GRAMMATICAL METONYMY AND METAPHOR: A CASE STUDY OF ITALIAN MORPHOLOGY*

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ABSTRACT. *Among those Italian nouns which display irregularities in their plural forms, there are also the so-called 'nomi sovrabbondanti' (cf. Dardano & Trifone, 1992), which have a double plural: a masculine plural in –i and a feminine plural in –a. Interestingly enough, this type of morphological marking serves as a cue to activate metonymic or metaphoric meanings. In this paper, we further explore the kind of metaphoric and metonymic meanings which are associated to them in order to ascertain some generalisations about their use in contemporary Italian. In addition, our analysis of the cognitive mappings underlying the use of Italian 'nomi sovrabbondanti' comes to provide ample evidence of the conceptual basis of morphological phenomena, an area of study which has been to date largely neglected.*

KEYWORDS. *Metonymy, metaphor, morphology, Italian irregular plurals, Cognitive Linguistics.*

RESUMEN. *Entre los sustantivos de la lengua italiana que forman su plural de forma irregular, se encuentran los denominados 'nomi sovrabbondanti' (Dardano & Trifone, 1992). Estos sustantivos poseen un doble plural: un plural masculino en –i y uno femenino en –a. Resulta interesante el hecho de que este tipo de marca morfológica señala la presencia de significados metafóricos o metonímicos. En este artículo exploramos las metáforas y metonimias cognitivas asociadas a este tipo de plural irregular con el objetivo de establecer generalizaciones sobre su uso en el italiano contemporáneo. Por otra parte, este análisis de los mecanismos conceptuales que subyacen a los plurales irregulares en italiano se suma a los todavía escasos trabajos sobre las bases conceptuales de la morfología, ofreciendo un corpus de datos que confirma la existencia de operaciones metafóricas y metonímicas en este nivel del estudio del lenguaje.*

PALABRAS CLAVE. *Metonimia, metáfora, morfología, italiano, plurales irregulares, lingüística cognitiva.*

1. INTRODUCTION

Most of the initial work carried out in cognitive studies was mainly devoted to the analysis of the conceptual nature of metaphor and metonymy as mechanisms for reasoning and understanding (Lakoff and Johnson 1980, 1999; Lakoff, 1987; Lakoff and Turner 1989). The last decades, however, have witnessed a growing interest in the study of their potential constraints on grammar. In this connection, the relationship between conceptual metaphor and metonymy, on the one hand, and some syntactic phenomena, on the other hand, has been amply dealt with in current research. Most of these studies have been carried out from the perspective of historical semantics and have mainly focused on the role of metonymy and metaphor in certain grammaticalization processes. More specifically, Traugott (1985), Sweetser (1990), and Geeraerts (1997) have devoted much of their work to clarify the role of metaphor in historical meaning change; Waltereit (1998) has carried out an analysis on the metonymic connection between some French reflexive verbs and their correspondent transitive verbs; and Detges (1999, in press) has provided evidence to support the fact that metonymy is involved in diachronic transitions from lexicon to grammar (e.g. in the future and the perfective aspect).

The connections between conceptual metaphor and metonymy and syntactic phenomena have also been explored from a synchronic point of view. Thus, Goldberg (1995) has analysed the English ditransitive construction and has pointed out the crucial role of metaphor in understanding the various uses of the construction. Ruiz de Mendoza and Pérez (2001) have posited some metonymic processes lying behind some cases of valency reduction or behind the use of imperative forms with some stative predicates.

On the contrary, the connection between conceptual mappings and morphology has been paid lesser attention to date. Anderson and Colman (2000) have put forward an account of the role of metonymy in derivational morphology. Most studies on conceptual metaphor and metonymy in relation to grammar, however, have focused on modality issues (Traugott and Könic, 1991; Bybee et al., 1997; Heine, 1997; Goossens, 1999). The scarce attention devoted to the conceptual basis of morphological phenomena in the literature may be due to the fact that the bulk of current studies on this issue has had English as its target language, whose morphology is not highly productive in this respect. Nevertheless, a quick look at other languages, like Italian, reveals that metaphor and metonymy may also impose constraints on grammatical phenomena at the morphological level.

In this paper, we carry out an exhaustive analysis of an area of linguistic structure where the close connection between morphology, metaphor and metonymy is better attested, namely, the formation of some plural nouns in Italian. On the basis of our analysis, we have observed that the morphological marking serves as a cue to activate metonymic or metaphoric meanings. We further explore the kind of metaphoric and metonymic meanings which are associated to them in order to ascertain some generalisations.

2. Some notes on Italian morphology

The morphology of Italian plurals is an area of great complexity and numerous irregularities. This section offers a description of its basic characteristics.

Italian regular plurals are formed with the endings –i and –e for the masculine nouns in –o and the feminine nouns in –a respectively, as is illustrated in figure 1 below:

	Masculine	**Feminine**
Singular	Il libro The book	La sedia The chair
Plural The books	I libri The chairs	Le sedie The chairs

Figure 1. *Italian regular plurals*

Nonetheless, there is also a large number of nouns in Italian which are subject to a variety of irregularities in the formation of their plurals. Among such nouns, it is possible to distinguish several categories:

a) Defective nouns which lack a plural form. E.g. il sangue (blood), il latte (milk), fame (hunger), etc.

b) Defective nouns with lack a singular form. E.g. le nozze (wedding), le stoviglie (the dishes), le manette (the handcuffs), etc.

c) Nouns whose singular and plural forms are identical. E.g. un caffè-due caffè (a coffee-two coffees); il re-i re (the king-the kings), l'auto-le auto (the car-the cars), il film-i film (the movie-the movies), etc.

Among those Italian nouns which display irregularities in their plural forms, there are also the so-called 'nomi sovrabbondanti' (cf. Dardano and Trifone, 1992). These are nouns which have a double plural: a masculine plural in –i and a feminine plural in –a.[1] What is most interesting about this type of double plurals is that, in most cases, the feminine plural conveys a non-figurative meaning, while the corresponding masculine form has a figurative sense. More specifically, the figurative sense marked by the masculine plural ending characteristically involves a conceptual mapping of either a metaphoric or metonymic nature. By way of illustration consider the examples in figures 2 and 3:

	Masculine	**Feminine**
Singular	Il braccio (the arm)	———————-
Plural	I bracci (the arms of a sofa) *Figurative sense (metaphorical extension)*	Le braccia (arms as a body part) *Non-figurative sense*

Figure 2. *Literal and figurative (metaphorical) sense of the double plural of "braccio" ("arm")*

	Masculine	**Feminine**
Singular	Il corno (the horn of an animal)	———————-
Plural	I corni (musical instruments) *Figurative sense (metonymic extension)*	Le corna (the horns of an animal) *Non-figurative sense*

Figure 3. *Literal and figurative (metonymic) sense of the double plural of "corno" ("horn")*

Etymologically, this category of feminine plurals descend from second and third declension neuters in Classical Latin that had mass or collective reference. In spite of their inflectional origin, their present-day status is that of lexical plurals. Thus, according to Acquaviva (2003):

> "plurals in –a are much more than inflected forms with a particular exponence: they are in fact lexical plurals, as opposed to inflectional ones. They don't compete with regular plurals for the exponence of number, but are rather distinct stems endowed with inherent plural number, whose interpretation is often opaque and susceptible to lexical variation –all hallmarks of word-formation rather than inflection. They are derived, not inflected".

3. CONCEPTUAL METAPHORS UNDERLYING ITALIAN DOUBLE PLURALS

As has been pointed out in section 2, one of the plurals of the so-called "nomi sobravvondanti" invariably involves some kind of conceptual mapping, either metaphoric or metonymic. This section explores the metaphors underlying such mappings and their constraints on the morphology of the plurals under consideration.

3.1. *Metaphors based on the Great Chain of Being*

As was pointed out in the previous section, there exists a group of masculine nouns in Italian which depart from the norm in the formation of the plural in a very significant way. These nouns, which are usually found in Italian grammar under the heading "nomi sovrabbondanti", show two different endings in the plural: a masculine one in "-i" and a

feminine one in "-a". Thus, as pointed out in section 2, *braccio* ('arm'), which is a masculine noun in the singular, has two different forms in the plural: a masculine one, *bracci*, and a feminine one, *braccia*. Moreover, the difference in gender correlates with a difference of meaning, as can be illustrated in the following examples:

(1)

(a) Marco allargó le *braccia* in segno di rassegnazione
   Marco stretch.3sg.PAST the.F.pl arm.F.pl in sign.F.sg of resignation.F.sg

(b) Il gatto dorme sempre sui *bracci* della poltrona
   The.M.sg cat.M.sg sleep.3sg.PRES always on-the arm.M.pl of-the.F.sg chair.F.sg

(2)

(a) Paola ha le *labbra* sottili
   Paola have.3sg.PRES the.F.pl lip.F.pl thin.pl

(b) I *labbri* de quella ferita erano pavonazzi.
   The.M.pl lip.M.pl of that.F.sg wound.F.sg be.3pl.PAST violet.M.pl

Whereas examples (1a) and (2a) instantiate non-figurative senses of these two nouns, arms and lips as body parts, the understanding of (1b) and (2b) calls for the activation of a metaphoric mapping, namely OBJECTS ARE PEOPLE. This metaphor, which is based on the Great Chain of Being, helps us to deal with inanimate entities as if they were human beings; by virtue of the mapping, physical objects are endowed with the same structural configuration that human beings possess. The Great Chain of Being, which was first put forward by Lakoff and Turner (1989), is a cultural model which pervades our conception of the order of things in the world and structures our vision of the existing relations between human beings and lower forms of existence. According to the basic Chain of Being, there is a hierarchy among the different kinds of being in the world. Higher level beings possess all the properties of lower level beings together with their inherent properties. For example, animals show all the defining features inherited from lower ranks (e.g. plant), plus an inherent attribute, namely, "instinct". At the highest level of the scale, we find human beings who partake of all the properties of lower levels plus rationality. If we return now to examples (1b) and (2b), we previously noted that the construal of these two sentences requires the activation of a metaphor. By means of it, we map the structure of a person onto that of a chair. In this way, chairs are presented as bearing the same properties and configuration typically pertaining to human beings: the long thin parts on which people usually rest their arms are conceived as if it were the upper limbs of the chair, the parts that rest on the floor and support its weight corresponds to the legs, etc. In this example, the metaphor is experientially grounded on the physical resemblance that exists between the source and the target domains. Likewise, in (2b) the resemblance that exists between the edges of a wound and the outer part of the mouth is the experiential basis for the metaphor to develop. Besides, the reddish colour of a wound, at least during its early stage, coincides with that of human

lips. However, the motivation for the metaphor can also be functional in nature. Consider in this connection the following example:

(3) I bracci di quella leva sono lunghi due metri ciascuno.
    The.M.pl arm.M.pl of that.F.sg lever.F.sg be.3pl.PRES long.M.pl two metre.M.pl each.M.sg

In example (3), the metaphor is motivated by the analogy that can be established between daily activities in which the arms are more directly involved (e.g. carry weight, push, raise objects….) and the work performed with the arms of a lever.

Metaphors in (1b) and (2b) are said to draw on the basic Great Chain of Being for their full understanding. However, *double plurals* in Italian also exploit the extended version of the Great Chain of Being, a metaphorical development of the basic model, which explains our conception of the relationships existing among human beings, society and the universe. By way of illustration consider the following example:

(4) Vogliono diventare membri del club del tennis.
    Want.3pl.PRES become.INF member.M.pl of-the.M.sg club of-the.M.sg tennis

As was the case with previous examples, the Italian noun "membro" offers two possibilities for the plural: *membra*, which means 'body parts' and *membri* which has a figurative sense. In (4) there is a metaphoric mapping by means of which *membri* (Engl. 'members') correlate with the people who have officially joined the club, and *club del tennis* corresponds to a living entity. This reading is licensed by the extended Great Chain of Being, which allows us to understand society and social organisations (such as clubs) as living creatures. As such, societies are conceived of as bearing some of the physical properties we typically ascribe to human beings: they are composed of different body parts (e.g. *The head of the government*); they suffer from diseases (e.g. *Terrorism is the cancer of society*); they have life cycles (e.g. *The growth and development of Spain during the eighties*). Thus, in order to fully develop the meaning implications of example (4) we metaphorically map the club onto a person and the members of the club onto the different body parts which constitute a person, and apply our knowledge about our human bodies to deal with clubs.

Metaphors based on the Great Chain of Being are pervasive in Western cultures and can be found in numerous languages such as English (e.g. *The foot of a mountain*) or Spanish (e.g. *La pata de la mesa*). However, in these languages the metaphor does not affect the morphology or the syntax of the lexical term which encodes the metaphoric concept. What is interesting about Italian is that the metaphor does not remain at the conceptual level but is also present at the morphological level, playing a crucial role in the selection of the plural ending. Thus, in Italian the metaphor at the conceptual level imposes constraints on grammatical choices: the "-i" suffix in the plural of *braccio*, *labbro* or *membro*. Other "double plurals" denoting body parts which draw on our knowledge of the Great Chain of Being for the generation of metaphoric meaning are:

- *Budello* ('guts'), whose masculine plural (*budelli*) metaphorically correlates with 'alley', as in *Già camminavo da mezz'ora per quei budelli* (Engl. 'I've been walking for half an hour through those alleys')
- *Ciglio* ('eyebrow'), whose masculine plura (*cigli*) metaphorically corresponds with 'edges', as in *Quella strada ha i cigli pieni di erbe selvatiche* (Engl. 'That street has the edges covered with wild herbs') .

3.2. *Other metaphor systems underlying Italian double plurals*

In the previous section, we have examined body part metaphors based on the Great Chain of Being. Now we turn our attention to other metaphorical systems which underlie double plurals in Italian. Take the following examples:

(5) Non puoi andare a sostenere l'esame senza neache conoscere i fondamenti del diritto.
Not can.2sg.PRES go.INF to take.INF the.M.sg exam.M.sg without even know.INF the.M.pl basis.M.pl of-the.M.sg law.M.sg

(6) I due principali fondamenti della constituzione italiana sono la libertà d'espressione e il diritto al lavoro.
The.M.pl two main.M.pl basis.M.pl of-the.F.sg constitution.F.sg Italian.F.sg be.3pl.PRES the.F.sg freedom.F.sg of expression.F.sg and the.M.sg right.M.sg to-the.M.sg work.M.sg

These two examples contain instantiations of the THEORIES ARE BUILDINGS metaphoric mapping. This metaphor plays a prominent role in structuring our knowledge about intellectual activity and, consequently, in making sense of numerous expressions about thinking. The THEORIES ARE BULDINGS[2] metaphor belongs to the group of so-called *structural metaphors* (Lakoff & Johnson, 1980). In this kind of metaphor, the conceptual structure of the source domain is used to reason an talk about the target domain, which, because of its abstractness, may be difficult to comprehend and deal with. By way of illustration, consider the following examples of this metaphor in English, which exemplify how we frequently think about a theory as if it were a building:

- The theory needs further support.
- They exploded his latest theory.
- We need to buttress the theory with solid arguments.
- We need to construct a strong argument for that.

(Lakoff & Johnson, 1980)

Likewise, this system of correspondences underlies examples (5) and (6) to the extent that they can only be understood with reference to the aforementioned metaphor THEORIES ARE BUILDINGS. In (5) getting knowledge about a field is viewed as the process of constructing a building: in the same way a building cannot be correctly built unless strong foundations are first laid, no consistent knowledge about a field can be

obtained unless they are supported by a good theoretical basis. In (6) the Italian constitution is depicted as if it is were a building and the freedom of expression and the right to work as the basic foundations on which the building (i.e. the Italian law) rests. As was the case with examples in the previous section, Italian chooses a different morphological marker for the plural of *fondamento* depending on whether it shows or not a figurative sense: the masculine '-i' for metaphorical uses (e.g. *I fondamenti della scienza*) and the feminine '-a' for non-figurative uses (e.g. *Le fondamenta di una construzione*). This pattern varies slightly in the following expressions:

(7)

(a) Le fila di una congiura (Engl. 'the threads of conspiracy'); le fila di un complotto (Engl. 'the threads of a plot').

(b) I fili d'erba (Engl. 'the threads of grass'); I fili della luce (the threads of light').

In these expressions, the morphological marking of the plural also serves as a cue to activate metonymic or metaphoric meanings; that is to say, the choice of the ending for the plural lays bare whether some metaphorical operations are needed in the construal of meaning of these expression. In understanding (7a) we need to resort to the THINKING IS WEAVING mapping. According to this metaphor, we exploit part of the logic about weaving pieces of cloth in looms to explain how we deal with the organization of plots or plans. By virtue of this metaphor, developing a plan is pictured as an arduous task which involves a lot of preparation, the design of a pattern and the interweave of different elements, which must combine together to form an homogenous whole. The numerous twists that normally accompany the weaving of a fabric usually amount to endowing expressions exploiting this metaphor with a negative axiological value.

This example apparently resembles previous examples in that the change of genre of the plural noun is accompanied by a change of meaning of the noun. However, if we compare examples (6) and (7) we observe that there exists a slight difference between them, namely that in (6) the metaphorical reading is cued by the choice of the masculine suffix '-i' whereas in (7) the figurative use is marked by the feminine ending '-a'. The selection of the feminine as the marker of figurative uses is not very frequent and in most cases it corresponds to literary uses. For instance, *anello* (Engl. 'ring') has two possibilities for the plural, *anelli*, which refer to non-metaphorical senses (e.g. *Gli anelli di Saturno,* Eng. 'the rings of Saturn'; *Il Signore degli anelli*, Eng. 'The Lord of the rings') and *anella*, which is a poetic way of referring to a person's curly hair and is mainly used in literary works (e.g. *La donna dalle lunghe anella d'oro*; Eng. 'The woman of the golden curly hair'). Notice should be taken that *anello* derives from the Latin word, *anellus*, which is a masculine noun of the second declension. This involves that, not being in origin a neuter noun, the existence of a feminine plural in '-a' is not a consequence of language evolution. By contrast, it is a linguistic device that Italian has developed to morphologically mark the metaphoric connection that exists between both senses.

4. CONCEPTUAL METONYMIES UNDERLYING ITALIAN DOUBLE PLURALS

Finally, we shall devote our attention to the analysis of some cases in which the relationship between the two plural forms seems to be metonymic in nature. Consider in this connection the following examples:

(9)

(a) La mia mamma ha un dolore alle ossa
   The.F.sg my.1POSS.F.sg mother.F.sg have.3sg.PRES a.M.sg ache.M.sg in-the.F.pl bone.F.pl

(b) Ho dato gli ossi al cane
   Have.1sg.PRES give.PP.M the.M.pl bone.M.pl to-the.M.sg dog.M.sg

(10)

(a) Anna ha delle bellissime dita
   Anna have.3sg.PRES PART.F.pl beautiful.F.pl finger.F.pl

(b) Aldo ha avuto un incidente e si è tagliato i diti mignoli
   Aldo have.3sg.PRES have.PP an.M.sg accident.M.sg and himself.3 REF.sg. be.PAS.3sg.PRES cut.PP.M.sg the.M.pl finger.M.pl little.M.pl

Examples in (9) instantiate the two possibilities for the plural of the noun *osso* (Eng. 'bone') in Italian. The feminine plural usually conveys the meaning of undistinguishable collection of bone, that is to say, we are referring to them as if they were a unit and no partition is established between the different parts of the whole. By contrast, the masculine highlights their individuality. There is thus a metonymic connection between the two plurals, which can be labelled MASS-COUNT, that is, the feminine plural highlights the absence of boundaries (mass), whereas its masculine counterpart focuses on the existence of bones as separate entities. Likewise, in (10a) the fingers of the hand are viewed as a mass with no identifiable parts, whereas in (10b) they are presented as separate countable entities.

Moreover, the polysemous senses of both *osso* and *dito* in Italian are the result of one of most frequent kinds of image-schematic transformation distinguished by Lakoff (1987, 1989), namely the multiplex-mass transformation. In Lakoff's (1987, 1989) terms, this image-schematic transformation takes place whenever a collection of separate entities starts to be perceived as a mass. Lakoff (1989) has also explained that as a result of this transformation, some expressions may possess both a MULTIPLEX schema and a MASS schema, which is the case in (9) and (10). Accordingly, the understanding of each of these sentences resorts for their activation to a different schema. Thus, in (9a) and (10a) the MASS schema is invoked. By means of this schema, the bones and the fingers stop being considered as distinct entities so as to be conceived of as a whole with no distinguishable parts. In (9b) and (10b), on the other hand, the MULTIPLE schema underlies the conceptualisation of bones since they are portrayed as a series of individual entities. It should be borne in mind that the multiplex-mass transformation is licensed by the

metonymic link that connects both schemas, as suggested by Peña & Ruiz de Mendoza (forthcoming)[3].

Another interesting case in point is found in the meaning relations established between the different senses of the Italian word *cervello* (Eng. 'brain'). In this connection, consider the following set of examples:

(11)

(a) La AIP intende allestire la prima banca Italiana di cervelli.
   The.F.sg AIP intend.3sg.PRES set-up.INF the.F.sg first.F.sg bank.F.sg Italian.F.sg of brain.M.pl

(b) Lavate in acqua fredda le cervella per liberarle da tutto il sangue.
   Wash.2sg.IMP in water.F.sg cold.F.sg the.F.pl brain.F.pl for free.inf-they.3OBJ.pl of all. M.sg the.M.sg blodd. the.M.sg

Cervello, which is a masculine noun, displays two possibilities for the plural, a masculine one as exemplified in (11a) and a feminine one as in (11b). As was the case with *osso* and *dito*, the choice of the masculine conveys the idea of individuality. Thus, in (11a), brains are viewed as separate objects which can be counted. The feminine is, by contrast, preferred when prominence is given to the material of which it is formed, which explains the reason why the feminine plural is typically found in recipes. As was the case with the previous examples, the masculine suffix calls for the activation of the MULTIPLEX schema, whereas the MASS schema is triggered off by the feminine plural.

What makes *cervello* special is the fact that when this body part is metonymically employed to stand for an intelligent person as in sentence (12), Italian chooses the regular suffix for the plural. This may be connected to the fact that people are countable entities, that is to say, people are closer in subcategorial terms to *cervello*, when considered as an organ which can be individuated than when considered as a substance, without defined boundaries. This suggests that the COUNT-MASS distinction takes preference over any other type of meaning implication.

(12) La fuga dei cervelli è un problema per la Germania.
   The.F.sg drain.F.sg of-the.M.pl brain.M.pl be.3sg.PRES a.M.sg problem.M.sg for the.F.sg Germany.F.sg

Closely connected to the previous examples is the case of *lenzuolo* (Eng. 'sheet'), in which the choice of genre in the plural motivates a change of referent within the same conceptual domain. By way of illustration, consider sentences under (13):

(13)

(a) Ti ho portato due lenzuoli puliti.
   You.2OBJ.sg have.1sg.PRES bring.PP two sheet.M.pl clean.M.pl

(b) Che belle queste lenzuola, dove le hai comprate?
   How beautiful.F.pl this.F.pl sheet.F.pl where them.3OBJ.F.pl. have.2sg.PRES buy.PP

As can be observed in (13a), *lenzuolo* selects the masculine plural ending to convey the idea of more than one, whenever sheets are considered as individual separate entities. Sentence (13b), by contrast, is a metonymic development of the previous one. In it, *lenzuola* does not refer to collection of several sheets, but to a set of matching bed linen. Thus, *lenzuola* denotes the ensemble formed by the bottom sheet and the covering sheet, which are often bought, used or washed together. Both senses are conceptually connected by means of a metonymic mapping in which *sheet* provides mental access to the functional whole which comprises it. This occurs because we usually conceptualise the world around us in terms of functional structures composed of different parts. Besides, the existence of the whole diminishes to a great extent the conception of the parts as identifiable entities, endowing the term *lenzuola* with a collective sense. Accordingly, the regular plural marking is the preferred choice for encoding the non-figurative meaning in which sheets are considered as single items, whereas the feminine one activates the functional whole of which sheets usually form part, that is, set of matching bed linen.

It should be borne in mind that *lenzuolo* etymologically comes from the Latin word *linteum*, (Eng. 'linen'). This cloth was commonly used in the fabrication of sheets, which explains why speakers may have chosen this lexical item, i.e. "linen", to refer to the manufactured object that typically results from it. As there is a metonymic connection (i.e. a MATERIAL FOR PRODUCT mapping) between both senses, the meaning of *lenzuolo* in Modern Italian is a case of metonymy-based diachronic meaning change (cf. Blank, 1999 and Nerlich & Clarke, 2001 for a more detailed account of the role of metonymy in semantic change).

Another example in which there is a metonymic connection between the masculine and the feminine plurals is *carrum* 'wagon', the plurals being *carra* and *carri*. In this case the masculine plural conveys the non-figurative meaning, that is, the existence of more that one wagon, whereas the feminine one, i.e. *carra*, makes reference to the amount of any substance that can be kept inside a wagon, that is its contents. Thus, there exists a CONTAINER FOR CONTENT mapping accounting for the link between both possibilities. Notice should be taken that the feminine plural is practically non-existent in Modern Italian, being mainly used in the expression *a carra* (Eng. 'in an enormous quantity'). Similarly, *staio*, an old unit of measure which is equal to 4,625 litres, offers two possibilities for the plural: the feminine *staia*, which refers to the unit of measure, and *stai*, which is denotes the container.

It follows from the previous discussion that there is an important difference between the metaphoric and metonymic meanings encoded by the double plural in Italian. Whereas in the case of metaphors both possibilities always involve the sense of plurality, in the metonymic instances under study one of the two plural endings does not carry the meaning typically ascribed to the plural, but rather marks the existence of a metonymic extension of the original sense. By way of illustration, in the lexical item *carra* the suffix profiles the contents that can be kept within a wagon, but the sense of plurality remains absent. This involves that the plural marker in '-a' has lost some of its properties as morphological encoder of number while becoming a marker of the

existence of a conceptual metonymy. On the other hand, as mentioned above, in the case of metaphor, both plural endings code the sense of more than one, the only difference between them being that the polysemous nature of the lexical item is made explicit at the morphological level in the plural. For instance, *braccio* denotes both a body part and a functional part of an object, the latter being a metaphoric extension of the former. This, in turn, is morphologically evident in the plural number, where the non-figurative sense selects the feminine '-a' and the figurative one the masculine '-i'.

Finally, we shall devote some attention to the analysis of a metonymy-based double plural in which both senses maintain the notion of plurality:

(14)

(a) Le corna sono formazioni ossee.
   The.F.pl horn.F.pl be.3pl.PRES formation.F.pl bony. F.pl

(b) I corni sono fatti e rifiniti meticolosamente a mano.
   The.M.pl horn.M.pl be.PAS.3pl.PRES make.PP.M.pl and polish.PP.M.pl by hand.M.sg

(c) I Corni di Canzo sono le cime più elevate della costiera.
   The.M.pl horn.M.pl be.3pl.PRES the.F.pl peak.F.pl most high.F.pl of-the.F.sg coast. F.sg

As (14) evidences, the noun *corno* (Eng. 'horn') is a polysemous word in Italian that designates an array of related senses. The central sense, which is illustrated in (14a), is that of hard appendages projecting from the head of some animals. From this non-figurative meaning some additional meanings develop through a series of metaphoric and metonymic mappings. Thus, in (14b) there is a MATERIAL FOR OBJECT mapping by means of which we metonymically refer to a musical instrument by means of the material of which it is typically made. Finally, (14c) is a case of metaphor based on the Chain of Being. In this case, the physical resemblance that exists between the silhouette of an animal's horns and the shape of mountains provides the experiential grounding for the metaphor MOUNTAINS ARE HORNS to take place.

Similarly to the previous examples, these senses differ as far as its genre is concerned in the formation the plural. Whenever *corno* denotes a part of an animal's skeleton (its non-figurative meaning), it undergoes a change of gender when forming the plural. However, when the meaning of *corno* is the result of a metonymic or metaphoric mapping, there is no such change of gender from the singular to the plural (cf. examples (14b) and (14c)). Moreover, what is interesting about *corno* is that both the metaphoric and the metonymic extensions coincide in selecting the masculine suffix for the plural in such a way that the gender of the plural ending codifies whichever kind of conceptual mapping is necessary to reach the semantic import of the expression.

This distinction remains constant in every case with the exception of an apparent counter example, namely *prendere il mondo per le corna* (Eng. 'to take the world by the horns'). However, a detailed analysis of this expression shows that this is not the case. *Prendere il mondo per le corna*, which is very close in meaning to the English idiom *to take the bull by the horns*, depicts a situation in which a person does what he believes is

right, irrespectively of its difficulty or dangerousness. In both of them, the world is metaphorically represented as a bull, the difficulties that we may find in life as the horns of a bull, and facing difficult situations as grasping the horns of a bull. Thus, we see that in this expression there is a situational metaphor from which we map our knowledge about a specific, concrete situation (i.e. a person that fights against a bull and take its horn) to a wider array of situations in which people are under unpleasant or dangerous circumstances and take risky decisions. As a result, the meaning of horns in this expression is not metaphorical since they do refer to a part of the bull, which explains the choice of the feminine for the plural. This is reinforced by the fact that we can also say in Italian *prendere il toro per le corna* (Eng. 'to take the world by the horns'), which lays bare that "corno" makes reference to an animal's body part, and therefore evidences that the choice of the plural in *prendere il mondo/toro per le corna* is made according to the general rule that says that *corno* selects the plural suffix "-a" for the non-figurative uses and the suffix "-i" for the metaphoric and metonymic uses.

5. CONCLUSIONS

In this paper, we have employed some of the tools available in Cognitive Linguistics in order to analyse one of the areas of linguistic structure where the close connection between morphology, metaphor and metonymy is better attested, namely, the formation of some plural nouns in Italian. On the basis of our analysis, we have observed that the morphological marking serves as a cue to activate metonymic or metaphoric meanings.

We have further explore the kind of metaphoric and metonymic meanings and we have identified several systems of metaphor underlying their motivation, i.e. metaphors based on the Great Chain of Being, or some structural metaphors such as THEORIES ARE BUILDINGS. Regarding metonymy, we have observed that the plural marking does not necessarily convey the meaning of "more than one entity", but it may rather underlie a different construal of a concept, by highlighting a different aspect (e.g. a MULTIPLEX-MASS image-schematic transformation).

NOTES

1. In contemporary Italian, plurals in -a are no longer a productive category; no new words are being added to this group of nouns. Moreover, as pointed out by Harmon (2003), while the words that employ double plural constructions are still used in Italian, a return to the basic two-way gender distinction seems to be in force at the moment. Double plurals are also found in Rumanian and in some Gallo-Italic dialects (Asturian Spanish and South-Central Italian), see Harmon (2003).

2. In dealing with this metaphor, Grady (1997) has contended that the THEORIES ARE BUILDING mapping is in fact a compound metaphor, which is composed of two primary metaphors, namely ABSTRACT STRUCTURE IS PHYSICAL STRUCTURE and PERSISTING IS REMAINING ERECT.

3. Peña & Ruiz de Mendoza (forthcoming) have also analysed the metonymic basis underlying the path-end-of-the path image-schematic transformations.

References

Acquaviva, P. 2003. "Lexemes as listed structures: evidence from Italian inherent plurals". *Les Unites Morphologiques.* Vol 3. Silexicales. Ed. B. Bradin. Villeneuve d'Ascq: Silex. 1-10.

Anderson, J. M. and F. Colman. 2000. *Metonymy as word-formation: With special reference to Old English.* Unpublished. Edinburgh: University of Edinburgh.

Bybee, J. et. al. 1994. *The Evolution and the Grammar: Tense, Aspect, and Modality in the Languages of the World.* Chicago: The University of Chicago Press.

Dardano, M. and P. Trifone. 1992. *Grammatica Italiana con Nozioni di Linguistica.* Zanichelli: Firenze.

Detges, U. 1999. "Wie entsteht Grammatic? Kognitive und pragmetische determinanten der gramatikalisierung von tempusmarkern", Lang/Neumann-Holzschuh. 31-52.

Detges, U. In press. "Time and truth: the grammaticalization of resultatives and perfects with a theory of subjectification". *Studies in Language*.

Geeraerts, D. 1997. *Diachronic Prototype Semantics*. Oxford: Oxford University Press.

Goldberg, A. E. 1995. *Constructions. A Construction Grammar Approach to Argument Structure*. Chicago: The University of Chicago Press.

Goosens, L. 1999. "Metonymic bridges in modal shifts". *Metonymy in Language and Thought.* Eds. K-U. Panther and G. Radden. Amsterdam: John Benjamins. 193-211.

Grady, J. 1997. *Foundations of Meaning: Primary Metaphors and Primary Schemes*. Ph.D. Dissertation, University of California, Berkeley

Harmon, S. 2003. "What good is gender, anyway? Gender, Functionalism, and the Romance Language". [Document available on the Internet at http://webspace. utexas.edu/ramonemi/colloquium/What%20good%20is%20gender.htm]

Heine, B. 1995. "Agent-oriented vs. epistemic modality: some observations on German modals". *Modality and Grammar in Discourse.* Eds. J. Bybee and S. Fleischman. Amsterdam: Benjamins. 17-53.

Lakoff, G. 1987. *Women, Fire and Dangerous Things. What Categories Reveal about the Mind*. Chicago: The University Chicago Press.

Lakoff, G. 1993. "The contemporary theory of metaphor". *Metaphor and Thought.* Ed. A. Ortony. Cambridge, Mass.: Cambridge University Press. 202-251.

Lakoff, G. and M. Johnson. 1980. *Metaphors We Live By.* Chicago and London: The University of Chicago Press.

Lakoff, G. and M. Johnson. 1999. *Philosophy in the Flesh.The Embodied Mind and Its Challenge to Western Thought.* New York: Basic Books.

Lakoff, G. and M. Turner. 1989. *More than Cool Reasons. A Field Guide to Poetic Metaphor.* Chicago: The University of Chicago Press.

Nicoli, F. 1985. *Grammatica Milanese*. Busto Arsizio: Bramante Editrice.

Ruiz de Mendoza Ibánez, F.J. 1999. *Introducción a la teoría cognitiva de la metonimia.* Granada: Método Ediciones.

Ruiz de Mendoza Ibáñez, F. J. and L. Pérez Hernández. 2001. "Metonymy and the grammar: motivation, constraints and interaction". *Language & Communication* 21/4: 321-357.

Ruiz de Mendoza Ibáñez, F.J. 2000. "The role of mappings and domains in understanding metonymy". *Metaphor and Metonymy at the Crossroads*. Ed. A. Barcelona. Berlin/ New York: Mouton de Gruyter. 109-132.

Sweetser, E. 1990. *From Etymology to Pragmatics: Metaphorical and Cultural Aspects of Semantic Structure*. Cambridge: Cambridge University Press.

Traugott, E. C. 1985. "On regularity in semantic change", *Journal of Literary Semantics* 14: 155-173.

Traugott, E.C. and R. Dasher. 2002. *Regularity in Semantic Change*. Cambridge: Cambridge University Press.

Traugott, E.C., and E. König. 1991. "The semantics-pragmatics of grammaticalization revisited". *Approaches to Grammaticalization.* Vol.I. Eds. E.C. Traugott and B. Heine. Amsterdam: Benjamins. 189-218.

Waltereit, R. 1998. "What it means to deceive yourself: The semantic relation of French reflexive verbs and their corresponding transitive verbs". *Reflexives. Form and Function*. Eds. Z. Frajeyngier and T.S. Curl. Amsterdam /Philadelphia: John Benjamins. 257- 278.