**Specific Study Materials:**

**Demographics:**

What is your native (first) language? (this choice will direct them to the full study in their native language).

Please tell us a little bit about yourself.

Please tell us your gender: male female other prefer not to say

Which year were you born? Please enter a four-digit year:

Please tell us your education level: less than High School diploma, High School, Associates or two year degree, University or four year degree, Masters Degree, Doctoral degree (please note these will be made culturally relevant for each language)

**Semantic priming task:**

This experiment is concerned with how people process words. You will be asked to view words and judge them. The words will be presented in the middle of the screen. You should ask yourself if the word on the screen is a real word or a fake word. If you recognize the word on the screen like **COLD**, please press the **KEY** key for real word. If the word is made-up nonsense, like **WERM**, please press the **KEY** key for fake word. During practice, we will give you feedback. We would like to ask you to respond as quickly as you can while remaining accurate. You have five seconds to respond to every word. Please press the **SPACE BAR** to try a few for practice.

(note the **KEY** will be manipulated between participants and based on the traditional keyboard for that language placing it by the Z and ? keys on a traditional QWERTY keyboard).

Please press **KEY** for a real word, and **KEY** for a fake word. (shown while competing the priming task wherein words are shown on the screen)

Great job! Remember you should use the **KEY** key for real words, and the **KEY** key for fake words. You will now complete the real task. Remember to go as quickly as possible while getting the correct answer. You will not see any feedback during this section. Please press the **SPACE BAR** to continue. (shown after practice and before the real trials).

Please take a short break on this screen. You may press the **SPACE BAR** when you are ready to continue. (shown after each 50-100 pairs to combat fatigue).

Thank you for completing the first part of the experiment. On the next screen, you will judge words for some of their properties to help us measure how these words are understood by native speakers. (a random section below will be shown).

**Word meaning task: (McRae et al., 2005)**

We want to know how people read words for meaning. Please fill in features of the word that you can think of. Examples of different types of features would be: how it looks, sounds, smells, feels, or tastes; what it is made of; what it is used for; and where it comes from. Here is an example:

duck: is a bird, is an animal, waddles, flies, migrates, lays eggs, quacks, swims, has wings, has a beak, has webbed feet, has feathers, lives in ponds, lives in water, hunted by people, is edible

Complete this questionnaire reasonably quickly, but try to list at least a few properties for each word. Thank you very much for completing this questionnaire.

**Age of acquisition task: (Kuperman et al., 2012)**

Please indicate (in years) the age at which you learned each of the words on the list. An approximate age is good enough for this rating. If you do not know the meaning of a word, please enter the **X** key. By “learning a word” we mean the age at which you would have understood that word if somebody had used it in front of you, EVEN IF YOU DID NOT use, read or write it at the time.

**Concreteness task: (Brysbaert et al., 2014)**

Some words refer to things or actions in reality, which you can experience directly through one of the five senses. We call these words concrete words. Other words refer to meanings that cannot be experienced directly but which we know because the meanings can be defined by other words. These are abstract words. Still other words fall in-between the two extremes, because we can experience them to some extent and in addition we rely on language to understand them. We want you to indicate how concrete the meaning of each word is for you by using a 5-point rating scale going from abstract to concrete. A concrete word comes with a higher rating and refers to something that exists in reality; you can have immediate experience of it through your senses (smelling, tasting, touching, hearing, seeing) and the actions you do. The easiest way to explain a word is by pointing to it or by demonstrating it (e.g. To explain 'sweet' you could have someone eat sugar; To explain 'jump' you could simply jump up and down or show people a movie clip about someone jumping up and down; To explain 'couch', you could point to a couch or show a picture of a couch). An abstract word comes with a lower rating and refers to something you cannot experience directly through your senses or actions. Its meaning depends on language. The easiest way to explain it is by using other words (e.g. There is no simple way to demonstrate 'justice'; but we can explain the meaning of the word by using other words that capture parts of its meaning). Because we are collecting values for all the words in a dictionary (over 60 thousand in total), you will see that there are various types of words, even single letters. Always think of how concrete (experience based) the meaning of the word is to you. In all likelihood, you will encounter several words you do not know well enough to give a useful rating. This is informative to us too, as in our research we only want to use words known to people. We may also include one or two fake words which cannot be known by you. Please indicate when you don't know a word by using the letter N (or n).

So, we ask you to use a 5-point rating scale going from abstract to concrete and to use the letter N when you do not know the word well enough to give an answer.

Abstract (language based) Concrete (experience based)

1        2        3        4        5

N = I do not know this word well enough to give a rating.

**Valence, Arousal, and Dominance task: (Bradley & Lang, 1999)**

**Diagram

Description automatically generated with medium confidencevalence**

**Diagram

Description automatically generatedarousal**

**Diagram

Description automatically generated with medium confidencedominance**

The study being conducted today is investigating emotion, and how people respond to different types of words.

We call this set of figures SAM, and you will be using these figures to rate how you felt while reading each word. SAM shows three different kinds of feelings: Happy vs. Unhappy, Excited vs. Calm, and Controlled vs. In-control. You will use these scales to make all 3 ratings for each word that you read. Please notice that each of the three feelings are arrayed along a different scale. The left panel shows the happy-unhappy scale, which ranges from a smile to a frown. At one extreme of this scale, you are happy, pleased, satisfied, contented, hopeful. When you feel completely happy you should indicate this by selecting the 1 on the left. The other end of the scale is when you feel completely unhappy, annoyed, unsatisfied, melancholic, despaired, or bored. You can indicate feeling completely unhappy by selecting the 9 on the right. The figures also allow you to describe intermediate feelings of pleasure, by selecting any values in the middle. If you feel completely neutral, neither happy nor sad, select the 4 in the middle.

The excited or calm scale is the second type of feeling displayed here. At one extreme of this scale you are stimulated, excited, frenzied, jittery, wide-awake, or aroused.  When you feel completely aroused, select the 1 on the left. Now look at the other end of the excited-calm scale, which is the completely opposite feeling. Here you would feel completely relaxed, calm, sluggish, dull, sleepy, or unaroused. Indicate feeling calm by selecting the 9 on the right. As with the happy-unhappy scale, you can represent intermediate levels of excitedness or calmness by selecting any other number. If you are not excited nor at all calm, select the 4 in the middle.

The last scale of feeling which you will rate is whether you felt controlled or in control. At one end of the scale you have feelings characterized as completely controlled, influenced, cared-for, awed, submissive, or  guided. Please indicate feeling controlled by selecting the 1 on the left. At the opposite end of this scale, you would select the 9 if you feel completely in control, influential, important, dominant, autonomous, or controlling. You can indicate feeling dominant selecting the 9 on the right. Note that when the figure is large, you feel in control, and that it will be very small when you feel controlled. If you feel neither in control nor controlled you should select the 4.

Please work at a rapid place and don’t spend too much time thinking about each word. Rather, make your ratings based on your first and immediate reaction as you read each word.

**Familiarity task: (Gilhooly & Logie, 1980)**

This is an experiment to find out how often you have come in contact with certain words. You will be given a list of words and you are to rate each one as to the number of times that you experienced it by simply writing down a number according to a 1 to 7 scale. In this scale, 1 represents “NEVER,” that is, you have never seen or heard or used the word in your life; the number 2 represents “RARELY,” that is you have seen or heard or used the word at least once before, but only rarely; and so on until 7, which represents “VERY OFTEN,” that is, you have seen or heard or used the word nearly every day of your life.

Do not be bothered if you are unable to give a definition of some of the words. Simply rate each one as to the number of times you have come in contact with it regardless of its meaning. There may be some words which you have used or heard more often than you have seen them. Or there may be other words which you have seen more often than you have used or heard them. In such cases, always give the word in the highest rating of the three. For example, you probably use or hear the word “cheers” often, but you may never have seen it in print. In this case, you would rate “cheers” as “OFTEN” and write down the number 6.

Go to the list of words and begin rating them at your own speed. This is not a “speed” experiment, each participant will be given plenty of time to finish. On the other hand, do not spend too much time on each word. The important thing is for you to be as accurate as possible. Be as honest in your ratings as you can. Many of the words in this experiment are very rare, so you are not expected to have come in contact with all of them. Just make the best estimates you are capable of.

**Iconicity task:**

For this task, we want to know how iconic you think words are. Some words are considered to be iconic; the word somehow sounds like what it means. For example, haha sounds like the sound made when you laugh. You might be able to guess its meaning even if you did not know the language. Other words are not iconic at all; for example, there is nothing ‘occasional’ or ‘frequent’ sounding about the word. If you did not know the language, you would not be able to guess their meanings. For each word that you will see, rate on a scale of 1 to 7 how iconic you think the word is, with 1 as not iconic at all and 7 as highly iconic. Say the words aloud before making their rating. For example, haha is very iconic and would be a 7; tree not at all iconic and would be a 1. Words that are intermediate in iconicity, of course, should be rated appropriately between the two extremes, for example with 3 or 4. If you do not know the meaning of a word, put in X. Work fairly quickly but be as accurate as possible in your ratings. Feel free to use the entire range of numbers, from 1 to 7; at the same time, don’t be concerned about how often you use a particular number as long as you are honest in your ratings.