Running head: AFFECTS OF CULTURE

Affects of Culture and Experience on Judgments of Attractiveness

[redacted]

Palm Beach Atlantic University

Abstract

The text of the abstract goes here. It should be a single paragraph has a block format, that is, the first line should not be indented. The purpose of this section is to provide a brief and comprehensive summary of the study. It should be accurate (do not include information here that is not in the body of the manuscript), self-contained (spell out abbreviations), concise (120 word maximum), and specific (begin this section with the most important information and limit it to the four or five most important concepts, findings, or implications of the study). As part of the theme of being concise, use digits for all numbers except when they begin a sentence. Avoid citing references in the abstract. Paraphrase rather than quoting. Use active rather than passive voice (but without personal pronouns). Use past tense for procedures and present tense for results. It is a good idea to write this section last. Also notice that everything about this manuscript is double spaced. The next section begins on a new page. If you press and hold down the ctrl key while you press the enter key, MS Word will force a page break.

Previous research has demonstrated that humans form a clear preference for attractive faces during infancy (Langlois, Ritter, Roggman, & Vaughn, 1991). The purpose of this research was to determine if these views of attractiveness are set in infancy or modified across a lifetime. The sample was elementary school children from Northern Europe attending an international school in Mallorca, Spain. Participants viewed various equally attractive prototype photos of typical looking Northern European and Spanish children. Younger participants (i.e., 3rd graders) rated the Spanish children as less attractive than children whose appearance was similar to their own. Results were reversed for older participants (9th graders). Findings were consistent with some theoretical predictions.

Affects of Culture and Experience on Judgments of Attractiveness

Begin the introduction here. Retype your title and center it at the top of the introduction as indicated above. Notice that these paragraphs should have a normal (.5 inch) indent. The main purpose of this section is to tell the reader why you performed the study. In other words, you have to inform the reader of the research question and indicate why it is important, and how it is unique when compared to previous studies. It starts out broad and becomes more and more specific. For example, you might begin by defining any relevant terms. Then go on to review the relevant literature. Avoid an exhaustive and historical review. Then go on to make clear the connection between previous research and the present work. You might include any hypotheses and the rationale for them. The final paragraph usually contains a statement which clearly and explicitly states why the study was performed. Thus, this section should contain an absolute minimum of four paragraphs: the general introduction, the literature review, the connection of the present study to the literature and the explicit statement of purpose.

Although the adage states that "beauty is only skin deep," empirical research on the relation between appearance and attraction suggests that appearance (i.e., good looks) is very important (Berscheid, 1980). Adults and children prefer attractive versus unattractive individuals, they attribute positive qualities and abilities to attractive individuals and negative qualities and abilities to unattractive individuals, and they behave differently toward attractive and unattractive persons (Berscheid & Walster, 1974; Langlois, 1986). Furthermore, adults and children use similar standards in evaluating the attractiveness of other people (Maruyama & Miller, 1981; Sorell & Nowak, 1981). Even different ethnic groups show substantial agreement in their attractiveness judgments of members of their group as well as different ethnic groups (Cunningham, 1986).

What are the origins of these preferences for attractive individuals? Many people believe that individuals acquire standards of attractiveness gradually and that process is largely a product of the media. However, empirical research conducted over the past two decades has contradicted this widely held belief. Langlois et al. (1987) showed that even young infants, without exposure

to media, prefer attractive to unattractive female faces and that these preferences are similar to preferences that adults have for attractive faces. Infants' preference for attractiveness extends to Caucasian and African American female faces, infant faces, and male faces (Langlois, et al., 1991).

How might such early preferences for attractiveness be explained? One process might be prototype formation, a cognitive ability common to both infants and adults (Rhodes & Tremewan, 1996). A prototype refers to the mathematical average or mean value of the attributes of a category. Langlois and Roggman (1990) created naturalistic averaged faces (prototypes) by combining individual faces to create a composite image using digital averaging procedures. They found that both infants and adults preferred composite faces because these composites represented the central tendency or average of the population of facial configurations and are thus prototypical. Both infants and adults are capable of abstracting a prototype after viewing exemplars of a class or category. The prototype of a category, because of its standing as a unique and representative member of a category, is typically the most preferred member of that category. Research has demonstrated that participants prefer prototypes of several types of categories as opposed to less prototypical exemplars (Martindale & Moore, 1988; Smith & Melara, 1990; Whitfield & Slatter, 1979).

Although the ability to form prototypes is probably innate (Walton & Bower, 1993), the particular exemplar faces that individuals encounter are averaged and environmentally determined. Thus, within a given culture, the youngest children will have highly idiosyncratic standards of attractiveness based on their particular experience because they are in the process of forming a prototype. How much experience with faces is necessary before infants form a facial

prototype representing the central tendency of the population of a given culture? Previous research suggests that within the first 6 months of life, infants view a sufficient number of faces to create a culturally relevant prototype (Langlois & Roggman, 1990; Langlois, Roggman & Musselman, 1994).

In two studies attempting to extend the results of Langlois and colleagues (Langlois & Roggman, 1990; Langlois et al., 1994), Stastny, Middleton, Hemphill, and Keller, (2004) and Stastny and Petermann, (2005) attempted to discover if early childhood interaction between infants, ages 3 to 6 months, and their early frequent human contacts (e.g., parents) would influence the individual's long-term perception of attractiveness. College students compared faces averaged from photographs of strangers to equally attractive faces averaged from strangers along with family members, using pictures of the parents taken when the college student was 3-6 months old. The results suggested that college-aged participants preferred prototypical faces that included a photo of a family member in the creation of the prototype. Perhaps our earliest contacts can have important long-term effects on who we find attractive.

The experimenter designed the present study to determine whether this prototype is set in infancy or subject to change during the lifespan, and if it is subject to change, at what stage can modifications be detected? I hypothesized that participants' more recent exposure to the faces of a nationality different from their own would have a marked impact on how they rated photos of similar and dissimilar others on attractiveness, likeability, and similarity. I also hypothesized that younger participants (those in the 3rd grade) would rate a composite face of their own nationality as more attractive and likeable, whereas older participants (those in the 9th grade) would rate a composite face from a different nationality as more attractive and likeable than a composite of

their own nationality. I also hypothesized that participants would rate the photos of their own nationality the most similar to themselves but that this similarity would not effect judgments of attractiveness.

Method

Participants

Indicate who participated in the study, how many, and how were they selected. Include any details which are relevant to the study (e.g., gender, age, ethnicity, strain, weight, etc.). If the subjects were human, what type of reward or motivation was used to encourage them to participate?

The 19 participants were 9 boys and 10 girls from the 3rd and 9th grades. There were eight 3rd graders (M = 8.3 years) and eleven 9th graders (M = 14.6 years) in the sample. The experimenter treated all participants in accordance with APA ethical standards for the treatment of human participants in research.

This study sampled elementary school children of Northern European descent in grades 3 and 9 at the Baleares International School in Mallorca (Mallorca is a small island in the Mediterranean where most of the population is of Spanish descent). The children were Northern Europeans who had moved to the island when they entered school age. The children interacted with individuals of their own nationality very early in life and with Spanish individuals later in life.

Materials

Describe what materials were used and how they functioned in the study. If you use a piece of equipment, you must give the model number, company, and state where the company resides (as a two-letter abbreviation). You must give the dimensions (and perhaps other descriptive details) of any important items used in the study. Standard equipment such as furniture, stopwatches, pencils and paper, can usually be mentioned without providing a lot of details. In fact, you may often simply mention these items in passing as part of the procedure. Be careful not to describe procedures in this section.

The experimenter took digital photographs of each participant during a regular school day. To select photos representing similar and dissimilar others for morphing, the experimenter displayed each of the participant's photos in a presentation, along with several stranger photos, to allow the 8th grade class at the Baleares International School to rate which of the two stranger photos looked most and least like each of the participants. The experimenter created digital composite photos based on the 8th grade's ratings using the software program Smartmorph 1.5, developed by Meesoft. The experimenter organized the digital composites into unique individual presentations and displayed them to participants. The presentations included morphed composites of participants – a same nationality photo, participants - a dissimilar (Spanish) nationality photo, and several photos that included a typical looking Spanish boy and girl, and a typical looking Northern European boy and girl.

Design

Describe the design and clearly spell out the independent and dependent variables. Indicate what the levels of the independent variables were, and whether the factor(s) were repeated, matched, or independent. Describe how the subjects were assigned to groups. Describe any control procedures used.

The design was a 2 (culture of origin) x 2 (grade level: 3rd vs. 9th) in which the experimenter defined culture of origin in a number of ways depending upon the analysis, but the definition always included the composite picture of self - same nationality stranger (similar) vs. one of the many operationalizations of dissimilar: either the composite picture of the self - different nationality stranger, a Spanish boy, or a Spanish girl. Dependent variables included participants' ratings of attractiveness, likeability, and similarity of the composite photos using 5-point Likert scales.

Procedure

Carefully summarize each step in the execution of the study. Indicate what a typical test, trial, or session involved. Describe any phases that the study had or any instructions that the subjects received. When referring to groups, try to use descriptive labels.

The experimenter asked participants to rate a series of photos. They completed the ratings individually in the Baleares International School office. Participants viewed the presentations on a computer screen and rated each photo separately for three measures on 5-point Likert scales. Participants completed each of the three measures separately, ratings the attractiveness of each photo first, then the likeability of each photo, and finally, the similarity of each photo to himself or herself. After completing the experiment, the experimenter thanked participants and returned them to their classroom. The entire procedure lasted approximately 5 to 10 min.

Results

Look carefully at the results. That is, take a good hard look at all those numbers you collect. Think of different ways to summarize them, as well as to make sense of them. This section will be easier to write if you make any tables and/or figures you intend to use first.

Briefly state the main findings in words. That is, first give a general description, then go into the details. When presenting the results of statistical tests, give descriptive statistics before the corresponding inferential statistics. In other words, give means and/or percentages (perhaps referring to a table or figure), before talking about the results of any statistical tests you performed. When presenting means, it is reasonable to use one additional digit of accuracy than what is contained in the raw data. When presenting nominal or ordinal data, give the percents rather than frequencies (since percents are independent of the sample size).

The general format for presenting an inferential statistic is: Statistic(df) = value, probability = value. Note that exact p values are preferred. Also, if the computer output says the probability is .0000, then report it as .001. When possible, include some indication of effect size.

When actually presenting the results, try to emphasize the meaning of the statistics. That is, clearly describe what it is you are testing and what significance means for the variables involved. Do not discuss the implications of the results in this section. Do not talk about the meaning of the alpha level or the null hypothesis. If you are presenting a lot of material

here, you may wish to employ subheadings (as is done in the methods section). These subheadings should have meaning and relevance to the data and should help to organize your presentation of it. In other words, they should not be organized by the type of analysis employed. Since this is not expected by the reader, it is a good idea to precede the subheadings with a paragraph informing the reader of the logical organization of this section.

Be careful with the word "prove". Since statistical tests are based on probability and can be in error, they do not really prove anything. You can only use wording that implies causality if you actually manipulated the independent variable (i.e., performed an experiment).

Attractiveness

There was no main effect of culture of origin on ratings of attractiveness, $F(1, 17) < 1$, p = ns, for the similar versus the Spanish girl morphed photos. However, there was a main effect of grade, $F(1, 17) = 4.40$, $p < .05$, and there was a significant interaction between culture of origin and grade on ratings of the girl photos, $F(1, 17) = 11.68$, $p < .05$. Examination of the means indicated that the 3rd grade participants rated their girl-similar photos ($M = 4.4$) as significantly more attractive than the Spanish girl morphed photos ($M = 3.5$), whereas the 9th grade participants reported their similar photos were less attractive ($M = 2.7$) than the Spanish girl photos ($M = 3.3$).

In comparing the similar photos versus the Spanish boy morphed photos, there was a main effect of culture of origin, $F(1, 17) = 18.27$, $p < .05$, as well as a main effect of grade, $F(1, 17) = 5.83$, $p = .05$. There was also a significant interaction between culture of origin and grade on ratings of the boy photos, $F(1, 17) = 14.31$, $p < .05$. Examination of the means indicated that the 3rd grade participants rated the similar boy photos ($M = 4.9$) as significantly more attractive than the Spanish boy morphed photos ($M = 2.9$), whereas the 9th grade participants indicated only a slight preference for the similar boy photos

(M = 2.7) over the Spanish boy photos (M = 2.6).

Likeability

A similar pattern emerged with regard to likeability. There was a main effect of culture of origin, $F(1, 17) = 9.87$, $p < .05$, for the similar versus the Spanish girl photos, but there was no main effect of grade, $F(1, 17) < 1$, p = ns. There was a significant interaction between culture of origin and grade on ratings of likeability of the girl photos, $F(1, 17) = 12.34$, $p < .05$. Examination of the means indicated that the 3rd grade participants rated their similar photos (M = 4.8) as significantly more likeable than the Spanish girl photos (M = 3.1), whereas our 9th grade participants reversed this rating, indicating that the similar photos (M = 3.3) were somewhat less likeable than the Spanish girl photos (M = 3.5).

For ratings of similar boy photos versus the Spanish boy photos, there was a main effect of culture of origin, $F(1, 17) = 10.85$, $p < .05$. There was no main effect of grade, $F(1, 17) < 1$, p = ns, however, there was a significant interaction between culture of origin and grade on likeability ratings of the girl photos, $F(1, 17) = 5.79$, $p < .05$. Examination of the means indicated that our 3rd grade participants rated the similar photos (M = 4.7) as significantly more likeable than the Spanish girl photos (M = 3.0), whereas our 9th grade participants indicated only a slight preference for their similar boy photos (M = 3.3) over the Spanish boy photos (M = 3.1).

Similarity

In contrast to the ratings of attractiveness and likeability, the ratings of similarity showed no significant interaction between culture of origin and grade for the girl photos, $F(1, 17) < 1$, p = ns. There was a significant main effect of culture of origin, $F(1, 17) = 25.68$, $p < .05$, for the

similar versus the Spanish girl photos, in which participants viewed the similar photo as significantly more similar to themselves than the Spanish girl photos.

Similarly, participants' ratings of the boy photos showed no significant interaction between culture of origin and grade, $F(1, 17) < 1$, p = ns. There was a main effect of culture of origin, $F(1, 17) = 33.18$, $p < .05$, for the similar versus the Spanish girl photos and there was no main effect of grade, $F(1, 17) < 1$, p = ns. The means for 3rd grade participants' similar photos ($M = 3.8$) indicated that they viewed the similar boy photo as significantly more similar to themselves than the Spanish boy photos ($M = 1.8$), as did the 9th grade participants ($M = 3.1$ vs. $M = 1.3$).

To help clarify the previous findings, determining whether the results simply indicated a difference in attractiveness between the similar and dissimilar photos is important. I conducted an additional analysis of the similar photos versus an additional, equally attractive dissimilar photo composed of nonSpanish dissimilar nationality photos (i.e., Indian or Asian photos). The results revealed no interaction between culture of origin and grade for either the girl $F(1, 17) < 1$, p = ns, or boy photos $F(1, 17) < 1$, p = ns. There was no main effect of grade, $F(1, 17) = 1.81$, p = ns. There was, however, a main effect of culture of origin, $F(1, 17) = 8.37$, $p < .05$.
An examination of the means indicated that both the 3rd grade ($M = 3.7$) and 9th grade participants ($M = 3.2$) rated their similar photos as more attractive than the nonSpanish dissimilar nationality photos ($M = 2.6$, $M = 2.1$, respectively).

Discussion

The purpose of this section is to evaluate and interpret the results, especially with respect to the original research question. Start off with a brief, non-technical summary of the results. In other words, tell the reader about the main findings without using statistical terminology. Then go on to discuss the implications of the results. It is also important to

discuss how the results relate to the literature you cited in the introduction. In other words, emphasize any theoretical consequences of the results.

You might (or might not) also mention any limitations of the study and any suggestions for future research in this section. Finally, you need an ending paragraph in which you make a final summary statement of the conclusions you have drawn. You are also encouraged, when appropriate, to comment on the importance and relevance of your findings. How are your findings related to the big picture? Thus, this section should contain an absolute minimum of three paragraphs: the non-technical summary, discussion of the results and their implications, and the concluding paragraph.

The results illustrated that 3rd grade participants gave overall higher ratings than the 9th graders for most of our measures. Because of the 3rd graders' ratings, the overall ratings of the similar photos were significantly higher than overall ratings for the Spanish photos. The 3rd graders exhibited a tendency to rate similar photos as more attractive and likeable than the Spanish boy and girl morphed photos. The 9th graders reduced or reversed this trend, as their ratings of similar photos were almost equally attractive or likeable to the Spanish morphs. In some cases they even showed a preference for the Spanish morphs. The reversal or near reversal of the 9th grader's ratings could be because of the length of exposure these older children have had to Spanish faces on the island.

Langlois and Roggman (1990) established that infants form their views of what is attractive through the process of prototype formation. As a result, infants view a sufficient number of faces to create a culturally relevant prototype (Langlois & Roggman; Langlois et al.1994). The reversal or near reversal of attractiveness ratings from the 3rd to the 9th graders in this study suggests that people's views of attractiveness are modified across their lifetime. After individuals form their initial prototype, novel experience may modify overall views of attractiveness.

This study sampled Northern European children who had moved to the island of Mallorca when they became school aged. In the children's initial environment, they interacted most often with others of their own nationality.

The children's environment changed when they moved to Mallorca because the majority of inhabitants on the island are of Spanish descent, affording the children more direct exposure to Spanish faces. This experience may account for the reversal or near reversal for the 9th graders. Contrary to the old adage that familiarity breeds contempt, hundreds of studies have shown that familiar objects become more attractive is more likely (Bornstein, 1989). Also, that our participants rated a nonSpanish dissimilar nationality photo as less attractive than their similar photos lends further credibility to the measures by indicating that this study was not simply measuring a perceived difference between the similar photos and the Spanish photos.

In terms of similarity, the results showed that the participants were aware that the photos of similar nationality were, in fact, more similar to them than the Spanish photos and yet, the older participants still rated their similar photos as equally or, in some cases, less attractive and likeable than the Spanish photos. This study provides an interesting exception to the similarity attraction hypothesis proposed by Byrne (1961), which indicates that, in general, people like similar others and dislike dissimilar others, although it may be that over time, living on the island influenced teen-agers to see greater similarity between themselves and their peers than they see between themselves and their parents who provide their culture of origin. These findings also suggest an exception to the matching hypothesis that predicts that individuals prefer others whose attractiveness roughly matches their own (Murstein, 1986).

One explanation of these findings is provided by the theory of mere exposure outlined by Zajonc (1968). This theory suggests that exposure to unfamiliar stimuli may cultivate liking for that stimuli. The results of this study indicate that repeated exposure may be a more important determinant of the attractiveness of other people than similarity, at least in the long term. Future research in this area might focus on determining whether this phenomenon continues into adulthood and if the prototypes that we form continue to change significantly as the result of experience.

References

Berscheid, E. (1980). An overview of the psychological effects of physical attractiveness. In G. Lucker, K. Ribbens & J. A. McNamara (Eds.) *Psychological aspects of facial form* (pp. 1-25). University of Michigan Press, Michigan.

Berscheid, E., & Walster, E. (1974). Physical attractiveness. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (pp. 157-215). New York: Academic Press.

Bornstein, R. F. (1989). Exposure and affect: Overview and meta-analysis research, 1968-1987. *Psychological Bulletin, 106*, 265-289.

Byrne, D. (1961). Interpersonal attraction and attitude similarity. *Journal of Abnormal and Social Psychology, 62*, 713-715.

Cunningham, M. R. (1986). Measuring the physical in physical attractiveness: Quasi-experiments on the sociobiology of female facial beauty. *Journal of Personality and Social Psychology, 50*, 925-935.

Langlois, J. H. (1986). From the eye of the beholder to behavioral reality: The development of social behaviors and social relations as a function of physical attractiveness. In C. P. Herman, M. P. Zanna, & E. T. Higgins (Eds.), *Physical appearance, stigma, and social behavior: The Ontario symposium* (Vol. 3, pp. 23-51). Hillsdale, NJ: Erlbaum.

Langlois, J. H., Ritter, J. M., Roggman, L. A., & Vaughn, L. S. (1991). Facial diversity and infant preferences for attractive faces. *Developmental Psychology, 27*, 79-84.

Langlois, J. H., & Roggman, L. A. (1990). Attractive faces are only average. *Psychological Science, 1*, 115-121.

Langlois, J. H., Roggman, L. A., Casey, R. J., Ritter, J. M., Rieser-Danner, L. A., & Jenkins, V. Y. (1987). Infant preferences for attractive faces: Rudiments of a stereotype? *Developmental Psychology, 23*, 363-369.

Langlois, J. H., Roggman, L. A., & Musselman, L. (1994). What is average and what is not average about attractive faces? *Psychological Science, 5*, 214-220.

Martindale, C., & Moore, K. (1988). Priming, prototypicality, and preference. *Journal of Experimental Psychology: Human Perception and Performance, 14*, 661-670.

Maruyama, G., & Miller, N. (1981). Physical attractiveness and personality. In B. A. Maher (Ed.), *Progress in experimental personality research* (Vol. 10, pp. 203-280). New York: Academic Press.

Murstein, B. L. (1986). Paths to marriage. Newbury Park, CA: Sage.

Rhodes, G., & Tremewan, T. (1996). Averageness, exaggeration, and facial attractiveness. *Psychological Science, 7*, 105-110.

Smith, D. J., & Melara, R. J. (1990). Aesthetic preference and syntactic prototypicality in music: 'Tis the gift to be simple. *Cognition, 34*, 279-298.

Sorell, G. T., & Nowak, C. A. (1981). The role of physical attractiveness as a contributor to individual development. In R. M. Lerner & N. A. Busch-Rossnagel (Eds.), *Individuals as producers of their development: A life-span perspective* (pp. 389-446). New York: Academic Press.

Stastny, B., Middleton, S., Hemphill, E., & Keller, J. (2004, November). *Cognitive averaging: The effects of early childhood influences on attractiveness*. Paper presented at the Joint

Convention of the Nebraska Psychological Society and the Association for Psychological and Educational Research in Kansas, Kearney, NE.

Stastny, B., & Petermann, L. (2005, March). *Cognitive averaging: Attraction, similarity and likeability*. Paper presented at the Great Plains Students'Psychology Convention, Omaha, NE.

Walton, G. E., & Bower, T. G. R. (1993). Newborns form "prototypes" in less than 1 minute. *Psychological Science, 4,* 203-205.

Whitfield, T. W., & Slatter, P. E. (1979). The effects of categorization and prototypicality on aesthetic choice in a furniture selection task. British *Journal of Psychology, 70,* 65-75.

Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology Monographs, 9,* 1-27.