A Comparative Study of Synonyms Semantic Prosody of Effect, Impact and Influence Based on Corpus

Shuyi Hou
College of Foreign Studies, Jinan University, Guangzhou, China
Corresponding Author: Shuyi Hou, E-mail: hsy201322020313@163.com

ABSTRACT
The development of corpus linguistics and the establishment of different corpora provide effective and reliable evidence for the comparison of synonyms. This paper is going to compare and analyse the characteristics of semantic prosody of effect, impact and influence from register and collocation, with the methodology of quantitative and qualitative. The result shows that there exist discrepancies in using this group of words, that is, effect, impact and influence, which can serve as guidance for the research of synonym comparison.

KEYWORDS
Corpus; synonyms; semantic prosody

ARTICLE INFORMATION
ACCEPTED: 07 November 2023 PUBLISHED: 19 November 2023 DOI: 10.32996/ijllt.2023.6.11.17

1. Introduction
Corpora has developed rapidly since the 1990s and have been used in different areas such as discourse analysis, text book editions, lexicography and translation teaching. (Liang, 2016). Corpora provide researchers with a true and reliable corpus, including word frequency, collocation and local grammar. Scholars at home and abroad have made great progress in telling the difference between synonyms.

Semantic prosody is an effective way of telling the difference. Typically, it is divided into three kinds: positive, negative, neutral or mixed. Sometimes, in order to make studies convenient, good or favorable, bad or unfavorable terms are advocated by researchers to alternate. If most of the collocates of the node item manifest positive or favorable meaning, its semantic prosody belongs to positive, and vice versa. But most of the words in English are considered to have complicated semantic prosody, and that is labeled neutral.

2. About “semantic prosody”
Many corpus linguists have identified collocation as a defining feature of semantic prosody, which indicates that collocation bears a close relationship with semantic prosody. Firth argues that “you should know a word by the company it keeps” (Firth, 1957: 179).

In Sinclair’s view, semantic prosody comes from the open-choice principle. Sinclair (1991) explains the idiom principle: “The principle of idiom is that a language user has a large number of semi-preconstructed phrases to him or her. That forms single choices, even if they may appear to be analyzable into segments. To some extent, it might illustrate a natural tendency to save effort, or it may be motivated by the exigencies of actual conversation.”

“One of the significant features of the idiom principle refers to many uses of words and phrases indicate a tendency to occur in a certain semantic environment” (Sinclair, 1991). The term semantic prosody was first proposed by Sinclair in 1991. He observes that
the English phrase set in and the verb happens are habitually related to the negative words, especially their logical subjects. Semantic prosody was introduced to the public by Bill Louw in 1993. According to Louw, semantic prosody is the “consistent aura of the meaning of an item is imbued by its collocates”. (Louw, 1993). Presently, it has been defined variously; although the definitions are basically the same, different author emphasizes different aspects of this phenomenon. “It is becoming increasingly well documented that words may habitually collocate with other words definable semantic set” (Stubbs, 1995). He concludes that cause possesses negative semantic prosody since the collocates of cause tend to be overwhelmingly unfavorable, such as accident, damage, death and trouble. Semantic prosody is “the spreading of connotational coloring beyond single word boundaries” (Partington, 1998: 68). Hunston and Thompson (2000) bring forward that a word has a particular semantic prosody if it can be shown to co-occur typically with the words that belong to a particular semantic set. In other words, semantic prosody is a phenomenon of node words typically co-occurring with lexical items of the semantic field. Nelson (2006: 217) examines 1 million semantic associations of words found in the business environment with the corpus-based method, arguing that both words and word groups share similar semantic prosody, which bears a uniqueness in business English, different from their semantic prosody in general English. However, Tognini-Bonelli (2001), also based on a comparative study of semantic prosody between Italy and English, observes that the semantic prosody in these two languages is similar to each other to a large degree. In a similar fashion, Xiao & McEnery (2005: 125) undertake a cross-linguistic analysis of semantic prosody between English and Chinese by comparing three near-synonym groups: the consequence group, the cause group, and the price/cost group. Their findings reveal that the three groups of synonyms share similar semantic prosody even though English and Chinese are distinctly unrelated.

The research that has been done mainly focuses on three aspects in China: first, analyzing the frequencies of synonyms or phrases, register, collocation and semantic prosody from corpora like COCA, BNC and BROWN to summarize the usage of the words or phrases. (Huo Yanjuan, 2013; Hou li, 2014; Yang Chuanxia, 2014) Second, Comparing the interlanguage based on the learner’s corpus and native speakers’ corpus to find out the similarities and discrepancies. (Lu Jun, 2010; Gao Liping, 2012; Li Yao & Liao Shunling, 2019) Third, Comparing the collocation and semantic prosodies of the synonyms from a bilingual perspective. Although such research is still in the initial stage, it shows great potential. This paper is going to compare the differences and similarities of effect, impact and influence.

3. Research Design
  3.1 Study Corpus
This paper is going to choose BROWN as a study group and use #Lancsbox 6.0, which is a powerful text analysis tool bearing many meta tools like KWIC, Graphcoll, Whelk, Words and Ngrams, to further the research. The reason why this paper chooses BROWN is that it originated in the 1990s, and it is a typicality of written English.

3.2 Research Procedures
Firstly, with the assistance of #Lancsbox 6.0, the overall word frequencies of the synonyms (effect, impact and influence) can be seen from the tool. From the chart, we can have a basic understanding of the words’ register.

Secondly, in the #Lancsbox 6.0, with a span of ±7 (i.e. collocates are chosen out from the five words on both sides of a node word), to get the concordance lines of the node words with MI score standing for the collocation strength: MI score is considered significant if it is not lower than 3. (Hunston, 2002)Here, one thing that must be pointed out is that in the present study, unlike word frequency, the collocation and the semantic prosody of the pair are analyzed and discussed when they are used both as nouns and verbs.

Thirdly, according to the concordance lines and MI score obtained, a detailed analysis and discussion of them are carried out in terms of collocation and semantic prosody. Then, on the basis of the statistical evidence, a comparison is made between effect, influence and impact.

4. Research Analysis
  4.1 Statistics of distribution and word frequencies of effect, impact and influence
Register refers to “a set of features of speech or writing characteristic of a particular type of linguistic activity or a particular group when engaging in it”(Radford et al., 1999:256). Synonyms have different word frequencies when they are in different registers. By learning such differences, learners may have “register awareness” so that they can use synonyms reasonably. In BROWN, the effect can be found in 15 texts and with a word frequency of 213. The impact can be found in 12 texts and with a word frequency of 67, while influence can be found in 12 texts and with a word frequency of 132.

4.2 The collocations of effect, impact and influence
This paper is going to take effect, impact and influence as node word, and with a span of ±7. From this, we can find out the frequencies of the collocation. Here, we should notice MI-score. MI-score means mutual-information score and is the ‘mutual
association’ between two or more lexical items. The higher the MI score is, the stronger the association between the two or more words is. According to Hunston (2002), “in the corpus-based collocation study, the MI-score of 3 or higher can be considered to be significant”. MI-score is a measure of the strength of association between words $x$ and $y$. In a given finite corpus MI-score is calculated on the basis of the number of times we observe the pair together versus the number of times we see the pair separately. It shows the co-selection relationship between (among) words.

4.2.1 The collocations of “effect”
When “effect” is searched, we can see that its frequency is 213, and its main collocation can be divided into three kinds: the(an)+N+of, pronoun+N and adj+N. Here we can see some concordances (the choice is manual work):

<table>
<thead>
<tr>
<th>Concordances of collocation of “effect”</th>
</tr>
</thead>
<tbody>
<tr>
<td>a Catholic college faculty member has the effect of confirming the already existing stereotype. In jurisdiction. Since the Connally amendment has the effect of giving the same right to the causes temporary discomfort and then dies. The effect of radiation is cumulative over the years—never easy, and have now deteriorated. The effect of Chou En-lai’s clash with Khrushchev, together acceptable solutions of urgent political issues. One effect of the spirited give-and-take of these becoming dulled, the horrors are losing their effect. And still another witness, one who had in a war can not have its effect in the ensuing years. The arguments advanced dramatrical and musical way, it made its effect with ease and precision. But what has becoming dulled, the horrors are losing their effect. And still another witness, one who had growth of the area has a retarding effect on the metropolitan core. The city has immediately affected. This will have a beneficial effect by expediting public business; it will also. medicine stated: “The question of the biological effect… of[ radiation] doses is not considered.” London explains that the very distinct directional effect in the Phase 4 series is due. This whole tendency had an unfortunate effect on Chinese thinking. Whereas the primary meanings still, both are done, while the evil effect is, with equal consciousness on the part heroes were faring. This had a pleasant effect on the Sunday gate receipts as well.</td>
</tr>
</tbody>
</table>

First, we can find that there are some adjectives at N-1 which collocate with "effect":

1. Positive adjectives: beneficial, best, good, pleasant, profound
2. Negative adjectives: adverse, baneful, unfortunate, evil, detrimental, serious, lethal
3. Neutral adjectives: retarding, biological, directional, cumulative, same, certain, major, sexual, uncanny, decisive, evident, moral, additional

From the adjectives at N-1, we can know that “effect” has a semantic prosody of “neutral”. When we want to know about the meaning of one word, it is not reliable to focus on its natural meaning. We have to judge it by putting it into context. Thus, it is important to know a word’s collocation, for it is helpful to differentiate synonyms. Collocation of words sometimes may form a kind of semantic prosody, with the function of evaluation attitude, which can reflect the principle of language and phrases by the mixture of language meaning, forms and function. It is also the development and extension of collocation. Sinclair (1991) first put forward semantic prosody and put it into word research.

As what has been discussed above, “effect” can be collocated with the(an)+N+of, pronoun+N and adj+N. Here, let us have a look at what characteristics the N has.
A Comparative Study of Synonyms Semantic Prosody of Effect, Impact and Influence Based on Corpus

<table>
<thead>
<tr>
<th>collocation of “effect” with N</th>
</tr>
</thead>
<tbody>
<tr>
<td>deeply concerned over this <strong>problem and its effect</strong> upon the” vitality of the nation”. In</td>
</tr>
<tr>
<td>our economy but rather to the adverse <strong>effect of inappropriate economic policies</strong> combined with retrenching</td>
</tr>
<tr>
<td>said <strong>bankruptcy</strong> would not be an immediate <strong>effect of the merger</strong> but could possibly be</td>
</tr>
<tr>
<td>submit that this is a most desirable <strong>effect of the law</strong>— and one of its</td>
</tr>
<tr>
<td>growth of the area has a retarding <strong>effect on the metropolitan core</strong>. The city has</td>
</tr>
<tr>
<td>immediately affected. This will have a beneficial <strong>effect by expediting public business</strong>; it will also.</td>
</tr>
<tr>
<td>causes temporary discomfort and then dies. The <strong>effect of radiation</strong> is cumulative over the years—</td>
</tr>
<tr>
<td>governed by the laws of <strong>cause and effect</strong>, bound in chains of determinism that hold</td>
</tr>
<tr>
<td>persons who are cognizant of the corrosive <strong>effect of crisis</strong> upon personal relationships and are</td>
</tr>
</tbody>
</table>

From the chosen concordances, we can know that “effect” is combined with the problem, inappropriate economic polices, bankruptcy, law, metropolitan core, expediting public business, legislative proposals, radiation doses cause, and crisis. It is obvious that these words describe the reasons that cause the result or probably consequences.

**4.2.2 The collocations of “impact”**
When “impact” is searched, we can see that its frequency is 67. Compared with “effect”, “effect” has higher frequency. We can draw a conclusion that native speakers prefer to use “effect” rather than “impact”. Its main collocation can be divided into two kinds: the(an)+N+of and N+on. Here we can see some concordances (the choice is manual work):

<table>
<thead>
<tr>
<th>Concordances of collocation of “impact”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal program eventually should have a favorable <strong>impact on</strong> Missouri’s depressed areas and in the</td>
</tr>
<tr>
<td>Whether it is or not, the propaganda <strong>impact on</strong> the free world of the document</td>
</tr>
<tr>
<td>was the most important aspect was the <strong>impact individually on</strong> the millions who constituted the</td>
</tr>
<tr>
<td>a direct question from a taxpayer, <strong>the impact upon</strong> a school system does not have</td>
</tr>
<tr>
<td>Peace Corps service there will be <strong>an impact on</strong> educational curriculum and student seriousness. The</td>
</tr>
<tr>
<td>Lumumba’s death. I was curious about <strong>the impact of</strong> this political assassination on Negroes in</td>
</tr>
<tr>
<td>responsibility is a societal response to <strong>the impact of</strong> the Industrial Revolution. Reduced to its</td>
</tr>
<tr>
<td>deal of sophisticated thought to get <strong>the impact of</strong> this fact”. CHAPTER 22 FROM THE</td>
</tr>
<tr>
<td>life in Tudor and Stuart times, <strong>the impact of</strong> the industrial revolution compete with sensitive</td>
</tr>
<tr>
<td>that the historian must never underrate <strong>the impact of</strong> the geographical environment on history. Here</td>
</tr>
<tr>
<td>search for a synthesis. He deplored <strong>the impact of</strong> German historiography on the writing of</td>
</tr>
</tbody>
</table>

From the concordances, we can see that the N is not so typical. So “impact” has preference of neutral prosody.

**4.2.3 The collocations of “influence”**
When “influence” is searched, we can see that its frequency is 132. It takes up 11% when it is used as verb and 89% as noun. When “influence” is used as noun, it is main collocation is Adj+N
Here we can see some concordances (the choice is manual work):
Concordances of collocation of "influence"

| "puzzle", was able to exert a considerable influence on the minds and imaginations of the two cardinal facts concerning nationalism and international influence. 1) Every age rewrites the events of and overwhelming but of political power—of influence, if you will—about which the relevant was ten years ago? And is Western influence greater or less than it used to may mean merely the displacement of Western influence. Communist political warfare, we must remember, is land mass was under the domination and influence of the West. Today, Africa is swerving. groups, and externally, against the power and influence of such other claimants for loyalty as own day, they commanded both prestige and influence before the Revolution started. As different physically impression of larger unities of power and influence and to view one's world simply as of the hypothalamic balance has a profound influence on the clinical behavior of neuropsychiatric patients activity in 1961 will exert a decisive influence on fiscal, monetary, and other Federal policies which sycophantically chanted his praise, and his influence extended even to Congress. Until the last and, in fact, show a strong Italian influence. Couperin also turns up, along with some. will be benefited instead”. Under her father's influence, it did not occur to Henrietta that at Woodruff, the governor used his personal influence to have the printing contract withdrawn from Paul Eluard were nonsense—so Dylan Thomas's influence has been slight indeed. In fact, his

From the concordances, we can find that “influence” is mainly used in two ways. Firstly, it is used to describe status and prestige. The nouns it often comes with are something about politics, power, religion and cultural awareness, among which the religious words are the most prominent. Its co-occurrences are the words such as Jansenism, Christianity, Buddhism, Greek leagues, and Continental ideas. Secondly, it is used to describe a person's influence on others, for it has pronouns like “his” and “her father” before head. Thus, we can conclude that “effect” and “impact” do not have the function of “influence”. All three words can be used with different adjectives with different semantic prosody, so we can say that all of them have neutral semantic prosody.

Semantic prosody tells us that its connotation is far beyond the natural meaning (Partington, 1998), which is different from the traditional favourable words or unfavourable words. The traditional favourable words or unfavourable words are influenced by culture. And under the influence of ideology, it represents the mainstream social values. Favourable words have the quality of generosity and notability, while unfavourable words represent miserly and mean. However, from the perspective of semantic prosody, only when we put it into context can we get more suitable solutions, for it is hard for us to guess the meaning of one word.

5. Conclusion
This paper analyzes the difference of “effect”, “impact”, and “influence” based on the BROWN Corpus. After comparison, we find that there exist two main discrepancies: first, the words occur with “effect” tend to be the reasons explaining the facts. Second, “influence” tends to occur with words such as politics, power, religion, and cultural awareness. And among these three words, “impact” doesn’t show any particular collocations compared with “effect” and “influence”. From the statistics, we can say all of these three words tend to have neutral semantic prosody. When we compare the synonyms with the help of corpora, it can provide an effective way to compare the usage of words, making learning and teaching synonyms more easily.

Funding: This research received no external funding.
Conflicts of Interest: The authors declare no conflict of interest.
Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers.
A Comparative Study of Synonyms Semantic Prosody of Effect, Impact and Influence Based on Corpus

References