo]] [_{PP}[_P di] [_{NP}[_N X]]$

   ®   **lash of NP** (with N= *whip*)/**lash** (with incorporated argument=**frusta**)
   ®   **chop** (with incorporated argument =**knife/ axe**)/**chop of NP** (but we cannot find occurrences with the *chop of* structure in the BNC)
   ®   **stab of NP** (with N= cutting tools, like dagger, bayonett etc..)/ **stab** (with incorporated argument (dagger) like the Italian *pugnalata*)
  ®**header** (with incorporated argument (head) like the Italian *testata*)

The behaviour of the sense 1 of *colpo* when translated to English can described as follows:

$[_{NP}[_N colpo]] [_{PP}[_P di] [_{NP}[_N X]] ®[_{NP}[_N \Phi(colpo)] [_{PP}[_P of] [_{NP}[_N \Phi(X)]]]$

              (where **Φ= translation function**)
        usually $\Phi(colpo)$=stroke, but:
        if $X \subset$ {pugnale, baionetta} then $\Phi(colpo)$=stab
        if $X \subset$ {coltello[3], ascia, scure} then $\Phi(colpo)$=chop
        if $X=$ {frusta} then $\Phi(colpo)$=lash
        if $X=${falce} then $\Phi(colpo)$=sweep
      ®$[_{NP}[_N \Phi(colpo)]$
        if $X \subset$ {pugnale, baionetta} then $\Phi(colpo)$=stab
        if $X \subset$ {coltello, ascia} then $\Phi(colpo)$=chop
        if $X=${frusta} then $\Phi(colpo)$=lash
        if $X=${testa} then $\Phi(colpo)$=header
      ® $[_{NP}[_N \Phi X] [_N stroke]]$

We can observe that many collocations are hyponyms of the word *colpo* and are synonyms of existing Italian entries, like *pugnalata*, *coltellata*, *testata* etc..

With the same syntactic realization ($[_{NP}[_N colpo]] [_{PP}[_P di] [_{NP}[_N X]]$), we found in the corpus a very frequent occurrence, *colpo di grazia* (*finishing stroke*), in which the N of the PP is not a concrete entity nor the [$_P$di] introduces the instrument the blow is inflicted with. This should be treated as a fixed multiword.
English regularly borrows from the French phrases such as *coup de grâce, coup de théâtre, coup d'état* etc. because the nouns *strike, blow etc.* are little used and sound unnatural.

Syntax 3:

$[_{NP}[_N colpo]] [_{PP}[_P a] [_{NP}[_N X]]]$

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[3] But *coltellata = stab*.

The noun in the PP is a concrete entity (*colpo alla porta*) and the [PA] expresses the location target of the blow.

Colpo alla porta ® *a **knock/bang/rap** on the door (BNC: I bang on the door, but no one answers, so I push it open and go in/ There was an assertive rap on the door.*) --frapper à la porte
Colpo al torace® *a blow to* or *on the chest / a thump* or *punch on the chest* -- Coup au thorax
Colpo alla nuca®*rabbit punch* --Coup du lapin

$$[_{SN}[_N colpo]] \ [_{SP}[_{PA}]] \ [_{SN}[_N X]] \quad ® \ [_{NP}[_N \Phi(colpo)]] \ [_{PP}[_{PON}]] \ [_{NP}[_N \Phi(X)]]]$$

usually $\Phi(colpo)$=blow, but:

if X=porta then $\Phi(colpo) \subset$ {knock, bang, rap}
if X=nuca then $\Phi(colpo)$ = rabbit punch

Typical idioms for the sense 1:

Colpo su colpo ➔ *blow upon blow-- coup sur coup*
A colpo sicuro ➔ *definitely* or *without a shadow of doubt-- à coup sûr*
Dare un colpo al cerchio e uno alla botte➔*to run with the hare and hunt with the hounds*-- ménager la chèvre et le chou
Rendere colpo per colpo➔ *to return blow for blow/ to give as good as one gets/ to give tit for tat* --rendre coup pour coup
Senza colpo ferire ➔ *without striking a blow* or *without a single blow being struck* (English participle *striking* has to modify the subject of the following verb) -- sans résistance
Tempestare di colpi➔ *to shower* or *rain blows* (*on st.*)/ *to hammer* (*at st.*) *to batter at sth* --tambouriner (selection of *hammer* versus *batter* depends on contexts)

Translations of sample phrases

(Mulcuck's function: OPER)
Dare (*give*) - dare il colpo del ko al Milan ==> *to deliver a knock-out blow to ...*-- mettre ko l'AC Milan
Sferrare (*deal*)- sferra il primo colpo alla gola *he struck first at his (or her) throat*-- il a donné un premier coup à la gorge
Vibrare (*strike*)- gli vibra un secondo colpo alla testa *he (or she) planted or landed a second blow on his (etc.) head, he dealt a second blow to his head*-- il a donné un second coup à la tête
Tirare (*deal*) - Tira un colpo contro il finestrino *he struck at the car window (?)* --il a lancé le ballon en direction de la lucarne

Fig.
Assestare (*give*)- ha assestato un altro colpo alla credibilità internazionale *it struck another blow at* -- il a de nouveau ébranlé la crédibilité internationale
Apportare (*give*) - apportò un duro colpo alla credibilità del Paese *this was a serious blow to ...* -- il a fortement nui à la crédibilité du pays
Infliggere (*inflict*) - colpo inferto all'inchiesta ==> *this was a serious blow to the investigation* --L'enquête en a pris un coup
Sferzare (*whip*)- sferza un duro colpo al consociativismo-- *this was a serious blow to ...* ce fut un coup dur pour la cohabitation
Sferrare (*deal*)- sferra il primo colpo alla gola *he struck first at his (or her) throat* --il a donné un premier coup à la gorge
Vibrare (*strike*)- gli vibra un secondo colpo alla testa *he (or she) planted or landed a second blow on his (etc.) head, he dealt a second blow to his head* --il a donné un second coup à la tête
Tirare (*deal*) - Tira un colpo contro il finestrino *he struck at the car window* -- il a lancé le ballon en direction de la lucarne

(Mulcuck's function: OPER2)
Ricevere (*receive*) - ricevette un colpo in testa *he received a blow to the head* or *a blow on his head* -- l reçut un coup à la tête

Subire - i primi a subire il colpo alla nuca. *the first to receive a rabbit punch* -- Les premiers à avoir eu le coup du lapin

Fig.
Incassare - ha incassato un colpo basso dal rifiuto di Germania *Germany's refusal was a bad blow for him* --le refus de l'Allemagne lui a porté un coup bas
Accusare - accusavano il colpo cercando di ricucire *they were stuck while ...*-- ils accusaient le coup tout en cherchant à panser leurs blessures

Colpo as subject of the verb:
Ferire (wound) - *l'altro colpo ferisce Zappoli ai glutei ® the second blow wounded Z in the buttock,* Zappoli reçut un autre coup au postérieur
Fare (make – *causative*) – il colpo lo fece stramazzare al suolo- il colpo lo uccise all'istante ecc.. *the blow felled him to the ground / killed him instantly* le coup le cloua au sol/il fut tué sur le coup
Uccidere (…) – *il colpo lo uccise all'istante* il fut tué sur le coup

Dim.: colpetto, colpettino
Accr. : colpaccio
Some possible **hyponyms**: bastonata (*blow with a stick*), fendente, mazzata, sassata, frustata, calcio, pedata, pugno, cazzotto, schiaffo, gomitata, testata ecc...(in ItalWordNet: 85 hyponyms).

b. colpo sense 2 (Shot)

Colpo (**d'arma da fuoco**) ➔ *shot-- coup de feu*
Colpo a salve ➔*to fire blanck -- coup à blanc*

colpo di fucile➔*rifle shot (*BNC: It is a special effect used in thousands of films and TV dramas -- the charges trigger a flash to create a realistic rifle shot effect.) --coup de fusil

Object of the verb:
Sparare/tirare➔ *to fire a shot tirer*-- faire feu
mancare il colpo➔ *to miss the shot/ to misfir-- e manquer la cible*

colpo sparato con una pistola giocattolo ➔ *shot fired from a toy gun -- coup tiré par un pistolet en plastique*

Subject of the verb:
colpire, uccidere -- frapper , tuer

In the corpus, we can find the structure colpo + $_{SP}$[$_P$di $_{SN}$[$_N$X]], with hyperonym(X)=arma da fuoco (*firearm*), and *colpo* without arguments.

c. colpo sense 3 (sudden event/movement/phenomenon)

Under this sense is possible to put together most of the collocations we found in the corpus and in the examples given by dictionaries.
It seems pretty difficult to outline a translation pattern for all this cases.

Sense 3a: sudden movement (blow, stroke, touch, push)

Syntax: [$_{SN}$[$_N$colpo]] [$_{SP}$[$_P$di] [$_{SN}$[$_N$X]]], con X $\subset$\{freno, acceleratore, reni, coda, tacco, remi, ala, etc...\}

Colpo di freno *dare un colpo di freno* ➜ **to jam/slam on** *the brake --coup de frein*
Colpo di coda ➜ ***flick of*** or *its the tail --coup de queue*
colpo d'ala ➜ *a flap of its* or *the wings*
Colpo di reni ➜ ***leap/ spring*** -- **coup de reins**
Colpo di acceleratore ➜ (there's no noun phrase in English that fits any context, cf. *to stamp on the accelerator*) --coup d'accélérateur
Colpo di pedale ➜ *pedal stroke* or *to pedal* -- coup de pédale
Colpo di remi ➜ **stroke of** the oars --coup d'aviron

Object of the verb
Fig. : subire (*subire un altro colpo di freno*)

Sense 3b: sudden and quick aspect of a phenomenon

Syntax: $[_{SN}[_{N}colpo]] [_{SP}[_{P}di] [_{SN}[_{N}X]]]$, con X ⊂{fortuna, scena, teatro, genio, fulmine....coraggio, testa etc..}

Colpo di fortuna ➜ *stroke/piece of luck-- coup de chance*
Colpo di scena/teatro ➜ *coup de théâtre, stage trick, sudden, unexpected turn of events-- coup de théâtre*
Colpo di genio ➜ *stroke of genius-- avoir une idée de génie*
Colpo di fulmine (*fig.*) ➜ *love at first sight-- coup de foudre*
Colpo di stato ➜ *coup d'état* (also in English)
Colpo di mano ➜ *(lit) blow with one's fist ; (fig) helping hand*
Colpo d'occhio ➜ *(occhiata) quick glance, (veduta) view --coup d'oeil*
Colpo di sonno ➜ *a brief* or *quick nap* (= sleep) *--coup de barre*
Colpo di coraggio ➜ *a burst of courage* re *--prendre courage*
Colpo di testa (*fig.*) ➜ *rash act* coup de tête (sens figuré) English : (lit) *head-butt ;* (fig) a sudden impulse
colpo di spugna ➜ to erase sth -- *passer l'éponge*

For this sense we find a very frequent collocation, **brutto colpo.**
Regarding the 'hot figurative" sense of this entry (the 4a), we can circumscribe a little group of collocations:

Colpo di sole ➜ *sunstroke --coup de soleil*
Colpo di calore ➜ ?-- coup de chaud
Colpo d'aria ➜ ?--coup d'air / refroidissement
Colpo della strega ➜ ?--tour de reins

d. colpo sense 3 (r*obbery*, *theft*, *job, heist*)
(*job* is probably the most useful for dishonest *colpi*)

Occurrences extracted from the corpus:

Colpo miliardario
Colpo al casello di
Colpo in banca
Colpo da 50 milioni
Colpo a sorpresa
Colpo dei soliti ignoti

Colpo al sonnifero

Occurrences from the ITALIAN CORPUS

Colpo + A

WHO/WHAT is hit
Sometimes ambiguous with LOC

con un tubo di Baci dà un **colpo** a una macchina --à l'aide d'une boîte de Baci Perugina, il donna un coup à la voiture --*he hit the car with a tube of BP*

dando un leggero **colpo** alla porta d' ingresso --il frappa doucement à la porte d'entrée--*with a light tap on the front door*

sferrare il primo duro **colpo** a "Fido" --porter un coup dur à Fido-- *to deliver the first hard knock to 'Fido'*

Ad assestare un duro **colpo** a Bruno Contrada --asséner un coup dur à Bruno Contrada-- *to deal a bad blow to BC*

ha inferto ieri un terribile **colpo** a coloro che, -- hier, il a porté un coup terrible à ceux qui...-- *delivered a terrible blow to ...*

DALL' IRAK UN **COLPO** AI PREZZI DEL PETROLIO --l'Irak fait chuter le cours du pétrole --*dealt a serious blow to oil prices*

È un duro **colpo** all' immagine del partito --c'est un coup dur pour l'image du parti--*this is a nasty blow to the party's image*

spara un **colpo** ai finestrini posteriori (LOC) -- il fait feu sur les vitres arrières --*he fired a shot at the back windows*

LOC
WHERE

gran **colpo** a centro area --les partis centristes ont fait fort --*great strides made by the centre parties*

Colpo al cuore nucleare d' Europa (WHO/WHAT?) --le nucléaire européen en état de choc --*a blow to the nuclear heart of Europe /* r *a serious blow to the European nuclear industry*

Con altrettanta certezza ci sarà un **colpo** anche ai piani alti, ridimensionando anche presunti il --y aura sans aucun doute une restructuration aux plus hauts niveaux et elle touchera même …

Per fare il **colpo** a Bologna --faire le coup à Bologne-- *to do a job in Bologna*

aveva messo a segno un **colpo** a Cassano d' Adda --il avait organisé son coup à Cassano d'Adda--*he'd set up a job in C d'A*

TOWARDS

violento **colpo** a pochi millimetri dal cuore --coup violent porté à quelques millimètres du coeur -- *violent blow which landed only a few millimetres from the heart*

ho sentito un **colpo** al braccio-- j'ai ressenti une douleur au bras --*I felt something hit my arm*

con un solo **colpo** alla nuca, le ha ucciso --un seul coup à la nuque a suffit pour le tuer-- *a single rabbit punch killed him*

apportato un duro **colpo** a questa causa-- il s'est beaucoup investi dans cette cause-- *this delivered a serious blow to that cause* (but English doesn't mean same as French)

è stato il **colpo** al collo a uccidere --c'est le coup à la gorge qui lui a été fatalv-- *the blow to the throat was the fatal one*

suicida con un **colpo** al cuore -- il s'est suicidé d'un coup au coeur-- *killed himself with a shot through the heart*

si ravvisava «un vigoroso **colpo** a destra verso il concetto piú completo e piú moderno --à droite, on envisageait un changement de cap radical qui tendrait vers un concept plus moderne et plus complet --*spotted a strong swing to the right towards the concept ...*

e un **colpo** a prua di Cossiga a Prodi --c'est une manœuvre visant à changer le cap en passant de Cossiga à Prodi changer le cap -- *to change course* or *direction*

accusati anche del **colpo** a una gioielleria (WHO/WHAT)-- ils furent accusés du casse d'une bijouterie--*accused of a jewellery store robbery* or *of robbing a jewellery*

sventato un **colpo** ad un camion pieno di telecamere --éventer un coup contre un camion rempli de caméras --*foiled a heist of a truck full of cameras*

MANNER
- un **colpo** a man franca --un coup d'une main sûre
positivi ha cominciato a dare qualche **colpo** a vuoto --positifs , il a commencé à donner quelques coups dans le vide --
began to strike quite useless blows at ... (?)
- spara un **colpo**   a casaccio-- il tira un coup à l'aveuglette-- *he fired a shot at random*
- medita un **colpo** alla Demi Moore --il mijote un coup à la Demi Moore-- *he's thinking of a Demi Moore job*
-Altro   **colpo** a nove zeri?-- Un autre casse qui valait des millions-- *another million-dollar job*
Non è stato il classico **colpo**   alla Diabolik --le meurtre n'a pas été calqué sur le modèle des Diaboliques
Colpo   al sonnifero-- la tactique du somnifère

WHAT is CAUSED/GENERATED by the hit?

sul **colpo** a effetto-- sur le coup médiatique
effettuare un **colpo** a effetto --tenter un coup médiatique
per apparire come un   **colpo** ad effetto di politica spettacolo --pour faire croire à un coup médiatique de la part de la
politique de spectacle
-Gonzalez avrebbe voluto fare un altro **colpo**   a sensazione --Gonzalez aurait voulu tenter un autre coup à
sensation-*G had wanted to pull off another sensational coup*
questo   **colpo**   a tradimento ai piccoli risparmiatori --ce coup en traître envers les petits épargnants-- *this treacherous*
blow to small savers
La conclusione dell' asta è stato il classico**colpo** a sorpresa --la vente aux enchères s'est soldée par une adjudication
surprise
con un nuovo   **colpo**   a sorpresa-- avec un nouveau coup surprise
il governo medita un   **colpo**   a sorpresa --le gouvernement mijote un coup surprise
colpo   a sorpresa del Pds --coup surprise du PDS
lei teme qualche **colpo**   a sorpresa dell' Etna? --Elle craint une éventuelle éruption de l'Etna

TEMP
1sport : sfiora il **colpo**   al 92' --il manque le but à la $92^{\text{ème}}$ minute

Colpo+CON

MANNER/COMPANY/WHOM is hit/INSTRUMENT
mi ha dato un   **colpo**   alla gola con il piede --il m'a frappé à la gorge avec le pied
sferrandogli un **colpo**   col ginocchio --en lui donnant un coup avec le genou
picchiò qualche **colpo**   con le nocche-- je frappe quelques coups avec le doigts
 Dopo il **colpo**   a vuoto con il Parma-- après un match à vide contre l'équipe de Parme
rispondere al   **colpo**   con altrettanta durezza --prendre sa revanche avec tout autant de dureté
 sparandosi un   **colpo**   con la pistola di papà --en retournant le pistolet de son père contre lui
 Ha tentato il   **colpo**   con un turista norvegese-- il a essayé de draguer une touriste norvégienne
un altro **colpo**   con sparatoria-- un autre coup avec fusillade
dopo avere messo a segno qualche **colpo**   con alcuni pregiudicati --après avoir monté un coup avec des repris de
justice
Colpo   con l' inganno sulla Litoranea-- manœuvre par la ruse sur le Litoranea

Colpo+DI

AGENT volunt.
che è stato un   **colpo**   della contraerea irachena --il s'agit d'une manœuvre de l'aviation iraquienne
Colpo   della polizia contro il Cartello --manœuvre de la police à l' encontre de Cartello

Notevole il   **colpo**   del Tg5 : la nouvelle explosive révélée par le Tg5 (journal télévisé de la chaîne Canale 5)
non ci sono dubbi sul più grosso   **colpo**   del calcio mercato ' 92- il n'y a plus aucun doute quant à l'importance du
but marqué à la 92^{e} minute de jeu
Gran   **colpo**   del Meeting di Torino che martedi festeggerà il suo esordio-- importance capitale de la rencontre
organisée à Turin qui débutera mardi

grosso **colpo** del Museo Paul Getty -- le Musée Paul Getty joue une carte décisive
Gran **colpo** del Nizza a Mariano -- excellente opération réalisée par l'équipe Nice sur le terrain d e Mariano
il brutto **colpo** del no della Commissione Bilancio -- le revers brutal engendré par le refus de la Commission budgétaire

Nuovo **colpo** del bandito -- dernier coup en date du bandit
L' ultimo **colpo** della banda-- le dernier coup de la bande

ORIGIN of the hit
arriva un nuovo **colpo** dei prezzi -- une nouvelle chute NO ? ?des prix est sur le point de se produire
accompagnati da qualche rovescio e **colpo** di vento -- accompagnés par quelques averses et coups de vent
il brutto **colpo** del no della Commissione Bilancio -- le revers brutal engendré par le refus de la Commission budgétaire

Incassato abbastanza bene il **colpo** basso dell' amnistia -- il a relativement bien encaissé le coup bas de l'amnistice
incassato il duro **colpo** del fallimento delle trattative -- encaissé le coup dur occasionné par l'échec des négociations
attutire il **colpo** della bocciatura --atténuer le choc engendré par le recalage
accusa il **colpo** di un pesante ribasso -- il accuse le coup d'une baisse sensible

INSTRUMENT
1 : si vedrebbero ancora i segni di un **colpo** d' ascia --on verrait encore les marques d'un coup de hache
Timu lo uccise con un **colpo** di scure --Timu le tua d'un coup de hache
tagliandogli la testa con un **colpo** di spada --en lui tranchant la tête d'un coup d'épée
con un deciso **colpo** di bisturi gli tagliano una parte di cartilagine --sans hésitation, ils lui enlèvent une partie du cartilage d'un coup de bistouri
come un **colpo** di lama --comme un coup de lame
quando vedo l' asfalto rotto da un primo **colpo** di piccone -- quand je vois le bitume perforé par un seul coup de pioche
su tiro di Coco deviato da Binz, e un **colpo** di testa (fuori) di Di Napoli --sur tir de Coco dévié par Binz, et une tête de Di Napoli (à l'extérieur du terrrain)
telecomandava un **colpo** di testa a pallonetto -- il envisageait une tête sur lob
colpo di testa da due metri in mischia -- tête à deux mètres du but
il **colpo** di testa del portiere Micheletti -- la tête du gardien Micheletti
un **colpo** di testa di Rosati su cross di Stabile --une tête de Rosati sur centre de Stabile
con un **colpo** di testa in tuffo di Schillaci -- d'une tête plongeante de Schillaci
con un preciso **colpo** di testa in mischia su punizione -- d'une tête précise sur coup franc devant le but
angolo e **colpo** di testa in rete --corner et tête dans les filets

qualcosa di identico alla moda, e il **colpo** di forbice di Valentino equivarrebbe a quello di Lucio Fontana-- quelque chose de semblable à la mode, et le coup de ciseau de Valentino serait comparable à celui de Lucio Fontana
un **colpo** di siringa al braccio, una ferita --une piqûre dans le bras, une blessure

- un **colpo** della loro pistola giocattolo --un coup de leur pistolet en plastique
colpo di "calibro 22"-- coup de feu provenant d'un calibre 22
ieri mattina infine un **colpo** di lupara --hier matin, un coup de fusil de chasse fut tiré
ha sparato in aria un **colpo** di pistola-- il a tiré un coup de pistolet en l'air
lo hanno liquidato con un **colpo** di pistola al cuore --ils lui ont réglé son compte d'un coup de pistolet au coeur
è stato ucciso con un **colpo** di pistola in fronte-- il a été tué d'un coup de pistolet au front
ha esploso un **colpo** di pistola in aria --il a tiré un coup de feu en l'air
con un **colpo** di pistola in testa, --d'un coup de pistolet à la tête
gli sparò un **colpo** di pistola nella nuca --il lui tira un coup de pistolet dans la nuque
uccise con un **colpo** di revolver la moglie --il tua sa femme d'un coup de revolver
si uccide con un **colpo** di rivoltella-- il se donna la mort d'un coup de revolver
seguite da un **colpo** di rivoltella alla tempia --suivies d'un coup de revolver à la tempe
sebbene suicida con un **colpo** di rivoltella in bocca bien qu'il se suicide d'un coup de revolver dans la bouche

- l' editrice tenta il **colpo** dell' hard cover e del prezzo "intero"--l'éditrice tente le coup de l'édition brochée et du prix fixe

THEME/WHAT MOVES/Origin **of the hit**/
- dopo avere ringraziato la barchetta dei due veterinari con un **colpo** affettuoso della testa --après avoir remercié les deux vétérinaires d'un geste amical de la tête
il **colpo** d' anca della sciantosa meridionale -- le déhanchement de la chanteuse de cabaret méridionnale
passarli sulla forchetta con un **colpo** di dito --pousser les aliments sur la fourchette à l'aide des doigts
arriva inatteso il **colpo** d' artiglio --le coup de griffe survient à l'improviste

- Con un **colpo** d' obbiettivo, Oliviero Toscani -- grâce à une manœuvre désintéressée, Oliviero Toscani
Frenata violenta, all' ultimo momento, un **colpo** di sterzo -- freinage brusque, à la dernière minute, un changement de direction
ritrovare i ritmi e il **colpo** di pedale da stradista -- retrouver le rythme et le coup de pédale du coureur sur routes -
raccontato di dare ormai solo qualche **colpo** di racchetta --raconté de ne plus donner maintenant que quelques coups de raquette

MANNER
- L' altro se l' è cavata con un **colpo** di striscio allo stomaco --l'autre s'en est sorti avec un coup de biais dans le ventre

TEMP
- il **colpo** di martedì, pur avendo avuto effetti catastrofici sul patrimonio -- la mauvaise surprise de mardi, bien qu'ayant eu des conséquences catastrophiques sur le patrimoine -

TYPE RESTRICTION
- **colpo** di karaté --prise de karaté
Sembrava un **colpo** di karate --on aurait dit une prise de karaté
qualche **colpo** di judo-- une prise de judo
Al secondo **colpo** della prima buca --dans le premier trou à la deuxième tentative (golf)
l' ennesimo **colpo** della sua intensa campagna acquisti -- la ixième manœuvre de son intense campagne de rachats
il brutto **colpo** del no della Commissione Bilancio -- le revers brutal engendré par le refus de la Commission budgétaire

Strabilianti opere dove un **colpo** di biacca, un impasto di ocre si trasformano in --les œuvres stupéfiantes où une touche de césure, un mélange d'ocre se transforment en …

Colpo+0

è partito il **colpo** che ha ucciso Tarzan -- le coup de feu qui a tué Tarzan est parti
Mio padre ebbe un **colpo** -- mon père eut un choc

Colpo+DA

TYPICAL OF
in rete da Massaro con un **colpo** da antico mestierante -- en direct de Massacro avec un truc de vieil intéréssé
Il solito **colpo** da campione --la même combine de vainqueur

AMOUNT
8 : Colpo da cento milioni all' ufficio postale- casse de cent millions au bureau de poste

Colpo+SU
WHO/WHAT is hit/LOC/WHERE

sferra un **colpo** sul bancone -- Il tire un coup de feu en direction du balcon
C' era da augurarsi un **colpo** sul cranio -- il valait mieux prendre un coup sur le crâne
mi dia un **colpo** sulla spalla -- donnez-moi une tappe sur l'épaule

È un altro **colpo** sulla testa degli imprenditori -- C'est un autre coup dur infligé par les entrepreneurs

dopo il **colpo** su Giuliano ci si interrogava -- après la tentative de meurtre sur Giuliano, on se posait des questions

Dahlin è il primo **colpo** della Roma sul mercato-- Dahlin est le premier transfert de l'AS Roma sur le marché

per il **colpo** sul furgone postale -- pour le casse du fourgon postal
un altro **colpo** sul mercato alimentare -- une autre tentative sur le marché alimentaire

Colpo+PER
WHO/WHAT is hit
Questa testimonianza è un **colpo** duro per la mafia lametina -- ce témoignage porte un coup dur à la mafia de Lamezia Terme
duro **colpo** per i 40 professionisti -- coup dur pour 40 personnes qui exercent une profession libérale
un brutto **colpo** per i traffici illegali --une mauvaise passe pour les trafics en tout genre
è stato un **colpo** all' inizio per mio padre- au début, cela a été un choc pour mon père
Un brutto **colpo** anche per i tentativi di riforma -- également une mauvaise opération pour les tentatives de réformes
CAUSE
MWE : sia morta sul **colpo** per i colpi di padella ricevuti in testa -- qu'elle soit morte immédiatement en raison des coups de poêle reçus sur la tête

Colpo+IN
LOC
where
colpo in banca da 50 milioni -- casse de 50 millions dans une banque
gli stessi del **colpo** in banca. -- les mêmes bandits que ceux du casse de la banque
tenta il **colpo** in farmacia --il tente le coup dans une pharmacie

towards
Aranda per aver dato un **colpo** in faccia al croato -- Aranda, pour avoir porté un coup au visage du Croate

ha sparato un **colpo** in aria -- il a tiré un coup en l'air

TEMP
non spararono un solo **colpo** in guerra -- durant la guerre, ils ne firent jamais feu

Un duro **colpo** nella grande festa di promozioni -- un coup dur lors du grand festival des soldes

Appendix B: SemU list

NOUNS

tea
lemon
violet
school
dog
coat
wing
cake
sound
education
violinist
book
drawing
desire
spring
ceramics
life
marble
jewel
tissue
weapon
lunch
tide
pain
blanket
tent
powder
bullet
spiral
cube
cosmetic
product
child
cat
fear
flower
accusation
toy
keyboard
rifle
day
blow

VERBS

To admire
To die
To hit
To play
To abdicate
To pour (out)

To laugh
To read
To cry
To jump
To phone
To stumble
To fill
To ride
To clean
To buy
To sell

ADJECTIVES

musical
sweet
rigid
nuclear
sad
dead
alive
clear
dark
healthy
sick
round