

# An Approach to Lexical Knowledge from the Viewpoint of Language Teaching\*

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**Ishikawa, Akira. 2008. An Approach to Lexical Knowledge from the Viewpoint of Language Teaching.** *Linguistic Research* 25(3), 101-116. This paper presents an approach to vocabulary teaching based on the idea of systemization of vocabulary knowledge, which attempts to incorporate insights gained in theoretical linguistic research into explicit vocabulary instruction. This approach intends to make unnoticeable regularities in vocabulary knowledge accessible and learnable by foreign learners, overcoming difficulties arising from learner factors. It is also expected to provide learners with more control over their learning processes, making learning activities intellectually more appealing than uninformed varieties of vocabulary instruction. Three requirements of the systemization of vocabulary items are discussed along with other related issues. (Sophia University)

**Keywords** systemization of vocabulary items, lexical knowledge, vocabulary teaching, unnoticeable regularities, and learner factors

## 1. Introduction

In this paper I would like to propose an approach to vocabulary learning, which has ‘systemization’ as its guiding principle. Systemization of vocabulary items is an attempt to make foreign language learning a cognitively more meaningful process. Learning words of a foreign language is a time-consuming tedious process, where one has to struggle to establish half-spontaneous associations between form and meaning, with both of which learners usually only have grasped an insufficient understanding. They are advised to deepen their understanding through cumulative encounters with the particular word at hand in various contexts, which they are told should contribute to honing their knowledge of the word. There are strategies such as keyword technique and breaking words into parts devised to enable the learner to have more control of this learning process. The keyword strategy, in which an L1 word somewhat close in

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form and meaning to the word is used as a clue for recall, might make for more deliberate learning, but it is doubtful that using a technique resembling creating puns genuinely addresses the question of whether the learning process itself is cognitively meaningful. On the other hand, morphological and etymological analyses should be regarded as genuine attempts in this direction; however, their scope of application is severely restricted as compared with the keyword technique, and particularly in the case of etymological analysis, the factor of historical semantic change makes the approach unpractical for pedagogical purposes. By contrast, the approach proposed here is a pedagogically feasible genuine attempt to bring about cognitively meaningful vocabulary learning in the sense that any type of vocabulary can be an object of systematization, where vocabulary learning is also a task of learning relevant systems.

## 2. What is vocabulary learning?

Vocabulary learning is a topic of applied linguistics, in which various aspects of learning vocabulary items such as words and lexical phrases are studied. From the viewpoint of language pedagogy, the usefulness or otherwise of explicit teaching as opposed to implicit or incidental learning is a topic of interest for many teachers because the explicit teaching of words and phrases would take up a considerable amount of the perennially scarce class time without much visible reward. Many teachers prefer to have their students devote their time to activities such as extensive reading, as in the activity known as the book flood (Elley 1991), to build up a substantial vocabulary while developing other skills in an environment conforming to communicative language instruction.

Still there are arguments for explicit teaching of vocabulary for foreign language learners, which can be represented by the following summary of the points made in Nation (2001, pp.96-97):

- Unlike native speaker children, learners do not have a basic vocabulary of around 5,000 high-frequency words when they start to learn the language,
- unlike native speakers, learners lack rich opportunities of learning from input, and
- learners have much less time for learning vocabulary, and yet they have to compete with native speaker children at critical time points in education.

To compensate for such disadvantages on the part of non-native learners, explicit

teaching is recommended as a means to expedite the learning of an essential vocabulary of high-frequency words. To avoid an accusation of wasting valuable class time, proponents of explicit teaching must present an effective method of implementing their ideas. According to Nation, such methods can be categorized under the heading of rich instruction (Nation, p.97), which involves (1) deep processing, (2) deliberate inference, and (3) elaborate attention in decontextualized settings.

### 3. Lexical knowledge

In order to make clear what is transmitted to the student in vocabulary teaching, it is convenient to appeal to the notion of lexical knowledge, which is originally proposed by Nation (1990). The following list shows the items presented as constituting lexical knowledge in Nation (2001).

- (1) a. spoken form
- b. written form
- c. word parts
- d. form and meaning association
- e. concept and referents
- f. associations
- g. grammatical functions
- h. collocations
- i. constraints on use

Item a is the pronunciation while item b is the spelling of the word. Item c refers to recognizable morphological units such as affixes. Item d is meant to capture the linkage enabling the encoding of concepts and the decoding of language expressions. Item f is related to the distinction between core meaning and prototypical meanings, of which the former is the hypothetical common denominator of all the senses of a word and the latter the empirically verifiable senses associated with the word, corresponding to the notion of the core meaning and that of the prototypical meanings, respectively. Item g is a set of semantically related words, which can be assumed to be drawn from the networks of semantically related words of each part of speech in the language, whose items can be further connected with other words of supra-and infra-categories

hierarchically (Miller and Fellbaum 1991). Items d, f and g are directly concerned with meaning. On the other hand, items h, i, and j are related to use. Item h is the word's ability to determine other components of the clause in which the word is used, as in the case of verbs requiring and restricting a range of complements and adjuncts. Item i means a set of words co-occurring with the word frequently, of which unpredictable, language-specific cases should be listed in dictionaries. Generally speaking, the relationship between the words in a collocation is considered to be more idiosyncratic than seen in simply grammatically sanctioned constructions to be captured by item h. Item j is a reflection of various social factors characterizing the standing of the word in terms of appropriateness.

The concept of lexical knowledge gives us a window on how to approach the task of teaching vocabulary. Vocabulary learning is, after all, the process of enhancing learners' lexical knowledge of the targeted words.

Systemization of words and phrases concerns the second and third group of lexical knowledge because, as will be explained shortly, it is based on the notion of manipulable concepts, which excludes the purely formal aspects of lexical knowledge such as pronunciation and spelling. But it also extends the scope of lexical knowledge to what is largely relegated to the domains of grammatical phenomenon such as noun classes based on the mass/count distinction, classification of adverbials according to their communicative functions, extension of the locational meaning of prepositions to various abstract senses, etc. In this respect, systemization in vocabulary teaching might represent a paradigmatic shift in the scope and focus of foreign language teaching in that the new approach tries to reflect various perspectives on language modeling attempts of theoretical linguistics in language pedagogy.

#### 4. Unnoticeable regularities

Teaching English to many returnee students at a Japanese university for more than two decades has made me realize that despite their fluency in casual conversation, even returnee students lack an ability to consciously construct expressions in real time by choosing words and their appropriate word forms. At first I thought this was due to lack of exposure to grammar teaching, but later I came increasingly to believe that certain regularities in English, especially those reflecting the workings of certain underlying systems of the language might not be spontaneously acquired by non-native children even if they were educated in an English-speaking schooling environment.

Such regularities seem to escape notice of foreign learners of English unless their attention is specifically drawn to them. Native speakers, who, according to Nation (2001, 96), are likely to “have a vocabulary of around 5,000 word families” by the age of five, must have undergone explicit instruction of such system-related regularities early in childhood at home before they start primary education.

The following is a partial list of the system-related regularities which seem to give trouble to my students including many returnee students most often.

- (2) a. Noun classes underlying the countable / uncountable distinction
- b. Extended meanings of prepositions
- c. Adverbs and adverbials for expressing clause linkage and discourse coherence
- d. Speech act verbs used to react to others’ opinion

According to Ellis’s (1999) classification of factors ‘influencing the acquisition of L2 words,’ the difficulty of the above four cases can be taken to result from ‘learner factors’ such as 1) *existing L2 knowledge* (on the part of the learner), concerning the threshold of lexical knowledge beyond which the acquisition of L2 vocabulary becomes spontaneous, 2) *background knowledge*, which concerns already acquired lexically specified domains that facilitate the placement of new items in the relevant domains, 3) *procedural knowledge*, which concerns both the internalized inference processes for integrating new items into one’s own lexicon and the interactive competence of negotiating the meaning of new items, and 4) *the learner’s L1*, which concerns cognate forms and regularities found in the learner’s mother tongue which can be brought to bear on acquiring the corresponding forms and regularities of L2. Systemization of vocabulary items addresses these factors in order to tap into the learner’s cognitive resources governing the enhancement of his / her lexical knowledge by helping with the noticing of unnoticeable system-related regularities.

## 5. Systemization of vocabulary items

### 5.1 Comprehensiveness

A systemization of regularities in a domain is pedagogically useful only in so far as it enables a classification of one ‘category’, where the nature of the category and its

extent of coverage is determined by the known extent of the regularities in question. For example, the regularities in the meaning of certain denominal verbs found by Kiparsky (1997) have to do with putting some object in some place, and so the relevant category should be restricted to denominal verbs with spatial meanings at least. Thus, the distinction between location verbs such as *shelve a book* and locatum verbs such as *butter a piece of toast* can be captured by resorting to the notion of canonical use (p.482):

- (3) a. Locatum verbs: putting x in y is a canonical use of x.  
 b. Location verbs: putting x in y is a canonical use of y.

The binary opposition given in this definition will enable the learner to distinguish between cases of locatum and location denominal verbs with an understanding of “canonical” as being typical, standard, usual, etc. Thus, knowledge of a distinct category can be conveyed to the learner, which can easily be turned from receptive uses into productive uses. It should also be noted that a clear delimitation of the category is achieved by this opposition because it excludes other types of denominal verbs such as shape-indicating ones (*hump, cake, ball*, etc.) clearly by exhaustively partitioning a domain in terms of x and y.

A second example of systemization of vocabulary items illustrating comprehensiveness is found in a classification of spatial prepositions given by Dirven (1993), where twelve English prepositions with spatial meanings are classified as follows:

- (4) a. *at, on, in* (basic)  
 b. *by, with* (proximity)  
 c. *through, about* (path)  
 d. *under, over* (vertical space)  
 e. *from, off, out of* (separation)

Group a has the three basic prepositions corresponding one-, two- and three-dimensional conceptualizations of space. Group b contains two proximity one-dimensional prepositions, where *by* has a neutral “point-of-orientation” sense, and *with* a marked one because of the added sense of accompaniment. As opposed to group b, group c has two- and three-dimensional path prepositions *through* and *about*, where the path is likened to a tunnel or channel for *through*, and it can be in any direction for *about*.

In the case of group d, the common factor of meaning is “vertical space,” which is divided into positive and negative relative spaces by *over* and *under*, respectively. Finally, group e is composed of the three “separation” prepositions, corresponding to the basic spatial prepositions and constituting the negative counterparts of them.

In this classification, the obvious omission of the group of prepositions indicating ‘direction’ such as *to*, *toward*, etc. is deliberate because the purpose of Dirven’s exposition is to systemize the way in which spatial meanings of prepositions are extended to several conceptually contiguous semantic domains such as state, area, manner-means-instrument, circumstance, and cause-reason. But as it is, the classification should qualify as a comprehensive one because the category of ‘spatial meaning of prepositions’ is clear in the first place, and the scope of the treatment of this category is also clearly and explicitly presented in terms of the mentioned groups and their common features of meaning. Given this exposition by Dirven (1993), we can safely assume that the learner will be able to classify other prepositions not on this list according to this classification scheme (*along the bank of the river*, *around the corner*, etc.). It is also clearly noticeable that the classification does not include and can be extended to include such spatial meaning involving an extra ‘third-person’ point of orientation as *in front of*, *behind*, *to the left of*, etc.

The two examples of systemization of vocabulary items already serve to illustrate how this approach address Ellis’s four learner factors which can be causes of difficulty in vocabulary learning. The first two factors, i.e., existing L1 knowledge and background knowledge are directly increased through learning these tiny systems representing respective categories. The third factor of procedural knowledge should also be enhanced through the process of acquiring a knowledge of these systems which will enable the learner to make a judgement about a status of a particular vocabulary item, which is basically a task of placing the item in the right class of the systems, and eventually use the knowledge productively to generate one’s own expressions belonging to the categories. The factor of the learner’s L1 is also addressed because the concepts used in the categories are intended to be universal and intuitive. Although in systemization we draw on insights accumulated through years of research efforts in theoretical linguistics, when we present them to the learner, the language for definition and exposition has to be restricted to universally and intuitively understandable varieties in order not to lose pedagogical significance. In this sense, the second example, using such abstract spatial concepts as dimensionality and verticality, might have to be modified considerably when it is presented to children, or restricted to learners with

relevant maturity, e.g., junior high students and above. Using only understandable and easily accessible concepts leads to tapping into the language resources of the learner, who has usually already experienced the process of acquiring a natural language as s/he did her/his mother tongue and usually has relevant concepts used in the definitions and expositions.

A third example for illustrating the comprehensiveness of systemization, which should also serve to illustrate the last point of accessibility, can be had by looking at the layered structure of the clause in Simon Dik et al's (1990) *Functional Grammar*, which is strongly influenced by the operator hierarchy proposed by Foley and Van Valin (1984). In the paper, Dik et al. propose a system of classification of adverbials in English and other languages, which is based on the identification of four distinct layers in the clause. The classification of adverbials offers a lot of insight into how meaning is organized in a clause to suit various communication needs, giving an explicit means to distinguish between otherwise difficult areas of adverbial meanings to get a handle on. The comprehensiveness of the definition of the category in question, i.e., the layered structure of the clause, results from its analysis into the following four levels:

- (5) a. the predicate level
- b. the predication level
- c. the proposition level
- d. the illocution level.

Each level is associated with grammatical and lexical information-augmenting elements, which are called operators and satellites, respectively. Adverbial expressions act as satellites, whereas grammatical markings such as tense and aspect along with closed sets of function words are treated as operators. Thus, the analysis should provide the learner with an exhaustive partitioning of the clause constituents except for certain parenthetical, elaborating, or comparative constituents. In order to make this classification scheme accessible to learners, the four-way distinction of the layers must be presented in such a language as would be readily understood by them. One way would be to sacrifice the terminological rigour of the original formulation and resort to more intuitive terms and modes of exposition as follows:

- (6) a. the level of combining a process and its participants to describe the skeleton

- of the situation being described
- b. the level of placing the process-participants combination in a spatial and temporal locations
  - c. the level of expressing the speaker's attitudes toward the proposition obtained in Level b
  - d. the level of interacting with the interlocutor using the extended proposition obtained in Level c

Compared with (5), the definition of the levels in (6) appeal to more conceptual units such as 'process' instead of 'predicate,' which is borrowed from Systemic Functional Grammar (Halliday and Matthiessen 2004), more procedural imagery such as propositions and extended propositions built up in successive stages, and more explicit mentioning of communicative functions at each level. Accessibility-enhancing measures along these lines not only leads to better understandings of the structure of the layers, but also to those of the meanings of the adverbials (satellites) of each level because many adverbials can belong to more than one level and their interpretation is determined in large measure by the communicative significance of the levels at which they are used, which are broadly categorizable into representational levels (Level a and Level b) and interpersonal levels (Level c and Level d). Thus, the learner can use either the narrow classification or the broad classification, depending on the nature of the phenomena involving the interpretation of adverbials such as the distinction between inner and outer adverbials (*John kissed Mary on the cheek on the platform*), corresponding to the Level a and Level b distinction, the impossibility of Focus assignment to interpersonal averbials (???*John probably lost his wallet*, and ???*Briefly, John lost his wallet*) (Dik et al, 40), the scope of operators such as negation, tense, and objective modality, as seen in the fact that sequence of tenses only affects representational adverbials, etc.

## 5.2 Interactivity of systems

Another important requirement of the systemization of vocabulary items incorporating insights from theoretical linguistics is that the systems can usefully interact with each other to shed light on other phenomena than those originally intended to be dealt with by them. An SFG (Systemic Functional Grammar) characterization of mood types is a good example of our systemization, where mood is analyzed in terms of human speech

interaction based on the dimension of giving and demanding, on the one hand, and that of information and goods/ services, on the other:

- (7) a. declarative: giving of information
- b. interrogative: demanding of information
- c. imperative: demanding of goods and services
- d. exclamative: giving of information expressing one's emotion

A second system capturing the communicative function of a grammatical category is that of modality as proposed by SFL, which characterizes modality as a tempering device with its subcategories of modalization and modulation dedicated to the tempering of the categoricity of a term, mentioning its probability (*probably, possibly, etc.*) or frequency (*always, sometimes, etc.*), and the tempering of the interactive force of speech activities concerning obligation, inclination and capability, as seen in the various modal expressions of these three categories (*must, may, will, can, etc.*):

- (8) a. We are responsible for this (*categorical*) vs. We are probably responsible for this (*tempering through probability*).
- b. He can make the right judgement for this kind of problem (*categorical*) vs. He can usually make the right judgement for this kind of problem (*tempering through frequency*).
- c. You must ask some questions (*obligation*) vs. You may ask some questions (*permission*)

These two systems are independently set up to capture the respective phenomena, but they can be combined to explain the different degrees of forcefulness, as pointed out by Eggins and Slade (1997, 102–103):

- (9) a. Get a degree. unmodulated: positive
- b. You must get a degree. modulated: high obligation: directive
- c. You are required to get a degree.
- d. It is required that you get a degree.
- e. You will get a degree. modulated: median obligation: advice
- f. You are supposed to get a degree.
- g. It is expected that you get a degree.

- h. You may get a degree. modulated: low obligation: permission
- i. You are allowed to get a degree.
- j. It is permitted that you get a degree.
- k. Don't get a degree. unmodulated: negative

In (9), the two unmodulated imperatives, a and k, are taken to demand an action, while the other clauses are all declaratives, which are understood to give information as to required, recommended, or permissible courses of action. With this explanation, it is easy for the learner to grasp the difference between modulated statements and unmodulated imperatives, the latter of which tend to be avoided more frequently in Anglo culture than in other cultures (Wierzbicka, 2006) in favour of the former. The cultural implications of imperatives as a device of imposing upon others and modulated statements as a means to disguise their imposing nature, called *whimperatives* by Wierzbicka and others, can only be fully appreciated by those learners whose attention have been drawn to the functions of both mood types and that of modality.

The two systems can also be applied to reveal further functional significance to the functional classification of lexical phrases proposed by Nattinger and DeCarico (1992, 60–65):

(10) Closing

- a. I must be going.
- b. I mustn't keep you any longer.  
Requesting
- c. Modal+Pro+X (Would you (mind) X?; may I X?)  
Offering
- d. Modal+Pro+X (may / can I help (you)?; Would you like X?)

The lexical phrases and templates in (10) are all classified in the general category of social interactions; Closing belongs to the subcategory of *Conversational maintenance* and Requesting and Offering to that of *Conversational purpose*. With the help of the two SFL systems, the learner will be able to understand why modulated statements are called for as closing remarks instead of unmodulated ones (*I am going; I don't keep you any longer*), and why the same template can be employed for the two speech act types of opposing directionalities, giving vs. demanding of good and services, where interrogative mood indicates the demanding of information as to the interlocutor's

intention and the modal expressions attenuate the interactive force of the interrogatives:

- (11) a. Would you show me your passport? request: modulation of inclination  
 b. May I see your passport? request: modulation of obligation  
 c. May / Can I help you? offering: modulation of obligation  
 d. Would you like some more coffee? offering: modulation of inclination

Nattinger and DeCarrico propose lexical phrases and templates as prefabricated expressions stored in memory and ready for use to execute specific communicative functions, thus serving as units for real time conversation, which requires both fluency and accuracy. Of the 44 functions listed by them, only the three functions mentioned above involve the use of modality, whose characterization as a tempering device in SFL enables the learner to account for these lexical phrases and templates as realizing these functions in indirect manners: to demand an action, one asks about the interlocutor's willingness to act or for permission to execute another action with the same effect as the demanded one; to offer a service, one asks for the interlocutor's permission to execute the service or about his/her willingness to accept the offer.

### 5.3 Extendibility of systemization

Another important requirement of the systemization of vocabulary items comes from the fact that the systems used for the systemization of a particular category are constantly subject to improvement or elaboration as the result of progress in research or shift in perspective. One way of extending a system is by adding subcategories as seen in a more elaborate system of mood types in Halliday and Matthiessen (2004, 142):

- (12) a. declarative clauses:  
 unmarked statement: tone 1  
 reserved statement: tone 4  
 insistent statement: tone 5  
 tentative statement: tone 3  
 protesting statement: tone 2  
 b. WH-interrogative clauses:  
 unmarked WH-question: tone 1  
 tentative question: tone 2

- echo question: tone 2 with tonic on WH-element
- c. yes / no interrogative clauses:
  - unmarked yes / no question: tone 2
  - peremptory question: tone 1
- d. imperative clauses:
  - command: tone 1 (unmarked in positive)
  - invitation: tone 3 (unmarked in negative)
  - request (marked polarity): tone 13, with tonic on *do / don't*; plea: tone 4

The extension of the three mood types into their subcategories are achieved here by simply recognizing such socially recognized conversational situations as would call for distinct types of responding conversational moves. In this respect, this extension is a cross of the system of mood types and a system of conversational moves.

Another way of extending a systemization is to rearrange the systems involved to achieve a broadening of the category in question. A comparison of Wierzbicka's (1988) system of noun classes and Radden and Dirven's (2007) classification of noun classes is a case in point, where the latter can be taken to be an extension by rearrangement of the former. Wierzbicka sets up 14 classes of nouns denoting concrete physical objects including certain taxonomic and non-taxonomic supercategories, of which the uncountable nouns are divided into 3 *sigularia only*, 1 *sigularia mostly*, 5 *pluralia only* including dual objects such as pants, scissors, glasses, etc., and 1 *pluralia mostly*, while the countable nouns are divided into 1 *countables only*, 1 *countables mostly*, 1 *nouns with a double status*, and 1 *pseudo-countables*. Wierzbicka's classification, based on the definition of each class using Natural Semantic Metalanguage, is accessible to learners through gradual introduction of key notions such as arbitrary divisibility, counting as an operation applicable to things of the same kind, taxonomic and non-taxonomic supercategories, anthropocentric conceptualization, boundedness in quantity and in location, etc. After going through the exposition of all the classes, the final definitions of the 14 classes in NSM clearly become more manageable to the learners.

Radden and Dirven approach the same semantic domain by setting up small systems such as the object-substance opposition, supercategory-category combinations of objects and substances, the object-substance continuum of things involving blended categories such as substances seen as objects and objects seen as substances, and the uniplex-multiplex continuum distinguish between *singular*, *collectives*, *pluralia tantum*, and *plural*. They also extend their classification to include abstract nouns by using the

notion of reification of processes and the opposition of events and states and that of episodic and steady. Compared with Wierzbicka's approach, Radden and Dirven's offers a clearer perspective on the relationships between the identified classes, which reside in one of the localized systems as opposed to Wierzbicka's global list of all the 14 classes. Apart from the classes of abstract nouns treated of by Radden and Dirven, but not by Wierzbicka, both classifications seem to be translatable into each other, with more emphasis on comprehensiveness as realized in small systems in the case of Radden and Dirven and on conceptual manipulability as seen in the distinctive concepts identifying the noun classes in the case of Wierzbicka. Thus, the mutual translatability of the two systemizations of comparable coverage will vindicate the validity and pedagogical usefulness of both classifications.

## 6. Conclusion

I have discussed how we can have a broader view of vocabulary teaching by considering ways of incorporating pedagogically useful insights we can find in theoretical linguistic researches and applying them to help foreign language learners overcome the type of difficulty involving Ellis's learner factors. Cases of difficulty arising from learner factors manifest themselves as such regularities as are unnoticeable to the learner unless his / her attention is explicitly drawn to them. Explicit vocabulary teaching realizing Nation's rich instruction will be extended to explicit teaching and learning of language systems, which will lead to intellectually more appealing learning activities for learners. In this paper, I focused mainly on the three major requirements of this approach of explicit vocabulary instruction called systemization of vocabulary items, but I also mentioned other requirements in passing such as conceptual manipulability and identification of semantic domains. As to conceptual manipulability, the universality and intuitive understandability of the defining concepts seem to be the main issues, whose solution might be achieved by augmenting Wierzbicka's NSM with some principles of delimiting the scope of manipulable concepts. The problem of identification of semantic domains should start with the identification of semantic domains associated with parts of speech as in Miller and Fellbaum (1991). Dirven's classification of semantic domains for prepositions, with its metaphorically contiguous extension of spatial meanings providing further semantic domains, clearly points to a direction in which we can pursue this task with pedagogical applications in mind. The

two noun classification schemes we discussed have much more restricted scope than the one given in Miller and Fellbaum (1991), but from the viewpoint of vocabulary teaching, they will give us more concrete and substantial guidelines for treating nouns because of their comprehensive coverage of concrete nouns and relevant distinctive concepts and localized systems.

One aspect of vocabulary teaching worth pursuing in this approach is its social aspect as revealed by speech act verbs, whose meaning reflects various conditions for the social interaction designated by them. In a sense, each such verb is associated with a certain script characterizing prototypical and essential moves in the relevant interaction. We can find interesting and productive lines of research into this aspect in both NSM and SFL.

Another aspect of vocabulary teaching which remains to be explored in relation to foreign language teaching is that of embodied interpretation or embodiment as proposed by MacWhinney (1999), which characterizes our active interpretation of language expressions as based on affordances, orientation and perspective-taking, causal action chains, and social scenarios. The innovative aspect of this approach is that the goal of research is not just to conceptually understand the meaning of an expression but also to empathize with the author of the expression, sharing the same images and sensations invoked along the expression in the manner intended by the author. If this goal is achieved through research into embodiment, learners will be shown ways to appreciate literature in the foreign language just as s/he does the literature of her/his own mother tongue.

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