Categorization and Stereotyping Toward Obese Women's Appearance

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Abstract

The purpose of this study were to examine how people categorize obese individuals and if they have stereotyping about obese individuals. Twenty-five female volunteer subjects participated in this study. Subjects were undergraduate students in Textiles and Clothing courses at a midwestern university, US. Subjects were asked to give their one-word responses to four statements or questions regarding their impressions of six stimuli. The six stimuli consisted of magazine photographs of women; the magazines were general interest and fashion publications. Subjects then recorded their answers in the boxes for each of the six pictures. As the results, the relevant question as to whether or not more negative attributes would be assigned to the obese model's photographs was confirmed for the Description of Model variable, but not for the Personality of Model or for the Liking the Model variables. There was significant difference in means between the positive and negative descriptions of the Description of Model variable in the direction of negativity toward the obese group seems to confirm that, not only do people categorize others based on appearance, but there was a tendency to favor the average-size group and to view as negative the obese group.

Key Words : Categorization, Stereotyping, Obese women, impressions, appearance

Ⅰ. INTRODUCTION

When we look at someone what do we see? Chances are we notice that person's sex or race. Perhaps we notice their relative height or size, their hair color or the way they style it. Because we are people who have had experiences we likely form an opinion of this person, attributing characteristics to her / him based on their physical appearance.

Research of categorization theory in general has revealed that people assign objects (including other people) to categories. Horowitz and Bordens (2000, p. 91)[1] define categorization as "the process by which we classify items, objects, or concepts, placing them together in groupings on the basis of their similarities with each other." Therefore,

for example, when we see someone with fiery red hair and lots of freckles we are apt to categorize that person and assume that he or she possesses a hot temper. We place them in the "red-haired" category with the expectation that all members of this group will also have hot tempers, based on their appearance and our memories of what we have observed or heard about people with red hair. Given the opportunity to get to know the red-haired individual we could discover that he or she actually has a quite mild disposition and is not hot tempered as we initially thought.

Why then did we so readily come to the conclusion that the object of our evaluation -the red-haired person- should be assumed to be hot-tempered? Perhaps the answer lies in the notion that human being are "cognitive misers", meaning that we employ "the least effortful means of processing social information; we have a limited capacity to understand information and can deal with only relatively small amounts at any one time" (Horowitz & Bordens, 2000, p. 91)[1]. Therefore, when we see the red-haired person and we have no prior knowledge of that person we deal with the limited cues provided in the quickest, easiest manner possible. We assign that person to a category based on all the little bits and pieces of information we have accrued so far on people with red hair.

This process applies to other categories as well. Consider the person with blonde hair. What images of blonde-haired people come to mind? Perhaps we think that person is not very intelligent based on their hair color. We may categorize blonde-haired people as dumb or silly even though we have no direct knowledge about their personality or character, or their intelligence. The characteristics we assign to the blonde-haired individuals are different than those assigned to the red-haired people, but they are categorized according to a physical attribute nonetheless. Both groups in the general category of people with hair are then placed into more specific categories delineated by the color their hair.

Therefore, the purpose of this study were to examine how people categorize obese individuals based on appearance and if they have stereotyping about obesity.

II. REVIEW OF LITERATURE

The idea of levels of categories was explored by Rosch et al. (1976)[2] through a series of twelve experiments in which they determined that people assign objects to categories on three distinct levels – superordinate, basic and subordinate. Lennon (1992)[3] summarized and defined these categories in the following manner: the most abstract level is the superordinate level; this is the most general or the broadcast category. The basic category contains the most information and includes the most common characteristics ascribed to most members of that category. The subordinate category is the most specific, in fact, it contains subcategories of objects in the basic category. In the example of the red-haired or blonde-haired person, the basic category would include the particular hair color – red or blonde. Attributes would be assigned based primarily on the color of the hair. Secondary attributes may be assumed depending on the style of the hair; this would

be the subordinate category. What differences would be assumed between a redhead with a long, flowing hairstyle and one with short, spiky hair? In this example, the superordinate category would simply be people who have hair; fewer attributes would be assigned on this basis than would be assigned based on the basic category of hair color. As well, fewer characteristics would be assumed based on the hair style of the subordinate category than would be assumed from the basic category of hair color.

We expect people to behave in accordance with their physical attributes and the categories into which we place them. The redhead should be hot tempered, the blonde, dumb. Our expectations of people fall into two classifications. Target-based expectations of a specific person based on known information about that individual is one type; category- based expectations which elicit assumptions about members of a particular group of people and predict that they will behave similarity or consistently is another (Horowitz & Bordens, 2000)[1]. It is the latter, category- based expectations, that deals with categorizing people based on physical attributes alone without any other information known about that person. For instance, when Lennon and Davis (1989)[4] asked subjects to estimate their category usage in a self-analysis and then calculated subjects' actual category usage, they found that in both conditions subjects used physical characteristics more often than character traits, behaviors, attitudes, or demographic traits to describe stimulus strangers.

In Mervis and Rosch's (1981)[5] report, the authors stated that "what is considered a category and what are called its attributes depend on the level one is describing" (p.106). If we are talking about red-haired people as hot tempered as a basic category, then can we also talk about red-haired people with long, flowing hairstyles as being hot tempered? The category is now too specific and the attribute of temper carries less significance in the subordinate category because long, flowing hair might signify a gentler personality, for example, which may not be in keeping with a hot temper. The researchers concluded in this report that categories do have gradients of representativeness and that category boundaries may vary or change.

In research with people, Park and Rothbart (1982)[6] further explored the idea of subordinate attributes of in-group and out-group members. In one experiment they used male and female subjects to estimate what proportion of other men and women would endorse certain personality and attitude items. They discovered that "stereotypic characteristics were perceived as more prevalent by the out-group than by the in-group, whereas counterstereotypic attitudes were perceived as more prevalent by the in-group than by the out-group" (p. 1058), implying that groups having little contact with each other may form strong opinions of each other that are discrepant. To introduce a new analogy, consider the misunderstandings that could occur between fat people and thin people. It is possible that the thin (in-group) people view the fat people (out-group) as jolly or incompetent, while the fat people (in-group) see themselves in much more complex terms. The reverse might also be true that the fat people could see the thin people as arrogant and insensitive; the thin

people would undoubtedly see themselves as much different and also more complex than that. The lack of information on what it is like to be either fat or thin, or Black or White, or male or female leads to inaccurate inferences about people in the out-group category.

Whether we are attempting to classify objects or explain behavior, categorization involves the isolation of the object or behavior and a subsequent attachment of some kind of explanation[7]. Horowitz and Borden (2000)[1] stated that categorization is "adaptive in the sense that it allows us to direct similar behaviors toward an entire class of objects or people" (p. 179). When we take categorization to its extreme, it can become rigid and inflexible. At this point negative or positive beliefs about the characteristics or attitudes of a group can become a stereotype. Some researchers have proposed that stereotypes are born of rigid categorizations; they theorize that stereotyping is an aspect of the way we categorize. For example, Taylor et al. (1978)[8] maintained that people use physical attributes to categorization other people and that, as a result of this process, differences between groups become greater when differences within groups are minimized. They then felt that this led to the hypothesis that within-group members' behavior would become stereotypical. This, in turn, led to the idea that stereotyped attributes would be assigned to any member of a social group to interpret their behavior and that inferences about the group are a result of categorical distinctions. They tested these hypotheses by having subjects listen to a tape with accompanying pictures of different men; they then were asked to match certain conversation on the tape with a particular

picture. Subjects were found to be making judgments of decision-making according to their perception of a person's race. A similar test was done using sex as a variable, with similar results to the first experiment. Subjects had made stereotypic categorizations about the target subjects in most cases.

Several clothing studies have used categorization theory as a basis for understanding how people categorize others through clothing stimuli, such as manipulating different dress ensembles in sketches (Croshaw et al., 1987)[9]. and in photographs (DeLong & Minshall, 1988)[10], or by using a single garment, with varying salient features to attempt to explain how people categorize on abstract and on concrete levels. These clothing studies all found that context was essential in forming object categorize. In their series of experiments using geometric forms and schematic faces as stimuli, Medin and Shaffer (1978)[11] found context to be an important factor in forming judgments and in accessing information about objects. They found that the stimulus items acted as "probes" in accessing the information and that context of these probes guided subjects' judgments as far as the similarity of the probe to the information associated with the stimuli.

Lennon (1992)[3] conducted experiments to test the notion of categorization on body size and obesity. Larger-sized individuals were found to be stereotyped negatively by subjects as to personality characteristics; assumptions were made about these individuals on the basis of their body size and negative traits were assigned to them. Overweight individuals have also been stereotyped and denied jobs as a result of

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negative categorization on traits necessary for successful job performance (Larkin & Pines, 1979)[12]. In this study, male and female subjects rated their first impressions of a person labeled as either overweight, average weight, or underweight. The overweight persons were judged to be less competent, less productive, less industrious, more disorganized, more indecisive, more inactive, and less successful than the average weight or under weight persons. Thus, the overweight persons were attributed negative stereotyped due to their size category.

Crocker et al. (1993)[13] pointed out that, because obesity is so highly and instantly visible, this may indicate that many more social interactions could be affected. Many other forms of stigma exist in our society, such as homosexuality or having AIDS, but these are not necessarily obvious circumstances. Obesity is apparent to all.

It seems evident that categorization of individuals into a group ultimately leads to stereotypical attributes being ascribed to those individuals. This is exacerbated by a lack of contact with another group and by in-group ethnocentricity. When we categorize we are overlook other, less salient, characteristics. What is most visible becomes the basic for categorization; this is what we use to form the category. Other information may be neglected if it is ambiguous or not as apparent. And, because we are cognitive misers, we interpret indeterminate cues in favor of our bias or selected category because this requires the least amount of effort.

Given the widely held view that ours is a culture in which thinness is revered,[14][15][16] but

obesity is a stigma against the individual,[13,17,18] it is important to consider the extent to which the obese individual is described in negative terms upon first visual contact. Before we have the opportunity to talk to someone and without any prior knowledge of someone, what adjectives come to mind upon first seeing another person? If we assign a person to that category of "obese" based solely on physical evidence and if that "obese" category also carries with it a negative, stigmatizing label, then we are stereotyping and this stereotype will guide our attitudes and behaviors toward the obese person. This in turn seriously jeopardizes the individual's right to be judged fairly on his or her personality traits, attitudes, competencies, and conduct.

Considering the numerous aspects and dimensions of categorization theory, it was the purpose of this study to examine only category-based judgments of the basic categories of varying relative body sizes. Relative size falls into the basic category, when the superordinate category contains all body sizes and the subordinate category contains only specific body sizes by measurement. The relative size in this report was determined visually by the researcher who has several years of experience with fitting clothing to various sized women. The research questions for this study were: (1) What adjectives would be used to describe images of obese and average-sized women, (2) Would these adjectives carry a negative or positive connotation, and (3) Would there be a greater proportion of negative adjectives applied to the obese images than to the average-sized images?

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III. RESEARCH METHOD

Twenty-five female volunteer subjects participated in this study. Subjects were undergraduate students in Textiles and Clothing courses at a midwestern university, US.

Subjects were asked to give their one-word responses to four statements or questions regarding their impressions of six stimuli. The six stimuli consisted of magazine photographs of women; the magazines were general interest and fashion publications. Each photograph showed a woman of uncertain age, although most were probably in their 20's, with the exception of one photograph in which the model was clearing reaching middle age. Photograph 1, 3, and 5 were pictures of three slightly obese to moderately obese young woman. Photograph 2, 4, and 6 were pictures of three slim, but not skinny, women of various ages. Each model was dressed in contemporary apparel, none being too outlandish or trendy. Some were in simple dresses, some in a shirt and pants, and others in various ensembles such as a sweater and skirt. The apparel was purposely kept simple so that subjects would be more likely to focus on the woman's face and body size without being distracted by the clothing. Each picture was given a number, 1-6, which was written on the back of the photograph. Each photograph was placed in a plastic protective sleeve. For the justification of this stimuli, pre-test was done to use 10 subjects. As the results, 6 photographs were classified into the researcher's intention, showing high scores.

The First Impressions Questionnaire, designed for this study, contained a six column by four row table. Subjects were to record their responses in the resulting boxes. Four questions or statements appeared before the four rows and the six columns were numbered 1-6 for each of the photographs. Subjects were asked to give their one-word, gut reaction to the following:

1) *Give a one-word description of the woman in the picture. One word only.*

2) *Forget that the woman in the picture is a model. Tell me what you think her real job is.*

3) *In one word, tell me your impression of her personality.*

4) *Yes or No - do you think you would like this person?*

Subjects then recorded their answers in the boxes for each of the six pictures.

IV. RESULTS

Data were analyzed using frequencies and crosstabulations. The independent variable was the six levels of the photographs. Dependent variables included the one-word description, the job, the impression of personality, and liking. The responses given in the dependent variables were placed into positive, negative, or neutral categories. Adjectives in the positive category for both description of model and impression of personality of model for all six photographs included such items as elegant, nice, pleasant, fun, friendly, smart, classy, sweet, warm, and cheerful. Adjectives in the negative category for each of the dependent variables included such descriptors as cheesy, fake, mean, tough, chubby, fat, arrogant, deceiving, homely, and boring. Responses for the liking questions required the subject to answer Yes

(positive) or No (negative) for each picture. The neutral categories for each variable contained ambiguous words that could not be determined to be either positive or negative; therefore, these were eliminated from analysis because they would not have contributed to the relevance of the study. The dependent variable of perception of model's job was also eliminated from testing because no definite pattern could be found among the responses. Answer given across the six stimuli followed no logical pattern and would have resulted in far too many unrelated categories. <Table 1> below contains the frequencies for each of the dependent variables – description, personality, and liking.

Looking at the total of positive and negative responses for each of the six photographs, divided by size category of model, Picture 1 received a total of 40 positive and 22 negative responses, Picture 3 received 48 positive and 16 negative responses, and Picture 5 received 26 positive and 39 negative responses. These represent the obese women in the photographs. In the average-sized woman category, the results were: Picture 2 with 53 positive and 14 negative reponses, Picture 4 with 49 positive and 19 negative responses, and Picture 6 with 32 positive and 32 negative responses. Overall, each of the two categories of size received two positive and one negative or equally positive and negative results, suggesting no difference between the obese models and the average-size models. However, when the two groups were combined, with Picture 1, 3, and 5 equaling the obese category and Pictures 2, 4, and 6 equaling the average size category, the totals for the obese category indicated a positive score of 114 and a negative score of 77 (n= 191 total); the average-size category received a positive score of 134 and a negative score of 65 (n= 199 total). This also would suggest that few differences existed between the two groups. Because the number of neutral or missing responses from each category may have had an impact on the results of this analysis, the percentages for

<Table 1> Frequency Counts of the Dependent Variables by Category and Picture

Stimuli	Pic.1		Pic.3		Pic.5		Pic.2		Pic.4		Pic.6	
Dependent Variable	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
Description of Model	6	12	15	5	5	14	15	5	21	2	8	12
Personality of Model	19	4	18	6	10	13	18	6	13	9	14	9
Would you like her?	15	6	15	5	11	12	20	3	15	8	10	11
Totals	40	22	48	16	26	39	53	14	49	19	32	32

*numbers represent the number of positive or negative responses given for each picture 1-6

each category were determined from the total number of responses. This resulted in a percentage of 59.7% positive and 40.3% negative scores for the obese category and a percentage of 67.3% positive and 32.7% negative scores for the average-size category. Overall, the obese category had a higher percentage of negative responses than the average-size category.

Results of the crosstab and Chi-square analysis revealed no significant effects for the Liking or Personality variable when Pictures 1, 3, and 5 were combined for the obese category and Picture 2, 4, and 6 were combined for the average-size category, but did reveal a significant difference in means for the Description variable (p=.007). The adjectives used to describe the photographs of the obese models were significantly more negative than the average-size model's photographs. Subjects were nearly evenly divided in their positive and negative responses toward each group in the Personality of Model and Liking variables. See <Table 2> below for these results.

Ⅴ. DISCUSSION

The purpose of this study was to investigate how people categorize and have stereotyping toward obese individuals. The brief results were as follows:

Frist, the research questions were partially by the results of these data. Adjectives were given which clearly fell into either a positive or negative connotation for both the obese and average-size women's photographs.

Second, the relevant question as to whether or not more negative attributes would be assigned to the obese model's photographs was confirmed for the Description of Model variable, but not for the Personality of Model or for the Liking the Model variables. One reason for this phenomenon may be that subjects were asked to give their impression of the model with a one-word description before they answered the statements about personality and liking; it is possible that this first reaction may have been the most spontaneous, before they had time to think

<Table 2> Crosstab analysis for the dependent variable: Description, Personality, and Liking by Obese or Average-size Category and Row Total Percentages.

Dependent Variable	Obese	Average	Percentage	λ2
Description of Model	Pos = 26 Neg = 31 (n=57)	Pos = 44 Neg = 19 (n=63)	58.3% 41.7%	SIG= .007
Personality of Model	Pos = 47 Neg = 23 (n=70)	Pos = 45 Neg = 24 (n=69)	66.2% 33.8%	SIG= .709
Would you like her?	Pos = 41 Neg = 23 (n=64)	Pos = 45 Neg = 22 (n=67)	65.6% 34.4%	SIG= .810

about a response as they did for the other variables.

Third, the model in Picture 5, who was the most obviously obese of the three models, received the most negative responses for all three dependent variables. She also received the most adjective which described her size: fat, chubby, and plump. The average-size models did not receive adjectives indicating their size, such as thin or good figure. For Personality of Model the average-size group actually received more negative scores on the chi-square analysis, although not significantly different from the obese group. There might have been some variation due to the stimulus photographs themselves. Although an attempt was made to control for the model's clothing and general appearance details, such as hairstyle and makeup, the differences between the two groups may have been too subtle or the differences between the models may have been overlapping. Picture 6, a young blonde woman who was smiling, received many negative responses and some subjects may have seen her as too good looking and were merely responding to her on another unintended, level.

Finally, that there was significant difference in means between the positive and negative descriptions of the Description of Model variable in the direction of negativity toward the obese group seems to confirm that, not only do people categorize others based on appearance with no great effort, but there was, in this sample at least, a tendency to favor the average-size group and to view as

negative the obese group. The small, convenience sample, combined with possible bias of the model's photographs, precludes generalizing to the greater population; however, others have found this categorizing of obese individuals through negative traits to be apparent.[3,12,13,19,20] It may be safe to assume based on these prior studies that obese individuals are attributed negative stereotypes and that this undoubtedly leads to discrimination in many areas of life for these people.

It might be relevant to include the subject as a perceiver variable in subsequent studies on this topic. Whether or not the subject was a member of the in-group or out-group of thin women or obese women could have a bearing on the results. Subjects would be required to indicate their weight or height on the questionnaire. Also, if subjects could be chosen at random then generalizability would not be as great a concern.

What this study and the many prior studies on this topic imply is that a substantial portion of our population suffers from negative stereotyping and the inevitable discrimination that follows. It appears that this is the last of the "acceptable" prejudices in our culture. This study added, in a small way, to the growing evidence of prejudice toward the obese. The next logical step seems to require that we begin to pursue studies in which we attempt to learn whether it is possible or not to change people's attitudes toward the obese in favor of a more tolerable opinion of them as people.

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