On How to Incorporate Linguistic Research Findings into a Bilingual Dictionary: Some Observations from a Hindi-Italian Italian-Hindi Dictionary

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Abstract
Recent developments in linguistics have opened up unprecedented ways of presenting a lexical entry in a bilingual dictionary. There are no limits as to how much syntactic, semantic and pragmatic information can be encoded in a lexical entry. However, it is not sufficient just to register such pieces of information in entries. Instead, it is imperative to establish *meeting points* between grammatical structures of the two languages. The present paper discusses some cases from the first Hindi-Italian Italian-Hindi dictionary (Sharma 2004), dividing them into two groups: the first group presents some examples of grammatical *meeting points* between verb patterns of Hindi and Italian whereas the examples in the second group highlight the utility of pragmatic research. I argue that it is of utmost importance to include scalar implicatures in a bilingual dictionary – although it is not at all easy to establish parallels between the pragmatic scales of two different languages.

1 Introduction

Writing a bilingual dictionary requires not only a good command of the two languages in question but also a deep understanding of their syntactic, semantic and pragmatic structures or systems. It is thus obvious that in order to keep pace with new linguistic research and benefit from new findings a lexicographer – especially one engaged in writing or compiling a bilingual dictionary – has to review or modify his way of providing information in entries. Although there have been tremendous changes in the manner in which pieces of information are given in lexical entries, there are particular cases in which further improvements in lexicographical methodology could be extremely useful. Such improvements are required to meet the challenges language structures represent, especially those which have either different or complex verbal predicates. Hindi belongs to a group of languages which have complex verbal predicates. It is therefore important for a lexicographer to give an adequate account of differences between two languages in a bilingual Hindi dictionary. Furthermore, recent pragmatic research has provided new insights into the way lexical meaning can be accounted for in a dictionary entry. For example, it would be extremely important for a lexi-

cographer to incorporate scalar implicatures in an entry, although it remains a highly contro-versial area when it comes to establishing a correspondence between scalar systems of two languages in a bilingual dictionary. It is of utmost importance to find a correspondence between logical operators and negative polarity items of the two languages. Developing new techniques to include modal meanings of a lexical item in a bilingual dictionary is yet anoth-er equally important aspect to be undertaken in lexicographical research. In this paper I dis-cuss a number of cases taken from Sharma (2004) to demonstrate the utility of new tech-niques developed along the lines of research both in syntax and pragmatics. These cases are not intended to be an exhaustive list of all related topics of research in lexicography, but rather to simply indicate the usefulness of incorporating linguistic research into lexicogra-phy. These cases are discussed in two sections: the first section provides examples which highlight syntactic divergence between two languages and make a case for the usefulness of establishing *meeting point*s in a bilingual dictionary, whereas the second section is devoted mainly to discussing the inroads pragmatic aspects of lexical meaning can make into lexi-cography.

2 Establishing 'meeting points' in entries

As has been mentioned above, in this section arguments from Sharma (2004) will be pro-vided in favour of a new technique of establishing *meeting points* to give a piece of hybrid syntactic information in a lexical entry. Most bilingual dictionaries rely on developing a code system to underline various syntactic characteristics of different verbs. I argue that when it comes to a bilingual dictionary such methods are insufficient as they do not provide the user of the dictionary with any clues as to how that particular verb could be rendered in another language. A *meeting point* should be considered as a place where syntactic differences be-tween two languages are narrowed down in such a way that information about the two lan-guage systems can easily be shared by the users of a bilingual dictionary. This type of infor-mation sharing is necessary for the users of a bilingual dictionary where one or both lan-guages have complex predicate constructions. Hindi belongs to the group of languages which form a large part of their verbal lexicon by combining verbs such as *karnaa* 'to do, to make' or *honaa* 'to be' with an adjective or event nominal of different types. The complex verbal predicates obtained through this process have unique characteristics in that the verbal ele-ment of these combinations are responsible for transitivity or intransitivity of the verbal predicate. For example, verbal constructions taking *karnaa*, 'to do', are always transitive whereas, those taking *honaa*, 'to be', are intransitve, even though the verbal predicate con-structed through this process as a whole might look different from the point of view of the other language involved in a bilingual Hindi dictionary. The kind of relationship that holds between a complex verbal predicate and other dependent elements in a sentence in Hindi may have genitive, locative or other object case. Furthermore, when the subject has non-nominative case, the verbal element shows agreement with the noun which is a part of the complex verbal predicate. This extremely complex yet quite productive and simple process of obtaining a new verb through combination in Hindi may appear too difficult for a second language learner to understand the correspondence that lies between the verbal systems of

two languages. No bilingual Hindi dictionaries[1] provide sufficient information to help the user select the right case markers attached to diffrenent objects in a sentence. In order to provide learners of Hindi as a second language with such information, I have tried to encode syntactic information in what I call a *meeting point* in a lexical entry of an Italian verb which is the only way of establishing parallelisms between the verbal systems of Italian and Hindi. A *meeting point* is so called mainly because it involves syntactic information coming from two different language sources. A *meeting point*, therefore, is established to narrow down differences between two syntactic systems. To make the concept of *meeting point* clearer for lexicographical purposes, I discuss here some examples quoted from the Italian-Hindi section in Sharma (2004).

For instance, we could consider the case of the Italian verb *abortire* in the sense of 'to abort', 'to miscarry'. In order for the user to render this verb in Hindi, I establish a *meeting point* between brackets [ ] which contains some pieces of *hybrid syntactic information* in the lexical entry without which the Italian verb *abortire* can hardly be translated into Hindi.

(1)　　(a)　　[sogg. it. + **ko**][2]　*garbhpaat*　　　*honaa*
　　　　　　　[It. sub. + **dat.**]　miscarriage-m.　to be
　　　　(b)　　[sogg. it. + **kaa**]　*grabh*　　　　　*girnaa*
　　　　　　　[It. sub. + **gen.**]　pregnancy-m.　to fall

Thus, the Italian sentence *Ella abortì quando era incinta di 10 settimane* (i.e. "She miscarried when she was 10 weeks pregnant") in Hindi would become either *usko dasveN mahiine meN garbhpaat huaa* (lit. "to her miscarriage took place in the tenth week") or "*uskaa das mahiine kaa garbh gir gayaa*" (lit. "her ten months pregnancy fell"), making it necessary for the user of the dictionary to get syntactic information from the *meeting point*. As mentioned above, the *meeting points* are so called because the piece of syntactic information provided between square brackets is of a hybrid nature rather than related to one of the languages. In (1) the Italian user of the dictionary is first of all advised to locate the subject in the Italian sentence and then asked to attach to it the Hindi dative case marker, as in (1a), or genitive case marker, as in (1b). It is not enough, I believe, to simply attach a tag like '+ dative case marker' or '+ genitive case marker' because the user of the Italian-Hindi section will have no clue as to what part of speech he is asked to attach it to. Although in this case by default the user might attach it to the subject as there are are no complementizers, it would not be at all easy to do so in sentences which do have them. Furthermore, in Italian *'Ella'* (i.e. "she") is the subject, whereas in Hindi it is no longer a grammatical subject as the verbal predicate has to show agreement with *garbhpaat* 'miscarriage' or *garbh* 'pregnancy' rather than with 'she'.

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[1] As far as I know, no bilingual dictionary involving any language I have seen so far provides the kind of information which is intended to be provided in an entry through a *meeting point*.

[2] The following abbreviations have been used in this paper: compl. ogg. = direct object; dat. = dative; erg. = ergative; f. = feminine; gen. = genitive; It./ it. = Italian; m. = masculine; sub./sogg. = subject.

To put forward the case of a *meeting point*, it would be useful to consider the Hindi renderings of some further Italian verbs. It would be extremely difficult for a learner to use the Hindi renderings of the following Italian verbs without taking into consideration the hybrid pieces of information provided between brackets. For example, the *meeting points* for Italian verbs *accogliere* ('to contain', 'to house', 'to accomodate', etc.), *ammuffire* ('to go mouldy'), *bramare* ('to yearn for', 'to crave for', etc.), *esistere* ('to exist', etc.), *arrugginire* ('to rust', etc.), *apprendere* ('to become known') can be seen in square brackets in (2), (3), (4), (5), (6), (7) respectively.

(2) *accogliere*   (a)   [sogg. it. + **meN** + compl. ogg. it. + **ke lie**]   *jagah*   *honaa*
                          [Ita. sub. + **in** + Ita. direct object + **for**]   space-f.   to be
                    (b)   [sogg. it. + **meN** + compl. ogg. it. + **ko**]   *jagah*   *honaa*
                          [Ita. sub. + **in** + Ita. direct object + **to**]   space-f.   to be
                    (c)   [sogg. it. + **meN** + compl. ogg. it.]   *aa saknaa*
                          [Ita. sub. + **in** + Ita. direct object]   can come

(3) *ammuffire*   (a)   [sogg. it. + **meN**]   *phaphuuNdii*   *jam jaanaa*
                         [It. sub. + **in**]   ,   mould-f. to settle on, to solidify
                    (b) .   [sogg. it. + **par**]   *phaphuuNdii*   *lag jaanaa*
                         [It. sub. + **at/ on**]   mould-f. to strike roots

(4) *bramare*   (a)   [compl. ogg. it. + **kii**]   *tiivr*   *abhilaashaa*   *karnaa*
                         [It. dir. obj. + **gen.**]   intense   desire-f.   do
                    (b)   [sogg. it. + **ko** + compl. ogg. it. + **kii**]   *tiivr*   *abhilaashaa*   *honaa*
                         [It. subj. + **to** + It. dir. obj. + **gen.**]   intense   desire-f   to be

(5) *esistere*   [sogg. it. + **kaa**]   *astitv*   *honaa*
                         [It. sub. + **gen.**]   existence-m.   to be

(6) *arrugginire*   [sogg. it. + **meN / par**]   *zang*   *lagnaa*
                         [It. sub. + **in / on**]   rust-m.   to take root

(7) *apprendere*   [sogg. it. + **ko** + compl. ogg. it. + **kaa**] *pataa*   *calnaa*
                         [It. sub. + **to** + It. direct object + **gen.**] notice-m. to move

The *meeting points* in the examples above represent pieces of information which derive from both Italian and Hindi. The elements in bold in suqare brackets all refer to the Hindi language whereas the remaining grammatical tags are based on Italian verb patterns and intended to help the user of the dictionary construct renderings in Hindi. I believe that the method of tagging verbs with grammatical pieces of information, whether direct or encoded, is simply insufficient or useless from the point of view of the user of a dictionary. The time has come to introduce new ideas emanating from linguistic research in bilingual lexicography which would hopefully give a fuller account of the verbal patterns of two different languages.

3 Possible Contribution of Pragmatic Research to Lexicography

In this section some cases from Sharma (2004) are discussed to show the importance pragmatic research can have in designing lexical entries. There are numerous pragmatic top-

ics which have implications for new research in lexicography, too many to be taken into consideration here. I believe that establishing a correspondence between lexical scales of two languages in a bilingual dictionary is of extreme importance.

3.1 Periphrases versus lexical forms

It has been pointed out that a periphrastic alternative to an existing lexicalised form in a language may be a major source of implicatures at the level of lexicon (McCawley 1978:250). The pragmatic opposition between a lexicalised form and periphrasis can be seen at every level of the lexicon. If a speaker selects a periphrasis against a lexicalised form, he is thought to have gone out of his way to intend to refer to an event which is different from the event a lexicalised form normally refers to. This process becomes particularly important from the point of view of a bilingual dictionary as it is possible that one of the languages involved does not possess a lexicalised form to match the corresponding form in the other one. Lexical entries in such cases may be tagged with pieces of pragmatic information which are responsible for either projecting or blocking of any implicatures in one of the languages in a bilingual dictionary. For example, the main characteristic of a Hindi causative verb is that the subject himself is not supposed to carry out the action reported, but rather to appoint a third party to accomplish it. Thus, from an intransitive Hindi verb, *uThnaa* (i.e. "to rise"), one gets its transitive counterpart, *uThaanaa* (i.e. "to raise", "to pick up") and by another morphological change in the intransitive form a causative verb form, *uThvaanaa* (i.e. "to have raised"). Now, to give a corresponding Italian form to the Hindi causative form one has to use periphrastic constructions like *"far alzare"* (i.e. "to have raised", etc.) which does not have the same characteristic as that of a Hindi causative verb. In such cases an alternative periphrastic form in Hindi will project an implicature whereas in Italian it will not. Hence, tagging lexical entries with such pieces of pragmatic information can undoubtedly enhance the quality of a bilingual dictionary.
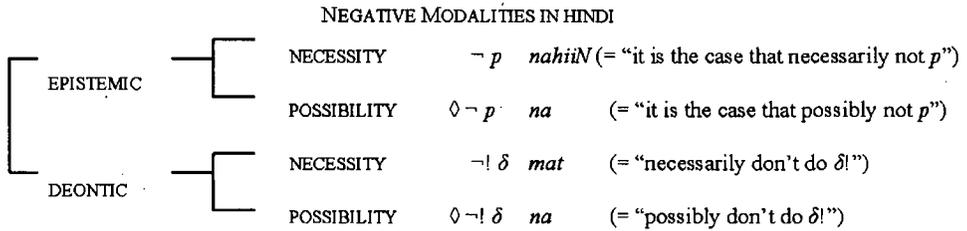
3.2 The case of Hindi particle TO

As has been reported in Sharma (2004), Hindi possesses a particle *To* which is employed in a number of distinct ways to serve diverse syntactic, semantic or pragmatic purposes, thus corresponding to different grammatical devices in other languages. First of all, it is used as a conjunction either to introduce the consequent in a conditional sentence (i.e. "if … then"), or to continue the discourse. It may also be used to introduce a conclusion as a result of preceding discourse. It is employed to deal with syntactic phenomena such as 'topicalization', 'left dislocation' and 'hanging topic'. Furthermore, it is used as an emphasis marker on a word preceding it. Finally, in pragmatic terms, the particle *to* is abundantly used to mark lexical scales in the lexicon for different purposes. Thus its most important function can be understood in pragmatic terms only as its internal position in a sentence is the sole source of different shades of meaning it may carry. A technique, therefore, should be developed to represent pragmatic triggers in a lexical entry. A pragmatic trigger is an important source of lexical meaning which cannot be avoided in lexicography. I strongly believe that further research is needed to develop new techniques for dealing with pragmatic triggers in a bilingual dictionary.

3.3 The case of Hindi negative markers

To show the importance of pragmatic research in dictionary making, we could also refer to the case of Hindi negative markers also. Hindi possesses three negative markers which express different modal meanings in different circumstances. As can be seen in (8), the negative marker *nahiiN*, (i.e. "not") is used mainly to express epistemic negative modality, meaning, i.e. 'it is the case that necessarily *p*', and negative marker *mat* is exclusively limited to express deontic necessity, conveying 'it is the case for you to necessarily do δ'. The negative marker *na* (i.e. "not", "neither … nor"), on the other hand, is used to denote both epistemic or deontic possibilities, connoting either 'it is the case that possibly not p' or 'it is the case for you to possibly not do δ'. It would be difficult, therefore, to give the exact meanings of these negative markers in a bilingual Hindi dictionary which involves a language having only one negative marker. In order to understand the differences in meaning of these particles it is imperative to give their account in terms of modality. In fact, the distribution of these particles is organized according to their modal meanings, as has been explained in Sharma (2001).

(8)

<div align="center">NEGATIVE MODALITIES IN HINDI</div>

EPISTEMIC	NECESSITY	$\neg p$	*nahiiN*	(= "it is the case that necessarily not *p*")
	POSSIBILITY	$\lozenge \neg p$	*na*	(= "it is the case that possibly not *p*")
DEONTIC	NECESSITY	$\neg! \delta$	*mat*	(= "necessarily don't do δ!")
	POSSIBILITY	$\lozenge \neg! \delta$	*na*	(= "possibly don't do δ!")

I argue that an attempt should be made to include new findings of linguistic research into lexicography, although it still remains a difficult terrain when it comes to finding a correspondence between lexical items of two different languages. Including pragmatic elements of lexical meanings in a bilingual dictionary will undoubtedly require new methodologies which will enable the lexicographer to cope with the complex correspondence that may exist between two language systems.

4 Conclusion

As has been pointed out in the preceding sections, it is very important for a lexicographer to incorporate new findings of linguistic research into the art of dictionary making. A dictionary has no limits as to what extent a lexical entry can be tagged with pieces of information. However, it is not enough just to tag lexical entries with grammatical information. Rather, it is of utmost importance that a *common syntactic ground* between two language structures be established to provide a *meeting point* in a lexical entry. Another area of utmost importance is tagging a lexical entry with scalar implicatures providing pragmatic elements of meaning in lexical entries.

References
A. Dictionaries
Bahari, H. (1983), Learner's Hindi-English Dictionary, Delhi, Rajpal & Sons.

Bhatt, P. L. (ed.) (1999), Vidya's Compact English-Hindi Dictionary, New Delhi, Vidya Prakashan Mandir.

Brajmohan (ed.) (2000), Meenakshi English-Hindi Dictionary, Meerut, Meenakshi Prakashan. (First edition 1986)

Bulcke, C. (1986), An English-Hindi Dictionary, New Delhi, S. Chand & Co. Pvt. Ltd. (First edition 1968).

Chaturvedi, M., Tiwari, B. N. (eds.) (1980), A Practical Hindi-English Dictionary, New Delhi, National Publishing House.

Kapoor, B. N. (ed.) (2000), Prabhat Practical English-Hindi Dictionary, Delhi, Prabhat Prakashan.

McGregor, R. S. (ed.) (1993), The Oxford Hindi-English Dictionary, Oxford: Oxford University Press.

Platts, J. T. (2000), A Dictionary of Urdu, Classical Hindi and English, New Delhi, Munshiram Manoharlal. (First edition London 1884).

Sharma, G. (2004), *Il* dizionario di hindi: dizionario hindi-italiano italiano-hindi, Bologna, Zanichelli editore.

B. Other literature
Blutner, R. (2004), 'Pragmatics and the Lexicon', in Horn, L., Ward, G. (eds.), *Handbook of Pragmatics*, Oxford, Blackwell, pp. 488-514.

Cruse, D. A. (1986), *Lexical Semantics*, Cambridge, Cambridge University Press.

Grice, H. P. (1989), *Studies in the Ways of Words*, Cambridge MA, Harvard University Press.

Horn, L. R. (1989), A Natural History of Negation, Chicago, Chicago University Press.

Levinson, S. C. (2000), *Presumptive Meanings: The Theory of Generalized Conversational Implicature*, Cambridge, MA, MIT Press.

McCawley, J. D. (1978), 'Conversational Implicature and the Lexicon', in Cole, P. (ed.), *Syntax and Semantics, 9: Pragmatics*, New York, Academic Press, pp. 245-58.

Sharma, G. (2001), 'Negative Modality in Hindi', in *Annali di Ca' Foscari XL, 3*, Facoltà di Lingue e Letterature Straniere dell'Università di Venezia.

Sharma, G. (2004), 'Semantica e pragmatica della particella hindi-urdu *TO* nel contesto dell'italiano', in *Annali di Ca' Foscari XLIII, 3*, Facoltà di Lingue e Letterature Straniere dell'Università di Venezia.