

***Una bella esperienza, una buona prova.***  
**A Corpus Analysis of Purely Evaluative Adjectives in Italian**

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*It is questionable how much pragmatic information should be included in a dictionary entry. In a native-speaker's dictionary such information is considered unnecessary, but nevertheless, a certain amount of it could be included as multiword expressions—fixed and semi-fixed—that are regarded as holistic units rather than compositional strings. In this work a corpus analysis of two purely evaluative adjectives in Italian—bello, buono—will shed light on substitutability among them in noun phrases. Mutual Information (Church & Hanks 1990) as a measure to compare and contrast the distribution of words in context highlights nouns for which bello and buono are interchangeable in NPs. We propose to manage adjectival polysemy clustering word senses according to similar evaluative functions. A dictionary entry for bello can be partially structured on the base of its strong similarity with buono in NPs contexts: bello and buono usages are informed by evaluative attitudes displayed by speakers.*

## **1. Introduction**

It is questionable how much pragmatic information should be included in a dictionary entry. In a learner's dictionary it could be useful to put usage notes on pragmatic issues—such as politeness and register—to help speakers to understand some mechanisms of a language (Yang 2007). All the major advanced learners' dictionaries now contain comments on pragmatic functions and warnings of register restrictions. For example, pragmatic labels (*approval, disapproval, emphasis, feelings, politeness, vagueness*) are included in Collins Cobuild Dictionary (2005). As a practical matter, pragmatics can determine the type of translational equivalence in a bilingual dictionary.

In a native-speaker's dictionary such information is considered unnecessary, but nevertheless, a certain amount of it could be included as multiword expressions—fixed and semi-fixed—that are regarded as holistic units rather than compositional strings. They are important in lexicographic entries and in fact dictionaries include records of phraseological norms:

- 1a. scusa: *chiedo s., come formula di cortesia quando si disturba o si interrompe qcn.* (*Grande Dizionario Italiano dell'Uso* 1999).
- 1b. pardon: excuse or forgiveness for a fault, offense, or discourtesy <*I beg your pardon*> (*Merriam-Webster*).

An intriguing open question pertains to Mel'čuk's (1998) notion of *pragmatemes* or pragmatic phrases as quasi-synonymous expressions that are wholly compositional semantically and syntactically but are non-compositional pragmatically. *Pragmatemes* are phrases which are transparent in meaning, but which are fixed in the sense that by convention one wording is chosen over other possible alternatives in any given situation. Evidently, it's possible to choose between several quasi-synonymous expressions, as in signs in a library or as in compliments:

- 2a. No talking please.
- 2b. Please do not talk.
- 2c. Please be quiet.
- 3a. What a nice dress!
- 3b. What a wonderful dress!

The awareness of pragmatic functions governing the use of words could be reflected in dictionary entries at a structural level, even if the aim is not the realization of an explanatory

combinatorial dictionary in the sense of Mel'čuk. But how can pragmatic information be used in the dictionary-making process?

An important pragmatic function fulfilled by linguistic means is the expression of positive evaluation toward someone or something, frequently communicated by adverbs and adjectives (Bruce and Wiebe 1999). In this work we propose to manage adjectival polysemy clustering word senses in definitions according to similar evaluative functions. A corpus analysis of two purely evaluative adjectives in Italian (*bello*, *buono*) will shed light on substitutability among them in noun phrases. Mutual Information (Church and Hanks 1990) as a measure to compare and contrast the distribution of words in context highlights nouns for which *bello* and *buono* are interchangeable in NPs. It helps to understand how semantic representations and more specifically lexicographic entries can be partially influenced by pragmatic functions.

## 2. Evaluative adjectives

Adjectives in noun phrases can narrow the meaning of a noun: *a red house* is more specific than *a house* and the class of *dangerous dog* is smaller than the class of dogs. Taylor (1992) distinguishes absolute and synthetic adjectival senses<sup>1</sup>: whereas adjective- noun pairs including the former adjectival sense are analyzed in terms of compositionality, the meaning of phrases including the latter adjectival sense “emerges from a subtle interaction between the meaning of the noun and the meaning of the adjective” (Taylor 1992:2). The adjective gets attached to the noun indirectly, via an intervening verb in the underlying structure. Some adjectives can have both an absolute and a synthetic reading:

- |                         |   |
|-------------------------|---|
| 4a. An old friend.      | A friend who is advanced in years (absolute reading).<br>Someone who has been a friend for a long time (synthetic reading). |
| 4b. A beautiful dancer. | A dancer who is beautiful (absolute reading).<br>A dancer who dances beautifully (synthetic reading).                       |

This difference can be reinterpreted in terms of language understanding. From a psycholinguistic point of view “in order to assign a referent to a noun phrase, one must interpret it at least in part. For simple nouns, this requires only retrieving its meaning (or meanings) from the lexicon and applying it to the discourse situation in some way. For more complex phrases, this process will require the noun to be combined with its modifiers to produce a more specific, richer meaning than that of the noun alone” (Murphy 1990: 259).

How can this semantic distinction between adjectival senses that contribute compositionally to phrasal meaning and adjectival senses that give rise to more specific, richer meanings be reflected in lexicographic definition?

We provide a tentative answer by analysing a subtype of focusing adjectives—i.e. evaluative adjectives—that can be identified intuitively: *beautiful*, *nice*, *interesting*, *terrible* are used to express evaluation because their meaning is both subjective and value-laden. An entity can be evaluated according to three criteria (Martin 2005): affect (*I'm sad*, *I'm happy*, *She's proud of her achievements*), judgment (evaluation of human behaviour with respect to social norms: *a corrupt politician* *a skilful performer*) and appreciation (evaluation of objects, products and processes by reference to aesthetic principles and other systems of social value: *a good knife*). Such adjectives don't constitute a closed class - it is not possible to make an exhaustive list of them - but every language has some adjectives that are strongly evaluative and frequently used, as *bello* and *buono* in Italian.

Corpus data today forms the primary basis for the description of a word's behaviour and word senses are conceptualized as abstraction over clusters of word usages, so we will conduct a

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<sup>1</sup> This distinction has been originally proposed by/introduced in formal semantics approaches (intersective vs. subjective adjectives). By Vendler 1967.

corpus based analysis of *bello* and *buono* in La Repubblica Corpus, a very large corpus (380M tokens) constituting ten years of the Italian newspaper La Repubblica (Baroni 2004), freely accessible on line.

*Bello e buono* are adjectives which occur with high frequencies in prenominal position in NPs. There are interesting general tendencies in the syntactic behaviour of adjectives that correspond to broad semantic properties (Boleda 2007) and a wide theoretical literature on Italian prenominal position of adjectives in NPs (Alisova 1967; D’Addio 1974) argues that this syntagmatic position indicates an evaluative function. We will compare the prenominal and postnominal frequencies of these two adjectives with the frequencies calculated for all adjectives in La Repubblica Corpus. (see table 1). But there is a bias in this comparison since relational adjectives are also taken into account and in Italian they occur almost exclusively in postnominal position (*un prodotto francese, una scoperta scientifica*). To show the peculiarity of *bello* and *buono*, we report the figures for other descriptive adjectives (evaluative and not).

	PreN	PostN
Adjectives in NPs in the whole corpus	36.2%	63.8%
<i>Bello</i>	90%	10%
<i>Buono</i>	74%	26%
<i>Verde</i>	28%	72%
<i>Alto</i>	82%	18%
<i>Caldo</i>	23%	77%

Table 1

Acknowledging that this characteristic of *bello* and *buono* deserves more attention, only prenominal uses of *bello* and *buono* have been analyzed in this work.

Looking at their dictionary entries in De Mauro (2000) reported in tables 2.1-2.2<sup>2</sup>, it’s clear that the division of word meanings into distinct senses is frequently arbitrary: “The arbitrary nature of such divisions is compounded by the fact that dictionaries typically provide no information about how the different senses of a polysemous headword might be related.” (Dolan 1994).

When lexicographers have to manage the lexicological distinction between ambiguity and generality, they look for corpus evidence, managing citations in clusters. If a cluster is large enough and distinct enough from other clusters, it forms a distinct word sense. However, “Where a word’s uses fall into two entirely distinct clusters, it is ambiguous, but where the clusters are less well-defined and distinct, “vague” or “unspecified” may be a more appropriate description. There is no reason to expect to find any clear distinction between the two types of cases” (Kilgarriff 1997). It’s precisely the kind of unspecified meaning that we wish to clarify.

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<sup>2</sup> To save space we quote simplified versions of De Mauro’s definitions. Senses that are beyond the present discussion are excluded.

Bello
1a. di qcs., che ha un aspetto gradevole: <i>una bella casa, un bel paesaggio, un bel vestito</i> ; che corrisponde a canoni estetici o artistici: <i>bel libro, bella musica, b. stile</i> .
1b. di persona, di corpo umano o di una sua parte, che corrisponde ai canoni della bellezza fisica: <i>un bell'uomo, un bel corpo, un bel viso</i> ; di animale: <i>un bel gatto</i> .
2 ben riuscito, piacevole: <i>una bella festa, un bel viaggio, una bella passeggiata</i> .
3a. moralmente buono, nobile: <i>fare un bel gesto, nutrire bei sentimenti</i> .
3b. che suscita ammirazione: <i>una bella mente, un bel talento, una bella intelligenza</i> .
3c. gentile, garbato: <i>avere belle maniere, bei modi</i> .
5a. positivo, buono: <i>prendere un bel voto, avere una bella idea</i> ; favorevole: <i>una bella occasione</i> ; vantaggioso, conveniente: <i>un bell'acquisto</i> .
5b. efficace, valido: <i>trovare una bella soluzione, dare una bella risposta</i> .
5c. di momento, periodo dell'esistenza, lieto, felice: <i>passare bei giorni; ai bei tempi, in passato, in gioventù</i> .
5d. del tempo e sim., sereno, buono: <i>oggi è bel tempo, è una bella giornata</i> .
6 grande, abbondante, notevole: <i>una bella somma, un bel bicchiere di vino, una bella nevicata</i> .

Table 2.1

Buono
1 che tende al bene; che è valutato positivamente in rapporto a una comune legge morale: <i>buoni principi, buoni sentimenti</i> .
2 che possiede bontà d'animo, sensibilità: <i>un ragazzo, un uomo b.</i>
4 affettuoso, amorevole; gentile, cortese.
5a. pregevole, bello dal punto di vista artistico, tecnico, ecc.: <i>la buona musica, il buon teatro; è un buon libro</i> .
7a. di qcn., abile, capace in qcs.: <i>un buon medico, un buon operaio</i> .
7b efficace, adatto, che serve per uno scopo determinato: <i>un farmaco b. per il mal di denti</i> .
7c di organo o funzione, che è in perfetta efficienza: <i>avere una buona vista, un buon udito</i> .
7d di prodotto, di qualità soddisfacente: <i>una buona stoffa, una buona carta</i> .
8 utile, opportuno: <i>una buona idea</i> ; conveniente, vantaggioso: <i>una buona occasione; un buon affare</i> ; positivo, favorevole: <i>un buon annuncio, un buon lavoro, un b. stipendio</i> .
11 sano, prospero: <i>avere un buon aspetto</i> .
12 piacevole, gradevole: <i>stare in buona compagnia</i> .
13 gradito al palato, all'olfatto, ecc.: <i>un buon sapore, un buon odore</i> .
14 grande, notevole: <i>un buon numero di concorrenti</i>   abbondante: <i>un buon raccolto, una buona dose di legnate</i> .

Table 2.2

The “evaluateness” of *bello* and *buono* is well defined when they attribute a property to a human being or to an artifact. The senses 1a, 1b for *bello* and 7a, 7d for *buono* summarize uses in the following contexts:

5a. *Una bella donna*. (A beautiful woman)

5b. *Una bella casa*. (A beautiful house)

6a. *Un buon coltello*. (A good knife)

6b. *Un buon medico*. (A good doctor)

These uses are compositional according to generative lexicon theory (Pustejovsky 1995). Thanks to the Qualia structure representation, this approach goes beyond a general semantic representation and introduces in a direct way a pragmatic or interpretative dimension in lexical item combinations. Saint-Dizier (2001) investigates the semantic composition rules to make explicit the semantics of the combination adjective + noun, analysing one of the most polysemic French adjectives, *bon* (good). Isolating generic conceptual behaviours and taking into account the constraints on linguistic realizations, he finds five sense:

<i>Bon</i> means “that works well”	This sense applies to tool, machine or technique (in a general sense): <i>a good car, a good screw-driver, a good computer, a good algorithm, a good cure, a good medicine</i> , etc.
<i>Bon</i> restricted to moral qualities	A subsense of <i>bon</i> occurs in conjunction with persons or entities exhibiting moral qualities, as in <i>une bonne personne</i> .
<i>Bon</i> as a quantifier	In expressions where <i>bon</i> is combined with measurement, such as: <i>un bon verre/litre/metre</i> ( <i>a good glass, liter, meter</i> ), <i>bon</i> indicates that the measure is slightly above the unit considered.
<i>Bon</i> as an intensifier	This emphasizes a quality of the object denoted by the noun, as in <i>un bon plat/repas</i> ( <i>a good dish/meal</i> ), then the meaning of <i>bon</i> is delicious, excellent or alternatively <i>un bon film/tableau/livre</i> ( <i>a good film/ painting / book</i> ), then <i>bon</i> expresses goodness and is an intellectual quality.
<i>Bon</i> meaning exact or correct	<i>Une bonne information, un bon calcul</i> indicates useful information and a well-planned affair.

Table 3

We believe there is a difference between the first three senses, which are clear-cut and give rise to compositional meanings, and the last two senses, which are unspecified. If we consider NPs extracted from the corpus, we can easily find examples of this phenomenon:

- 7a. *Una buona idea*. (A good idea)
- 7b. *Una bella scoperta*. (A great discovery)
- 7c. *Una bella partita*. (A good match)

What makes a good film? Saint-Dizier contradicts himself because, in the same paragraph, he asserts that a good film is characterized by intellectual quality and that it is an enjoyable film (“when *bon* modifies a noun, then there is a certain property associated with the telic of the noun that produces a certain pleasure. For example, watching a good film entails a certain pleasure” Saint-Dizier 1998: 127). What is a good idea? Perhaps it is an enjoyable idea, for example if you propose to drink a cold beverage in a hot day but it can also be a brilliant idea, if you are a physician and you discover how to explain a phenomenon. A good idea could also be a useful idea, in the case of an engineer working on automobile engines. Different type of nouns denote relations between individuals and different types of events, but sometimes it’s not easy to determine the type of event more salient in the lexical representation of a noun (McNally 2006).

In 5a,b,c we find contextually unspecified meanings; external information is necessary for full comprehension. A speaker can choose to communicate his appreciation in an intentionally vague manner, by saying *a good idea* or *a good discourse*. He selects the most general evaluative adjective in order to communicate his positive attitude in a synthetic way.

Other adjectives exist which express positive attitude towards an event, a situation or a communicative content, but they are more specific, only used with particular groups of nouns and which don’t simply communicate pure appreciation but also reasons of appreciation.

- 8a. *Una brillante idea/ una importante idea/ un’ idea chiara/ un’ idea forte*.
- 8b. *Una importante scoperta/ una clamorosa scoperta/ una scoperta interessante*.
- 8c. *Una importante partita/ la migliore partita/ una partita equilibrata*.

How can we handle purely evaluative usages of *bello* and *buono* in lexicographic definitions? One strategy is to split word senses including every interpretation assumed by unspecified meanings, as in De Mauro’s definitions (tables 2.1-2.2) and in Saint-Dizier’s approach. Following another strategy, we will try to generalize about word senses, clustering undetermined meanings with the help of pragmatic functions.

### 3. A corpus analysis of *bello* and *buono*

#### 3.1. Data analysis

Linguistic analyses performed with the aid of computer systems provide new insights on language in use. The treatment of semantic issues in the area of computer-aided lexicography was initially based on an approximate systematic interpretation of patterns emerging from a manual inspection of concordances and collocates as frequent words within a user-specified span around the node word.

But in 1990 Church and Hanks (1990) inaugurated the new subfield of collocational statistics proposing the measure of mutual information (MI) as an automatic way of finding a word's lexicographically interesting collocates, thus sharpening the focus of definitions. More generally, MI is a statistical method for quantifying significant degrees of association between words. It takes into consideration the overall distribution of all words involved in a potential collocation to compute a measure of association strength, so capturing the relation between the node word(s) and its collocates.

Church and Hanks (1991) use association strengths between word forms to identify semantic differences between near synonyms (*powerful* and *strong*). Instead of concentrating on subtle differences in usage between near-synonyms we will look at commonalities between uses of *bello* and *buono* in NPs. The window size in your study is smaller than the other applications of MI. It is limited to noun phrases and for this reason your analysis is akin to collocation analysis (Gries and Stefanowitsch 2004) as a statistical method that starts with a particular construction and investigates which lexemes are strongly attracted or repelled by a particular slot in the construction. We will argue that the kind of association strength highlighted by MI can be interpreted not just as collocational strength but also in terms of abstract semantic schemata (par 3.2).

*Bello* and *buono* in NP contexts are extracted from La Repubblica Corpus. Idiomatic collocations (*belle speranze*, *bella vita*, *buona fede*, *buon sangue*) listed in De Mauro (1999) are filtered out and the two lists are intersected to find nouns modified by both evaluative adjectives.

After intersection, we discard NPs in which adjectives modify a human being (*buona allieva*, *bell'attore*) or an artifact (*bella casa*, *buona rilegatura*), in accordance with entries 1a, 1b, 6 for *bello* and 2, 4, 7a, 7b, 7c, 7d, 14 for *buono*; as we have argued above they can be interpreted in a compositional way. Finally mutual information scores between *bello/buono* and nouns modified by both adjectives are computed on the whole La Repubblica corpus. In the table 3 nouns are ranked according to the minimum dissimilarity between MI scores for *buono*+noun and *bello*+noun.

In De Mauro (1999) definitions *bello* and *buono* are cited as synonyms of each other: the definition of *bello* contains 3 references to the word *buono* as a synonym and the definition of *buono* contains 5 references to the word *bello* in the same relation.

When purely evaluative uses are considered *bello* and *buono* are the strongest synonyms of each other. For the same noun, they are highly interchangeable, as an important part of NPs with a purely evaluative function.

Church and Hanks (1991) calculates the top ten scoring pairs of the forms *strong* N and *powerful* N. *Strong* and *powerful* are words highly similar according to thesauri and dictionaries but there are subtle distinction among them that can be highlighted with t-test. For example, *strong tea* is much more plausible than *powerful tea*.

MI is a measure of similarity and we introduce it to establish commonalities among words that are partial synonyms in dictionaries. We find similar association strengths for *bello* and *buono* in noun phrases with type of nouns that are evaluated in an unspecified manner.

	MI <i>buono</i>	MI <i>bello</i>
<i>Amicizia</i>	7.76	7.78
<i>Mossa</i>	6.48	6.51
<i>Settimana</i>	2.02	1.92
<i>Clientela</i>	5.63	5.73
<i>Filosofia</i>	5.42	5.52
<i>Iniziativa</i>	5.88	5.99
<i>Formula</i>	5.39	5.53
<i>Intervento</i>	5.16	4.99
<i>Pagella</i>	9.07	9.28
<i>Gara</i>	3.58	3.36
<i>Telegiornale</i>	7.34	7
<i>Birra</i>	8.39	8.74
<i>Proposta</i>	5.65	5.26
<i>Pensiero</i>	5.74	6.16
<i>Azienda</i>	4.88	4.46
<i>Giornale</i>	6.44	5.98
<i>Immagine</i>	2.82	3.30
<i>Conversazione</i>	7.48	6.89
<i>Esperienza</i>	3.03	3.62
<i>Certezza</i>	4.95	5.49
<i>Cena</i>	7.71	8.26
<i>Domanda</i>	6.71	7.28
<i>Situazione</i>	4.44	3.86
<i>Esperienza</i>	3.03	3.62
<i>Prova</i>	8.46	7.85
<i>Partita</i>	3.47	4.09
<i>Promozione</i>	6.49	7.16
<i>Ricordo</i>	9.05	9.74
<i>Incontro</i>	4.41	5.13
<i>Ricerca</i>	4.87	4.09
<i>Progetto</i>	5.97	6.78
<i>Conclusione</i>	6.19	7.04
<i>Programma</i>	6.69	7.54
<i>Atmosfera</i>	7.01	7.88
<i>Giornata</i>	3.39	4.26
<i>Intelligenza</i>	5.48	6.38
<i>Testo</i>	6.31	7.25

Table 4

Statistical measures can be useful in lexicography but every result obtained needs to be carefully evaluated by lexicographers. Association measures can give different results depending on the kind of collocations to be identified, and the proportion of hapaxes in the candidate sets (Evert and Krenn 2001). Bias caused by predominant textual typologies in the corpus are possible: the effectiveness of a measure of semantic association depends on the corpus on which it is trained

(Lindsey 2007). Comparing results from other corpora—for example, a spoken corpus—can enrich our view of evaluative usages of *bello* and *buono*.

### 3.2. Collocations?

It has been noted (Benson 1990) that collocations placed at the collocator (adjective or verb) are not just illustrative phrases but are an integral part of the definition, while collocation placed in the noun definition are instead supplement to the definition. For this reason, a definition of adjectival meanings is strongly influenced by the analysis of syntagmatic contexts.

Mutual Information is a measure frequently used to detect collocations. Have we found collocations that should be included in a dictionary? As a matter of fact, discarded idiomatic expressions are informed by purely evaluative functions (*buon punto*, *buona novella*, *bella vita*, *bel colpo*).

But tackling the collocational phenomenon from a quantitative perspective doesn't entail forgetting controversial opinions and criteria for a theoretical definition of collocation. Collocations cannot be necessarily idiomatic, they are frequently productive and semantically transparent.

According to Manning and Schütze (1999) a collocation is an expression consisting of two or more words that correspond to some conventional way of saying things. Its characteristics can be described by three criteria:

- Non-compositionality: the meaning of the whole is the sum of the meanings of the part plus some additional semantic component.
- Non-substitution: it is not possible to substitute a word in a collocation, even if the words are synonyms.
- Non-modification: collocations cannot be freely modified by the addition of lexical information or by syntactic transformation.

Our data are characterized by strong substitutability and can be modified by other linguistic elements or syntactically transformed. If the frequent use of a phrase as a fixed expression accompanied by certain connotations justifies regarding it as collocation, we could be tempted to categorize part of the data as collocations. Collocations are characterized by limited compositionality - there is usually an element of meaning added to the combination—but according to the notion of *pragmatemes* (par. 1) any additional meanings don't arise because of the composition of single lexical elements. It depends on the frequent uses of phraseologisms in similar situational contexts.

According to the theory of lexical complexity (Bertuccelli Papi 2003, Bertuccelli Papi and Lenci 2007) words lexicalize various combination of conceptual materials and for this reason meaning is only to a certain extent compositional. Processes at work in context-sensitive meaning construal can be influenced by pragmatic forces that constrain the choice of words.

We believe that evaluative uses of *bello* and *buono* in NPs are modelled by a pragmatic function which affects on lexical meanings. Mel'čuk's notion of lexical function is pertinent in our discussion: it is a general and abstract meaning, coupled with a deep syntactic role, which can be expressed in a wide variety of ways (have a great variety of lexical realizations) according to the lexical unit to which it is applied. It associates a set of more or less synonymous lexical expressions with a specific lexical unit.

Akin to this idea is Stubbs' (2001) abstract semantic schema as general and simple patterns which have considerable lexical variation due to local context and choice, with frequent and less frequent exponents. "A great deal of language in use consists of extended lexico-semantic units. These units are not just individual phrases which can be listed. Typical instances can be listed, but not all instances are equally representative. The units themselves are abstract: they are semantic schemas, which have default values, and typical realizations, but often no necessary or sufficient features. If we are thinking of the behaviour of a language community, then they are norms. If we are thinking of the competence of individual speakers, then they are mental



models.” (Stubbs 2001: 96).

These semantic schemata can be modelled as clusters of lexis (node and collocates), grammar (colligation), semantics (preferences for words from particular lexical fields) and pragmatics (connotations or discourse prosodies).

*Bello* and *buono* in NPs can constitute a semantic schema, in which lexical realization takes place. They overlap in an intercollocation (Stubbs 2001: 203, Otani 2005) and so synonymic relations between these two adjectives are motivated by evaluative intentions. We propose a reciprocal adjustment of adjectival definitions based on a pragmatic function (tables 5.1-5.2): they cluster purely evaluative usages and make explicit reference to the pragmatic function of evaluation.

Word senses that give rise to compositional meanings are quoted as De Mauro’s definitions (1a., 1b., 6 for *bello*; 1a., 1b., 7 and 14 for *buono*).

In 2 for both *bello* and *buono* we cluster adjectival senses that in this work we have discussed as unspecified meanings influenced by the pragmatic function of evaluation (see tables 2.1-2.2: we cluster 2,3a,3b,3c,5a,5b for *bello*; 5a,8,11,12,13 for *buono*). According to our clustering, *bello* and *buono* are highly substitutable and are near synonyms. However, 5c. and 5d. in *bello* are senses in which we cannot find *buono* and so they are excluded by our generalization. Moreover, for *buono* we propose to cluster senses characterized by evaluation of moral qualities (1,2 and 4 in table 2.2).

Bello
1a. di qcs., che ha un aspetto gradevole: <i>una bella casa, un bel paesaggio, un bel vestito</i> ; che corrisponde a canoni estetici o artistici: <i>bel libro, bella musica, b. stile</i> .
1b. di persona, di corpo umano o di una sua parte, che corrisponde ai canoni della bellezza fisica: <i>un bell’uomo, un bel corpo, un bel viso</i> ; di animale: <i>un bel gatto</i> .
2 soprattutto in posizione prenominale, usato per valutare positivamente un evento o un nome astratto: <i>una bella festa, una bella mente, un bel talento, un bel voto, una bella idea; una bella riuscita, una bella soluzione, una bella risposta, un bel momento</i> .
5c. di momento, periodo dell’esistenza, lieto, felice: <i>passare bei giorni; ai bei tempi, in passato, in gioventù</i> .
5d. del tempo e sim., sereno, buono: <i>oggi è bel tempo, è una bella giornata</i> .
6 grande, abbondante, notevole: <i>una bella somma, un bel bicchiere di vino, una bella nevicata</i> .

Table 5.1

Buono
1a. che tende al bene; che è valutato positivamente in rapporto a una comune legge morale: <i>buoni principi, buoni sentimenti</i> .
1b. che possiede bontà d’animo, sensibilità: <i>un ragazzo, un uomo b.</i>
1c. affettuoso, amorevole; gentile, cortese.
2 soprattutto in posizione prenominale, usato per valutare positivamente un nome astratto: <i>un buon libro, una buona idea, una buona occasione, un buon affare; un buon motivo, un buon aspetto, un buon sapore, un buon odore</i> .
7a di qcn., abile, capace in qcs.: <i>un buon medico, un buon operaio</i> .
7b efficace, adatto, che serve per uno scopo determinato: <i>un farmaco b. per il mal di denti</i> .
7c di organo o funzione, che è in perfetta efficienza: <i>avere una buona vista, un buon udito</i> .
7d di prodotto, di qualità soddisfacente: <i>una buona stoffa, una buona carta</i> .
14 grande, notevole: <i>un buon numero di concorrenti</i>   abbondante: <i>un buon raccolto, una buona dose di legnate</i> .

Table 5.2

#### 4. Conclusion

A small amount of pragmatic information could be included in a dictionary not just as multiword expressions but also as a basis for the clustering of similar senses. We have shown how a dictionary entry for *bello* can be partially structured on the base of its strong similarity with *buono* in NPs contexts: *bello* and *buono* usages are informed by evaluative attitudes displayed by speakers. Lexicographic entries of these two very frequent evaluative adjectives are not complete if we forget the pragmatic import of synonymic relations for several types of nouns.

Evaluation as a central function of language can be explored at the level of lexical meanings that fulfil abstract semantic schemata. Evaluative meanings are often thought to be due to conversational implicature but many pragmatic meanings are conventionally associated with lexico- syntactic structures.

It has been noted (Church 1994) that syntagmatic relations identified by statistic methodologies sometimes have no clear semantic motivations. As a matter of fact, their primary motivation can be pragmatic.

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