

Hard, Difficult or Challenging? Uncovering Facts about Language through Corpus Study

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1.0 The Assignment

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Take a small number of words or phrases (between 2 and 5) and do a corpus study to show how they are used in similar or different ways. Choose words/phrases which are interesting in some way e.g. your students often confuse them; they cause problems for translators working with a specific language; you yourself have difficulty deciding when to use one or the other. Examples of words/phrases which have been studied in the past include: *between* and *through*; *immense*, *enormous* and *massive*; *reason to* and *reason for*; *on the other hand* and *on the contrary*. (You should not repeat these studies, which are mentioned as examples, but should choose different sets of words. You may choose words from a language other than English, if you have an available corpus, but make sure that a monolingual English speaker can understand your argument.)

2.0 Introduction

I have chosen to study the words *hard*, *difficult* and *challenging*. I have decided to study them because the first two, *hard* and *difficult*, are frequently used by my students to qualify their experiences in English class. When my students observe their peer(s) express that a lesson is hard or difficult, I notice they become demotivated as do I. Realizing that learning a language to fluency is a long and often arduous task seldom realized by most students, I have long considered that the word *challenging* is a better fit as it suggests to me that language learning to fluency, while not easy, is still an achievable goal. I typically hear from my students that *challenging* does not fit their concept of the situation, and some colleagues consider my view pedantic—I am splitting hairs. However, I have thought that showing the choice of words is

important not only semantically, but also culturally—that is, *hard* and *difficult* tend to be more negatively biased (or connotates negatively), while *challenging* is more positively biased. Thus, choosing *challenging* signals not only effort but also a willingness to accept and overcome difficulty and this signal is readily sensed by native users of English as an attitudinally positive choice.

Conversely, repeatedly selecting *hard* or *difficult* to describe one's world may signal a more negative attitude. Hinkel (2005) compares Heller's view of the primary purpose of language—to negotiate a person's sense of self at different times and in different contexts, giving or denying individuals access to social networks—with Norton's position, that power operates at the macro—or legal, social and educational systems—as well as the micro, or everyday social encounters (Hinkel, 924). Making particular lexical choices to describe one's worldview may open or close doors in the target culture, and an individual who appears positive may expect doors to open to him or her more easily.

For this study, I searched the Bank of English, which, at time of writing, contains 450 million words in various databases. I utilized the collocation option to find the top 2000 collocations within a 4:4 span of each word—*hard*, *difficult* and *challenging*—sorted them according to a) frequency and b) t-score, deleted the grammatical items and drew a final listing of the top 450 collocates. Collocations of one word, *hard* for example, which were duplicated in lists of the other words (*difficult* and *challenging*) were ranked lower than unique words, though included in the top 450 word lists if either their frequency or t-score were high enough (see Table 1). This process was adopted to make the differences in usage between the three words more readily visible: similarly sensed words will tend to collocate with similar word lists, and the distinctions between the words can be easily lost.

Table 1: Selection of Collocations for *Hard* Organized by Frequency

| Hard | | Collocation Frequency Ordering | | |
|--------------|---------|--------------------------------|-----------------------|-----------|
| Lexical Item | | Raw Frequency | Collocation Frequency | T-Score |
| 205 | metal | 16870 | 75 | 4.249319 |
| 206 | frost | 5232 | 72 | 7.089081 |
| 207 | laughed | 10181 | 72 | 5.768402 |
| 208 | thinks | 21222 | 72 | 2.822024 |
| 209 | work | 323761 | 11378 | 99.794844 |
| 210 | was | 3246851 | 9959 | 26.123087 |
| 211 | be | 2395637 | 9700 | 43.410172 |
| 212 | very | 436637 | 7297 | 73.848184 |
| 213 | are | 2003616 | 6212 | 21.253035 |
| 214 | so | 935360 | 5902 | 49.255196 |
| 215 | find | 173196 | 4915 | 64.513063 |

Unique Items

Duplicate Items

Corpus searches were limited to collocations which attend only the words *hard*, *difficult* and *challenging* rather than searching for the lemmatized forms of these words (for example, *hardly*, *difficulty* or *challenge*).

3.0 Literature Review

Language has long been known to be composed of rule-governed patterns into which certain words were understood to fit to the exclusion of others. Typically, these rules are the grammar which organizes language, yet within recent decades, collocation has been recognized as a significant organizing system operating within the grammar. J.R. Firth is among the first to identify collocation with his statement, “you shall judge a word by the company it keeps” (Partington, 25). From this humble beginning, corpus linguistics has grown.

John Sinclair identified two properties of language showing that textual coherence does not happen at random—the idiom principle and the open-choice principle are significant to collocation. Should a word fit within a set phrase, then the idiom principle is at play; conversely, if there is no set phrase, then the open-choice principle is in use (Hunston, 124). For example, the words in the phrase, *of course*, as an expression of assent, have meaning together; yet when another word is substituted—*by course*, the phrase loses its meaning. The open-choice principle is the slot-and-filler model of language description where a large series of complex choices is made to produce coherent text (Sinclair, 108-109), the choice proceeding limiting those following. These two principles provide the foundation for collocation.

Textual meaning accumulates globally through many local collocations. Language description by collocation alone would be meaningless without some way to show relevance. Sinclair identified that a native-language user's intuitions about language, will be unrevealing in terms of usage (Sinclair, 39). Having amassed a great amount of language knowledge, most personal evaluations will be "ideas about language rather than facts of it." Corpus linguistics combines text with technology to reveal language facts. The introduction of digital computers and concordancing software from the mid 1970's onwards provided the muscle with which to do most of the work of finding collocations (Kennedy, 5-7). Electronic databases held the texts in a machine-readable format. Software could identify collocations as well as provide linguists with statistical data showing which were most relevant. Knowing how basic concordancing software works can provide useful information on the evidence returned from a search (Sinclair (2004), 15). Collocations with higher values of frequency, t-score and mutual attraction are more statistically relevant (see Table 2).

Table 2 Collocation Examples Ordered by Frequency and T-Score

| Collocate | Frequency | T-Score |
|------------------|------------------|----------------|
| his | 847 | 25.051640 |
| her | 661 | 23.187461 |
| at | 435 | 14.081992 |
| under | 154 | 11.160451 |
| she | 238 | 10.843065 |

(Hunston, 14-16)

A limiting factor in the importance of these measures, however, is the amount of text under examination. A smaller text will produce higher values, thus inflating the importance of the collocation. This is particularly important when dealing with texts of different sizes, as a larger text will show a particular feature to be less statistically relevant while a smaller text will show the reverse.

Corpus discoveries, regardless of size, are also limited by the way in which the sorting software is set (Sinclair (2004), 15). Setting the software to find a single word—*hard*, for example, will return collocations for the word *hard*, but not for other forms such as *harder*, *hardest*, or *hardly*. Searching for the lemma *hard@* will return forms of the same type. Searching for *hard**, however, will provide all the words which have *hard* as a part as well as all other forms besides. Searching for a lemma instead of the single word may appear to bear more fruit, yet the time and energy required for sorting is greatly increased.

Table 3 Lemmas of Hard, Difficult and Challenging

| | <i>hard</i> | <i>difficult</i> | <i>challenging</i> |
|----|--------------------|-------------------------|---------------------------|
| 1. | hard | difficult | challenging |
| 2. | harder | | challenges |
| 3. | hardest | | challenge |
| 4. | | | challenged |

A lemma is particularly useful for verbs, but at times may include both verb and noun forms, as in *contact*, which, in both forms, includes *contact* and *contacts*. Collocations alone cannot determine when one or the other form is in use while both may contribute to a word's frequency, t-score or mi-score. Concordance lines may highlight such use (see Table 4), as will setting the software to discover noun or verb forms with “/NOUN” or “/VERB” (among others).

Table 4 Concordance Lines for the Lemma *Challenging*

| | | |
|------------------------------------|-------------|---------------------------------|
| Authors of a most informative and | challenging | book. A Nation in Denial; The |
| who is challenging Bush and | challenging | Bush's policies. Instead, we're |
| differences now coming out and | challenging | dearly-held values of community |
| The idea of upping the ante and | challenging | Governor Clinton to more |
| While this is a very difficult and | challenging | time, the board is confident |

Lexical patterning, as indicated by concordance lines is essential for discovering elements of language which are both statistically relevant and which provide teachable systems which are broad enough for use between registers and genres. The above lines of concordance indicate some patterns which *challenging* follows (see Table 5).

Table 5 Some Patterns of *Challenging*

- | |
|---|
| 1. <i>very ADJ and challenging NOUN</i> |
| 2. <i>most ADJ and challenging NOUN</i> |
| 3. <i>challenging NOUN</i> |
| 4. <i>NOUN and Challenging NOUN</i> |

The items in Table 5 are at the same time communicable, teachable and general enough to cover different registers and genres. Furthermore, they can be used to check for similarity between other lexical items. Hunston and Francis (1998) note both that lexical items have patterns and that similar items fall into groups based on shared aspects of meaning. In the first pattern displayed in Table 5, the word *hard* could be substituted for *difficult* in the adjective position, but

good could not without changing the meaning of the passage. Additionally, each of these patterns will collocate in statistically different ways; however in terms of a particular lemma, one form will typically be more common than another (Stubbs, 172).

Corpus study reveals features as synonymy and semantic prosody as important features in language. Synonymy is useful for language learners since learning which words are similar to others creates meaningful links between vocabulary items, making them easier to acquire (Partington, 39). In addition, synonyms reduce repetition of words within text as well as allow users to make semantically similar statements across different registers. Synonymy refers to having the same sense, though not the same reference. Lyons (1981, in Partington, 40) distinguishes between complete synonymy and absolute synonymy. Items are completely synonymous if they are descriptively, expressively and socially identical in meaning and absolutely synonymous if they have, in addition, the same distribution. Furthermore, lexical items are descriptively synonymous if, when they are interchanged, the message in which they appear is not affected. Partington notes that “the selection of one rather than the other may change the social or expressive meaning of the utterance, but hold constant its descriptive meaning (if it has descriptive meaning) in which case, we can say that the intersubstitutable lexemes are descriptively synonymous” (40).

Semantic prosody was first described by Sinclair (1991) as meaning extending over more than one unit, shown by Sinclair with the phrase, *set in*, in which he shows that the phrase, while not inherently negative, collocates with items such as *rot*, *decay*, *disillusion*, and *infection* and points to a negative state of affairs extending over *set in* (Stubbs, 173). As “a subtle element of attitudinal, often pragmatic meaning” (Sinclair, 1998: 20), semantic prosody determines the meaning of the whole unit (Mahlberg, 33). Both synonymy and semantic

prosody can provide language users and learners with relevant information about when a language community utilizes which items for purposes which are culturally relevant such as the connotative value of a unit of language.

Observing the lines of concordance in table 4, above, we can see that the closest words to challenging are the grammatical words *and* and *the*, the nouns *time*, *Bush*, *Governor Clinton* and *values*, and the adjectives *difficult*, *informative*, and *dearly-held*. We might conclude from this brief observation that *challenging* is most often used as a verb with object nouns—in particular political figures and policies. In fact, a wider search reveals many other categories to which *challenging* belongs. Even more relevant is the idea that challenging authority is a cultural activity which is valid in certain circumstances. Whatever may be said of a culture based on its language, knowing when a challenge to authority is vitally important which may allow one to more fully participate in a foreign culture.

While corpus information serves a critical function in language instruction and may show which patterns are most prevalent within a particular genre or register of language (Altenberg, 14), it can show which lexical items collocate within those patterns. Furthermore, it can show users ways in which cultural ideas are conveyed in language. Kachru (1994) argues that users of a language exist in three concentric circles, with native users at the center and non-native and learners further out. These circles coincide not only with language ability but also with social inclusion/ exclusion. Such division, considered offensive by some researchers, is often exacerbated by the fact that language learners are often instructed by non-native speakers (Hinkel, 928), further distancing the learner from the centre. Inclusion closer to the center of a group of language users may be encouraged by cultural information imbibed from corpus inquiries. Corpus information can assist in making the divisions between native and non-native

speakers less distinct, allowing learners greater social and political access to the world of the studied language.

4.0 Corpus Observations of *Hard*, *Difficult* and *Challenging*

We shall now discuss the corpus data in regards to the three words, *hard*, *difficult* and *challenging*. Each of these words can be, according to native speaker intuition, synonymous. However, corpus evidence will show that these words exhibit synonymy in a limited sense. We shall discuss how these words collocate as well as the patterns in which these words operate. Collocates of these three words were organized into two lists by frequency and by t-score. Further, since these words tend to be considered synonymous, collocates which are duplicate between words are ranked lower than those which are unique. The top 450 lexical collocates by frequency and by t-score have been retained for comparison and categorized. Grammatical collocates have been deleted from the list, though shall be utilized to identify relevant patterns.

4.1 Collocations of *Hard*

Hard appears to be a highly active word in English, appearing in 126,945 lines of collocation in the Bank of English, of which 118,076 are either adjective or adverb forms. Of the top 450 collocates of *hard*, 208 are unique by frequency and 226 are unique by t-score (not appearing in the listing for *difficult* or *challenging*). The top 450 collocates of *hard* can be organized into categories of judgment, effort, plurality, combat/ competition/ strike, direction, pressure, constituent, singularity, impermeability, existential and enjoyment. Appendix 1 lists the first thirty or so of each of the seven most prevalent categories of *hard* by frequency and Appendix 2 by t-score; the highlighted words are those which are shared between *hard*, *difficult* and *challenging*.

Hard appears to collocate most often in ways which suggest negative prosody—that is, the lexical pairings are likely descriptive of things which produce discomfort in some form or another. Over the entire 450-collocate range, verbs and their forms which suggest effort are the most numerous—*working, worked, tried, trying, drive* and *earned*—and of these, lexical items suggestive of cognition make up more than half with such words as *tried, looking, learned, hearing, feeling* and *bargaining*. *Hard*, however, is versatile and tenacious, forming frequent idioms which are easy to use in copious situations. Table 7 indicates the potential *hard* has for forming idiomatic expressions, with items like *hard working, hard hit, hard line, hard pressed, hard core, hard currency, hard fought, and hard hitting*.

Table 7 Top 10 Unique Collocations of *Hard* by Frequency and T-Score

| <i>Hard</i> Collocation by Frequency | | | <i>Hard</i> Collocation by T-Score | | |
|--------------------------------------|-----------|------|------------------------------------|----------|-----------|
| Item | Frequency | | Item | T-Score | |
| 1 | working | 4347 | 1 | working | 61.99259 |
| 2 | worked | 4039 | 2 | worked | 61.399611 |
| 3 | hit | 2375 | 3 | hit | 44.892348 |
| 4 | line | 1735 | 4 | pressed | 37.4721 |
| 5 | just | 1586 | 5 | line | 34.896173 |
| 6 | pressed | 1446 | 6 | core | 34.478938 |
| 7 | take | 1311 | 7 | currency | 33.75829 |
| 8 | core | 1258 | 8 | fought | 31.859447 |
| 9 | currency | 1255 | 9 | hitting | 30.322329 |
| 10 | tried | 1136 | 10 | tried | 29.272157 |

Interestingly, impermeability items which pair with *hard* to describe material qualities are among the least numerous over the top 450 collocate span (see Appendix 1 and 2). One might consider material quality to be the source of the semantic identity of *hard* since there is in reality a preponderance of solid material items and a dearth, by comparison, of actions requiring

effort. Corpus information may, however, point us in the opposite direction: the material quality of the impermeable item may obtain its identity from the effort required to penetrate its surface—a rock may be called hard because effort is required to break it.

Table 8 Concordance Lines for *Hard* across Categories

| | | |
|---------------------------------------|--------|--|
| the Internet. <p> Microsoft is | `hard | core about the Internet—very hard |
| an answer to Russia's need for | hard | currency and a market for Russia's weapons |
| or be strong enough to erode the | hard | rock into which some canyons are carved. |
| a flamboyant star of the British | hard | rock scene for almost 20 years. He took |
| You really should go out and hit them | hard." | So Nixon would go out and hit them |
| isn't a beautiful area, but it's just | hard | to find doctors that enjoy |
| As we've discovered here, it's all | hard | work. But if we keep playing with |
| a presentation day for their | hard | working students on Friday 11 June 1993, |

Many collocate pairs utilizing *hard*, such as *hard core* and *hard rock*, are metaphorical usages of *hard* which have become idiom. In the case of *core*, the usage in the concordance lines, above, suggest an extreme favoring of some material or item such as the internet. *Hard rock*, likewise, suggests the quality of extremism, and has become the name for a form of music popular since the late 1980's. Hard rock has gained much press due to the extreme tonality and the acute radicalism of the performers, allowing for its popularity as a subject in the press. Though idiom, these terms are not necessarily restricted to those identified above, but may be broadened to the general material. With more usage of collocate pairs in their idiom forms, however, pairings lose their spacing and become single compound items like *hardcore*, *hardliner* and *hardball* as well as hyphenated compounds.

4.2 Collocations of *Difficult*

Difficult appears in 81,089 lines of collocation in the Bank of English. Of the top 450 collocates of *difficult*, 104 are unique by frequency and a 93 are unique by t-score. This seems

to suggest that *difficult* collocates more generally than *hard* or *challenging*. Collocates of *difficult* can be categorized under the headings quality, people, situation, transformation, quality, communication, general verbs and cognition—more categories than *hard* (see Appendix 3 and 4 for difficult collocates by frequency and t-score, respectively). The two categories for general verbs and cognition contain the most collocates of *difficult*.

Difficult, like *hard*, appears to collocate such that a negative prosody results; even within the top ten collocates, we can see many potential pairings which show this (see Table 9): *difficult children, for instance, difficult (to) control, became difficult, difficult answer, difficult (and) costly, and difficult change*.

Table 9 Top 10 Unique Collocations of *Difficult* by Frequency and T-Score

| <i>Difficult</i> Collocation by Frequency | | | <i>Difficult</i> Collocation by T-Score | | |
|---|-----------|------|---|-----------|-----------|
| Item | Frequency | | Item | T-Score | |
| 1 | much | 1305 | 1 | much | 21.013883 |
| 2 | many | 703 | 2 | thing | 14.069586 |
| 3 | children | 377 | 3 | expensive | 13.150551 |
| 4 | during | 343 | 4 | might | 11.274588 |
| 5 | control | 337 | 5 | became | 10.573702 |
| 6 | became | 314 | 6 | control | 10.407136 |
| 7 | change | 288 | 7 | answer | 10.068062 |
| 8 | mean | 261 | 8 | costly | 9.378703 |
| 9 | actually | 254 | 9 | which | 8.282088 |
| 10 | expensive | 246 | 10 | issue | 8.151583 |

This is not particularly enlightening as a fact, yet broadening this idea across other collocates and categories, we begin to see the kinds of negative associations *difficult* picks up. Cognitive effort in the form of recognizing, thinking, finding an answer, and understanding in most forms easily pairs with *difficult*. Communication ideas like speaking, answering, argument and language,

likewise cognitive but separated from this category due to their proliferation, are also strong to collocate with *difficult*—more so than *hard*. *Children*, which appears as the third-highest unique collocate, is an interesting case—especially since, on this list, it tops even such groups as patients and shareholders, both known for their level of unmanageability. This may be due to the growth in recent years of parenting magazines, books and other texts where children feature. Whereas *hard* pairs with ideas of effort, conflict and impenetrability, *difficult* pairs with concepts of people, situational management and their associated troubles. *Hard* and *difficult* could be said to exist separately on a cline of manageability (see Table 10).

Table 10 Concordance Lines for *Difficult* across Categories

| | | |
|-------------------------------------|------------|--|
| to a very complicated and | difficult | answer and I don't think that the |
| are, in many cases, not so much | difficult | as virtually impossible. In |
| If it seems like a particularly | difficult | change to make, I find it helps |
| teachers prefer to deal with really | difficult | children and adults by exclusion. |
| the necessary exams are | difficult, | expensive and take little account of the |
| care reform, the most momentous and | difficult | issue facing his administration. |
| position. Both men face many | difficult | questions and skeptical senators. |
| we live. Although a community is a | difficult | thing to define, it is easy to |
| were also fiercely independent and | difficult | to control. The English dominated |
| a statement: `There remains much | difficult | work for us to do against |

4.3 Collocations of *Challenging*

Challenging appears in 7,446 lines of collocation in the Bank of English. Of these, 3,778 are adjective uses while 3,668 are verb uses in the continuous (or progressive) tense suggesting ongoing action, plans. Of the top 450 collocates for *challenging*, 320 are unique by frequency while 305 are unique by t-score. This is interesting since it suggests a more narrow usage for *challenging* than for either *hard* or *difficult*. Collocates for *challenging* may be grouped under the following headings: quality, people, institutions, status, locations, cognitive, cultural artifact

and quantity (see Appendix 5 and 6). This list of categories provides early evidence for the view that *challenging* is utilized more narrowly.

As we examine the components of each list, several interesting features emerge. The first is that the quality category contains multiple collocates which are positive in nature: exciting, interesting, capable, fun, stimulating, innovative, top, new and enjoyable. None of these words are found within the top 450 collocates for *hard* or *difficult*, which is not to say that negative words are not found in *challenging* collocates—there are simply significantly fewer. The second feature is that of lists of people. Both *hard* and *difficult* collocate with people-words, but neither collocates with specific individuals as *challenging* does. Given that *challenging* contains numerous words for institutions and status, it seems appropriate to have names of individuals—like Thatcher, Bush, Gorbachev and Clinton—challenging these structures or being challenged by them. *Challenging* collocates with words for groups of people who declare against marginalization, such as women and feminists.

A third interesting feature about *challenging* is the fact that, unlike *hard* and *difficult*, which collocate with cognitive action words such as seeing, thinking and reading, *challenging* collocates with cognitive objects such as projects, ideas, assumptions and activities. In addition to these intellectual pursuits is the category for cultural artifacts, including items such as music, art, books, goals, film, games and knowledge. This seems to suggest that *challenging* is chosen when an interesting or intellectual goal is to be attained. A final interesting feature of *challenging* is the fact that in terms of frequency or t-score, *challenging* collocates lowly, whereas *hard* and *difficult* collocate more highly on both accounts (see Table 11).

Table 11 Top 10 Unique Collocations of *Challenging* by Frequency and T-Score

| <i>Challenging</i> Collocation by Frequency | | | <i>Challenging</i> Collocation by T-Score | | |
|---|-----------------------|-----|---|----------------|----------|
| Item | Collocation Frequency | | Item | T-Score | |
| 1 | new | 148 | 1 | exciting | 9.970279 |
| 2 | exciting | 104 | 2 | interesting | 8.485349 |
| 3 | mr | 103 | 3 | capable | 7.825627 |
| 4 | government | 89 | 4 | title | 7.421997 |
| 5 | interesting | 81 | 5 | role | 6.773832 |
| 6 | both | 77 | 6 | authority | 6.754778 |
| 7 | less | 71 | 7 | intellectually | 6.597769 |
| 8 | title | 68 | 8 | fun | 6.561725 |
| 9 | capable | 66 | 9 | ideas | 6.151818 |
| 10 | court | 65 | 10 | assumptions | 6.062072 |

Comparing the first collocates of each word, it is evident which is more frequently chosen, and which creates more relevant collocation pairings (see table 12).

Table 12 Comparison of First-Ranked Items by Frequency and T-Score

| Item | <i>Hard</i> | | <i>Difficult</i> | | <i>Challenging</i> | |
|---------|-------------|----------|------------------|-----------|--------------------|----------|
| | working | working | much | much | new | exciting |
| Freq | 4347 | | 1305 | | 148 | |
| T-score | | 61.99259 | | 21.013883 | | 9.970279 |

Table 13 Concordance Lines for *Challenging* across Categories

| | | |
|---|-------------|--|
| of the Pentagon Papers, thus | challenging | a court injunction against their |
| wanted work to be exciting, | challenging | and enjoyable with management |
| was not easily. The classes were intellectually | challenging | and it was clear |
| have taken very strong positions, | challenging | government foreign policy, |
| bypass Mrs Thatcher's objections | challenging | her to veto moves forward. From |
| for foremost publisher of new, | challenging | Scottish fiction since Peter |
| ongoing litigation | challenging | the validity of the tax. However, if the |
| and that he can soon start | challenging | to reclaim his place in the |
| of their academic authority. In | challenging | traditional standards on the |
| of the Pentagon Papers, thus | challenging | a court injunction against their |

4.4 Grammatical Patterns of *Hard*

Of the three words under consideration, *hard* exhibits the greatest versatility through its patterning. Table 14 shows usage patterns for *hard*.

Table 14 Lines of Concordance Exhibiting the Major Lexical Patterns of *Hard*

| | | |
|--|------|---|
| a nice show and it's not just tap dancing. So it's always | hard | for me to say I'm a tap dancer, because I know half the people in |
| in parliamentary democracy. This makes it increasingly | hard | for the government to deny the party legal status |
| rates and disrupted financial markets, but they make it | hard | for the government to use traditional fiscal stimulus to help their |
| play in colonial New England, but circumstances made it | hard | for them to come together on a regular basis in the absence of |
| on the street level. This is a | hard | time to be selling music, for |
| thrust upon us, and that our ancestors had fought so | hard | to achieve, are a challenge we must find ways to master. If we |
| offered to young dancers in Britain, where regular work is | hard | to come by. If the Moulin Rouge is your first dancing job, you |
| in Bosnia. Virtually, all sides here agree it would be | hard | to find a clearer challenge to the principles on which the CSCE |
| Board to the players. We've all worked | hard | to get to this stage and I'm |
| Board and as Mayor and Councilmember, I've worked | hard | to give our kids the tools they need to succeed. As your County |
| socioeconomic level. On the face of it, this finding is | hard | to reconcile with the notion that it is merely poor opportunity |
| that not all of them were. It was | hard | to see how any democratic mechanism |

The patterns exhibited is likely not exhaustive, however these patterns most highly appear in the Bank of English Corpus. Of particular interest is how strongly *hard* patterns with the lexical items, *work*, *for* and *to-infinitive* (to-inf). Work is either hard—requiring great effort—or individuals, groups and institutions are identified as working hard—that is, expending great effort. In this way, work appears to be a fulcrum around which *hard* pivots. Verbs other than work tend to appear within the to-inf form, and, frequently, in this form, hard is preceded by an intensifier such as *so*, magnifying the effort required to attain the implied or stated goal. In the most basic usage of hard—*NOUN is hard*—the collocates preceding *is*, life and work, drop in frequency quickly from 76 to 27 (t-scores of 8.5782 and 4.9440, respectively) within these first two words. This appears to suggest that this pattern is used in a quite narrow sense, though we might expect this form to be used to describe material qualities quite frequently. It is interesting

to see that the form *hard for PRO/NOUN to-inf* attracts primarily lexical items for cognition: *say, get, understand, believe, see, say*.

4.5 Grammatical Patterns of *Difficult*

Difficult appears in fewer lexical patterns than *hard*, but they tend towards a greater degree of difficulty: *PRONOUN/CONJ/ NOUN is intensifier/ ADV difficult inf, very difficult for PRO/NOUN inf*, and *CONJ/DET/SAY PRO/NOUN is difficult inf* (see Table 15 and Appendix 8).

Table 16 Lines of Concordance Exhibiting the Major Lexical Patterns of *Difficult*

| | | |
|---|-----------|---|
| Pat has to walk on eggshells in teaching the class. It's very | difficult | for me to even express what those are but that's one of the |
| held accountable. And I commend him for that. It is much more | difficult | to hold Congress accountable. And they are clearly a partner in |
| Manufacturing expanded in so many directions that it is | difficult | to portray or to summarize its evolution. The factory system |

While not obsolete, the pattern *be@ difficult* on its own registers significantly lower than the above patterns. In fact, it is subsumed as the foundation of these greater-used patterns. As with *hard*, this set of patterns is liable to intensification through a variety of adjectives. *Difficult* appears in the final set of forms with a group of grammatical items including conjunctions like *because, so* and *although* as well as determiners like *that*; in addition, the past-tense verb, *said*, as a projecting verb appears in this group. These appear to signify the use of *difficult* as a specific qualification as well as an add-on in support of, or in contrast to a previous idea—*but it is difficult to see*, for instance. Furthermore, *difficult* colligates highly with the grammatical items *for* and *to-inf*. Statistically speaking, English users are less likely to say *this test is difficult* than they would say *this test is difficult to write*. This appears to suggest that *difficult* is less an umbrella term for an uncomfortable experience and more a term requiring specificity.

4.6 Grammatical Patterns of *Challenging*

Like *difficult*, *challenging* exhibits few patterns (see Table 17 and Appendix 9); this is unsurprising given the level of collocation which *challenging* shows in the Bank of English.

Table 17 Lines of Concordance Exhibiting the Major Lexical Patterns of *Challenging*

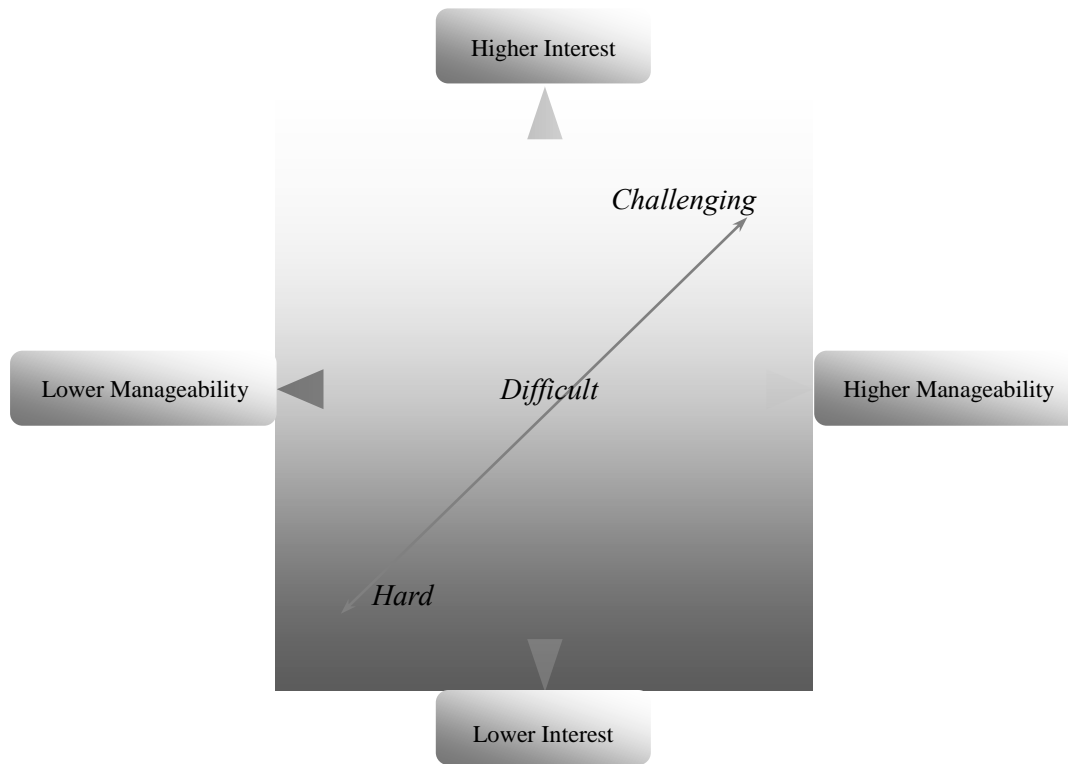
| | | |
|---|--------------|--|
| effective means of motivating employees if they are both | challenging | and attainable. Goals must also be personally |
| for anyone who would rather be involved in an exciting and | challenging | environment than stuck behind a desk in an |
| century went along, but the gender ideals of the era made a | challenging | form of marriage even more difficult to realize. |
| course is as convenient as it is | challenging. | Just 11 miles off I-81 in |
| in the territories. Rabin is | challenging | Prime Minister Yitzhak Shamir in |
| James Randi (1982) has been | challenging | such claims for years by |

As a collocate, *challenging* is most likely to appear as one member of an adjective pairing *ADJ and challenging* or *challenging and ADJ*; the second member of this binary tends to be positive rather than negative. *Challenging* is frequently seen as a progressive verb and when followed by an individual (especially a political figure), an institution or a status idea, typically indicates *going against*.

5.0 Pedagogical Implications

The study of *hard*, *difficult* and *challenging* is pedagogically enlightening in several ways. First, while these words may be considered synonymous, the type of synonymy they exhibit varies. At best, these three words are descriptively synonymous, but not absolutely or completely in Lyon's vernacular. These words have different situational usages, and thus differing lexical and grammatical patterning. They may be said, however, to reside on a cline expressing manageability and interest (see diagram 1).

Diagram 1: Usage Matrix of *Hard*, *Difficult* and *Challenging*



Second, as Sinclair has been apt to point out, speakers of a language are able formulate ideas about language from personal insight and experience, but rarely do we find genuine facts of language due to the unavailability of in-class data. Corpus study with collocation software allows us to find specific facts about language which go beyond language ideas, assumptions and notions and in-class access to a corpus and concordancing software may make facts easier for both teachers and students to verify, particularly in regards to synonymy. This study has identified many ways in which even synonymous-seeming words differ in their prosody and use. Understanding how the grammar of a lexical item will assist students in fashioning statements which clearly articulate their ideas with the item as a core. Recognizing how a lexical item absorbs meaning through semantic prosody, however, gives insight into how a language creates the reality of the external linguistic situation.

Language learners need insight into how their statements not only relate their personal experience and knowledge to others (the internal situation) but how their language use creates their external language situation, that is, exercising control of a conversational situation over a series of statements through conscious word choice. While synonymy is a useful tool for discovering similar words, it is not entirely useful for understanding how a particular set of words can create a positive discourse environment rather than a negative one. Understanding how semantic prosody operates in language through corpus study gives teachers the means to dig for linguistic facts.

6.0 Conclusion

While my own intuition has served me well in identifying the differences between the words *hard*, *difficult* and *challenging*, native intuition is generally unreliable for specific patterning and relationships between lexical items in language use. It has taken a corpus study into these words' functioning to provide hard facts about these lexical items. This information confirms my idea that *hard* and *difficult* create relationships with other words which appear more negative whereas *challenging* goes the other direction. While I can use this information to motivate my students in the classroom to choose more positive language to create their linguistic environment (ie: the classroom mood), much research needs to take place to understand the relationship between lexical choice and motivation—in particular, how language can create one's own extralinguistic situation and use language to open cultural and social doors. I have come to feel that the language-learning environment is a microcosm of the world of the language user, and how one learns to negotiate meaning via lexical choice can help or hinder their ability to negotiate extralinguistic meaning in the culture of the language users. In this vein, *hard* and

difficult, I considered, were negative words which students used to create their language-learning environment and unwittingly caused a drop in morale with each use while *challenging* would work the opposite way. Corpus study has at least confirmed that the former two do gravitate towards words which produce a negative semantic prosody whereas the latter floats towards the opposite.

In future, studies relating semantic prosody and motivation in regards to creating one's linguistic situation would be highly advantageous for future language students and teachers as the results could provide students and teachers with more tools to motivate the language learning process. Furthermore, these same items can greatly improve students' ability to negotiate meaning via word choice. I have made the decision in my own classroom to alert students to this seeming quirk of language—that hearers are sensitive to positive and negative messages and favor the positive. Now I can show them how *hard* and *difficult* create a negative linguistic environment and the opposite with *challenging*.

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Appendix 1 Top 30 Collocates of *Hard* in Each Category by Frequency

| Freq | judgement | effort | plurality | combat/ strike/ competition | constituent | singularity | impermeability |
|------|-----------|-------------------|-------------|-----------------------------|-------------|---------------|----------------|
| 1 | just | working | all | hit | core | currency | rock |
| 2 | good | worked | lot | fought | back | man | boiled |
| 3 | soft | <i>tried</i> | men | hitting | disk | day | ball |
| 4 | cold | <i>try</i> | liners | won | evidence | act | edged |
| 5 | sure | drive | eyes | pushed | nosed | graft | ground |
| 6 | success | earned | eggs | training | money | worker | road |
| 7 | victory | done | fans | fight | cash | image | hat |
| 8 | fallen | <i>looking</i> | drives | push | headed | egg | edge |
| 9 | please | doing | hats | playing | facts | drug | harder |
| 10 | honest | <i>tries</i> | twice | played | shoulder | ecu | hearted |
| 11 | truth | wearing | boys | fighting | copy | cafe | skin |
| 12 | maybe | drinking | kids | bitten | surface | recession | floor |
| 13 | credit | running | stories | train | disc | dedication | nut |
| 14 | sheer | taking | yards | hits | space | commitment | wood |
| 15 | dry | <i>living</i> | disks | battle | ram | reward | shell |
| 16 | fair | driving | farmers | trained | computer | determination | steel |
| 17 | improve | <i>slog</i> | politicians | knocks | figure | time | edges |
| 18 | talent | <i>learned</i> | supporters | battled | voice | life | stick |
| 19 | sharp | <i>hearing</i> | guys | racing | rain | bit | faced |
| 20 | decent | prepared | lads | strike | cheese | season | |
| 21 | very | <i>feeling</i> | people | struck | wind | anything | |
| 22 | so | heavy | some | blow | stomach | winter | |
| 23 | find | <i>bargaining</i> | team | losing | nails | communist | |
| 24 | too | swallowed | feelings | beat | surfaces | task | |
| 25 | really | lesson | questions | win | mouth | pin | |
| 26 | long | miss | decisions | pushing | snow | | |
| 27 | enough | labor | words | race | memory | | |
| 28 | hard | <i>learnt</i> | data | struggle | plastic | | |
| 29 | still | <i>ensure</i> | choices | physical | heads | | |
| 30 | even | <i>bargain</i> | habits | plays | metal | | |

Highlighted Collocates are common to *difficult* or *challenging*. Bold, italicized text in the effort column shows collocates which are related to cognitive functions. Blank slots indicate no remaining collocates in the top 450 collocates for the category.

Appendix 2 Top 30 Collocates of *Hard* in Each Category by T-Score

| Freq | judgement | effort | plurality | combat/ strike/ competition | constituent | singularity | impermeability |
|------|---------------|----------------------|------------|-----------------------------|-------------|-------------|----------------|
| 1 | soft | working | liners | hit | core | disk | rock |
| 2 | evidence | worked | drugs | fought | currency | man | boiled |
| 3 | facts | <i>tried</i> | lot | hitting | nosed | worker | edged |
| 4 | slog | try | disks | pushed | headed | frost | shoulder |
| 5 | cold | earned | surfaces | push | cash | liner | ball |
| 6 | honest | drive | men | won | heels | act | surface |
| 7 | sheer | <i>look</i> | fans | fight | graft | megabyte | ground |
| 8 | feel | <i>training</i> | lads | bitten | copy | pc | edge |
| 9 | harder | done | twice | knocks | eggs | cop | edges |
| 10 | real | <i>tries</i> | eyes | hits | ram | time | floors |
| 11 | please | drinking | farmers | trained | disc | bit | |
| 12 | floppy | wearing | frosts | fighting | ecu | matter | |
| 13 | dry | drives | everybody | battled | hats | task | |
| 14 | truth | swallowed | megabytes | train | hat | thought | |
| 15 | just | <i>learned</i> | 4mb | pulling | hearted | taskmaster | |
| 16 | good | driving | times | reward | nut | life | |
| 17 | conscientious | <i>bargaining</i> | sometimes | bop | egg | | |
| 18 | disciplined | <i>lobbied</i> | feelings | slapped | porn | | |
| 19 | brittle | <i>lobbying</i> | choices | campaigning | dedication | | |
| 20 | jolly | <i>learnt</i> | habits | playing | nails | | |
| 21 | very | <i>bargain</i> | decisions | campaigned | cafe | | |
| 22 | so | lesson | data | victory | cheese | | |
| 23 | too | <i>hearing</i> | questions | battle | stomach | | |
| 24 | really | crack | lessons | struggled | recession | | |
| 25 | hard | running | courts | scrabble | mb | | |
| 26 | enough | <i>concentrating</i> | players | charging | pornography | | |
| 27 | long | labor | truths | pushes | shell | | |
| 28 | fast | stared | communists | pitches | wired | | |
| 29 | extremely | raining | realities | kicked | rain | | |
| 30 | pretty | blowing | rules | pounding | liquor | | |

Highlighted Collocates are common to *difficult* or *challenging*. Bold, italicized text in the effort column shows collocates which are related to cognitive functions. Blank slots indicate no remaining collocates in the top 450 collocates for the category.

Appendix 3 Top 30 Collocates of *Difficult* in Each Category by Frequency

| Freq | Quantity | people | transformation | quality | situation | communication | General Verbs | Cognition |
|------|------------|--------------|----------------|-----------------|---------------|---------------|---------------|-------------|
| 1 | much | children | became | mean | issue | answer | bring | recognize |
| 2 | many | child | change | alone | relationship | talk | treat | find |
| 3 | expensive | companies | leave | slow | moment | move | access | make |
| 4 | added | person | birth | somewhat | challenge | example | carry | made |
| 5 | costly | subjects | grow | easier | present | ask | apply | found |
| 6 | very | patients | step | generally | negotiations | meet | pass | makes |
| 7 | more | firms | progress | emotional | operation | write | arrange | see |
| 8 | most | master | reform | experienced | marriage | writing | enter | know |
| 9 | so | doctors | focus | secure | operate | admitted | path | making |
| 10 | even | patient | discover | slightly | challenges | language | score | think |
| 11 | extremely | managers | transfer | accurately | solution | express | prepare | understand |
| 12 | too | parent | phase | tend | matches | speak | get | imagine |
| 13 | some | people | become | accurate | condition | discuss | going | finding |
| 14 | any | players | becomes | delicate | pregnancy | teach | do | believe |
| 15 | quite | parents | becoming | sensitive | life | communication | keep | finds |
| 16 | really | students | | particularly | situation | argument | come | face |
| 17 | long | teams | | especially | work | suppose | put | accept |
| 18 | far | shareholders | | notoriously | conditions | trick | getting | cope |
| 19 | enough | teachers | | easy | job | say | play | process |
| 20 | little | opponents | | hard | position | says | obtain | maintain |
| 21 | difficult | individuals | | complex | problem | prove | beat | read |
| 22 | such | | | seems | circumstances | proved | win | assess |
| 23 | still | | | obviously | problems | question | trying | faced |
| 24 | rather | | | exactly | course | deal | break | determine |
| 25 | ever | | | certainly | issues | tell | trading | avoid |
| 26 | incredibly | | | painful | situations | questions | reach | proving |
| 27 | equally | | | politically | case | predict | start | handle |
| 28 | doubly | | | pretty | market | explain | live | identify |
| 29 | | | | extraordinarily | game | words | hold | judge |
| 30 | | | | complicated | economic | define | stop | distinguish |

Highlighted Collocates are common to *hard* or *challenging*. Blank slots indicate no remaining collocates in the top 450 collocates for the category.

Appendix 4 Top 30 Collocates of *Difficult* in Each Category by T-Score

| Freq | Quantity | people | transformation | quality | situation | communication | General Verbs | Cognition |
|------|-----------|--------------|----------------|-----------------|---------------|---------------|---------------|----------------|
| 1 | much | subjects | became | expensive | issue | answer | accomplish | treat |
| 2 | actually | child | change | costly | relationship | negotiations | access | arrange |
| 3 | somewhat | children | grow | accurately | operate | challenge | apply | recognize |
| 4 | many | people | make | slow | feat | challenges | carry | teach |
| 5 | very | opponents | makes | accurate | periods | talk | raises | isolate |
| 6 | more | parents | made | delicate | angle | express | manoeuvre | coping |
| 7 | most | shareholders | making | easier | phase | proven | breed | master |
| 8 | extremely | | becomes | unnecessarily | dilemma | diagnosis | secure | adjustment |
| 9 | too | | become | experienced | pregnancy | write | rendered | embarrassing |
| 10 | so | | becoming | obscure | moment | communication | prosecute | organize |
| 11 | even | | transition | fraught | passage | articulate | reproduce | discover |
| 12 | quite | | | objectively | passages | admitted | tread | observe |
| 13 | really | | | underestimate | task | specify | incorporate | trick |
| 14 | such | | | horrendously | situation | prove | poses | identification |
| 15 | still | | | excruciatingly | conditions | proved | prepare | analyse |
| 16 | some | | | disruptive | life | say | get | detection |
| 17 | | | | increasingly | circumstances | question | going | find |
| 18 | | | | particularly | job | questions | avoid | found |
| 19 | | | | especially | position | explain | getting | imagine |
| 20 | | | | notoriously | situations | proving | trading | finding |
| 21 | | | | difficult | period | tell | reach | understand |
| 22 | | | | dangerous | issues | describe | beat | see |
| 23 | | | | painful | problem | persuade | resist | decision |
| 24 | | | | complex | problems | convince | break | decisions |
| 25 | | | | incredibly | work | demanding | consuming | finds |
| 26 | | | | extraordinarily | tasks | admits | appreciate | achieve |
| 27 | | | | politically | terrain | communicate | defend | know |
| 28 | | | | far | cases | says | swallow | predict |
| 29 | | | | enough | relationships | challenging | sell | believe |
| 30 | | | | terribly | environment | motivate | escape | cope |

Highlighted Collocates are common to *hard* or *challenging*. Blank slots indicate no remaining collocates in the top 450 collocates for the category.

Appendix 5 Top 30 Collocates of *Challenging* in Each Category by Frequency

| Freq | Quality | People | Institutions | Status | Locations | Cognitive | Cultural Artifact | Quantity |
|------|--------------|-----------|-------------------|--------------|-------------|----------------|-------------------|------------|
| 1 | new | mr | government | title | world | ideas | music | both |
| 2 | exciting | women | court | role | place | intellectually | art | less |
| 3 | interesting | others | authority | right | britain | assumptions | book | more |
| 4 | capable | mrs | president | party | europa | material | books | most |
| 5 | top | thatcher | country | traditional | local | project | goals | very |
| 6 | fun | bush | state | honours | manchester | activities | film | some |
| 7 | high | michael | law | roles | nature | idea | games | even |
| 8 | stimulating | male | social | courses | nation | projects | knowledge | too |
| 9 | innovative | critics | lawsuit | leadership | setting | review | beliefs | always |
| 10 | enjoyable | yeltsin | policy | political | domestic | claims | films | rather |
| 11 | accepted | feminist | federal | power | hole | activity | perceptions | quite |
| 12 | appeal | gorbachev | management | status | california | hope | theories | really |
| 13 | prime | scottish | provide | united | russia | hopes | literature | often |
| 14 | varied | audience | constitutionality | career | channel | notion | sport | enough |
| 15 | provocative | champions | legal | championship | global | study | perspectives | bit |
| 16 | adventure | clinton | established | test | pluto | theory | record | ever |
| 17 | creative | blair | board | lead | routes | basis | practices | especially |
| 18 | original | rivals | rule | conventional | position | discussion | tradition | equally |
| 19 | enjoy | client | standards | league | environment | tone | will | either |
| 20 | adverse | therapist | ruling | major | course | interests | way | extremely |
| 21 | effective | artists | schools | promotion | | questioning | game | far |
| 22 | entertaining | candidate | establishment | culture | ahead | teaching | play | |
| 23 | threatening | fellow | firm | opposition | places | views | subject | |
| 24 | fresh | mugabe | laws | quo | areas | attempt | puzzles | |
| 25 | modern | readers | legality | stereotypes | terrain | advanced | technically | |
| 26 | unique | students | official | validity | | critical | wisdom | |
| 27 | beautiful | team | premiership | highly | | intent | | |
| 28 | confident | players | ban | truly | | notions | | |
| 29 | encouraging | communist | church | leaders | | | | |
| 30 | interested | | curriculum | powerful | | | | |

Highlighted Collocates are common to *hard* or *difficult*. Blank slots indicate no remaining collocates in the top 450 collocates for the category.

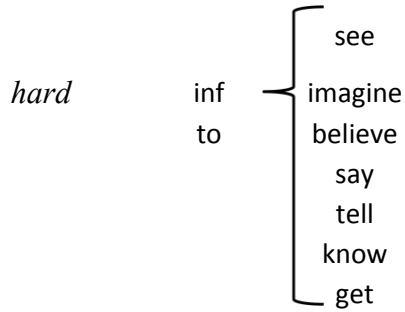
Appendix 6 Top 30 Collocates of *Challenging* in Each Category by T-Score

| Freq | Quality | People | Institutions | Status | Locations | Cognitive | Cultural Artifact | Quantity |
|------|--------------|-------------|-------------------|---------------|--------------|----------------|-------------------|--------------|
| 1 | exciting | thatcher | court | validity | place | intellectually | traditional | less |
| 2 | interesting | critics | roles | title | manchester | ideas | art | both |
| 3 | capable | mr | lawsuit | role | pluto | assumptions | music | constantly |
| 4 | fun | feminist | government | authority | setting | notion | culture | highly |
| 5 | stimulating | yeltsin | constitutionality | honours | hole | questioning | beliefs | openly |
| 6 | innovative | mrs | conventional | leadership | nature | review | goals | directly |
| 7 | top | male | legality | status | slopes | test | theory | strongly |
| 8 | new | bush | establishment | championship | walesa | creative | book | definitely |
| 9 | enjoyable | mugabe | federal | quo | scenic | notions | perspectives | sufficiently |
| 10 | varied | therapist | curriculum | promotion | camelot | hopes | theories | high |
| 11 | provocative | gorbachev | ruling | stereotypes | outdoor | intent | sport | hardly |
| 12 | original | champions | established | career | domestic | perceptions | myths | mildly |
| 13 | adverse | rivals | incumbent | supremacy | environment | discussion | idea | more |
| 14 | entertaining | client | standards | dominance | course | preconceptions | practices | most |
| 15 | powerful | candidates | opposition | racism | terrain | teaching | knowledge | very |
| 16 | encouraging | leaders | law | orthodoxy | places | claims | salvation | even |
| 17 | accepted | darwin | orthodox | legitimacy | ahead | view | teachings | particularly |
| 18 | disturbing | riders | lawsuits | trophies | ways | views | poems | some |
| 19 | unique | audiences | patriarchal | social | positions | homophobia | literature | quite |
| 20 | inspiring | listeners | premiership | lead | environments | search | wisdom | equally |
| 21 | vibrant | theologians | hegemony | dominant | piste | angry | will | always |
| 22 | bold | mazowiecki | legal | coalition | saturn | intend | puzzles | bit |
| 23 | fascinating | schumacher | laws | liberal | | insights | technically | often |
| 24 | appeal | humanity | monopoly | democrats | | basis | karma | extremely |
| 25 | lively | president | management | program | | solving | way | enough |
| 26 | advanced | students | policy | conservative | | academically | puzzle | especially |
| 27 | adventurous | communist | rule | disability | | critical | subject | immensely |
| 28 | thoughtful | players | suit | power | | seeks | | consistently |
| 29 | daring | teams | judicial | integrity | | strategy | | invariably |
| 30 | confident | pupils | conventions | appropriately | | seeking | | incredibly |

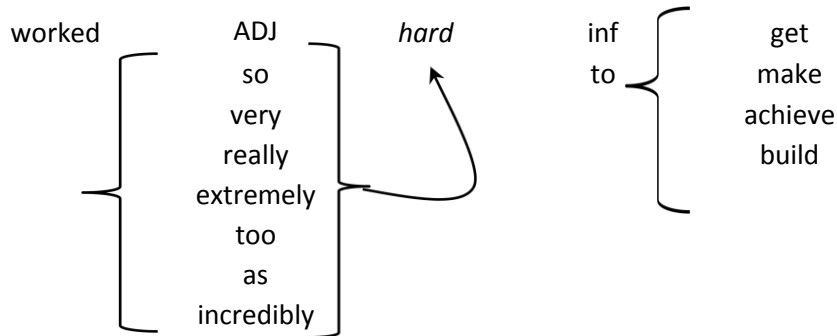
Highlighted Collocates are common to *hard* or *difficult*. Blank slots indicate no remaining collocates in the top 450 collocates for the category.

Appendix 7 Grammatical Patterns for *Hard*

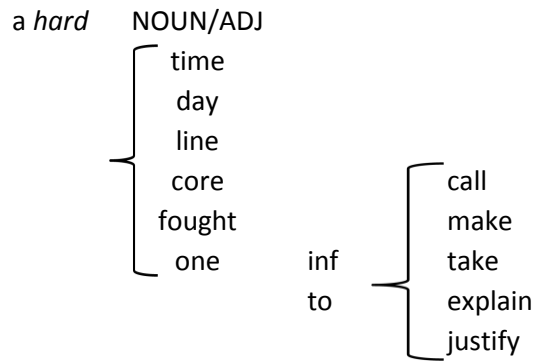
A)



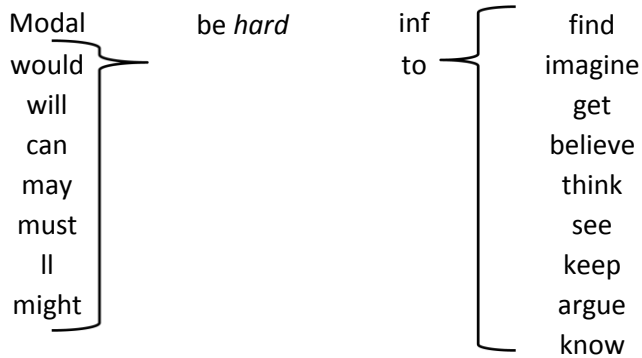
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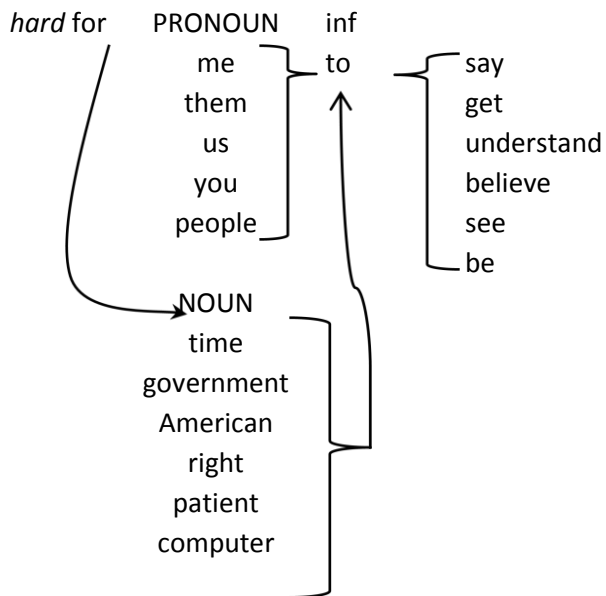
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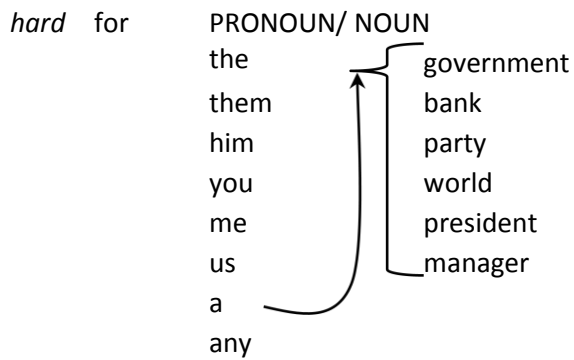
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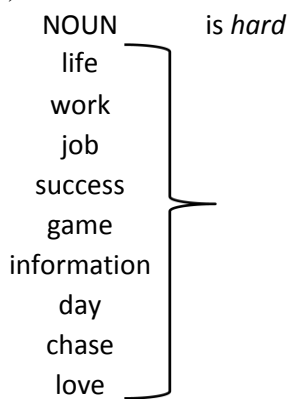
E)



F)



G)



H)

| | | | | | |
|------------|------|--------------|----------------|-----|---------|
| PRONOUN | had | PPV | <i>so hard</i> | inf | achieve |
| labour | have | worked | | to | get |
| lads | has | fought | | | avoid |
| mother | | tried | | | date |
| students | | become | | | find |
| others | | laughed | | | present |
| government | | concentrated | | | build |
| | | | | | keep |

I)

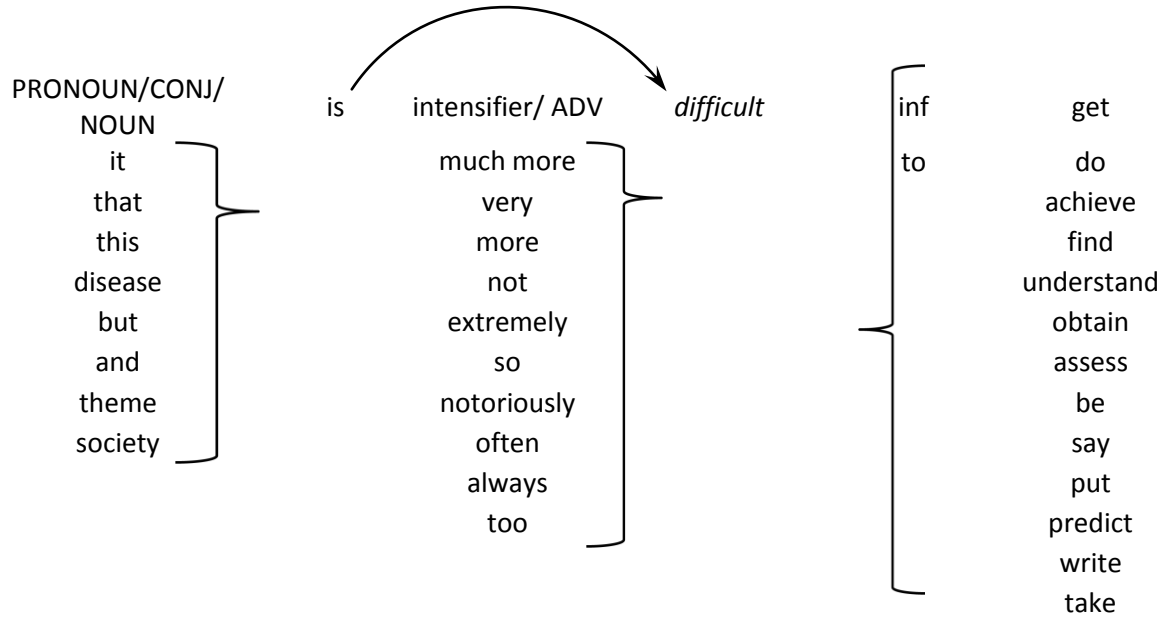
| | | | | | |
|------|--------|--------|------|-----|---------|
| NOUN | 've | worked | hard | inf | get |
| | have | | | to | be |
| | had | | | | give |
| | d | | | | build |
| | really | | | | keep |
| | never | | | | make |
| | always | | | | achieve |
| | | | | | gain |
| | | | | | bring |
| | | | | | come |
| | | | | | find |
| | | | | | improve |

J)

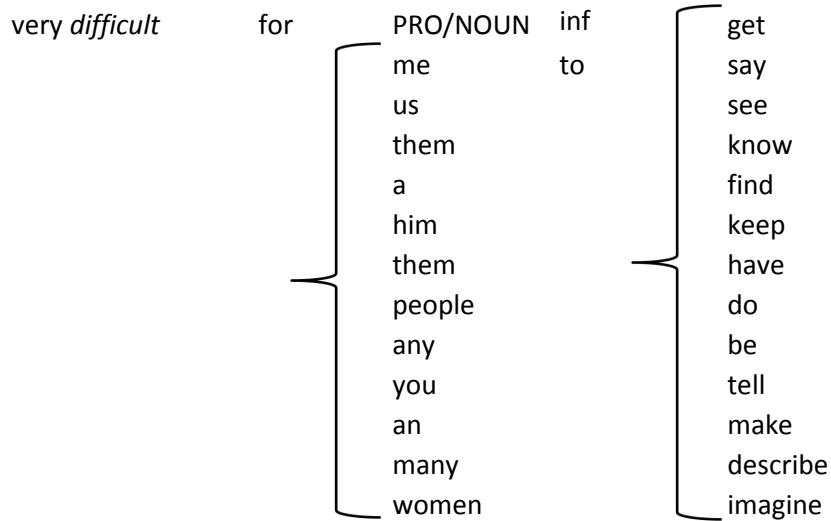
| | | | | |
|--------|----------------|-----|--|---------|
| NOUN | <i>is hard</i> | inf | | come |
| work | | to | | predict |
| city | | | | beat |
| ground | | | | get |
| day | | | | find |
| trith | | | | tell |
| wood | | | | resist |
| job | | | | |

Appendix 8 Grammatical Patterns for Difficult

A)



B)



C)

CONJ/DET/SAY

that
but
and
said
because
so
although
says
however
yet
though
which

PRO/NOUN

it
this
that
which
life
what
he
who
she
task
situation
really

is *difficult*

inf
to

see
imagine
know
say
find
believe
get
believe
understand
make
tell
think
assess

Appendix 9 Grammatical Patterns for *Challenging*

A)

a *challenging* NOUN
position
time
task
year
job
target

B)

both *challenging* and ADJ
attainable
emotionally draining
harmonious
exciting
worthwhile
demanding
satisfying

C)

a
most
more
an
the

ADJ
exciting
interesting
difficult
new
complex
stimulating
original
beautiful
important
rewarding
unique
fun
innovative
adventurous

and *challenging*