USE OF THE STEREOTYPE CONTENT MODEL
IN DESCRIBING WORK GROUPS IN POLAND

In this study, the Stereotype Content Model was used to determine if work related out-group traits represented on Competence and Warmth dimensions would be helpful in describing Polish work groups and potential interactions that may occur between them.

The study was performed on a group of 98 participants.

Taken that the Stereotype Content Model is based on stereotypes within intergroup function and analyzing this study results in the conclusion that by using the SCM, it is possible to effectively describe and observe out-group interactions in the Polish work environment.

Key Words: Stereotype Content Model, SCM, Polish sample, prejudice, discrimination, stereotypes.

In this study we aim to prove that the Stereotype Content Model developed and described by Fiske, Cuddy, Glick, and Xu, in 2002 in the article titled “A model of (often Mixed) Stereotype Content: Competence and Warmth Respectively Follow from Perceived Status and Competition” is a useful tool for gathering and interpreting data about social groups existing in Polish society. Our goal was to test a group’s division into work related groups on two dimensions of the Stereotype Content Model and check if results gathered are according to stereotypical views about members of those groups in Poland.

PREJUDICE AS AN EFFECT OF OUT-GROUP STEREOTYPING

When describing prejudice, there are many ways of defining this social fact (Plous, 2003), and the majority of scientists agree that it involves a pre-
judgment, generally negative, about a group or its members; it is not only stating an opinion, but an attitude that includes feelings such as contempt or dislike (Fiske, 1998; Jones, 1997; Nelson, 2006). As for stereotypes, they are described as strongly related to prejudice and discrimination (Nelson, 2006; Dovidio, Britham, Johnson, Geartner, 1996). To describe prejudice, almost all authors use term “group” to describe interactions among people (Nelson, 2005; Fiske et al., 2002; Allport, 1954; Aronson, 1999). To describe it better, social psychologists coined the terms “in-group” and “out-group” to define social relations that could result in social tension. Authors such as Susan Fiske argue that stereotypes emerge out of groups’ relative status and out of their structural interdependence—whether the out-group is viewed as being in a competitive or cooperative relation with one’s own (Fiske, Cuddy, Glick, 1999).

The term out-group is used to describe other people that do not belong to our in-group and could be seen as threatening to someone’s group. Out-group members’ traits are usually simplified using even one common factor that differentiates them from in-group members—e.g. race, age, work role.

Forming negative feelings about out-group members could be a form of evolutionary markings in people’s psyche, as some evolutionary psychologists suggest it is a natural process for animals to form a positive attitude toward genetically similar organisms, and to show fear and aversion toward organisms genetically different even if they have never shown hostile intentions toward them (Buss, & Kendrick, 1998). Prejudice as an affect was to be defined by theorists such as Allport (1954), whose main assumption is that “prejudice is seen as a strong negative feeling about someone based on a generalization one has about that person’s group” (Nelson, 2006, p.8). Prejudice-as-emotion is now less likely considered by researchers (Nelson, 2006).

Recent research approaches to prejudice presents a tripartite view of attitudes, and prejudice is defined as comprising three components: cognitive, affective, and behavioral—that is stereotype, emotion, and discrimination (Fiske et al., 2007a). It seems that biases are formed on an affective basis, but they are not always converted into behavioral reactions.

**COMPETENCE AND WARMTH: TWO DIMENSIONS OF STEREOTYPE CONTENT**

Allport defined prejudice as “a uniform antipathy or contempt toward an out-group across a variety of dimensions” (Allport, 1954). In other words, victims of prejudice are only people belonging to out-groups that are stereo-
typically viewed negatively and any positive assumption about them steams from “modern egalitarian ideas” at most (Fiske et al., 2002). By defining two basic dimensions of competence and warmth, the Stereotype Content Model allows us to capture more precise data than just negative opinions about out-group members and create much more accurate to interpretations of stereotype content in today’s society.

The Stereotype Content Model can be summed in three points:

1. There are two primary dimensions of stereotype content—competence and warmth
2. Frequent mixed clusters combine high warmth with low competence (paternalistic stereotype), or high competence with low warmth (envious stereotype)
3. There are distinct emotions differentiating four Competence X Warmth combinations (pity, envy, admiration, contempt)

The first studies on stereotyping by Katz and Braly in 1933 required describing different racial groups (Germans, Italians, Negroes, Irish, English, Jews, American, Chinese, Japanese, and Turks), using 84 adjectives, although in this early research no dimensions were assumed to exist. When going through the adjective list for this study we could find adjectives that would be positive, e.g. brilliant, sophisticated, kind; and negative, e.g. lazy, cruel, rude. This observation can be interpreted as an early basis for two dimensions that would describe out-groups, or as described in following years, state where all groups or individuals are judged on a positive-negative continuum (Allport, 1954; Aronson, 1997). Finding two primary dimensions required systematic research and establishing reliable methodology proven to differentiate out-groups on those dimensions, and what is in this case essential showing significant differences between out-groups. Competence and warmth dimensions were later proven to exist by Rosenberg, Nelson and Vivekanathan in 1968, using multidimensional scaling (they were named: social desirability and intellectual desirability). Two dimensions were examined and described by Fiske, Xu, Cuddy, and Glick in 1999. In their study, Fiske et al. (1999, 2002, 2007a, and 2007b) confirms the existence of competence—warmth dimensions and describes how those dimensions differentiate out-groups (see Figure 1).
The Stereotype Content Model differentiates out-groups into two frequently mixed clusters. That leads to the two most common stereotypes, which are paternalistic stereotype and envious stereotype.

Competence and warmth combinations result in four different emotions, assigned to positions on a two dimensions scale. Pity characterizes people who are perceived by others as non-threatening to one’s in-group, it is so because members of those groups are perceived as lacking competence, but high with positive social emotions, e.g. disabled, elderly, housewives (Fiske et al., 2002). Envy characterizes member of out-groups perceived as threatening to in-group that one might be part of, and those people are seen as highly competent, therefore dangerous to in-group (e.g. socially), they are lacking positive social emotions commonly assigned to those out-groups, which are e.g. Jews, rich people, feminists. Contempt characterizes out-group members that are incompetent and lacking social positive emotions, e.g. welfare recipients. Admiration generally characterizes in-group members, or out-group members highly competent and noncompetitive with the in-group.
Taken that the SCM was proven to effectively characterize out-groups using two dimensions (Eckes, 2002; Clausell, Fiske, 2005; Fiske, Cuddy, 2006; Fiske, Cuddy, Glick, 2007a, and 2007b), Fiske et al. transformed the Stereotype Content Model into the BIAS Map (Cuddy, Fiske, Glick, 2008). The BIAS Map shows how the location on competence-warmth map of stereotypes predicts the bias that certain out-group members are likely to experience.

Authors present the point of view in which there are not only two dimensions (warmth and competence), but also two variable status and competition that are also helpful in predicting dimensions of stereotypes (Fiske et al., 2002 and 2007a). They assume that between two dimensions and two variables, there should exist correlations indicating that the status variable should predict high competence, and competition predicts low warmth.

**Paternalistic and Envious Stereotypes**

These types of mixed stereotypes are observed on competence-warmth dimensions, when low results on the competence scale are accompanied by high results on the warmth scale (Fiske et al., 2002). The group toward which paternalistic prejudice is directed could be portrayed as disrespected but pitied. These stereotypes show race, age, dialect and gender prejudice. What is important in cases of paternalistic mixed stereotypes is that negative pre-judgments may be accompanied by highly positive attitudes like compassion, sympathy e.g. paternalistic pro-black attitudes (as described by Jackman in 1994—European colonialism was justified by the stereotype that other races are in need of guidance and help of the superior European culture). This prejudice is less obvious to spot because it can be often seen as deeply pro-attitude, even concerned about out-group members.

Among many groups, elderly people are often to be found as victims of this prejudice (Fiske et al., 2002; Cuddy, Fiske, 2002; Nelson, 2004; Wilkinson, Ferraro, 2004). When it comes to elderly people, they are seen as harmless and kind; requiring sympathy and help from other groups—this illustration lacks positive competence related descriptions. A very good example in literature on this stereotype is the about black people presented in the novel “Uncle Tom’s Cabin.”

Envious stereotype. This type of mixed stereotype characterizes out-groups that are perceived as highly competent and emotionally cold (Glick, Fiske, 2001). Typical out-groups that fall into this stereotype are Jews, feminists, and Asians (Fiske et al. 2002). Those out-groups are considered socially
absent and at the same time seen as threatening to the majority because of
their high competence, hardworking and ambition (Fiske et al. 2002). Using
literature, a description to picture people toward which an envious stereotype
could be presented would be one of the evil characters from the James Bond
book series (often the powerful, unstoppable, businessman or secret agent).

THE CURRENT STUDY: PROBLEM AND HYPOTHESES

Our study’s main goal is to replicate the study by Fiske, to check if two di-
mensional model fits into a Polish sample of work groups and also to de-
scribe basic work related stereotypes functioning on the Polish labor market.
In this study we used the method developed by Fiske et al. (2002), “often
mixed the Stereotype Content Model” (the SCM), including the Competence
and Warmth Scales (with translated items—by the author), to make it more
efficient and guarantee its complementary in the Polish environment. We
made some adjustments in the data gathering process and added a few more
questions to the basic test used by Fiske et al. The reason for this was the
lack of reliable data from our Polish university background to be based on in
this case (with the exception of the European study about discrimination per-
formed for the European Commission—Eurobarometer, 2007).

The main question of this study was whether the SCM could be a useful in
gathering data about stereotypes and group interactions on the Polish sample?
To answer this question we used the SCM method developed by Fiske et al.
(2002). To be sure that by using this method we will be able to answer this
main research question, we have to check if by applying the SCM to the Polish
social environment, it would be as fully functional as it was with the U.S.
samples (Fiske et al., 2002; Fiske et al. 2007a; Cuddy et al., 2008). That is
how we made the three hypotheses for the perceived results of our study:

1. Competence and warmth dimensions differentiate out-group stereo-
types for the Polish sample.
2. Numerous stereotypes will include mixed ascriptions of competence
and warmth, defined by low ratings on one dimension matched with
high ratings on the other.
3. Stereotype views of some out-groups will describe them as compe-
tent to the extent where they are perceived as powerful and of high
status; other out-groups will be described as warm and nice to the ex-
tent that they don’t compete with others.
METHOD AND SAMPLE

To obtain data that would be useful in comparing the SCM results from the US sample and the Polish sample, we translated the SCM items. Also, we replicated the pilot study process to gather work groups that would be used in our study.

We decided that because of our study profile (work groups interactions), we had to choose a specific group of participants. The four groups interviewed in this study were chosen to check if work related stereotypes (represented on the SCM results) are stable in Polish society. Therefore, we asked high school students to see if work stereotypes would be present in young generation not yet active on the Polish labor market. Next, university students were interviewed to see if work stereotypes were stable during the process of higher education. Also included people actively working and recruitment employees to check if stable work stereotypes are present in the work environment.

PILOT STUDY

To find what work related groups would be more noticeable in the Polish work environment, we asked 20 students (psychology students from the Catholic University of Lublin), to list as many work related groups they find noticeable in the Polish work environment. The instruction was read out loud: “Please write down any work groups that come to mind, that you think exist in Poland, and in your judgment are more noticeable than others. Keep in mind to write down a minimum of 10 and maximum of 20 groups.”

Next, steps were taken to create a list of 39 groups which would then be presented to 3 different groups of people, high school students, university students (undergraduates), and people actively working (non-students).

All three groups were given same test with all 39 work related groups, asking them to mark a minimum of 8 and maximum of 20 out-groups listed, that are more noticeable in comparison to others, and if they are willing, to add any groups they personally would see as important but not yet listed.

A group of 20 students was tested in Lublin (mean age = 21.85 years), including 9 females and 11 males. All students were chosen randomly, they were completely unaware of the hypotheses and did not know the purpose of this research. Most participants finished their questionnaires in about 10 minutes.
Another group of 28 high school students was tested in Cracow. They were randomly chosen from pedestrians and asked to fill out a questionnaire. They included 18 female and 10 male students (age mean = 17.68 years). This group was also unaware of the hypotheses and did not know the purpose of this research.

A group of 17 actively working people (non-students) was tested in Katowice, and they were randomly chosen from two different companies in that city (the first was a privately owned food distribution company, the second was an office supplier). They were 12 females and 5 males (age mean = 39.12 years). As with the previous two groups, this group was also not informed of the hypotheses and did not know the purpose of this research.

After summarizing all questionnaires, we eliminated all out-groups that had occurred in less than 10% of cases in the total count. In this way we separated 28 different out-groups used in this study. For the purpose of another study, we added a 29th out-group (not listed previously), “45 year old persons”.

MAIN SURVEY METHOD AND SAMPLE

Using 28 out-groups obtained from the previous study, plus the 29th group of “45 year olds”, the main test was created. In this test we used translations from items used by Fiske et al. in the 2002 study. Each test had all 29 out-groups listed in alphabetical order. At the beginning, all participants were instructed: “You are about to fill out a psychology test about work groups in Poland. There are alphabetically listed professions, please answer all questions concerning each profession.” After every out-group name there was a question asking: “As viewed by society, are members of this group: competent, independent, intelligent, confident, tolerant, warm, honest, nice?” There were 4 questions for each dimension (competence-warmth), and the respondents marked their answers on a scale from 1 to 5, where 1 meant “not at all” and 5 “very much” (or “extremely”—depending on the translation). Next, there were 6 questions about the perceived status and competition.

Participants were divided into four groups of high school students, university students, actively working, and recruitment specialists. Thirty one high school students were examined in Cracow—11 female and 20 male students (mean age = 18 years). Twenty two university students were examined in Lublin—12 female, 10 male (mean age = 22.82 years). They were Catholic University of Lublin students from different psychology courses. Actively
working groups were all members of a company situated in Katowice (the Silesia region in Poland). Twenty five participants took part in this study, but because of many blank positions in one test, 24 tests were taken for further calculations. In this group, there were 14 female and 10 male participants (mean age = 39.83 years). Last was a group of 26 recruiters, who were employed in 2 different recruiting companies in Warsaw. Because of data shortage in 3 questionnaires and that 3 tests were not returned, 20 tests were taken for further calculations. Thirteen female and seven male participants filled out their questionnaires correctly (mean age = 39.25 years).

In total, 97 participants took part in this study’s final stage, their mean age was 28.85 years, there were 50 females and 47 males. They were all tested in groups, all at the same time. All groups received same version of the questionnaire, and they finished it in a similar time period (maximum 1 hour).

RESULTS

First, we conducted 39 factor analyses (one per work group). These calculations showed from three to five factors, in most cases four factors were shown to exist and these formed scales: competence, warmth, competition, and status.

Next, we calculated the means for every item from all participants (accordingly to Osgood’s method). In this calculation we narrowed to four factors to be calculated. After calculating four factor analyses for all items, we omitted the item asking about the economical status of group members, by doing that all remaining items showed more consistent results (See Table 1).

For further calculations, we used items that would fill only one factor. In this way, four consistent factors were named the same as Fiske et al.’s (2002). The Warmth factor was best described by items Warm, Nice, Tolerant (three from four items for this study, the item Honest was correlated with two factors Warmth and Competence, and was omitted); The competence factor was described using items Competent, Intelligent, Independent, Confident (all four items used for this study); the Status factor was described using items asking about placate comparing to the rest of society where group members are situated in Polish society (Situated), and Prestige (Education was also part of this factor but it fell under the Competence factor as well so it was omitted); the last factor was Competition, described by items Social Support and Privileges.
Table 1. Factor Loadings for Four Factors

<table>
<thead>
<tr>
<th>Item</th>
<th>Warmth</th>
<th>Competence</th>
<th>Status</th>
<th>Competition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm</td>
<td>.913</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nice</td>
<td>.886</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tolerant</td>
<td>.868</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honest</td>
<td>.669</td>
<td>.542</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competent</td>
<td>.795</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intelligent</td>
<td>.756</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent</td>
<td>.681</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confident</td>
<td>.447</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Situated</td>
<td></td>
<td>.854</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prestige</td>
<td></td>
<td>.767</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>.576</td>
<td>.604</td>
<td></td>
<td>.845</td>
</tr>
<tr>
<td>Privileges</td>
<td></td>
<td></td>
<td></td>
<td>.845</td>
</tr>
<tr>
<td>Social Support</td>
<td></td>
<td></td>
<td></td>
<td>.824</td>
</tr>
</tbody>
</table>

Rotation method–Varimax with Kaisers’ normalization.

To examine the structure of two-dimensional space (competence x warmth), we conducted hierarchical cluster analyses to determine the best fitting number of clusters. Then, we conducted $k$-means cluster analyses to determine which group fell into which cluster. After $k$-means analysis we chose a six cluster solution as best describing group assignments among competence-warmth dimensions.

Four clusters did not vary much on the warmth scale, but they mostly appeared on competence dimension. The group with the lowest competence could be described as combining socially contempt work roles, (Cleaning ladies, the Unemployed). Two clusters in the middle of the diagram are mostly public sector based job types, and they can be described as “respected” (Nurses, Priests) and “disliked” (Military, Coalminers). They do not differ on the competence scale but the difference on the warmth scale is easily noticeable. The fourth cluster could be described as “business related” and it represents the most competent groups of job types.

Two other clusters were “coldest”—one with work groups representing Police officers and Bailiffs. The “warmest” cluster was with Students and Artists (see Figure 2).
To see if warmth—competences differentiated groups to the point where mixed stereotypes would occur meant that all six clusters were calculated. Only one out of six clusters showed significant differences between cluster scores on competence and warmth (it was the first cluster including Police officers and Bailiffs).

After this we checked the t-test for individual out-groups comparing Warmth Competence ratings for each of the 29 groups. Nineteen groups were rated more competent than warm. Ten groups were rated more warm than competent.

Finally, to check the existence of social structural predictors of a group’s places in the trait space, we calculated correlations between two dimensions, competence-warm and two variables, status and competition. Two proce-
dures were used. First, the group level procedure was conducted, we averaged trait and social structure ratings across participants for each of the 29 work groups. We next entered each group’s mean ratings for correlation analyses. The individual level procedure examined correlation between traits and social structure for the 29 work groups separately for each individual participant, and then participants’ correlation coefficients were averaged within the sample (See Table 2, and Table 3). When calculating individual level correlations, they were converted to Fisher’s $z$ scores, averaged, then reconverted to correlations. Percentages on an individual level are the percentage of participants for whom that correlation was significant (all calculations were conducted in the same way as Fiske et al. 2002).

Table 2. Correlations between Traits and Predictors on Group Level

<table>
<thead>
<tr>
<th>Variable</th>
<th>Warmth</th>
<th>Competence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>.189</td>
<td>.934**</td>
</tr>
<tr>
<td>Competition</td>
<td>.151</td>
<td>.703**</td>
</tr>
</tbody>
</table>

** $p < .01$

Table 3. Correlations between Traits and Predictors on Individual Level

<table>
<thead>
<tr>
<th>Variable</th>
<th>Warmth</th>
<th>Competence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Correlation</td>
<td>Percentage</td>
</tr>
<tr>
<td>Status</td>
<td>.15</td>
<td>24%</td>
</tr>
<tr>
<td>Competition</td>
<td>.05</td>
<td>26%</td>
</tr>
</tbody>
</table>

* $p < .05$, ** $p < .01$

A high correlation of status and competence on both group and individual levels can be observed. But opposite to assumptions made earlier, competition does not negatively correlate with warmth.

On a group level, results did not vary significantly. When calculating results separately for each group of participants, only some work groups changed their places among six clusters. Group movements were minor and analyzing overall results, they did not vary significantly between four tested groups of participants.
DISCUSSION

Summarizing, in this paper we argue the existence of two differentiating dimensions—Warmth and Competence, that would differ work related out-groups showing their attitudes toward each other. All results were spread out among two statistically significant dimensions of Warmth and Competence, thus proving the SCM to work on the Polish sample.

As for the hypothesis that numerous stereotypes would include mixed competence and warmth ascriptions (low ratings on one scale and at the same time high ratings on the other): although only one cluster for the overall results was proven to show this dependence, it could be argued that in further research, this hypothesis would be fully proven.

Another hypothesis was that some out-groups should be stereotypically viewed as competent to the extent where they are perceived as powerful and of a high status; other out-groups should be described as warm and nice to the extent where they do not compete with others. Unlike with the results obtained by Fiske et al. (2002), in this study, almost all groups were described as “nice”, and differed among competence dimension; only two out-groups differed from that pattern of University Students (who have been described as competent and warm), and Bailiffs (who in most cases have been described as not warm and mildly competent). Qualitative interpretation of out-group positions toward each other shows that all out-groups differ on both warmth and competence dimensions, and it is a question for further research if, by changing or adjusting to Polish culture, the questionnaire questions would better differentiate out-groups (on those two dimensions).

Results from this study could be interpreted as stereotyped views on out-groups, and it should be pointed out that in this research, almost all out-groups differed on the Competence dimension, and were less likely to differentiate among the Warmth dimension. This situation could be the result of over 40 years of Communism occupation in Poland and popular mentality according to which everybody had a common enemy in the government and government related power agencies like the police, army, the intelligence that helped enslave and infiltrate Polish society. This is probably why Police Officers, and Bailiffs have been rated as so cold and incompetent—despite the importance and responsibility of their roles—Police officers are often stereotyped the same was as old Militia officers (Police in the communism period), lazy, corrupted, cruel, and stupid. On the other hand, there is an out-group that in every sample was evaluated very positively. University Stu-
dents are judged as unthreatening to other work out-groups and therefore have highest estimations on the Warmth scale, they are less likely to take someone’s job and their position on the warm scale proves positive stereotypes about them in Polish society. This can be explained by many factors, such as students’ part in fighting communism, this group is seen as a potential in-group or admired group because, in Polish families it is a sign of prestige to have children at the university, and it is believed that by obtaining a higher education, students will have much better a perspective for their future. Therefore, this group is seen as so very competent and warm - partly because of wishful thinking for future generations, and the strongly positive stereotypes about university students.

When analyzing the cluster to which the 45 year olds out-group is assigned, what strikes us is that in almost all study cases, this group is placed in the same cluster as other age related groups of Pre-retirement and Retired persons. This close placing of all samples proves the existence of strong age stereotypes in Poland. What is striking, beginning from the youngest sample group tested in this study—high school students—45 year olds are seen as a non-threatening group, with Priests, Nurses, Teachers, Foresters. This cluster is second on the warmth dimension after the cluster of University students, Artists, and Small business owners. This position seems to define a group seen by society as well educated, functioning on labor market in a specified niche, which is undefined and highly stereotyped as professional non-threatening and good-natured. Age groups used in this study and their position on the Warmth—Competence dimensions could be also interpreted as a role of Elders that carry ethical values and life wisdom. Being placed in the same cluster with Priests (moral values), Nurses (care), and Foresters (peace and nature)—shows that they (45 year olds, Pre-retirement, Retired), are seen as a group with strong ethical values, morally stable and at peace with the world. Such stereotypes can lead in this case to other less positive descriptions like stubborn, old fashioned, and scared of technology and new trends.

There are no major differences between Polish and US samples, although placement of age group of the Retired seems different in the US study; this can be explained as an effect of the social role of this group in our study and the one performed by Fiske et al. In our study we asked about work groups, whereas in the US study, participants were asked about minority group members.

All results seem to prove the existence of social stereotypes of work out-groups. Based on the results obtained in this study, one my argue that Polish society is very open and accepting (as for almost all out-groups who seem to
be warm, and very warm), and the only factor differentiating work out-groups is competence. Analyzing the results of this study, it is very important to keep in mind that open negative emotions toward other groups are not welcome in Polish society. It would be recommended to adjust the Polish translation of the SCM questionnaire used in this study, if it is to be used in further studies.

REFERENCES


