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ATTITUDE MEASURING IN MEDIA COVERAGE

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Abstract

This article present an approach to elaboration of tools for measuring of attitude in media messages. Emotions hidden in single words can have significant influence on recipient of message. Therefore effort of compiling method and indices have been taken. Osgood's semantic differential and Likert's scale was main techniques considered in this issue and final thoughts were basing on them. Many different obstacles are indicated for future improvements of techniques and further elaborations.

Key words: media, communication, emotion, message

Introduction

Attitude of an author usually affects description of phenomenon, but is it possible to measure attitude? Unlike image which is social perception of a person, brand or sometimes even event, attitude is feature of only one part of society. If any part of society (political party, non-profit organization or media institution) has its own ideas and views about phenomena, it is almost always charged with some emotions. Each emotion – bad or good – has influence on how people use words describing phenomena.

Attitude measuring – main techniques

According to many linguistic researchers almost every language has affective meaning linked to majority of words. In Polish language there are a few parts of speech which can be emotionally charged: nouns, adjectives and verbs. One person can be described by many different people with different words or phrases and it almost every time differs according to someone's view about described object. The view that is a part of larger public image, but is fixed in individual mind.

In every language there is polarization of adjectives, which are usually paired in kind of bipolar juxtaposition. As in English "bad" and "good", "light" and "dark", the same pairs describe reality in Polish language. But there are some transitive adjectives that are relevant for transitive features of reality. The scale of adjectives between poles of range can be descriptive or can use some adjectives with stronger or weaker intensity. First kind of range consists of two polar qualities with opposed meanings and neutral point in the middle. The most intensive adjective can be described with additional adverbs like extremely and almost neutral – slightly. The same gradation in Polish

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language consist of “bardzo” to “lekko” or “słabo” (according to context gradation of adjective can use different adverbs for different adjectives).

Osgood in his article proposed method, which lets qualify emotional charge of word [1952, p.222]. Semantic differential can be useful if research determines how single words are presenting attitude of message sender. If any word needs to be evaluated whether has positive or negative connotation, method of semantic differential could be very helpful, because word and its referent can differ in meaning in every single mind, culture and nation. Sometimes one referent can be determined using different words with entirely distinct emotional charge. For example police officer can be called “policjant”, “pan władza”, “gliniarz” or “krawężnik”. Every single word is related to policeman, but each has different emotions linked with. “Policjant” is neutral name of profession, “pan władza” has positive connotation with kind of esteem and associating with power and hierarchy. Words “krawężnik” and “gliniarz” has scorning meaning and clearly negative connotation. Using semantic differential researcher can use multiple bipolar scales with extremely placed antonyms, because some words, phenomena or objects need more descriptive evaluation.

According to another Osgood's works every name can be also evaluated using three dimensions called EPA (Evaluation – Potency – Activity) [Osgood et al., pp.47-66], which Zahn and Hopper described respectively as Attractiveness, Superiority and Dynamism [1985, pp. 113-123]. Both classifications are related to emotional perception of examined name. Evaluation or Attractiveness are applying to fact if word is perceived as good or bad, positive or negative. Superiority and Potency correspond with qualities such as strength (in opposition to weakness), size and amount of power. Third dimension (Activity / Dynamism) is related to description of energy in word, for example whether object is calm or noisy, passive or active.

Single word described using three Osgood's EPA dimension can be qualified to different category consisting of three factors with one of two opposing values. As an example could be considered words “baby” and “murderer”. The first one is positive, powerless and passive, but the second is negative, powerful and active.

Semantic differential can be applied to attitude measuring, but analysis should be provided using multifactorial scaling. By applying several oppositions to evaluate word researcher can obtain median value, which is applicable to describe attitude.

Another technique which lets researcher to evaluate attitude manifested in speech is Likert scale. Rensis Likert was American social psychologist, who investigated American society after Second World War about people's attitude to African Americans and USA imperialistic policy [1932, pp.5-55]. He used scale consisting of 5 points with assigned statements. Every statement had numeric value assigned for possibility of measurement. Nowadays there are some modifications of Likert scale. Different publications recall 7 or 5 point scales. More points on scale can be perceived as possibility to make more gradated evaluation of attitude. According to numeric assignation of values, there are also two ways of assigning. Original scale in Likert's survey had only positive values from 1 to 5 and from 2 to 4 in several questions with 3 point scale. In recent researches more often used scale has values from -2 to 2 (in 5 point scale) and from -3 to 3 (in 7 point scale). Zero point of scale is understood as no opinion or neutral attitude.

Approach to evaluating statements in media coverage

In media message coverage as was previously said, there are more aspects to evaluate. If there is a need to examine message's author's attitude to person or phenomenon, the entire message should be examined. In Polish language not only nouns can have emotional charge, but also adjectives and verbs.

For examine group's perception of a person etc., Semantic differential should be more useful, but when single researcher or even small research team have to check how

exact an author of statement approaches to specific things, more useful could be Likert scale. By using well-constructed 5 or 7 point scale results can be considered as quite objective or intersubjective.

The method that is proposed in this article uses balanced emotional value of media message. First step of procedure is careful check of every single word and idioms occurring in message. If word contains any kind of emotional charge or affective meaning, it should be marked and evaluated. Every evaluation has to be made basing on Likert scale containing positive and negative values. It is important whether evaluated word is corresponding to examined phenomena, because not every statement of message has to be related to research object. Of course emotional value of message can be also checked, but it can give results in totally another aspect of communication.

Using 5 point scale can be useful for less complicated analysis, but to evaluate wider range of emotions a researcher can use 7-point scale. Omitting neutral words with no negative or positive connotation, the rest of research qualified material should be evaluated. Chosen range of scales has to be carefully accordant to research goals.

After selecting and extracting affective words, every word is ready to evaluative analysis. Basing on semantic differential scales point of scale can be specified as:

- Extremely bad/good connotation;
- Quite bad/good connotation;
- Slightly bad/good connotation;

If 7 point scale was selected for analysis, these three elements for negative and positive can be respectively, but there is need to choose exact gradation if scale with smaller range is chosen. For every point of scale researcher has to assign numerical value in both positive and negative range from -2 to 2 (for a narrow range scale) and from -3 to 3 (for wider range scale).

After evaluating previously extracted material all words or idioms have to acquire mathematical value. Every word that is not related to research object assumes value of zero. Idioms have to be treated as a single word for evaluating, but for later calculations counting single words is recommended.

What is the purpose of all these calculations? A few interesting facts about speakers can be specified. First of index to be proposed in this article is simply affective words balance in message. This value is a sum of negative and positive values assigned for examined words. But it could be not very useful if research procedure does not consider the length of message. Long screed about some subject can have the same balance of affective value as short comment about the same thing. Next thing that should be considered therefore is the size of message.

If volume of text is taken for consideration, another problem appears. For measuring attitude to specific object (person, phenomenon), only this object's referents and determinants are evaluated. What about every single word with emotional charge, but not corresponding to research object? Determining how strongly saturated with affective words is entire message could be troublesome. First and the least complicated aspect of affectivity can be described as ratio of neutral words and charged words, but also charged words to all words in message. If researcher takes all volume of speech, calculated ratio can be considered as adequate index, because sometimes fiery speech could be full of elements with negative or positive values and ratio can illustrate blurring or sharpening of affective speech according to speech length. For less emotional speeches ratio would strives toward zero and for most emotional toward one.

Considering ratio between charged and neutral words there is a need to construct some kind of scale for describing results. Unlike in first of proposed indexes this time results are not percentiles (they are not between 0 and 1). At first it can be noticed that according to quantity of charged words this index can be bigger or smaller than 1. If its

value is less than 1 it means that there are more neutral words and if value is more than 1, charged words outbalance.

Getting back to the first proposed factor there is a need to reconsider if simple sum of affective words is even suitable for measurement. When there is a long speech with many affective, but low intense words, affective value balance can have the same result as short (even two sentences long) speech with highly charged adjectives. Of course intensity of second statement has significant meaning, but there can be inconsistency of measurement. Calculating 20 words in 100, which each has intensity value equal to 1, give summary value of 20. 20 points value also can be a result of 20 word long statement with 6 high intense word and 1 medium intense. In this case very moderate statement can be evaluated with the same result as extremely unfavorable statement consisting of 3 sentences. On the other side if statement has a lot of low intense negative words and several high intense positive, balance can be calculated as positive despite critical nature of statement.

Above issues show that simple balance is not proper way to reveal real attitude of text. Another way to evaluate media message can be balance of averages. After assigning values for all affective words in text researcher should calculate average value respectively for negative and positive values. That order of mathematical operations can assure that final value of evaluation is between extreme values of Likert scale considered as evaluative research tool. Of course there is also simple difference between Likert scale and evaluation result, because it can have fractional format.

For example if there are numerous, but low intense positive words and some medium intense, average value of positive words should be between 1 and about 1,5 points. When there are also many negative statements, evaluation of them according to their intensity can have for example from -2 to -3 points. And then balance of averages can be done to determine average attitude. Having exemplary averages 1,23 for positive words and -2,18 for negative words, total balance of attitude is equal -0,95, which means that it is rather moderate critical, negative in its significance.

One of more problematic issues in evaluating of words in text or speech are idioms. This part of language is problem not only for translator, but considering attitude measurement it has to be reconsidered as well. Wordings “went south” in English or “wąchać kwiatki od spodu” in Polish are good examples for that issue. If researcher takes “went south” as two independent words, both of them could be evaluated as neutral, but evaluation of idiom is rather negative because of its meaning. And the same situation takes place with Polish idiom, which consist of 4 neutral words, but it is a scornful way to say about somebody's death, which is doubtlessly negative in meaning.

Is there any way to eradicate this problem? Probably the best way is to revise semantical meaning of sentence after evaluation of single words. In cases when idioms or phrasal wordings are present in sentence, words which comprise examined wordings should have values assigned according to value of wording.

Revising above consideration there are three proposed indices which can be used to evaluate attitude in text or transcription of speech. They are designed to check all integral message which can be transmitted by media, but are not applicable for examining attitude to people, things or events without changes. Although these three indices are as following.

1. Percentage of affective words.

$$a^{W} = \frac{W^{\pm}}{W}$$

W – quantity of words in examined text

$W^{\pm}$ - quantity of words evaluated as affective charged

2. Affective words ratio.

$$a^{Wr} = \frac{W^{\pm}}{W^{0}}$$

$W^{\pm}$ - quantity of affective charged words

W^{0} – quantity of words evaluated as neutral

3. Balance of bipolar averages.

$$a^{\beta} = \overline{w^{-}} + \overline{w^{+}}$$

w – value of examined word

a^{β} – sum of arithmetic means of positive and negative values respectively

Attitude to phenomena

As was previously said above indices can be applied for messages in media without differentiation between words corresponded to different phenomena. Process of extracting words and phrases related with certain phenomena can be more difficult than evaluating the message, because some wordings can be related to more than one phenomenon, but to set of referents which tested phenomenon can be part of. In this case it could be possible to determine if value is assigned to phenomenon, because of category in which it exists or if phenomenon is a reason why category has affectively charged connotations.

It is possible to differentiate source of connotations in this kind of issues using weighted average. Weight of source has to be assigned to different source of connotation. It can be for example 2 for words which referent is not dependent of individuals or groups, 1 for words which connotation is specified for group containing referent and 3 for words which connotation is specified by individual. The third weight can represent force of influence of single person or things that can transfer their values and connotation to categories of concepts.

Of course connotations are strictly related to culture, specific socio-political conditions and personal predispositions of researchers. Therefore any attitude researches shouldn't be done by single person. Literally attitude of researcher can disturb attitude test and give false, not recurrent results.

Most adequate test results could be achieved by computerized analysis, but also in this case software used in researches can be "contaminated" with programmer attitude, so there should be a lot of attention paid for multiple control test of software, if software tool is developed for specific use in attitude researches.

In manually performed researches team of coders should be precisely trained to extract emotionally charged words and wordings and to apply adequate value to tested words. Of course not every word is affective and coder shouldn't fall into trap of evaluating every single word in tested message. If attitude tests based on message would be verified as reliable research, there could be need to elaborate some kind of vocabulary. This vocabulary should have affective values of words described and even popular wordings and phrasals evaluated too. With this kind of vocabulary, which of course can be also treated as batch library for proper software, coding can become faster and more effective. But there is also one more problem, because values (connotations) of spoken and written language can change according to current socio-political situation and also according to different societies which can be treated as bigger community. Some words can have pejorative meaning in Silesia, but can be neutral in another part of Poland. Attitude researches should be scalable to context. If media in which message is transmitted are nation-wide, connotations should be evaluated in reference to national language in its more common shape. Otherwise when message is transmitted by local, regional, environmental newspapers or broadcasts, context should be considered and

respectively ethnolect or sociolect with its specific connotations which should be applied for research.

As described above, attitude researches is not simple to conduct, but also has many obstacles in planning. A foregoing article is at this moment only theoretical consideration about possibilities, which hasn't been used in practice yet, but there is a big need to apply it in real test to compile exact instructions and define comparative scales to check and indicate specific results meaning.

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