

# **The effect of partial synonymy on second language vocabulary learning**

Abbas Ali Zarei and Valeh Golami<sup>1</sup>

Imam Khomeini International University, Qazvin, Iran

The purpose of the study was to investigate the effect of the intra-lingual semantic similarities of words (partial synonymy) on second language vocabulary learning. To this end, two groups of participants were selected. Both groups received a pre-test. Then, the experimental group participants were taught semantically similar words contrastively, being made aware of the semantic similarities and contrasts, while the control group participants received the same words randomly with an interval of at least two weeks between the presentation of semantically similar words. A post-test was then administered and the means of the groups were compared using a case II t-test procedure. Results showed that the contrastive teaching of semantically similar words positively influences the learning of second language vocabulary.

**Key words:** partial synonymy; intra-lingual semantic similarities; vocabulary learning.

## **1. Introduction**

There is now little doubt that without vocabulary, the story of language learning will not be worth telling. Rivers (1981) puts it this way:

It would be impossible to learn a language without words. One could learn a language through some symbol system which would demonstrate relations and how they are realised, but this would be like examining the skeletal remains of a dinosaur and believing that one had actually encountered the creature. Language is not dry bones. It's a living growing entity, clothed in the flesh of words. (P. 462)

This means that if we had not thought about doing something about vocabulary learning and teaching before, we should most certainly do so now.

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<sup>1</sup> Authors are members of faculty at Imam Khomeini International University, Qazvin, Iran

However, this is something that is easier said than done. For, despite the unanimous agreement on the significance of words, when it comes to the methods of vocabulary teaching, all that is obviously noticed is controversy.

Over the past few decades, the fortunes of vocabulary teaching have waxed and waned. Yet the more vocabulary teaching methods have changed, it seems, the more they have remained the same. That is partly why vocabulary teaching and learning is sometimes described as a typical example of what a cynical commentator once said about theory and practice:

Theory is when one knows everything but nothing works; practice is when everything works but no one knows why. We have combined theory and practice: nothing works and no one knows why!

The finger of suspicion, in this regard, usually points at teachers, who, in the past, failed to reach a consensus on how to deal with words and treated vocabulary teaching in a way that was more or less reminiscent of the saying:

There are three different answers to any conceivable question: your answer, my answer, and the correct answer.

Fortunately, recent years have witnessed a surge of interest in vocabulary teaching and learning. After a few decades of neglect, vocabulary learning has recently become an object of considerable interest and enquiry among researchers, teachers, and materials developers. A number of interesting and stimulating proposals have been put forward as to the teaching of vocabulary. Yet again, controversy is at the heart of such proposals.

One area of controversy is the so-called 'incidental' versus 'intentional' vocabulary learning. Some scholars like Wesche and Paribakht (1999) hold that owing to the generality of vocabulary, it cannot be the subject matter of any syllabus. They suggest, therefore, that learners read extensively so that their knowledge of vocabulary is expanded incidentally. Huckin and Coady (1999) enumerate certain advantages of incidental learning over direct instruction including: (a). contextualisation, (b). pedagogical efficacy, and (c). being more learner-centred and individualised. Similarly, Brown et al. (1999) are of the opinion that the comparison between the number of vocabulary items second language learners know and the number of words that can be

explicitly taught suggests that more attention needs to be paid to incidental learning.

The counter-argument comes from those like Rudzka, et al. (1985) who argue that incidental vocabulary acquisition through extensive reading is extravagant of time, hence quite uneconomical. The proponents of the intentional approach to vocabulary learning maintain that intentional learning through instruction significantly contributes to vocabulary development (Nation, 1990; Zimmerman, 1997). Referring to Coady's (1997b) 'the beginner's paradox', Hunt and Beglar (2002) conclude that explicit instruction is essential for beginning students whose lack of vocabulary limits their reading ability. Similarly, Nation's (2002) assumption is that vocabulary growth is such an important part of language acquisition that it deserves to be planned for, deliberately controlled and monitored. Also, Elley's (1989) studies of vocabulary learning through listening to stories show that relying on meaning-focused input (incidental learning) alone is leaving too much to chance. Various strategies and techniques have been developed to help learners achieve the thorny task of learning vocabulary.

One such strategy proposed by Hatch and Brown (1995) is the use of semantic domain. With this method, words in the same semantic field, such as words for cooking etc. are taught together. For example, for the 'build' domain, it is explained that verbs like *establish*, *found*, *set up*, and *organise* are used to describe the first step in starting a new company, an organisation, etc. It is also explained that some words in this domain give the idea of people working on a building, a bridge, or some other physical structure: *build*, *construct*, *erect*, and *put up*, while verbs like *make*, *produce*, and *manufacture* are general words that describe the whole process of making a new thing. Exercises following the instruction require the learners to substitute one word from the appropriate domain for another, or to choose between two possible words to fill a blank in a given sentence. For example:

*'Paper was first ... in China (manufactured, constructed)'.*

The purpose of such exercises is to appreciate the fact that although beginning learners seem satisfied with quite general meanings, more advanced learners often need more specific definitions in order to differentiate between near synonyms. Learners often get close to the meaning of English words, choosing meanings that have some features of the target

word, but not all. Consequently mistakes like the following are not uncommon among Iranian learners of English:

*The box of the books was <u>hard</u> .	instead of	heavy
* <u>Once</u> hearing the news, ...	instead of	upon
*We need a <u>string</u> .	instead of	rope
*I had the <u>credit</u> of introducing...	instead of	honour

Studies on the mental lexicon of bilinguals suggest that words are classified into semantic and phonological networks in such a way that each learnt word interacts with other words in the lexicon on the basis of semantic and phonological aspects. Maybe that is the reason why when we are tired, we may produce slips of the tongue in which we happen to utter a word that shares many features with the intended word. Fromkin (1973) gives examples where speakers substitute one body part for another – ‘*my knee hurts*’ where *ankle* was meant.

Psycholinguistic discoveries have shown that the acquisition of a new word can be facilitated by the various relationships the learner can make between the word and the other familiar words in the target language. The main types of meaning relationship between words are ‘hyponymy’ (cat-animal), ‘antonymy’ (old-young), ‘converseness’ (parent-child), ‘synonymy’ (freedom-liberty). However, although “psycholinguistically, the association of words helps us to remember them” (MacKey, 1965), it is the association of contrasts that plays this role. There is empirical evidence that foreign language learners do not acquire synonyms easily. Besides, there is the principle of overgeneralization at work for synonyms. This is because some items are synonymous in some contexts, but not in others. Synonyms share features, usually varying in terms of collocations or register. For example, an *argument* can be *strong* or *powerful*, but *tea* can only be *strong*.

Although dictionaries list synonyms as words with similar meanings, the fact that X is a synonym for Y does not mean that Y is necessarily a synonym for X. Lyons (1995) stipulates the following three conditions for absolutely synonymous, hence interchangeable lexical items:

1. all their meanings should be identical;
2. they should be synonymous in all contexts;

3. they should be semantically equivalent on all dimensions of meaning, descriptive or non-descriptive

The essence of his argument is that two words might generally be regarded as synonymous. However, care must be taken not to confuse them, for they may fail to satisfy one of the above-mentioned conditions. For example, 'large' is not interchangeable with 'big' in:

1. You are making a big mistake.

- \*2. You are making a large mistake.

Rudzka et al. (1985) avow that the intra-lingual semantic relations allow precise information about meaning and use to be given in an economical and hence learnable way. They say in addition to the practicality of their approach, there is evidence to show that the mind makes use of semantic similarity in finding words from memory for use in speech. Studies of slips of the tongue made by native speakers of English have shown that many wrong words, far from being random mistakes, actually share some aspect of meaning with the intended word. For example:

I have my book and my *jigsaw*...I mean *crossword*.

I really *like* ... *hate* to get up early in the morning.

A second type of evidence comes from the speech of people with certain kinds of brain damage. In tests of reading, some of them, instead of saying the word they are shown, consistently say another word from the same semantic field, for example, *canary* read as *parrot*, *ill* as *sick*, *city* as *town*, and *bush* as *tree*. This evidence suggests that the mind takes account of meaning in the way it stores and retrieves words. It may be that the mind stores words in the kind of semantic sets mentioned above. If this is the case, the implication would be that words should be taught in semantic fields.

A semantic field includes words that have semantic relations. For instance, as many words as possible that carry the general meaning 'talking together' are presented concurrently : *chat*, *chatter*, *prattle*, *babble*, *blab*, *gossip*; or words having the general meaning of 'cause not be alive' are listed as follows:

*kill, murder, assassinate, slay, slaughter, butcher, massacre, execute, exterminate*

Rudzka et al. (ibid.) present words in grids like grid A, where the differences and similarities between words are shown by the semantic features at the top of the grid.

	Cause not to be alive	As a result of previous decision	Object must be human	Object has political power or significance	By using force or a weapon	Stresses the ugly nature of the action	Object usually animal	For food	brutally	Object is usually a group of defenceless people	Object is sb condemned to death by a legal or psydo-legal procedure	Object is usually large number of pests	deliberately
Kill	+												
Murder	+	+	+										
Assassinate	+		+	+									
Slay	+		+		+	+							
Slaughter	+						+	+					
Butcher	+						+	+	+				
Massacre	+								+	+			
Execute	+										+		
Exterminate	+											+	+

Grid A: Words and their semantic features

McCarthy and O'Dell (1994) also believe that organising words by meaning facilitates their learning. They present words in pairs that are close in meaning, but are, in the meanwhile, different from each other in that one word in each pair is pejorative.

slim / skinny  
mean / thrifty

cunning / shrewd  
generous / extravagant

They also use the scale of formality as a technique to help learners learn words better by making intra-lingual contrasts.

Very formal	neutral	Very informal
offspring	children	kids
abode / residence	house / flat	place
alcoholic drink	drink	booze

Thomas (1989) advocates teaching vocabulary under a variety of topics such as, for instance, driving. In the same vein, Fitikides (1063) assumes that words with similar meaning can sometimes be confusing. He presents such words in pairs and teaches them contrastively. Here is an example:

Don't say : We remained in a very good hotel.

Say: We stayed in a very good hotel.

Don't say : Few figs have stayed on the tree.

Say : Few figs have remained on the tree.

Finally, Norouzi (1993) has collected some 780 word groups that share a core meaning but differ in some other aspects, and hopes that the knowledge of these subtle differences will enable the learners to learn words more effectively.

To put everything in a nutshell, the literature on vocabulary teaching and learning shows contradictory viewpoints as to the effect of semantic relationships between words on second language vocabulary learning. While some authorities advise language teachers to avoid presenting semantically related words simultaneously lest they would be confusing, others maintain that the concurrent presentation of such words and raising the learners' awareness of such similarities and contrasts can help facilitate vocabulary learning and prevent future misuse of such words. It is the purpose of the present study, therefore, to investigate the effect of the intra-lingual semantic similarities of words on second language vocabulary learning.

## **2. METHOD**

### **2.1. Participants**

The participants of the study included 60 male and female university students at Qazvin Azad University, who were divided into two groups serving as the experimental and control groups. Another group of 60 students at the same university acted as the peer group with whom the post-test was validated.

### **2.2. Instrumentation**

Altogether, three tests were administered: a translation test given as the pre-test, a multiple-choice vocabulary test administered as the post-test, and the vocabulary subtest of a Michigan language proficiency test serving as the criterion with which to validate the post-test.

A correlational procedure was employed to validate the post-test, and a case II t-test was used to compare the experimental and control group means in order to investigate the effect of the treatment.

### **2.3. Procedure**

The vocabulary items that were semantically similar were gleaned from various sources including Thomas (1989), Rudzka et al. (1985), and Nurouzi (1993). Out of the long list of the semantically similar words, those which intermediate students were least likely to know were subjectively selected. Still, to make sure that the participants did not know the words, a 50-item translation test was administered (see appendix A). Then, 13 items to which some students had correctly responded were removed from the list. From among the remaining words, 30 were chosen and included in the post-test. Meanwhile, all these words along with some more were listed to be used in the experimental treatment.

The next step was to give the experimental treatment. Both experimental and control group participants were taught the same words but in different ways. The participants in the experimental group received a contrastive instruction of semantically similar words (they received words such as 'obscure', 'vague', and 'ambiguous' concurrently). Participants in the control group were taught exactly the same words, but with an interval of at least a fortnight between the presentation of semantically similar lexical items. In other words, the experimental group participants were made aware of the semantic similarities and contrasts, while those in the control group were not.



While the participants were receiving their treatment, the post-test was constructed and validated. Using the participants' responses on the translation test, a 30-item multiple-choice test was developed (see appendix B). The newly developed test was then given to 60 students at 'Qazvin Azad University' along with the vocabulary subtest of a Michigan language proficiency test.

To determine the validity of the post-test, the 'Pearson Product Moment' correlation coefficient formula was used, and to estimate the reliability, the (KR-21) formula was employed. The validity and reliability of the post-test turned out to be .95 and .78 respectively. At the end of the experimental period, the post-test was administered to both the experimental and control groups. Having obtained the data, a case II t-test procedure was gone through to compare the two means.

### **3. Results and discussion**

The analysis of data and the comparison of the experimental and control group means revealed that the observed value for t was 3.5 (data needed for the computation of the observed t are given in appendix C). Since the critical t-value checked in the t-table (Fisher and Yates) was 2.00, it may be concluded that the difference is significant enough to enable us to reject the null hypothesis and to suggest that the contrastive teaching of semantically similar words positively influences vocabulary learning. This means that students will learn vocabulary more efficiently if they are made aware of the intra-lingual semantic similarities between words.

This could have certain implications for syllabus designers. If the contrastive teaching of vocabulary does indeed facilitate vocabulary learning, then syllabus designers should take care to employ such a facilitating factor by including in the syllabus the semantically similar words.

### **References**

- Coady, J. (1997b). *L2 vocabulary acquisition through extensive reading*. In: J. Coady and T. Huckin. (eds), *Second language vocabulary acquisition* (pp. 225-290). Cambridge : Cambridge University Press.
- Elley, W. R. (1989). *Vocabulary acquisition from listening to stories*. *Reading Research Quarterly*, 24 (2), 174-187.

- Fitikides, T. J. (1963). *Common mistakes in English*. 5<sup>th</sup> ed. London: Longman Group.
- Hatch, E. & C. Brown. (1995). *Vocabulary semantics and language education*. Cambridge : Cambridge University Press.
- Huckin, T. & J. Coady. (1999). *Incidental vocabulary acquisition in a second language*. In: *SSLA*, 21, 181-193.
- Hunt, A. & D. Beglar. (2002). *Current research and practice in teaching vocabulary*. In: J. C. Richards, & W. A. Renandya. (Eds.) *Methodology in language teaching: An anthology of current practice*. Cambridge : Cambridge University Press.
- Lyons, J. (1995). *Linguistic semantics: an introduction*. Cambridge : Cambridge University Press.
- McCarthy, M. & F. O'Dell. (1994). *English vocabulary in use*. Cambridge: Cambridge University Press.
- Nation, I.S.P. (1990). *Teaching and learning vocabulary*. New York: Newbury House.
- Nation, P. (2002). Best practice in vocabulary teaching and learning. In: J. C. Richards, & W. A. Renandya. (Eds.) *Methodology in language teaching: an anthology of current practice*. Cambridge : Cambridge University Press.
- Rudzka, B. et al. (1985). *Words you need*. London and Basingstoke: MacMillan Publishers.
- Rudzka, B. et al. (1985). *More words you need*. London and Basingstoke: MacMillan Publishers.
- Thomas, B. J. (1989). *Advanced vocabulary and idiom*. Great Britain: British Library cataloguing in Publication Data.
- Wesche, M. & T. Paribakht. (1999). *Incidental vocabulary acquisition*. In: *SSLA*, 21, 175-10.

Zimmerman, C. B. (1997). *Do reading and interactive vocabulary instruction make a difference? An empirical study*. TESOL Quarterly, 31, 121-140.

## Appendices

### Appendix A: The pre-test

#### Write the meaning of the underlined words

01. I hate to play games with a person who cheats.
02. The wound is not yet healed.
03. He politely refrained from saying what he thought of her hat.
04. Subtract 10 from 28 and add 1. What is the result?
05. Please toss me the matches.
06. Captain sent for the master, and reprimanded him for his oppression.
07. She escaped through a secret door.
08. Artificial respiration has saved the lives of many people who would have otherwise drowned.
09. I'm afraid our opinions diverge from each other from a common starting point.
10. The old man's ruddy complexion gave an illusion of good health.
11. She is bashful and blushes when she speaks with a man.
12. The garden slopes gently toward the river.
13. I want this room to be neat when I return.
14. A sprained wrist disabled the tennis player for three weeks.
15. His financial affairs are in bad condition.
16. They work hard, but their efforts are not very productive.
17. Colour and sex are hardly relevant when appointing somebody to a job.
18. The actor delivered his lines with deliberate emphasis.
19. His statement to the police was used as evidence against him.
20. The government excludes immigrants who have certain diseases.
21. There are two ugly, gaudy lamps in the room.
22. I feel nothing but contempt for people who treat children so cruelly.
23. The ingredients for a cake usually include eggs, sugar, flour, and flavouring.
24. In his rage at being publicly punished, he broke the teacher's favourite vase.
25. I have a dislike for studying and would rather play baseball.
26. Children were tormented by hunger.

27. Prices continue to show an upward tendency.
28. She has a vain hope of persuading him.
29. It was so noisy in the room that I had to scream my name.
30. 'She kissed her when she left' is an ambiguous sentence.
31. Love of liberty is predominant in struggles for independence.
32. There seems to be a dearth of good young players at the moment.
33. He avenged the enemy pilot for bombing a hospital.
34. The obedient boy did his chores, though his friends wanted him to go swimming.
35. Nothing could diminish her enthusiasm for the project.
36. Skiers glide across the snow.
37. He menaced her with a gun.
38. Her pride in her achievements is justified.
39. The breaking of a branch under my foot alarmed the deer.
40. He cursed the poor waitress who had spilled soup on him.
41. The old lady climbs up the stairs with difficulty.
42. Your help was greatly appreciated; we were grateful for it.
43. She shivered the thought of going into the dark house alone.
44. The blouse was scorched because the iron was too hot.
45. There were many discrepancies between the two versions of the affair.
46. She is too inquisitive about my friends.
47. A good mother would not abandon her baby.
48. The cat crept silently towards the bird.
49. Light the paper with a match to kindle the wood.
50. The boy was meek when the other boys made fun of him.

### Appendix B: The post-test

Choose the best alternative.

1. The cut soon ... up, but it left a scar.
  - a. sloped
  - b. crippled
  - c. cured
  - d. healed

2. He ... from wrongdoing.
  - a. excluded
  - b. refused
  - c. refrained
  - d. abstained

3. She ... the ball to the baby.
  - a. tormented
  - b. dwindle
  - c. tossed
  - d. cast
4. Their paths ... at the fork in the road.
  - a. shrieked
  - b. tortured
  - c. digressed
  - d. diverged
5. The girl was so ... that she blushed when asked to dance.
  - a. bashful
  - b. shy
  - c. covert
  - d. dominant
6. The land ... towards the sea.
  - a. kindles
  - b. glides
  - c. slopes
  - d. slants
7. He was ... by polio.
  - a. crippled
  - b. disabled
  - c. digressed
  - d. scorched
8. Even incidents seeming unimportant in themselves might be ....
  - a. relevant
  - b. pertinent
  - c. unsightly
  - d. biased
9. The lawyer made a ... attempt to confuse the jury.
  - a. dominant
  - b. synthetic
  - c. deliberate
  - d. intentional
10. Women are often ... from positions of authority.
  - a. excluded
  - b. eliminated
  - c. alarmed
  - d. cursed
11. Her face is very ....
  - a. pertinent
  - b. futile
  - c. ugly
  - d. unsightly
12. The child wept with ....
  - a. disparity
  - b. doom
  - c. fury
  - d. rage
13. I have a ... of rain and fog.
  - a. dislike
  - b. distaste
  - c. homage
  - d. conceit
14. He is ... by a racking cough
  - a. esteemed
  - b. reprimanded
  - c. tormented
  - d. tortured

15. The ... is toward higher taxes.  
a. contempt  
b. catastrophe  
c. tendency  
d. trend
16. The little girl ... with rage in a tamper tantrum.  
a. shrieked  
b. screamed  
c. menaced  
d. crept
17. He was left in a/an ... position by his friend's failure to appear and help him.  
a. rustic  
b. compliant  
c. vague  
d. ambiguous
18. The orphan suffered from a ... of affection.  
a. prejudice  
b. destiny  
c. scarcity  
d. dearth
19. They fought to ... the enemy's invasion of their country.  
a. revenge  
b. avenge  
c. cure  
d. deduct
20. The ... dog came out at his master's whistle.  
a. pastoral  
b. clandestine  
c. docile  
d. obedient
21. The medical bills during my sickness have ... my savings.  
a. diminished  
b. abstained  
c. dwindled  
d. alarmed
22. A storm ... the town.  
a. threatened  
b. menaced  
c. abandoned  
d. disgusted
23. I ... her for spoiling my plans.  
a. swore  
b. cursed  
c. screamed  
d. crept
24. His classmates don't ... him.  
a. value  
b. appreciate  
c. scorch  
d. sear
25. I crept ... into bed.  
a. avenging  
b. diminishing  
c. quacking  
d. shivering
26. I ... my shirt when I was ironing it.  
a. scorched  
b. seared  
c. slipped  
d. scared

27. The crew ... the ship before it sank.
- a. scared
  - b. alarmed
  - c. abandoned
  - d. deserted
28. The cat ... silently towards the mouse.
- a. crept
  - b. crawled
  - c. healed
  - d. cheated
29. This wood is too wet to ....
- a. kindle
  - b. ignite
  - c. swear
  - d. toss
30. Mary came to the dead man's ....
- a. illusion
  - b. homage
  - c. destiny
  - d. deference

**Appendix C : the table containing data needed for the t-test**

S	X	Y	$X - \bar{X}$	$Y - \bar{Y}$	$(X - \bar{X})^2$	$(Y - \bar{Y})^2$
1	30	29	5.87	9.77	34.45	95.45
2	30	29	5.87	9.77	34.45	95.45
3	30	28	5.87	8.77	34.45	76.91
4	29	27	4.87	7.77	23.71	60.37
5	29	27	4.87	7.77	23.71	60.37
6	28	27	3.87	7.77	14.97	60.37
7	28	25	3.87	5.77	14.97	33.29
8	28	25	3.87	5.77	14.97	33.29
9	28	24	3.87	4.77	14.97	22.75
10	27	23	2.87	3.77	8.23	14.21
11	27	21	2.87	1.77	8.23	3.13
12	26	21	1.87	1.77	3.49	3.13
13	26	20	1.87	.77	3.49	9.59
14	26	18	1.87	-1.23	3.49	1.51
15	26	18	1.87	-1.23	3.49	1.51
16	26	18	1.87	-1.23	3.49	1.51
17	25	18	.87	-1.23	.75	1.51
18	25	17	.87	-2.23	.75	4.97
19	25	17	.87	-2.23	.75	4.97
20	24	17	-.13	-2.23	.01	4.97
21	24	16	-.13	-3.23	.01	10.43
22	22	14	-2.13	-5.23	4.53	27.35
23	19	14	-5.13	-5.23	26.31	27.35
24	19	13	-5.13	-6.23	26.31	38.81
25	18	13	-6.13	-6.23	37.57	38.81
26	17	13	-7.13	-6.23	50.83	38.81
27	17	12	-7.13	-7.23	50.83	52.27
28	16	12	-8.13	-7.23	66.09	52.27
29	15	11	-9.13	-8.23	83.35	67.73
30	14	10	-10.13	-9.23	102.61	85.19

$$\sum X = 724$$

$$\sum Y = 577$$

$$\sum (X - \bar{X}) = 0$$

$$\sum (Y - \bar{Y}) = 0$$

$$\sum (X - \bar{X})^2 = 695.46$$

$$\sum (Y - \bar{Y})^2 = 1019.36$$