

Psychological Distance in German and English Brand Language of Eight International Brands

Simone Griesser
School of Applied Psychology
FHNW University of Applied Sciences and Arts Northwestern Switzerland
Olten Switzerland
simone.griesser@fhnw.ch

Abstract

Language offers additional insights to sentiment and content. The same content can be described with psychologically close or distant language. According to the Construal-Level Theory (Trope & Liberman, 2010), psychological distance influences decision-making. Seven of the eight examined brands psychologically approach customers with their English brand language but psychologically distance themselves from customers with their German brand language on Twitter. Only one brand shows no psychological distance difference between their English and German brand language on Twitter. Implications on decision-making and brand positioning are discussed.

1 Introduction

Language has been analysed for sentiment and content. Approaching language from a psychological perspective, language may also be psychologically close or distant. For example, a brand message may read “*From dusk till dawn we have you covered*”. The message hints at enduring protection and security. With its vagueness the message is abstract and psychologically distant. Another way to communicate protection and security is as follows: “*Protects your feet from rain, mud, and ice*”. The second example is much more specific and concrete and, thus, psychologically close. Both examples talk about protection and security, yet in very different ways. Therefore, the same content can be described in a psychologically distant or close way. Psychological distance is important because it influences how customers process and store brand

messages in memory (Trope & Liberman, 2010). This, in turn, impacts customer preferences (Goodman & Malkoc, 2012), price perceptions (Bornemann & Homburg, 2011) and the attractiveness of the described brand offering in general (Liberman & Trope, 1998; Trope & Liberman, 2000; Todorov, et al., 2007).

2 Psychological Distance in English and German Brand Language

The Construal-Level Theory of psychological distance (CLT) (Trope & Liberman, 2010) offers a useful theoretical lens to analyse psychological distance in language. CLT is based on the common notion in social psychology that our minds process real world objects, such as brands, differentially depending on how psychologically close or distant they are in reference to here, now, and ourselves. Psychological distance has four dimensions: temporal, social, spatial, and hypothetical distance. The further away an object is in our minds from the here, now, and self, the longer it takes to mentally travel to this object and its context. The longer the ‘*mental travel*’ the more abstraction takes place and details specific to the object and its context are lost.

Psychological distance influences customer decision-making and is thus important for sales and marketing. When a choice is perceived as psychologically distant, such as selecting a restaurant for a Christmas dinner for example, customers prefer fewer options (Goodman & Malkoc, 2012), consider price as a quality indicator (Bornemann & Homburg, 2011) and focus on the attractiveness and desirability of the different options (Liberman & Trope, 1998; Trope &

Liberman, 2000; Todorov, et al., 2007). For choices that are psychologically close, such as for example deciding what to eat for dinner today, customers prefer more options (Goodman & Malkoc, 2012), view price as a monetary sacrifice (Bornemann & Homburg, 2011), and consider the feasibility of the options instead of their desirability (Liberman & Trope, 1998; Trope & Liberman, 2000; Todorov, et al., 2007).

2.1 Psychological Distance in Language

The psychological distance in language can be driven by any of the four interrelated distance dimensions (Trope & Liberman, 2010). Brand language may read for example “... *in store soon...*” or “... *in store tomorrow...*”. The word soon is psychologically more distant on the temporal dimension than the word tomorrow, because the latter uses a very specific time frame: the next day. Similarly, a “... *friend ...*” is much closer on the social dimension of psychological distance than a “... *colleague or boss ...*”. Spatial distance may be indicated with “... *there ...*” and proximity with “... *here ...*”. In the same vein, hypothetical distance is represented with words such as “...*unlikely, impossible, or improbable...*” and proximity with “...*likely, possible, or probable...*”. However, not every brand message includes language with clear psychological distance indicators such as those mentioned above.

2.2 Psychological Distance in English and German Brand Language

Brysbaert and colleagues have compiled a corpus with psychological distance ratings for 40,000 words in English (Brysbaert, et al., 2014). Similarly, Köper and Schulte im Walde (2016) have compiled psychological distance ratings for 350,000 German words. Psychological distance is an overarching language feature that can be found in any language regardless of language type, e.g., English or German. However, not every language has a large enough psychological distance dictionary corpus. Hence, the focus lies on English and German brand language as large enough corpora exist for these two languages.

A brand is a name, term, sign, symbol, design, or combination of each with the purpose of differentiating one company from another in the market place (Keller, 1993). Differentiation is thus key and brand communication plays a pivotal role in this differentiation process. Some brands have

developed their own designated brand language, also termed corporate wording, to ensure consistency in their brand communication and thus brand positioning. As consistency is important for effective differentiation from competitors, brands curate the same brand image and values across countries. For example, Nivea stands for quality yet affordable beauty products in both German- and English-speaking markets. Brand values are communicated with brand language. According to the brand positioning rationale, psychological distance should be the same for German and English brand language for a given brand. This prediction is tested with English and German brand language from eight internationally known brands from the Brandwatch report (Brandwatch, 2014).

3 Data and Methodology

Twitter is an important channel for brand communication due to its notable role in reaching customers and managing customer relationships. Therefore, brand language on Twitter is examined. The sample selection, data collection, data cleaning procedure, psychological distance scoring, and analytical approach are described next.

3.1 Data Sample, Collection, and Cleaning

The brand tweets were gathered on 13th January 2020 with a historical search using TwitterR from the R CRAN repository. Table 1 details the English and German Twitter handles from which 800

Brand name	English Twitter handle	German Twitter handle
DrOetker	@DrOetkerBakes	@DrOetkerDE
EON	@EONhelp	@EON_de
Lidl	@LidlGB	@lidl
Lufthansa	@lufthansa	@Lufthansa_DE
Nivea	@niveauk	@nivea_germany
Siemens	@Siemens	@SiemensDE
Tchibo	@TchiboShopUK	@Tchibo_presse
VW	@UKVolkswagen	@volkswagen_de

Table 1: Brands and Twitter Handles Examined

tweets per Twitter handle were scraped.

All brand tweets are stored within the R software environment. The text of the brand tweets was further processed as illustrated in table 2 with an example from Dr. Oetker from the dataset. In a first step, numbers, website links, emoticons, and special characters were removed from the tweets

Raw Data	Check out these Wooden Spoon Caramel Waffles, watch the melting middle when placed on your coffee! Shop here:... https://t.co/Asjl0cThGs										
Step 1	Check out these Wooden Spoon Caramel Waffles watch the melting middle when placed on your coffee Shop here										
Step 2	Check Wooden Spoon Caramel Waffles watch melting middle placed coffee Shop										
Step 3	check wooden spoon caramel waffles watch melting middle placed coffee shop										
Step 4	check	wooden	spoon	caramel	waffles	watch	melting	middle	placed	coffee	shop
	4,11	4,61	4,96	4,73		4,61	3,83	3,69		4,81	4,31

Table 2: Brands and Twitter Handles Examined

text. In step two, all stop words were removed from tweets with the packages `tm` and `NLP` from the CRAN repository in R. In step three, all letters were made lower case. This step only applies to English tweet text as German nouns start with a capital letter according to German grammar. In step four, the remaining linguistic content was replaced with psychological distance ratings. As table 2 illustrates, plurals or tenses were not changed, e.g., “*placed*” was not changed to “*place*”, or “*waffles*” to “*waffle*”. While such changes would allow more content words to be found in the dictionary corpus, the meaning of the original tweet text would also be changed and ambiguity added as the example of “*place*” illustrates. Place may refer to the noun, i.e. a location, or the verb, i.e. to position or hire something. Hence, no such changes were made to the tweet text. Step four, the psychological distance scoring, is explained in detail next.

3.2 Psychological Distance Scoring

For tweets in English a corpus was used entailing concreteness ratings for 40,000 words (Brysbaert, et al., 2014) that have been employed in published psychological distance studies (Hills & Adelman, 2015; Bhatia & Walasek, 2016). The concreteness ratings had been collected in a crowd-sourcing study (Brysbaert, et al., 2014). Given the nature of the task, detailed instructions and precise definitions about concrete and abstract words were given to participants. Concrete “...words refer to things or actions in reality which you can experience directly through one of the five senses” (Brysbaert, et al., 2014, p. 906). Abstract “...words refer to meanings that cannot be experienced directly but which we know because the meanings can be defined by other words” (Brysbaert, et al., 2014, p. 906).

These definitions relate well to the ‘*mental travel*’ notion (Trope & Liberman, 2010) according

to which people are unable to experience what is not present. Therefore, we need to abstract information in order to ‘*mentally travel*’ to a different context and be able to indirectly experience the absent context. The longer the mental travel, the more abstraction takes place and psychological distance increases. Therefore, abstract language is psychologically distant and concrete language psychologically close.

The rating scale was anchored with one (abstract, language-based) and five (concrete, experience-based). If participants felt that they did not know the word well enough, they could indicate this by ticking the option ‘N’ instead of giving a rating. Due to missing values and exclusion criteria, each word was rated between 25 and 30 times. As each word has been rated by at least 25 different people, the ratings contain less bias and are more objective. The language concreteness corpus is thus suitable to measure psychological distance in brand language.

For tweets in German a corpus with psychological distance ratings for 350,000 words was used ranging from zero abstract to ten concrete (Köper & Schulte im Walde, 2016). This corpus builds on the 2,654 German concreteness ratings from Lahl and colleagues (2009) and 1,000 German concreteness ratings from Kanske and Kotz (2010). These ratings have been supplemented with English concreteness ratings from (Brysbaert, et al., 2014) and the MRC database (Köper & Schulte im Walde, 2016) by translating the English words into German. These four sources provided an initial dictionary with 3,266 words which were mapped to all range from zero abstract to ten concrete. On the basis of this initial corpus, a machine learning algorithm computed the concreteness scores for the remaining words in the German dictionary corpus.

3.3 Analytical Approach

In a final step, the mean and median psychological distance scores per tweet were computed in order to have two complementary measures of dispersion because natural language data is not always normally distributed. The rating scale for the English corpus ranges from one abstract to five concrete, but the rating scale for the German corpus ranges from zero abstract to ten concrete.

The ratings for the English tweets were normalised to range from zero to ten. Prior to running the normalisation function, the minimum and maximum values of the original scale were temporarily added to the Twitter data to reflect the

full scale range of the original scale. The normalised data were further analysed for statistical significance.

4 Results

A repeated measure ANOVA shows that, on average, the psychological distance ratings for English brand tweets are significantly different from the average psychological distance ratings for German brand tweets ($F(1,7) = 14.06, p = .007$).

On a scale from zero (psychologically distant) to ten (psychologically close) English brand language is psychologically closer ($M = 5.00$) than German

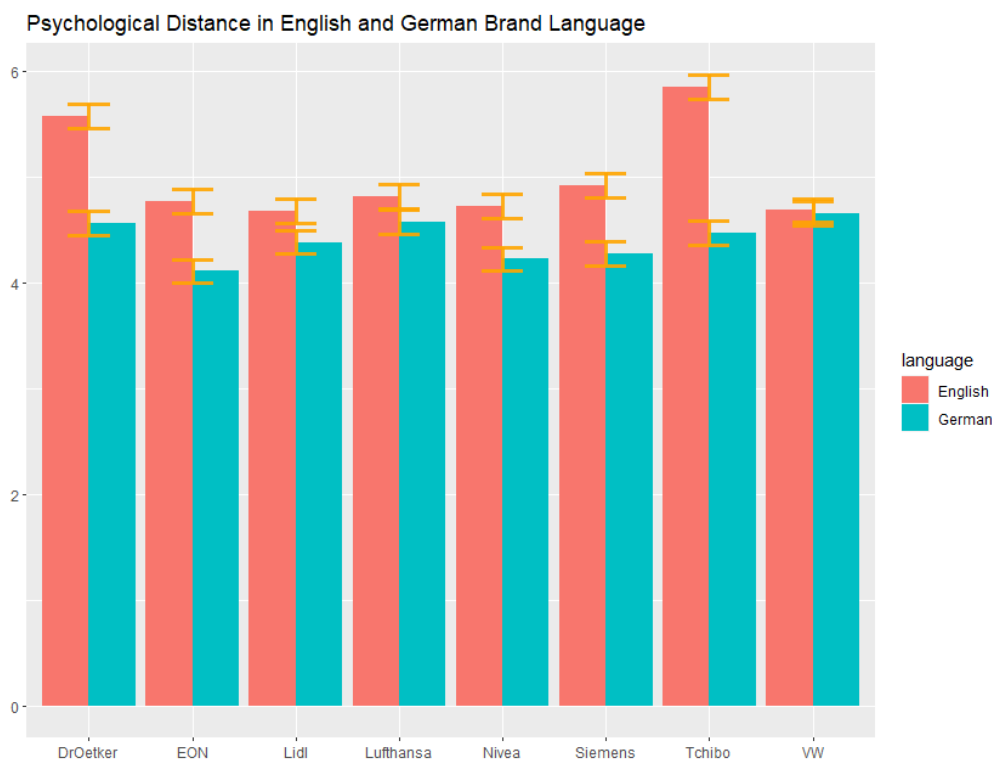


Figure 1: Mean Psychological Distance in English and German Brand Languages with Standard Errors of the Mean

Brand name	T-value	Mean English	Mean German	Difference between means	Confidence intervals for differences between means
DrOetker	18,04***	5.57	4.56	1.01	$0.86 \leq 95CI \leq 1.07$
EON	14,82***	4.77	4.11	0.66	$0.57 \leq 95CI \leq 0.75$
Lidl	5,66***	4.67	4.38	0.29	$0.17 \leq 95CI \leq 0.36$
Lufthansa	5,20***	4.81	4.57	0.24	$0.14 \leq 95CI \leq 0.31$
Nivea	11,37***	4.72	4.22	0.5	$0.42 \leq 95CI \leq 0.59$
Siemens	15,04***	4.92	4.27	0.65	$0.58 \leq 95CI \leq -0.75$
Tchibo	30,96***	5.85	4.47	1.38	$1.3 \leq 95CI \leq 1.47$
VW	0,97	4.68	4.65	0.03	$-0.04 \leq 95CI \leq 0.11$

*** $p < .001$, ** $p < .010$, * $p < .050$

Table 3: Statistical Comparison of Mean Psychological Distance in English and German Brand Languages

brand language ($M = 4.41$). The same holds true for the psychological distance median ratings ($F(1,7) = 5.43, p = .053, Me = 4.58, Mg = 4.38$). In order to examine whether the individual brands communicate differently in English and German, the psychological distance in English and German brand language has been compared for each brand separately. Figure 1 shows that, with the exception of VW, English brand language is psychologically closer than German brand language. Especially Tchibo and Dr. Oetker use psychologically much closer brand language in their English tweets than in their German tweets.

These differences have been tested for statistical significance by comparing the mean psychological distance ratings per English brand tweet with the mean psychological distance ratings per German brand tweet for each brand with paired t-tests. The rationale for using paired t-tests is that a brand is viewed as an entity that once communicates in English and once in German. The examined entities or brands, however, remain the same and are thus not independent of each other. According to the results in table 3, all differences between the psychological distance in English and German brand language are highly significant with the exception of the brand VW.

5 Discussion

Examining how eight international brands communicate on Twitter reveals that the majority do not consistently use psychological distance in their Twitter brand language. Only VW uses psychological distance consistently in their brand language and thus positions the brand effectively on Twitter. VW's brand language shows no psychological distance difference between their English and German brand language. However, the remaining seven brands, e.g., Dr. Oetker, EON, Lidl, Lufthansa, Nivea, Siemens, and Tchibo psychologically approach customers with their English brand language but psychologically distance themselves from customers with their German brand language. Therefore, these brands appear accessible and affordable in English but inaccessible and attractive, yet unaffordable, in German on Twitter.

By using different types of brand language, these brands weaken and potentially harm their brand positioning. Today's connected world is

likely to accentuate this effect as customers can easily view Twitter handles in different languages from the same brand. The investigated brands use the same brand name, logo, symbols, and colour for their Twitter handle. Therefore, they want to be perceived as one brand or entity regardless of the communication language. Otherwise they would have created a separate brand to sell their products or services within a brand portfolio. L'Oréal or Procter & Gamble, for example, have a large brand portfolio with different separate brands, some of them selling similar products.

For a brand conglomerate, such as L'Oréal for example, it would make sense to use psychologically close brand language for their affordable brands, e.g., Garnier, Maybelline, to position the brand as accessible and affordable. For their premium or luxury brands, e.g., Lancôme, Yves Saint Laurent, psychologically distant brand language would be more suitable to convey the brand's exclusiveness, attractiveness, and desirability (Trope & Liberman, 2010).

6 Conclusion and Further Research

Language offers additional insights to sentiment and content. Using the example of eight international brands, this research shows that brand language differs in terms of psychological distance. Psychological distance is important because it guides whether customers focus on feasibility or desirability considerations when reading the brand message (Liberman & Trope, 1998; Trope & Liberman, 2000; Todorov, et al., 2007), how many product or service options they like to choose from (Goodman & Malkoc, 2012) and how they perceive price indications (Bornemann & Homburg, 2011).

Given the pioneering nature of this research, there are a number of limitations and areas that warrant further investigation. The two dictionary corpora employed in this research differ in terms of compilation method and size. The German corpus builds on the English one but uses machine learning to generate more psychological distance ratings. Machine learning could help to augment the English corpus or create a psychological distance dictionary corpus for another language. Another limitation concerns the choice of brands. The selected brands are internationally known but originate in Germany. Further research should

compare these brands with brands that originate in Anglo-Saxon countries to examine a possible country of origin effect. Another fruitful area to explore is differences in psychological distance between the English and German language, and other languages, if more dictionary corpora become available, to examine the presence of systematic differences across languages and cultures.

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