

**WestminsterResearch**

<http://www.westminster.ac.uk/westminsterresearch>

**Employing cognitive metonymy theory in the analysis of  
semantic relations between source and target text in translation  
Denroche, C.**

This is a copy of the accepted author manuscript of an article that was accepted for publication in *Metaphor and the Social World*. Changes resulting from the publishing process, such as peer review, editing, corrections, structural formatting, and other quality control mechanisms may not be reflected in this document. Changes may have been made to this work since it was submitted for publication. A definitive version was subsequently published in *Metaphor and the Social World*, 9 (2), pp. 177-198, 2019.

The final definitive version in *Metaphor and the Social World* is available online at:

<https://dx.doi.org/10.1075/msw.18024.der>

The paper is under copyright and the publisher, John Benjamins, should be contacted for permission to re-use or reprint the material in any form.

---

The WestminsterResearch online digital archive at the University of Westminster aims to make the research output of the University available to a wider audience. Copyright and Moral Rights remain with the authors and/or copyright owners.

---

Whilst further distribution of specific materials from within this archive is forbidden, you may freely distribute the URL of WestminsterResearch: (<http://westminsterresearch.wmin.ac.uk/>).

In case of abuse or copyright appearing without permission e-mail [repository@westminster.ac.uk](mailto:repository@westminster.ac.uk)

# **Employing cognitive metonymy theory in the analysis of semantic relations between source and target text in translation**

Charles Denroche

## **ABSTRACT**

This article offers a model of translation which frames semantic relations between source- and target-text elements in terms of metonymy, and translation in terms of metonymic processing. Translators/interpreters constantly use approximations rather than exact one-to-one correspondences in their work, as meaning making is by nature partial and built-in matches between language systems do not exist. Approximation is identified as a recurrent theme in Translation Studies, while Metonymy Studies is seen as providing a toolkit for describing in detail the approximate semantic relations between source- and target-text elements. Models from Metonymy Studies are applied to two translation case studies and a translation revision case study. An original typology of metonymic relations is proposed based on whether or not source and target are encoded linguistically as vehicle and/or topic. It is concluded that the semantic relations between source- and target-text elements in translation are distinctive in two respects: 1) they are characterized by facetization and zone activation rather than metonymization; 2) they are examples of Topic metonymy (both source and target concepts are encoded) and Code-switching metonymy (the source and target concepts are encoded in different languages).

## **KEYWORDS**

metonymy, translation, facetization, zone activation, contiguity, indeterminacy, metonymic processing, metonymic shift

# 1 Introduction

I have been constantly impressed over many years as a professional translator, and as a university lecturer training translators and interpreters, by how much of a translator's mental effort carrying out their daily work is expended on managing equivalences between elements of text which are close in meaning but which do not correspond exactly. I have also engaged increasingly over the same period with the theoretical work in cognitive linguistics regarding metonymy and the significance this has for understanding communication and language processing. This article brings these two fields together and shows how mapping the scholarship of metonymy onto the practice of translation contributes to a deeper understanding of the nature of the semantic relations between a text (Source Text) and its translation (Target Text).

Section 2 reviews the many ways inexactness and approximation have been theorized in the Translation Studies literature in order to see how practice is reflected in theory, and covers topics such as shift, match, expansion/reduction, explicitation/implicitation and indeterminacy. Section 3 looks at how cognitive linguistics frames approximation and the partial nature of meaning making in terms of active zone and reference point phenomena (profile/base, figure/ground) and construal. Indeterminacy, an inevitable consequence of representation, helps communicators achieve flexibility of expression; it is key to understanding both the challenges translators face and the source of solutions to their translation problems.

In Section 4, metonymic processing, the ability to access a concept (target) via another closely-related concept (source), is presented as central to meaning making and communication at all levels in the linguistic hierarchy. The models of Panther & Thornburg (1998), Paradis (2004), Barcelona (2005a), Ruiz de Mendoza Ibáñez & Díez Velasco (2002) and Peirsman & Geeraerts (2006) are identified as useful tools for analysing semantic relations in authentic translation events. I propose my own typology of metonymy types based on whether or not the domains of source and target are encoded linguistically as vehicle term and/or topic term, and in which code (language).

In Section 5, cognitive metonymy theory is applied to two case studies involving translation from Italian to English. This reveals that the semantic relations between source text and target text words/phrases are indeed metonymic, but involve intra-domain highlighting at the level of facet or active zone, rather than the level of sense which is typical of classic 'stand-for' metonymies. Metonymic relations in translation are also peculiar in that both source and target are linguistically encoded – referred to as **Topic metonymy** – and that source and target terms belong to different code systems – referred to as **Code-switching metonymy**. Section 6 goes on to look at how cognitive metonymy theory may give insights into the semantic relations between source

and target texts in the editing and revising stages of translation. Section 7 offers concluding remarks.

## 2 Approximate correspondences between ST and TT in the Translation Studies literature

It is striking how many different accounts in the Translation Studies literature tackle the problem of inexact and approximate correspondences between languages/texts/cultures and offer strategies for their resolution. Each frames the issue in a slightly different way but the common thread in this body of work is that translators compensate for loss through the use of some kind of ‘translation shift’.

### 2.1 Translation shift

Shifts are approximate equivalents which attempt to preserve meaning and occur at all levels across the language hierarchy. Catford defines translation shifts as “departures from formal correspondence in the process of going from the SL to the TL”, identifying ‘level shifts’ on the grammar/lexis continuum and ‘category shifts’ involving structure, class, rank and intra-system properties (Catford, 1965, pp. 73-82). Catford, Leuven-Zwart, Popovič, Toury and Vinay & Darbelnet all offer schemes of strategies where inexactness is theorized in terms of shift (reviewed in Halverson, 2007, pp. 106-111). Some shifts are obligatory – all of Catford’s, for example – while others reflect the translator’s choice. Vinay & Darbelnet’s typology of procedures distinguishes between ‘direct translation’, where small shifts are involved (borrowing, calque and literal) and ‘oblique translation’, where larger shifts and larger units of translation are involved (transposition, modulation, equivalence and adaptation) (Vinay & Darbelnet, 1958/1995).

Toury identifies shifts as ‘coupled pairs of replacing + replaced segments’, which “determine each other in a mutual way” (Toury, 1995, p. 77), while Rojo & Ibarretxe-Antuñano (2013, p. 20) and Halverson (2007, p. 113) frame translation shifts in terms of construal operations. Few professional translators/interpreters would question the idea that translation involves inexact matches rather than exact correspondences between source and target elements; but for those not involved professionally, it is less obvious (Fougner Rydning, 2012, p. 295). Translation is frequently associated in the public mind with ‘loss’, but for those involved in translation professionally it is (chiefly) about ‘gain’. Even the poorest translation enables communication of some kind to

take place which would not have otherwise occurred, and a translated text may even improve on the original.

## **2.2 Equivalence**

Scholars operating within the equivalence paradigm acknowledge that approximation is inevitable because exact correspondences between words/phrases in different languages are not always available. For Jakobson “equivalence in difference is the cardinal problem of language and the pivotal concern of linguistics” (Jakobson, 1959/2012, p.127). The lack of precisely-marked boundaries in the lexical system is identified by Bell as an occupational hazard and the inherent fuzziness of language as “the most formidable obstacle to the translator” (Bell, 1991, p. 102). The term ‘fuzzy match’, contrasted with ‘full’ match, is used in the context of Translation Memory (TM) where there is substantial common ground between two translated sentences (Somers, 2003). Bellos characterizes what makes an acceptable translation as “an overall relationship between source and target that is neither identity, nor equivalence, nor analogy – just that complex thing called a good match” (Bellos, 2011, p. 336).

Nida favours a ‘dynamic’, sense-driven equivalence over a ‘formal’ approach, focussing on “matching the receptor-language message with the source-language message” (Nida, 1964, p. 159), and employs componential analysis to tackle the problem of non-correspondence by comparing ST-TT word pairs in terms of distinctive features. This allows the translator to determine which semantic features are shared/not shared and therefore which are the best solutions. Blum-Kulka considers shifts at discourse level and the contribution word-level choices make to textual cohesion and coherence (Blum-Kulka, 2004). Kade offers a four-way typology of word/phrase equivalence, identifying cases where correspondences are ‘total’ (one to one), ‘approximate’ (one to part), ‘choice based’ (one to several/several to one) and absent (one to none) (Pym, 2010, pp. 28-29). Krings’ psycholinguistic model of translation identifies ‘decision making strategies’, employed when competing equivalents are available, and ‘reduction strategies’, employed when no adequate equivalent is available and which involve dispensing with markedness, metaphor or semantic features (Krings, 1986).

## **2.3 Expansion and reduction**

The complementary principles of ‘expansion’ and ‘reduction’, shifts whereby more or less information is contained in the target text than in the source text,

appear in the literature under many different designations. Nida uses ‘addition’ and ‘subtraction’ (Nida, 1964); Hervey & Higgins (1992) use ‘compensation by splitting’ and ‘compensation by merging’; Malone uses ‘amplification’ and ‘reduction’ (Pym, 2010, p. 17); while Lederer’s two *mouvements du discours* are ‘dilations’ and ‘contractions’ (Lederer, 1976). Vinay & Darbelnet, in their list of translation techniques, offer a number of complementary pairs, all involving expansion and reduction of some kind: amplification/economy, dilution/concentration, explicitation/implication, generalization/particularization and supplementation/reduction (Vinay & Darbelnet, 1958/1995). Klaudy’s broad categories of ‘explicitation’ and ‘implication’ “cover everything that is ‘more’ [...] or ‘less’” (Pym, 2010, p. 15). Explicitation makes information, including cultural knowledge, implied in the source text overt in the target text. For Blum-Kulka, explicitation is the result of differences between language systems and the tendency of translators to build in redundancy through the use of ‘cohesive explicitness’ (Blum-Kulka, 2004, p. 292). Explicitation is so central to the process of translating that some see it as a translation universal. Pym lists explicitation as a universal along with lexical simplification, adaptation and equalizing (Pym, 2010, p. 79-80).

## 2.4 Indeterminacy

It has long been recognized that language under-refers/-specifies in its representation of real and imagined worlds. Many accounts of indeterminacy are found in linguistics and the philosophy of language but few scholars explore its implications for translation. An exception is Quine, who observes that ‘systematic indeterminacy’ is involved in the ‘enterprise of translation’ (Quine, 1960, p. ix), the ‘principle of indeterminacy’ being more visible and more necessary in translation than it is in communication within one language (Quine, 1960, p. 79). Pym frames indeterminacy in terms of ‘uncertainty’, alongside hermeneutics, game theory and deconstruction (Pym, 2010, pp. 90-116). The issue of uncertainty is inherent in language and so does not appear only in translation. Pym argues that theories which emphasize the indeterminate nature of language imply that equivalence is possible, while highly-deterministic theories “make equivalence virtually impossible, and perhaps translation as well” (Pym, 2010, pp. 96-97).

This overview demonstrates how pervasive the concepts of inexactness and approximation are in the translation-studies literature. Bringing these accounts together here shows the variety of approaches to the issue and the diversity of terminologies that have been adopted. I begin with Translation Studies as it is a discipline which stays close to translation as a practice, though it does not

interrogate the nature of approximation in any great depth and is therefore useful to practitioners only up to a point. That is why I turn to the theoretical perspective of cognitive linguistics, and metonymy theory in particular, in the next two sections. I look at inexactness and approximation from this perspective by looking firstly at the partial nature of meaning making within and between languages, and then at models from Metonymy Studies which are suitable as tools for exploring the nature of metonymic relations in translation in detail.

### 3 The partial nature of meaning making

#### 3.1 Within a language

For Kress, all representation is partial: “It is *partial* in relation to the object or phenomenon represented; it is *full* in relation to the sign-maker’s interest at the moment of making the sign” (Kress, 2010, p. 71). Cognitivists argue that language does not provide information explicitly but merely mental access to it, that concepts are not accessed directly and fully but that language uses a part as a handle to gain access to the whole, discussed variously in terms of viewpoint, construal, perspective, figure-ground, reference point and metonymy. Langacker considers grammar to be “basically metonymic” (Langacker, 2009, p. 46) and phenomena where a point of reference evokes a target “fundamental and ubiquitous” throughout language (Langacker, 1993, p. 30). Radden concurs with Langacker that language is by nature metonymic: metonymy plays a role “at all levels of linguistic structure: phonology, lexical semantics, lexical grammar, morphology, grammar, and pragmatics” (Radden, 2005, p. 11); understanding “even a simple lexical item involves metonymic reasoning” (Benczes, 2015, p. 493). Metonymy (part-whole) is even one of the cognitive primitives (image schemas), the interface between experience of the world and basic cognitive models, listed by Lakoff (1987) and Johnson (1987).

The basic feature of natural languages, that they under-refer/-specify, signs only giving access to concepts via a partial representation of the realities they stand for, offers opportunities for referring to the same entity (concept, cognitive model, frame, schema, mental space) in different ways. For example, American and British English have different terms for designating note duration in musical notation; a *sixty-fourth note* (AmE) is a *hemidemisemiquaver* (BrE), two ways of saying (and conceptualizing) the same thing. Another example: there are three words for castanets in Spanish: *castañuelas* from chestnut, the wood they are traditionally made from; *pulgaretes* from ‘pulgar’ for thumb, as the thumb is important in playing them;

and *platillos*, referring to their saucer shape – each employs a single aspect to encode the whole. For more complex objects, such as mobile phones or food mixers, the greater the necessity and opportunity there is to use a part to refer to the whole. With social practices, such as ticketing or voting, complexity prevents complete representation and access via a part becomes even more necessary.

The partial nature of meaning making makes encoding possible but it has an additional function: it foregrounds (highlights) the chosen aspect as salient. The choice is not arbitrary but motivated. Radden gives *selfie stick* as an example, suggesting that it has acquired that name because the two elements *selfie* and *stick* are more salient than *quick pod*, the name its inventor chose and patented (Benczes, 2015, pp. 481-482). Radden also illustrates how different SUB-EVENT FOR WHOLE EVENT metonymies for the action of DRIVING are emphasized using different expressions: *having wheels* suggests the freedom of the road and adventure, while *sitting behind the steering wheel* evokes the tedium of driving (Radden, 2008). Lakoff gives examples of how the journey frame can be construed metonymically in various ways (Lakoff, 1987, pp. 78-79). Referring to a concept via one of its aspects automatically emphasizes that aspect; it profiles a salient feature (figure) against a base (ground). The ability to highlight a particular aspect of an entity in this way explains where much of the subtlety, nuance and flexibility of language, as well as spin and ideological patterning, come from.

### 3.2 Between languages

Just as concepts can be accessed in different ways *within* one language, they can also be *between* languages. If expressions for the same concept are compared in different languages, one finds each expression reflecting a particular choice of figure (reference point or active zone) against a ground. Some languages access the concept MOBILE PHONE by focussing on its small size, others on its portability and others on the cellular nature of the network (Denroche, 2011, pp. 194-5). The concept PAPERBACK is accessed via the pocket the book fits into in French, German, Italian and Spanish – *livre de poche* (literally, ‘book of pocket’), *Taschenbuch* (‘pockets book’), *tascabile* (‘pocket-able’) and *libro de bolsillo* (‘book of pocket’); while English and Chinese give attention to the material of the binding, *paperback* and *ping chuong* (‘flat cover’). Kress cites LIGHT BULB, accessed via *light* and *bulb* in English but ‘glow’ and ‘pear’, *Glühbirne*, in German (Kress, 2010, p. 103).

Radden, comparing expressions in English and Spanish, observes that English focusses on the activity of ‘hiking’ in *hiking boots* while Spanish selects ‘mountains’ (*botas de montaña*), and that English emphasizes the idea



of a ‘seat’ in *seat belt* while the Spanish equivalent focusses on ‘safety’ (*cinturón de seguridad*) (Radden, 2005, p. 20). Hatim & Munday cite a multilingual notice advising passengers not to lean out while the train is moving and note that the English is the only one to mention the window, *Do not lean out of the window*; while the Italian, *E’ pericoloso sporgersi*, is the only one to tell you that leaning out is dangerous (*pericoloso*) (Hatim & Munday, 2004, p. 26). Radden observes that in shopping transactions, German focusses on the customer receiving (I GET), Japanese on the shop assistant giving (GIVE ME), and English on the customer being in possession of the item at the end of the transaction (*I’ll have*) (Radden, 2005, p. 23), though other expressions, such as *Can I get ...? Can I grab ...?* reflect other frames for English.

These multilingual examples are not the result of translation proper, the active transfer of meaning from source to target through the intervention of a mediator; they are expressions which have come about independently and monolingually. They do, however, illustrate that languages offer different strategies for construing meaning. Given that changing the profile/figure/reference point/active zone in accessing a concept is characteristic of language in general, it seems reasonable to suppose that it will also be an invaluable strategy in translation, as it will offer the translator a host of possibilities to choose from when creating expressions *de novo* in a target language.

In the next section, I turn to metonymy theory in the cognitive linguistics literature as it is in this area of linguistics we find the most detailed accounts of approximation and models which may be applied to the analysis of data from authentic translation events.

## 4 Cognitive metonymy theory

Research into metonymy is a burgeoning field which has now moved into a mature phase in its history. This is reflected by the way various strands of research have come together to form a cohesive whole under the banner Metonymy Studies. As well as individual articles and collections of conference papers, there are now available overviews of the field, such as the review of literature by Koch (2001) and Drożdż (2014) and monographs by Denroche (2015), Littlemore (2015) and Zhang (2016). There are reservations in some quarters as to how inclusive the term metonymy should be. Some prefer to use metonymy only for classic stand-for and type-of instances, others include phenomena on a continuum of metonymy which includes zone activation and facetization (Paradis, 2004). Others embrace a wide range of mental operations right across the linguistic hierarchy, from the linguistic sign (Radden, 2005), to

grammar (Langacker, 2009), to pragmatic inferencing (Gibbs, 1999; Panther & Thornburg, 2003) and metonymic relations at discourse level (e.g. Lodge, 1977; Denroche, 2018).

The linguistic phenomena in this inclusive sense of metonymy have in common that they all involve a source concept (figure) profiled against a closely-related target concept (ground). Scholars who take a broad view include Langacker (1993; 2009), Radden (2005) and Gibbs (1999). Gibbs feels that ‘the proper study of metonymy’ should extend “beyond looking at metonymic language alone” (Gibbs, 1999, p. 74) and that it should comprise all phenomena “where people infer wholes from parts and parts from wholes” (Gibbs, 1999, p. 72). Terms such as ‘metonymic processing of language’ (Gibbs, 1999, p. 69), ‘metonymics’ (Denroche, 2015) and ‘supermetonymy’ (Brdar, 2017, p. 67) have been used to identify an inclusive approach over a narrower, more traditional stance.

There is overall agreement that metonymy involves contiguity between domains (or sub-domains) and the recognition of partial overlaps of the types whole-part, part-part or part-whole. But there are two paradoxes which emerge from this general definition. The first is that the metonymies most discussed in the literature and considered most representative, conventional metonymies (such as those reported in dictionaries), lack one of the essential defining features of metonymy, namely, that their comprehension involves indirect access to a target concept via a closely-related source concept. Mental access to expressions such as *the crown*, *the White House*, *nibbles*, *smoothie* is ‘direct’; they are processed as ‘literal’, unless the etymology is explored or the original metonymy is re-activated through creative elaboration, consequently “The result of the metonymic process” central to most definitions “has received fairly little attention” in practice (Radden, 2018, p. 173). The second paradox is that a text can be metonymic at *text* level but not at *surface* level. A source may be represented by a long stretch of language, a whole paragraph perhaps, but the language in it will not necessarily contain any linguistic metonymies; and it may well contain metaphors (Lodge, 1977, pp. 98-99).

To summarize these two paradoxes: the decoding of conventionalized metonymic language usually does not involve metonymic processing; and metonymy at discourse level will not necessarily contain linguistic metonymies.

#### **4.1 A typology of metonymic relations**

In this section, I propose an original typology of metonymy types relevant to the current study, using a criterion not discussed in the literature to date. This is based on whether or not the source or target domain is encoded linguistically.

A good point of departure is Kövecses & Radden's (1998) use of the ontological realms of the semiotic triangle to distinguish between different types of ICM, and therefore types of metonymy. They demonstrate that any of the three points of the semiotic triangle (concept, word, thing/event) for source or target can potentially be involved in setting up a metonymic relationship.

A number of different situations arise. One is when an association of contiguity between the source and target concept is entertained in the mind without lexically encoding either. We can use the term Kövecses & Radden use and call this **Concept metonymy**. (This concerns a specific thought and should not be confused with 'conceptual metonymy' which concerns a generalized pattern of thinking of the kind CONTAINER FOR CONTENTS.) The second situation is when the source is lexicalised but the target is not, the case of typical stand-for type metonymy. We can call this **Reference metonymy**. A third situation is when both vehicle and topic are stated but where the relatedness between them is processed purely on the basis of form, as is the case with rhyming, alliteration and puns, meaning being more of a 'side effect' than primary to processing. I discuss this elsewhere and call it **Formal metonymy** (Denroche, 2015, pp. 95-97, 144-146).

There is a further situation when metonymic source and target are both encoded. Mirroring the terminology for describing metaphor, we can call the encoded source 'vehicle' and the encoded target 'topic'. This type of metonymy, which I call **Topic metonymy**, is the situation we find in translation (and bilingual dictionaries), where the source concept is encoded in the source language and the target concept in the target language. Synonyms are also an example of topic metonymy, whether listed in synonym dictionaries or occurring in a text, as are explanations of metonyms in everyday conversation and linguistic textbooks, e.g. *The word 'crown' [vehicle] stands for the royal family [topic]*.

The last metonymy type in this typology is also characteristic of translation. It is a metonymic relation which involves code-switching, where vehicle and topic are not only encoded but encoded in different languages. I call this type **Code-switching metonymy**. In the framework I have presented above, a synonym dictionary can be described as a catalogue of lexically-encoded metonymic relations; while a bilingual dictionary can be described as a code-switching catalogue of lexically-encoded metonymic relations, and can also be seen as a cross-code synonym dictionary.

## **4.2 Employing cognitive metonymy theory to investigate translation**

This section focusses on those aspects of cognitive metonymy theory which lend themselves for use in the analysis of translation data. These concern meaning at lexical level, and are: sense/facet/zone metonymies (Paradis, 2004), prototypical/typical/schematic metonymies (Barcelona 2005a), domain reduction/expansion (Ruiz de Mendoza Ibáñez & Diez Velasco, 2002), strength of contact (Peirsman & Geeraerts, 2006) and strength of metonymic link (Panther & Thornburg, 1998). These will provide the linguistic tools for investigating the translation case studies in the next two sections, Section 5 and 6.

Paradis identifies three metonymy processes on a ‘scale of metonymy’, metonymization, facetization and zone activation. Metonymization is a non-conventional, contextually-motivated mapping between senses, such as *the Red Shirts* to refer to a sports team; facetization is the highlighting of one meaning facet over others within a lexeme, such as *paint/clean/open a window*; and zone activation, the most conventional and most ‘literal’ of the three, is the highlighting of a specific profile within a single sense, such as *slow car* to mean ‘car driven slowly’. The difference between sense, facet and zone in Paradis’ scheme is a matter of scale. Each deals with a progressively smaller domain or sub-domain and with it comes increasingly strong contiguity. That Langacker includes zone activation under metonymy, Ruiz de Mendoza Ibáñez includes zone activation and facetization, and Peirsman & Geeraerts include facetization but not zone activation (Zhang, 2016, pp. 17-18) indicates that these are finer points of demarcation against a background of general agreement.

Barcelona takes the closeness of source and target domain as his criterion for differentiating three types of metonymy on a ‘continuum of metonymicity’ (Barcelona, 2005a, pp. 314-315): in ‘prototypical’ metonymy, source and target are distinct, they are referential and show stand-for relations, e.g., *Belgrade did not sign the agreement*; in ‘typical’ metonymy, source and target are also distinct, but they are non-referential and involve highlighting of a single property, e.g., *She’s just a pretty face*; and in ‘schematic’ (or ‘literal’) metonymy, source and target are closely related and involve active-zone highlighting at subdomain level, e.g., *This book weighs two kilos./is instructive*.

This appears on the face of it to be straight-forward, but if we map the divisions of senses, facets and zones onto a range of lexical items, the situation is more complex. Lexemes can be broad or specific in meaning, a zone for one lexeme may equate to a sense for another; consequently, what constitutes ‘distinct’ from ‘closely related’, or what differentiates sub-domain highlighting from intra-domain mapping, is not always easy to determine. To imply that a domain or sub-domain is fixed and tangible is to ignore a basic principle of cognitive linguistics, namely, that concepts are understood through framing

which makes the relationship between them fluid. How a domain is viewed will depend on which frame is used, and this will vary from case to case and person to person.

Two further but related areas of metonymy theory are employed in analysing data in the next sections. First is the broad division of metonymies into SOURCE-IN-TARGET, ‘domain expansion’, metonymies, e.g., *All hands on deck*, and TARGET-IN-SOURCE, ‘domain reduction’, metonymies, e.g., *the pill* for ‘contraceptive pill’, developed by Ruiz de Mendoza Ibáñez & Diez Velasco (2002). Second is the notion of ‘conceptual distance’ and ‘strength of metonymic link’ in the context of pragmatic inferencing (Panther & Thornburg, 1998, pp. 760-1). Panther & Thornburg state that “The link between a metonymic source and its target may vary in strength” and that “The strength of a metonymic link depends on how conceptually close source and target are to each other” (2003, p. 6). Peirsman & Geeraerts identify contiguity as a central and prototypical property in classifying conceptual metonymy along the axes of ‘strength of contact’, ‘boundedness’ and ‘concreteness of domain’ (Peirsman & Geeraerts, 2006). Paradoxically, if we take Peirsman & Geeraerts’ notion that stronger contact indicates greater prototypicality to its logical conclusion, this would characterize zone activation and facetization as *more* typical of metonymy than metonymization. Elsewhere I have proposed that a quantitative measure of degree of relatedness, expressed numerically as an ‘overlap coefficient’, could prove a useful research tool (Denroche, 2015, p. 77).

Domain expansion and reduction are constantly in play in translation, and strength of metonymic link/contact is particularly important in correspondences between terms in the different languages as their closeness preserves the sense of the source text.

## 5 Two case studies

The two case studies in this section illustrate how cognitive metonymy theory can offer insights into the nature of the semantic relations between source- and target-text elements in real translation events. Metonymic relationships exist across the whole linguistic hierarchy (Radden, 2005). I have chosen to focus at the lexical end of the spectrum to make the analysis manageable for the purposes of this article. Both case studies consider translations from Italian to English. This article adopts as groundwork Denroche’s (2015) model in which translation is framed in terms of metonymic processing, but develops it from where he leaves off by interrogating the specific nature of semantic relations between ST and TT rather than just stating that they are metonymic. In particular, the approach taken here underscores the idea of translation as an

online process – rather than a product – and how metonymic processing is involved in a way which practitioners and trainers would recognize.

## 5.1 First case study

In the first study, I look at translations of a cake recipe carried out by a group of nineteen translation undergraduate students at a London university. I consider only the title of the recipe, *Torta alla ricotta*. Although the title is only three words long, the students came up with twelve different versions, all of them acceptable:

Ricotta Cheese Cake (x3), Ricotta Cheesecake (x3), ‘Ricotta cheese’ cake, Ricotta Cake (x4), Ricotta Cake-Torta alla Ricotta, Hot Ricotta Cheesecake, Cheesecake Recipe, Ricotta Tart, Ricotta Pie, Cheesecake, Italian Cheesecake, Torta alla Ricotta

Metonymy theory allows us to make the following statements about these translations:

1) Conceptual closeness, in the sense of Panther & Thornburg and Peirsman & Geeraerts, exists between source and target, and between the vehicle term *torta alla ricotta* and the various encodings in the target language. The Italian source-language term encodes the metonymic source and gives rise to the English target-language terms, semantic encodings of the metonymic target.

2) There is also conceptual closeness among the various target-language versions. The implication of Nida’s (1964) ‘principle of equivalent effect’ is that the best translations are those in which the effect of the target text (TT) is equivalent to that experienced by the receiver of the source text (ST).

Achieving solutions where the prototypical core of the source concept and the target concept coincide closely is the goal of translation in this paradigm. The data suggest that *ricotta cheesecake* represents this core concept, as seven out of nineteen of the translators choose this wording, while solutions containing *pie* and *tart* are more peripheral examples, in Peirsman & Geeraerts’ sense.

3) There are no classic stand-for metonymies, such as *crust* standing for *pie*, in these examples; instead, we find smaller-scale sub-domain highlighting at the level of facet and zone in Paradis’ sense, for example, in the translations *cake* or *pie* for *torta*. These are at the more literal end of Paradis’ scale of metonymy and Barcelona’s continuum of metonymicity. This is a good demonstration of why it is not useful to make a sharp distinction between figurative and non-figurative language when discussing naturally-occurring discourse/text, as metonymically-shifted meaning is present to a greater or lesser degree throughout translation.

4) The choice of *cheese*, a less specific word than *ricotta*, can be seen as an example of domain expansion in Ruiz de Mendoza Ibáñez & Diez Velasco's sense, as the target word encodes a concept broader than the concept indicated by the source-text item. It would be expected that domain reduction is more common than domain expansion as translation tends to create texts which are more explicit. Jakobson, in discussing cultural differences between languages, notes that the Russian word for CHEESE does not include cottage cheese (Jakobson, 1959/2012, p. 127). Ruiz de Mendoza Ibáñez & Diez Velasco (2002, p. 517) point out that domain expansion and reduction can occur together, which Littlemore, using their examples, illustrates further (Littlemore, 2015, p. 49-50). In the data above, the addition of *hot*, *Italian* and *recipe* in the students' translations can be seen both in terms of domain reduction, as the target item encodes a narrower concept than the one encoded by the source-text item, and domain expansion as more information is being supplied. To avoid this problem, it is perhaps best to think of the metonymic relations here, and in translation more generally, in terms of 'metonymic shift', any movement where there is an inexact correspondence between source and target. Radden defines metonymic shift as any time that metonymic processing is involved, in other words, where there is "a change of focus from source concept to a complex target" as an online process (Radden, 2018, p. 174). This chimes well with the translation-studies scholarship on shift.

5) Metonymy typically involves a vehicle term giving access to the source concept, which then gives access to the target concept, without the target concept being encoded (referred to as Referential metonymy in the typology given in Section 4.1). The semantic relations between source and target terms in translation are not typical in this sense as they involve metonymies where *both* target and source are linguistically encoded. They are metonymies with a vehicle and a topic term (Topic metonymies). It should be emphasized that the relations referred to here exist only in the mind of the translator in the act of translation or in the mind of someone looking at both the source and target text at the same time, such as a proof-reader or editor, and not in the mind of either the original author or the target-text recipient.

6) Not only are source and target encoded, but they are encoded in different languages, making them also Code-switching metonymies. The involvement of two different sign systems means that a metonymic shift is inevitable, or as Munday expresses it, "for the message to be 'equivalent' in ST and TT, the code-units will necessarily be different since they belong to two different sign systems (languages) which partition reality differently" (Munday, 2012, p. 60).

## 5.2 Second case study

For the second study, I look at translations carried out by eight postgraduate translation students at a London university of a guide to the Botanic Garden of Florence, Italy (*Giardino dei Semplici, Istituto Botanico, Università di Firenze, 2006*). Below is an extract from the Italian source text with three adjectives describing noteworthy specimens in the garden. I look at just three words, *grosso*, *bell'* and *caratteristica* (in bold). Below the source text are the students' translations for these words.

Nell'ultimo prato (n. 1), oltre a numerose Conifere, tra cui da segnalare un **grosso** pino laricio (*Pinus nigra* subsp. *laricio*) e un **bell'** esemplare di pino bruzio (*Pinus brutia*) (20) [...], cresce una **caratteristica** *Ephedra altissima* (21), dalla tipica forma cespugliosa a rami giunchiformi di color verde chiaro, recanti pseudobacche sferiche e rossastre.

**grosso**: large (x5), huge, big, massive

**bell'**: beautiful (x5), fine, nice, [omitted]

**caratteristica**: peculiar (x3), characteristic (x3), distinctive, fragile

Metonymy theory permits us to comment as follows regarding the choices the student translators made:

1) The semantic relations between source and target items are metonymic as they show conceptual closeness. Panther & Thornburg observe that "As the *conceptual distance* between components increases, the probability of their metonymic use decreases" (Panther & Thornburg, 2018, p. 128). The source item gives the translator mental access (a point of entry) to the source concept; the target term is an encoding of the target concept and is contiguous with the source concept. In these data, source and target are conceptually close and establish strong metonymic links.

2) As in the previous case study, the different target-language versions are metonymically related to each other, an important observation when we come to consider revising and editing, discussed in the next section (Section 6).

3) Close relatedness between words in the source and target text make the semantic relations examples of 'literal', active-zone metonymies or facetization, rather than true metonymies, in Paradis' sense. The intra-domain shifts managed by the translators are occurring on a small scale and are therefore in Barcelona's sense not typical metonymies.

4) The choices represent small shifts in terms of domain reduction and domain expansion, in the sense of Ruiz de Mendoza Ibáñez & Díez Velasco. Many of the student-translators chose *large* and *beautiful* for *gross* and *bello*, the first options one would find in a bilingual dictionary. Making these choices indicates a high strength of metonymic link, in Panther & Thornburg's sense; other choices, such as *fragile* and *peculiar* as translations of *caratteristica*,



show weaker contiguity, as they depart from the core prototype of the source term.

5) Bierwiaczonek theorizes metonymy in terms of synonymy, describing them as *asymmetric*, as the vehicle term acts as a synonym for the target but not (necessarily) vice versa (Bierwiaczonek, 2007). The semantic relations in the examples in this case study, instead, are not of this type, as the direction of access can usually be reversed. They are *symmetric* synonyms, metonymies where, through back-translation, a target term can be retrieved from a source term. Typical referential metonyms do not have both a semantically-encoded source and target term but typical synonyms do. The semantic relations in translation are also different from typical synonyms in that it is a synonymy which is operating across languages rather than confined to a single language.

The students' translations for *pseudobacche sferiche e rossastre*, the last four words of the extract, illustrate choices on an even smaller scale. Four of the student versions are given below:

reddish round berries  
reddish and round pseudo berries  
reddish rounded pseudo-berries  
round and reddish pseudo-berries

These micro-differences – *rounded* instead of *round*, the use or not of *and* or a hyphen, and the word order – typical of choices translators constantly make, are at the most literal end the scale of metonymy, 'zone activation', where intra-conceptual highlighting is occurring between closely-related sub-concepts.

This discussion of the students' translations of the words *grosso, bell'*, *caratteristica*, the lexical phrase *torta all ricotta*, and the phrase *pseudobacche sferiche e rossastre* in terms of cognitive metonymy theory in these two case studies reveals that the semantic relations between source and target items are indeed metonymic, but that they are atypical of classic metonymy in a number of respects: they are at the smaller facet and zone activation end of the scale of metonymy; and they are examples not Reference metonymy but Topic metonymy (both source and target concepts are encoded) and Code-switching metonymy (the source and target concepts are encoded in different languages).

## 6 Metonymy in translation revision and editing

An important aspect of translation where one text gives rise to another text in the same language is the revision or editing stage. Jakobson uses the term *intralingual translation* for the transfer of meaning within a language, "an

interpretation of verbal signs by means of other signs in the same language”, distinguishing intralingual translation or ‘rewording’ from *interlingual translation* or ‘translation proper’, the “interpretation of verbal signs by means of some other language” (Jakobson, 1959/2012, p. 127). Kress includes both types of translation under ‘transformation’ (contrasted with ‘transduction’), as both remain within the same semiotic mode (Kress, 2010, p. 124). In this section, I use metonymy theory to look at intralingual translation and the semantic relations between the first draft, as presented in a published text, and a final version, represented by my edit of the text.

The text for the case study in this section is an extract from multi-language guide to the coastal town of Cervo in Italy (*Guida turistica alla provincia di Imperia*, 2005). English appears alongside French, German, Italian and Spanish in the brochure. I am assuming the Italian text is the original and the English text a translation of it, and that the Italian-English translation was carried out by an Italian speaker, but cannot substantiate either of these assumptions. Below I look at the quality of this translation. The first sentence of the English text reads:

Sentence 1

Worth visiting is Cervo, an ancient fishing village whose inhabitants built the picturesque Cathedral (1686-1734) thanks to the profits obtained by coral fishing.

This sentence shows atypical word order and sentence construction, in British English, at least. *Cervo is well worth visiting* and *It is an ancient fishing village* would be more typical formulations; nonetheless, the sense of this sentence is easily retrieved. Poor lexical choices and atypical collocations, e.g. *prestigious*, *representatives* and *partake*, make understanding the second sentence more problematic:

Sentence 2

The most prestigious culture representatives partake in the international Chamber Music Festival in Summer in the local square.

The sense of the third sentence is even harder to retrieve:

Sentence 3

The foreign etherogeneous colony which has settled almost everywhere in the hinterland of Imperia, has a particular undertaking with the local population for the realization of outstanding cultural events (music, painting, sculpture, graphic art, theatre, etc).

The words *colony*, *settled*, *hinterland*, *undertaking* and *etherogeneous* (not an English word in this context) make this sentence hard to understand as they contribute a level of indeterminacy which is unmanageable. Strength of metonymic link/contact is so weak there is a danger a 'break point' will be reached in terms of intelligibility. If we bring metonymy theory into play, we can say, even without seeing the original, that conceptual closeness between source and target text has been weakened by the choices made by the translator and that the overall cohesiveness of the text impaired. Perceived relatedness between individual source and target elements is critically low because too few facets/active zones are shared. Rather than domain expansion or reduction, we have here what could be described as 'domain shift'.

Sentence 3 could be revised/paraphrased as follows:

The community of foreigners who own properties in the Imperia hills work with the local inhabitants to organize the Cervo summer music festival

What this edit does is to change the nature of the metonymic relations between source- and target-text elements to semantic relations with stronger metonymic links. This involves lexical and syntactic choices which establish semantic shifts in domains and sub-domains so that the number of shared facets between source and target is increased, thereby reducing ambiguity and increasing cohesion.

The passage below appears later in the same text. The three words highlighted in bold, *embarrassing*, *itineraries* and *alternate*, are particularly problematic:

The cultural attraction and the charm of the landscape of the Province of Imperia (the Riviera of the Flowers) are so numerous that it is, of course, **embarrassing** to suggest **itineraries** to people willing to **alternate** a stay in their favourite resort along the coast with nice and stimulating excursions.

The changes, metonymic shifts, involved in revising a text occur across a whole range of units of size, from morphemic, syntactic, lexical and phraseological to the level of discourse and cultural equivalence, resulting in greater conceptual closeness and a higher degree of overlap. In revising this sentence, *embarrassing* could be changed to *spoilt for choice*, *itineraries* to *programmes* and *alternate* to *combine*. In the process, associations within the text are tightened up, coherence enhanced and processing effort reduced. The sequence text → first draft → final version involves two moves, both involving metonymic shifts. The first, translation, can be seen as involving a move away from the sense of the original text, the second, revision, a move back.

This case study demonstrates how cognitive metonymy theory can provide a tool for talking about revising and editing translations and assessing translation quality. It shows that revising can be framed in terms of greater conceptual closeness and greater cohesion, thereby meeting the dual loyalties of faithfulness to the source text and fluency in the target language.

## 7 Closing remarks

Writing on metonymy and translation tends to be restricted to discussions of the translation of metonymic language, where lists of translation strategies along the lines of the retain-replace-omit triad developed for metaphor are provided (Larson, 1998, p. 124). Brdar & Brdar-Szabó discuss the possibility of translating *non*-metonymic expressions with metonymic expressions and identify this as a translation ‘tool’ or ‘strategy’ (Brdar & Brdar-Szabó, 2013, p. 205; 2014, p. 233). They note that the relative ease with which metonymic expressions can be translated compared with metaphor is explained by “the fact that by definition the conceptual distance between the source and the target is much smaller” (Brdar & Brdar-Szabó, 2014, p. 243).

I look at the issue of metonymy in translation from a different perspective. I see metonymy as a strategy in translation in a far broader sense. Rather than seeing language polarized into literal plateaus and figurative spikes, I feel it is helpful to see all translation choices as involving metonymic shift of some kind. The ability to think metonymically is pervasive in communication in general and so is pervasive in the particular case of translation. Language has a ‘loose fit’ around reality and thought. Partial encoding permits alternatives and this allows flexibility. Indeterminacy makes natural languages workable and translation possible, latitude within a language offering a flexible and creative space for meaning transfer between languages.

The case studies considered in Section 5 indicate that the types of semantic relations between source- and target-text elements are metonymic, as they involve a source concept which gives access to a closely-related target concept, but that they are metonyms of a particular type, involving the highlighting of relations on the smaller scale of intra-domain *highlighting* rather than within-domain-matrix *mapping*, as is the case for typical metonymies. They are examples of zone activation and facetization rather than metonymization. In other words, they are not what some scholars would call metonymy at all. The intralingual revision/editing case study discussed in Section 6 similarly involves semantic shifts at the smaller end of domain relations. The metonymic relations in translation are also particular in that the source and target concepts are both lexically encoded as source and target terms (Topic metonymy), and the two terms are encoded in different languages (Code-switching metonymy).

This makes translation a unique, and as yet under-explored, source of data for linguistic research.

This article offers an approach to translation which has metonymic thinking at its core. The ability to process language metonymically enables the translator to meet the challenges of indeterminacy and at the same time reach communicative goals by finding appropriate choices. This ability lies behind the myriad of choices a translator makes in their daily work. Translation, understood in terms of equivalence, is deemed successful when smaller semantic shifts at the more literal end of the scale of metonymy, and stronger metonymic links between source and target texts, are involved. Mapping cognitive metonymy theory onto the practice of translation/interpreting opens up a rich field of research which gives prominence to the cognitive processes involved in translation and turns the focus back to the translator operating on the fly in real time. It is an approach which could prove useful in the training of translators and interpreters.

## REFERENCES

- Barcelona, A. (2005a). The multilevel operation of metonymy in grammar and discourse, with particular attention to metonymic chains. In F. Ruiz de Mendoza Ibáñez & M. S. Peña Cervel (Eds.), *Cognitive linguistics: Internal dynamics and interdisciplinary interaction* (pp. 313-352). Berlin: Mouton de Gruyter.
- Barcelona, A. (2005b). The role of metonymy in discourse-pragmatic inferencing. In J. L. Otal Campo, I. Navarro i Ferrando & B. Bellés Fortuño (Eds.), *Cognitive and discourse approaches to metaphor and metonymy* (pp. 29-44). Castello de la Plana: Universitat Jaume I.
- Bell, R. (1991). *Translating and translation: Theory and practice*. Harlow: Longman.
- Bellos, D. (2011). *Is that a fish in your ear?* London: Penguin.
- Benczes, R. (2015). Cognitive linguistics is fun: An interview with Günter Radden. *Review of Cognitive Linguistics*, 13(2), 479-506.
- Bierwiazzonek, B. (2007). Synonymy reactivated. *Linguistica Silesiana*, 28, 7-21.
- Blum-Kulka, S. (2004). Shifts of cohesion and coherence in translation. In L. Venuti (Ed.), *The translation studies reader* (2<sup>nd</sup> ed.) (pp. 290-305). London: Routledge.
- Brdar, M. (2017). *Metonymy and word formation: Their interactions and complementation*. Newcastle upon Tyne: Cambridge Scholars Publishing.
- Brdar, M., & Brdar-Szabó, R. (2013). Translating (by means of) metonymy. In A. Rojo & I. Ibarretxe-Antuñano (Eds.), *Cognitive linguistics and translation* (pp. 199-226). Berlin: Mouton de Gruyter.
- Brdar, M., & Brdar-Szabó, R. (2014). Metonymies we (don't) translate by: The case of complex metonymies. *Argumentum*, 10, 232-247.
- Catford, J. (1965). *A linguistic theory of translation*. Oxford: Oxford University Press.

- Denroche, C. (2011). The fundamental role of metonymy in conceptualization and communication. In D. Hornsby (Ed.), *Interfaces in Language 2* (pp. 191-206). Newcastle upon Tyne: Cambridge Scholars Publishing.
- Denroche, C. (2015). *Metonymy and language: A new theory of linguistic processing*. New York: Routledge.
- Denroche, C. (2018). Text metaphonymy: The interplay of metaphor and metonymy in discourse. *Metaphor in the Social World*, 8 (1), 1-24.
- Fougner Rydning, A. (2012). CTMM as a method to study conceptual metaphonymies in translation. In M. Brdar, I. Raffaelli & M. Žic Fuchs (Eds.), *Cognitive linguistics between universality and variation* (pp. 293-326). Newcastle upon Tyne: Cambridge Scholars Publishing.
- Gibbs, R. (1999). Speaking and thinking with metonymy. In K. Panther & G. Radden (Eds.), *Metonymy in language and thought* (pp. 61-76). Amsterdam: John Benjamins.
- Halverson, S. (2007). A cognitive linguistic approach to translation shifts. *Belgian Journal of Linguistics*, 21(1), 105-121.
- Hatim, B., & Munday, J. (2004). *Translation: An advanced resource book*. Abingdon, Oxon: Routledge.
- Hervey, S., & Higgins, I. (1992). *Thinking translation: A course in translation method, French-English*. London: Routledge.
- Jakobson, R. (1959/2012). On linguistic aspects of translation. In L. Venuti (Ed.), *The translation studies reader* (3<sup>rd</sup> ed.) (pp. 126-131). London: Routledge.
- Johnson, M. (1987). *The Body in the mind*. Chicago: Chicago University Press.
- Kövecses, Z. & G. Radden. (1998). Metonymy: Developing a cognitive linguistic view. *Cognitive Linguistics*. 9(1), 37-77.
- Kress, G. (2010). *Multimodality: A social semiotic approach to contemporary communication*. London: Routledge.
- Krings, H. (1986). Translation problems and translation strategies of advanced German learners of French (L2). In J. House & S. Blum-Kulka (Eds.),

- Interlingual and intercultural communication* (pp. 263-276). Tübingen: Gunter Narr.
- Lakoff, G. (1987). *Women, fire and dangerous things: What categories reveal about the mind*. Chicago, IL: The University of Chicago Press.
- Langacker, R. (1993). Reference-point constructions. *Cognitive Linguistics*, 4(1), 1-38.
- Langacker, R. (2009). Metonymic grammar. In K. Panther, L. Thornburg & A. Barcelona (Eds.), *Metonymy and metaphor in grammar* (pp. 45-71). Amsterdam: John Benjamins.
- Larson, M. (1998). *Meaning-based translation: a guide to cross-language equivalence* (2<sup>nd</sup> ed.). Lanham Md: University Press of America.
- Lederer, M. (1976). Synecdoque et traduction. *Études de linguistique appliquée*, 24, 13-41.
- Littlemore, J. (2015). *Metonymy: hidden shortcuts in language, thought and communication*. Cambridge; Cambridge University Press.
- Lodge, D. (1977). *The modes of modern writing: Metaphor, metonymy and the typology of modern literature*. London: Arnold.
- Munday, J. (2012). *Introducing translation studies: theories and applications*. London: Routledge.
- Nida, E. (1964). *Toward a science of translating*. Leiden: E. J. Brill.
- Panther, K., & Thornburg, L. (1998). A cognitive approach to inferencing in conversation. *Journal of Pragmatics*, 30, 755-769.
- Panther, K., & Thornburg, L. (2003). Introduction: On the nature of conceptual metonymy. In K. Panther & L. Thornburg (Eds.), *Metonymy and pragmatic inferencing* (pp. 1-22). Amsterdam: John Benjamins.
- Panther, K., & Thornburg, L. (2018). What kind of reasoning mode is metonymy? In O. Blanco-Carrión, A. Barcelona & R. Pannain (Eds.), *Conceptual metonymy: Methodological, theoretical, and descriptive issues* (pp. 121-160). Amsterdam: John Benjamins.



- Paradis, C. (2004). Where does metonymy stop? Sense, facets and active zones. *Metaphor and Symbol*, 19(4), 245-264.
- Peirsman, Y., & Geeraerts, D. (2006). Metonymy as a prototypical category. *Cognitive Linguistics*, 17(3), 269-316.
- Pym, A. (2010). *Exploring translation theories*. London: Routledge.
- Quine, W. (1960). *Word and object*. New York: John Wiley.
- Radden, G. (2005). The ubiquity of metonymy. In J. L. Otal Campo, I. Navarro i Ferrando & B. Bellés Fortuño (Eds.), *Cognitive and discourse approaches to metaphor and metonymy* (pp. 11-28). Castello de la Plana: Universitat Jaume I.
- Radden, G. (2008). *Generic reference: An instance of the INSTANCE FOR TYPE metonymy*. Paper presented at the Third International Conference of the German Cognitive Linguistics Association, Leipzig, Germany. 25-27 September, 2008.
- Radden, G. (2018). Molly married money: reflections on conceptual metonymy. In O. Blanco-Carrión, A. Barcelona & R. Pannain (Eds.), *Conceptual metonymy: Methodological, theoretical, and descriptive issues* (pp. 161-182). Amsterdam: John Benjamins.
- Rojo, A., & Ibarretxe-Antuñano, I. (Eds.). (2013). *Cognitive linguistics and translation*. Berlin: Mouton De Gruyter.
- Ruiz de Mendoza Ibáñez, F., & Diez Velasco, O. (2002). Patterns of conceptual interaction. In R. Dirven & R. Pörings (Eds.), *Metaphor and metonymy in comparison and contrast* (pp. 489-532). Berlin: Mouton de Gruyter.
- Somers, H. (2003). Translation memory systems. In H. Somers (Ed.), *Computers and translation: A translator's guide* (pp. 31-47). Amsterdam: John Benjamins.
- Vinay, J., & Darbelnet, J. (1958/1995). *Comparative stylistics of French and English: A methodology for translation* [orig. *Stylistique comparée du français et de l'anglais*]. Translated and ed. by J. Sager & M. Hamel. Amsterdam: John Benjamins.

Zhang, W. (2016). *Variation in metonymy, cross-linguistic, historical and lectal perspectives*. Berlin, Boston: De Gruyter Mouton.