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**OPTIMALLY DISTINCT GENDERED OTHERS:
VARYING DOMAINS OF ACCEPTABLE DEVIATIONS FROM UNIFORM
STEREOTYPICALITY**

A Dissertation in

Psychology

By

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ABSTRACT

This work examined the possibility that people prefer interactions with others who are optimally distinct, or good group members with a non-stereotypic characteristic, over those who are uniformly stereotypic and counter-stereotypic. Studies 1-3 (in Chapter 2) indicated that optimally distinct men, but stereotypic women were preferred, while Study 4 showed the opposite pattern. Studies 5 and 6 (in Chapter 3) were designed to investigate whether preferred patterns of optimal distinctiveness in men and women take different forms, but instead found general stereotypicality effects. Finally, Study 7 (Chapter 4) reconciled inconsistencies across the Chapter 2 and Chapter 3 studies, again finding support for the prediction that optimally distinct others are preferred over those who are uniformly stereotypic and counter-stereotypic. The findings are considered in terms of two different models – one that is based on a consideration of the masculinity versus femininity of targets' appearance and behaviors and a second that is based on a consideration of the agency and communalism of targets' behavior. Implications of the theory and research are discussed, as are future research directions.

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CHAPTER 1

Overview and Definitions

This work examined the novel prediction that people might prefer interactions with optimally distinct others, or good group members that have at least one counter-stereotypic characteristic, rather than uniformly stereotypic or counter-stereotypic others. I refer to this general idea as the optimally distinct others hypothesis.

I introduced the optimally distinct others hypothesis based on integrative consideration of three related but distinct sets of ideas. First, a great body of research indicates that people are motivated to both be good group members (satisfying a need to belong) and to be distinctive individuals, a state referred to as being optimally distinct (e.g., Brewer, 1991; Brewer, Manzi, & Shaw, 1993; Hornsey & Hogg, 1999). To the best of my knowledge, however, no prior research has considered whether people prefer optimal distinctiveness in others as they do themselves. Second, findings from the stereotyping and prejudice literature document two seemingly ironic patterns of findings. On the one hand, stereotypic people are often preferred over counter-stereotypic people (e.g., Bown & Abrams, 2003; Eidelman & Biernat, 2003; Heilman, Wallen, Fuchs, & Tamkins, 2004; Rudman & Fairchild, 2004; Rudman & Glick, 1999), presumably because stereotypes allow perceivers to predict behaviors and provide scripts for smooth and comfortable interactions. On the other hand, research also indicates that people who positively violate negative expectations of their group are often evaluated more favorably than even members of one's in-group, are attended to greatly and praised excessively (Biernat & Vescio, 2002; Gervais & Vescio, 2007; Vescio, Gervais, Snyder, & Hoover, 2005). Third, gender is not so much a characteristic inherent in individuals but rather something one does (Butler, 1990) and

gender can be performed in a variety of ways (e.g., modifications to one's physical appearance, verbal and non-verbal behavior, and/or expressed likes/dislikes).

Initial Research

Interestingly, it seemed that these three sets of findings might be better understood when considered together, than when considered individually. Since stereotypicality is associated with interpersonal comfort, but positive stereotype violations can grab attention and lead to positive regard, this seems to be a picture of optimal distinctiveness in action. In addition, optimal distinctiveness can provide a basis for understanding how gender is performed. Individuals walk a tightrope of conveying good group membership to others regarding gender, but must find some way to make themselves distinct. This distinction could take the form, for example, of distancing themselves from aspects of their group stereotype that could negatively reflect on the self.

In light of these ideas and to examine the prediction that optimally distinct others are preferred over uniformly stereotypic and counter-stereotypic others, I conducted a series of experiments. First, I created and pilot tested a database of male and female faces using specialized computer software called FaceGen. These faces varied in gender stereotypicality. I also pilot tested a series of activities and professions, to locate some activities and professions that were unambiguously masculine, feminine, and gender-neutral.

With an array of male and female faces and masculine, feminine, or gender-neutral activities and professions, I designed an initial set of studies to test the optimal distinctiveness hypothesis. In each, participants indicated how much they would like to do a task with a series of targets. Across studies, I documented optimal distinctiveness effects in some, but not all, conditions. Findings were replicated across studies and alternative possible explanations were ruled out. In Studies 1 through 3, stereotypic women and optimally distinct men were preferred.

I had not predicted that target sex would influence preferences for interactions with optimally distinct others. With an unexpected but consistent pattern of gender differences in optimal distinctiveness effects to explain, I turned attention to theory and research about masculinity. Much of that body of work indicated the importance of continuous displays asserting masculinity through behaviors, theorized to stem from the precarious nature of manhood. Thus, I wondered if behaviors could be considered a core characteristic when evaluating male targets. If so, optimally distinct males would be preferred only to the extent that they engage in masculine behaviors and deviate in other gender relevant ways, such as their appearance. This could explain why optimally distinct males were preferred in Studies 1 through 3. However, stereotypically appearing women were preferred in Studies 1 through 3, indicating that what is considered a core characteristic for one's gender group may vary for women and men. Thus, it is possible that stereotypicality in terms of appearance provides a core characteristic for women, allowing them to deviate from stereotypicality in other gendered ways, such as through their behaviors.

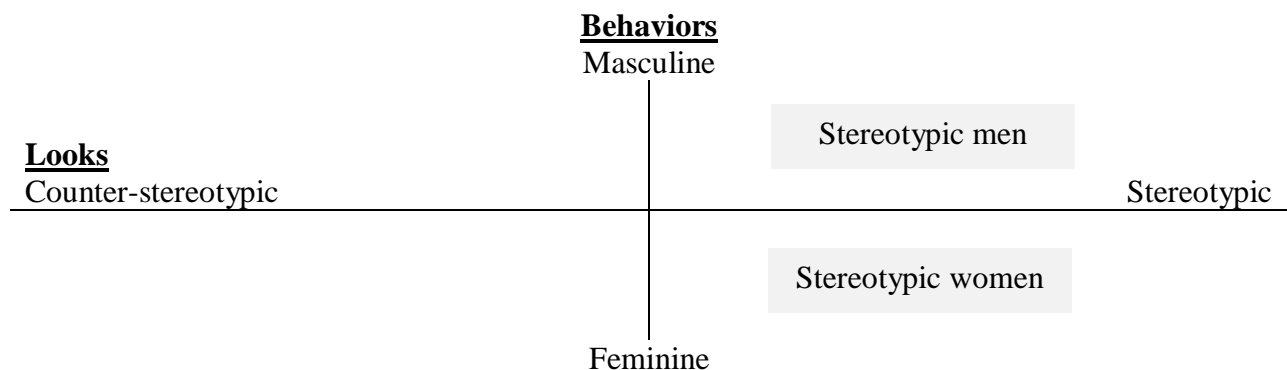
I, therefore, designed Study 4 to test the prediction that people may prefer optimally distinct (a) men who behave in stereotypically masculine ways and have non-stereotypic appearances and (b) stereotypic appearing women who behave counter-stereotypically. In Study 4, I presented participants with only stereotypic male and female targets, thus holding constant the domain in which I argued women were expected to be stereotypic. I then created optimally distinct and uniformly stereotypic targets by crossing target sex with desired professions attributed to each target as a manipulation of gendered behavior. In addition, participants rated their interest in and comfort with talking to each target in a gender-neutral domain (e.g., "getting acquainted conversation"). I predicted and found a reversal of the patterns that emerged in Studies

1 through 3; people preferred optimally distinct female targets and stereotypic male targets. This was consistent with the notion that optimal distinctiveness is preferred when people are stereotypic on core domains of import to their gender.

A Possible Model

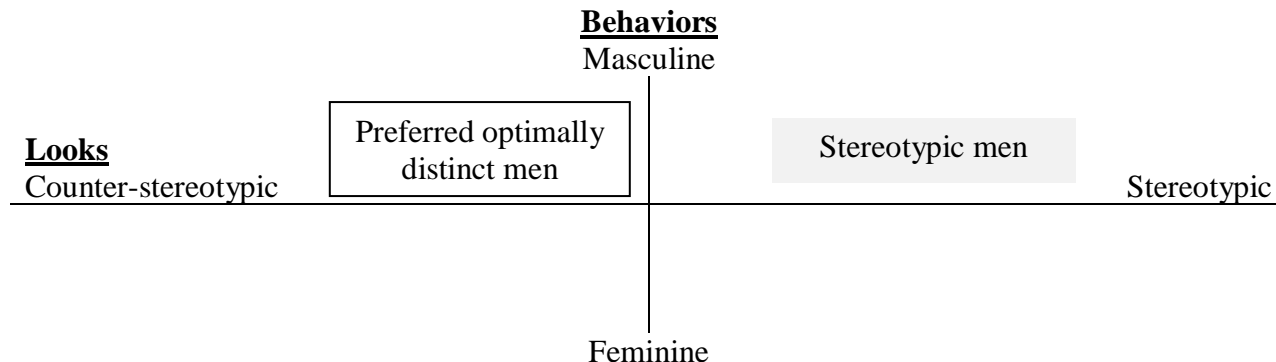
Together, the findings of the first four studies (see Chapter 2) pointed to the possibility that there may be different domains in which women and men were expected to be “good group members.” As depicted in Figure 1.1, women may need to appear stereotypic to be “good women.” Men, by contrast, may need to exhibit masculine behaviors to be “good men.”

Figure 1.1. Stereotypicality via looks and behaviors for women and men.



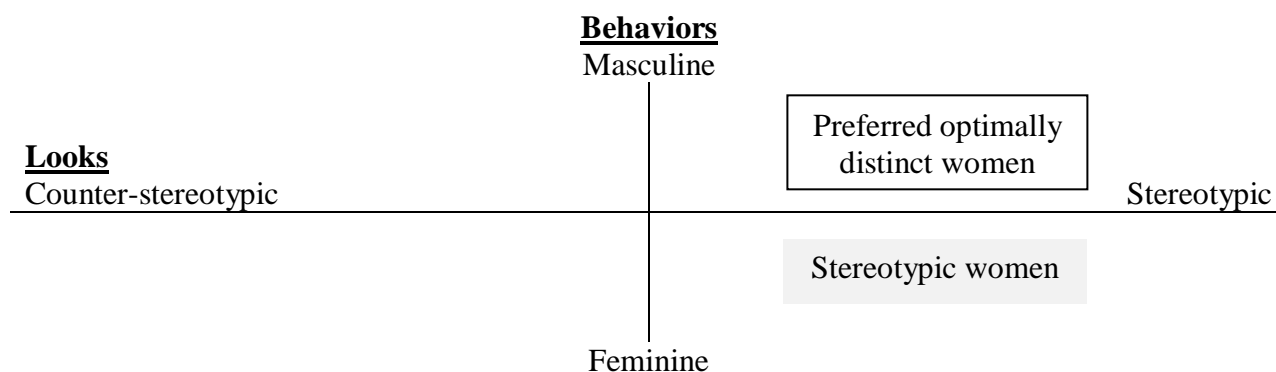
If appearance is not a core dimension for men, then appearance could be a domain in which men are permitted some amount of counter-stereotypicality. Thus, the ideal optimally distinct man may be one who engages in stereotypically masculine behaviors (a core characteristic) but who is counter-stereotypic in appearance (a non-core characteristic), as depicted in Figure 1.2 (see next page).

Figure 1.2. Optimal distinctiveness and stereotypicality via looks and behaviors for men.



In contrast, what this implies for women is that behavior could be a domain in which some amount of counter-stereotypicality is allowed, assuming that this domain is not a core characteristic for women. Thus, the ideal optimally distinct woman could be one who appears stereotypic (a core characteristic) but who is counter-stereotypic in behaviors (a non-core characteristic). This is depicted in Figure 1.3.

Figure 1.3. Optimal distinctiveness and stereotypicality via looks and behaviors for women.



However, because Study 4 included only stereotypically appearing targets, it is not a critical test of my predictions as it does not fully cross the two dimensions of interest.

Thus, I designed Study 5 to more rigorously test the suggestion that people may prefer interactions with optimally distinct others over uniformly stereotypic and counter-stereotypic others. In addition, Study 5 also tests the prediction that men and women are expected to be good

group members in different domains. In this study, I fully crossed the dimensions of appearance and behavior, allowing me to test for the effects of both variables. In addition to the inclusion of both levels of each variable (i.e., stereotypic and counter-stereotypic appearance and behaviors for men and women), I wanted to rule out the potential explanation of a difference in controllability between Studies 1 through 3 and Study 4. Critically, the facial features used to operationalize optimal distinctiveness in Studies 1 through 3 are not controllable by the target, whereas the behaviors used in Study 4 are controllable by the target. Thus, in the Study 5, I included operationalizations of both behaviors and appearance that were controllable by the targets. To do so, I conducted two pilot tests to find stereotypic and counter-stereotypic hairstyles only (i.e., appearance without faces) and daily behaviors.

Once I had new appearance and behavior variables, I presented participants with stereotypically or counter-stereotypically appearing men and women who engaged in masculine or feminine behaviors. As in Study 4, participants rated their desire to have a “getting to know you” conversation with each target. I predicted that people would prefer stereotypically appearing female targets who engaged in masculine behaviors over all other female targets. For men, I predicted that people would prefer men who engaged in masculine behaviors but who looked counter-stereotypic. However, my results did not support these predictions. Instead, I found a general preference for uniformly stereotypic male and female targets, or those who both appeared and behaved like good men and women. This pattern of results stood in contrast to the pattern of findings documented in the previous four studies. As a starting point in an attempt to understand the different patterns, I first sought to replicate the findings of Study 5. As a result, Study 6 used the same method and had the same dependent variable. However, I included the faces of each target for two reasons. First, faces were present in the studies where optimal

distinctiveness effects emerged. Second, including the faces increased the external validity of my study, as there are very few (if any) situations in which you would be presented with a novel person whose face is covered outside a psychology laboratory. In contrast, the pictures used in Study 6 are like those often found on social networking or online dating sites.

Given the design features of Study 6, the question was whether I would replicate the results of Study 5 or find further support for my original predictions, that optimally distinct others are preferred over those who are uniformly stereotypic or counter-stereotypic. The findings replicated those of Study 5. First, male participants showed a general matching effect when judging women, meaning they preferred women whose appearance and behaviors were consistent. Second, when judging men, female participants showed a preference for stereotypic and optimally distinct targets over counter-stereotypic targets. As in Study 5, there was a preference for uniformly stereotypic others. In addition, the results of Studies 5 and 6 stood in contrast to the results of Studies 1 through 4. To rule out the effects of using hairstyles to operationalize appearance, I conducted two other studies using different versions of the faces used in Studies 1 through 4. These studies confirmed the results of Studies 5 and 6. Thus, given the strengths in Studies 5 and 6 and the replication of the results, I turned my attention to the possibility that there was an alternative possible model that would provide a framework in which optimally distinct others were preferred over those who are stereotypic or counter-stereotypic.

An Alternative Possible Model

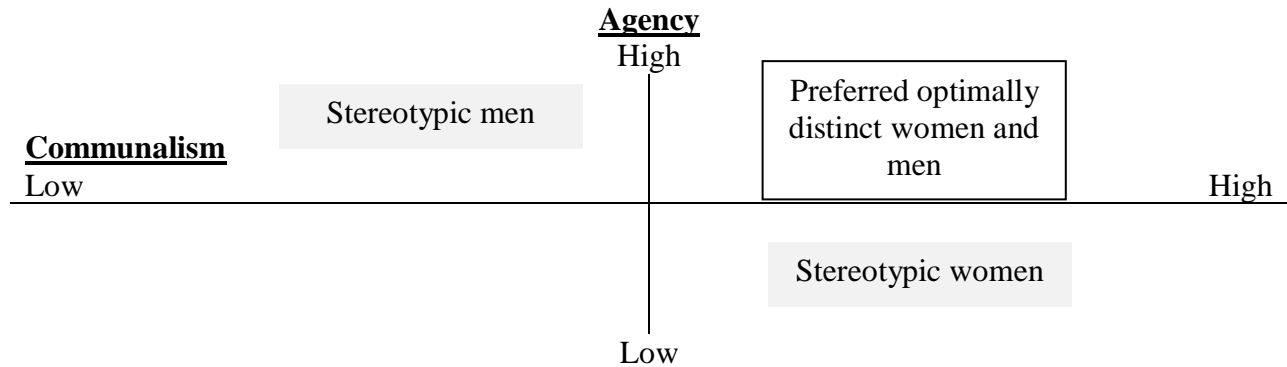
There is another way to classify behaviors, one that often co-varies with the dimensions of masculinity and femininity. In particular, behaviors often vary in terms of agency, attributed when the actor has power or is in control of a situation, and communalism, attributed when the actor is concerned about the well-being of others. These dimensions are related to masculinity

and femininity. These dimensions are, however, conceptually distinct from those of masculinity and femininity. For instance, behaviors categorized as “masculine” could be high or low in agency and simultaneously high or low in communalism. However, despite their conceptual distinction, agentic behaviors are considered stereotypic for men, whereas communal behaviors are considered stereotypic for women.

Thus, I examined whether the presence of agency and/or communalism provided the core characteristics necessary to categorize men and women as “good group members” due to their presumed stereotypicality for women and men. Specifically, I reasoned that stereotypic men would be those who engage in behaviors high in agency but low in communalism, whereas stereotypic women would be those who engage in behaviors high in communalism but low in agency. I then articulated two possible patterns of results that would indicate optimal distinctiveness effects.

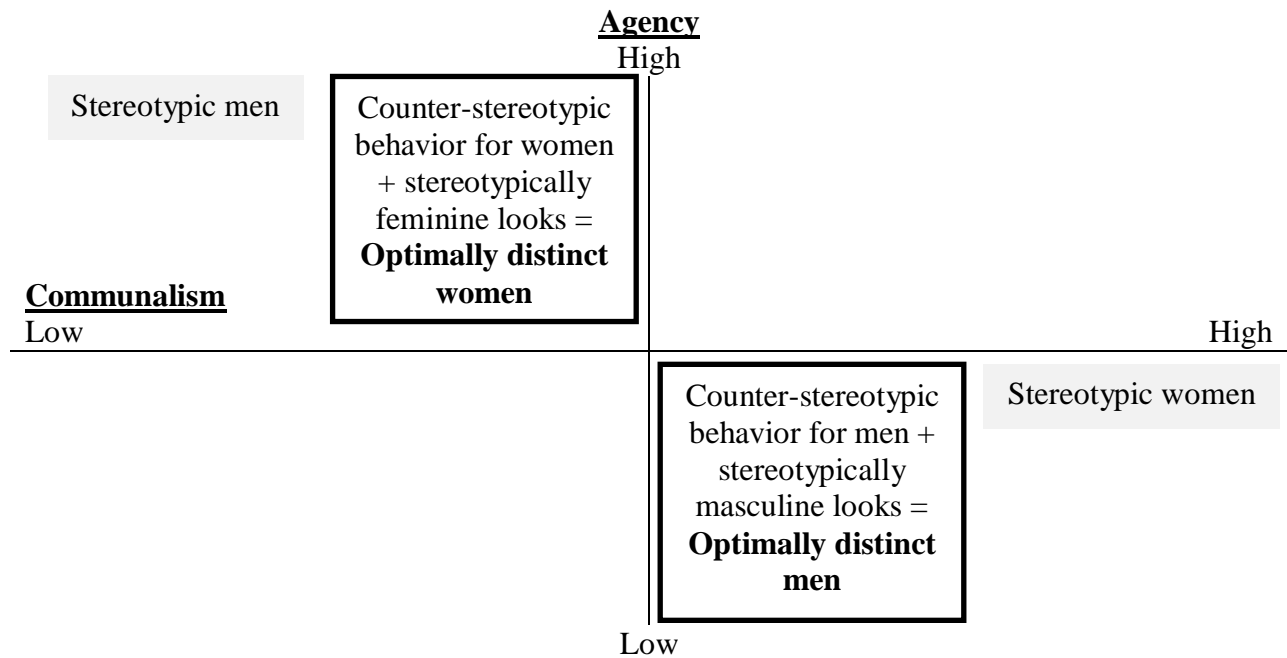
The first possible pattern of results to provide support for my overarching prediction would be a “maximal goodness” pattern, in which both men and women who engaged in behaviors high in agency and high in communalism (stereotypic for neither group) would be preferred over uniformly stereotypic men engaging in behaviors high in agency but low in communalism and uniformly stereotypic women engaging in behaviors low in agency but high in communalism. Visually, this pattern is depicted in Figure 1.4 (see the following page).

Figure 1.4. Stereotypicality and optimal distinctiveness via agency and communalism for women and men, Pattern 1.



The second possible pattern of results to provide support for my overarching prediction would rely on the primacy of appearance to provide an indication of good group membership for both women and men. In this pattern, assuming good group membership from stereotypic appearance, a preference for optimally distinct others would emerge when counter-stereotypically behaving targets were preferred over stereotypically behaving targets. For men, this would mean a preference for men engaging in behaviors low in agency but high in communalism, and for women this would be a preference for women engaging in behaviors high in agency but low in communalism. Visually, this is depicted in Figure 1.5.

Figure 1.5. Optimal distinctiveness via agency and communalism for women and men, Pattern 2.



The two patterns above represent weak and strong optimal distinctiveness effects.

To test whether agency and communalism affected preferences for optimally distinct men and women, I conducted a pilot study to find behaviors that fell into the quadrants created when agency and communalism are crossed orthogonally. I then conducted a final study. In Study 7, participants were presented with stereotypic appearing men and women and described as behaving in one of the four ways that fall into the above four quadrants. Participants were indicated how much they would like to interact with each target during a “getting to know you” conversation. If the results were consistent with the weaker version of predictions, both men and women engaging in high agency/high communal behaviors would be preferred over all other targets. In contrast, if the results supported the strong version of predictions, women engaging in high agency/low communal behaviors would be preferred over all other women, whereas men engaging in low agency/high communal behaviors would be preferred over all other men.

The results of Study 7 provided support for the stronger version of my optimal distinctiveness prediction, showing that participants preferred stereotypically appearing women who engaged in counter-stereotypic behaviors (those high in agency but low in communalism) over all other female targets. In addition, although stereotypically appearing men who engaged in counter-stereotypic behaviors (those low in agency but high in communalism) were not preferred over all other male targets, among targets whose behaviors lacked agency, these men were the only ones liked more than average. In other words, their optimal distinctiveness saved them from outright derogation due to a lack of agency in their behaviors, whereas all other targets whose behaviors lacked agency were derogated.

Summary

Across 7 studies, I found general support for my prediction that optimally distinct others are preferred over those who are uniformly stereotypic or counter-stereotypic. Although there is little evidence that looks carry more importance for women and behaviors carry more importance for men, there is certainly evidence that optimal distinctiveness is preferred in some circumstances. In particular, agency and communalism seem to exert an influence over preferences for others, provided that good group membership is implied via stereotypic appearances. A reliance on agency and communalism is unsurprising, given the long history of research in which the domains of competence and warmth exert an effect over person perception (see, e.g., Fiske, Cuddy, Glick, & Xu, 2002). From here, I have many more questions than I have answers, but I have many good ways in which to move forward. However, I can answer the question of “do we prefer optimal distinctiveness in others over uniform stereotypicality or counter-stereotypicality” with a social psychological “it depends,” but an increasingly confident “yes!” In addition, I can move toward answering the next logical question: “when do we prefer

optimally distinct others?" With that goal in mind, I discuss the meaning and implications of the results presented in this paper, and point to some potential directions for future research.

CHAPTER 2

Initial Research on Optimally Distinct Others

Imagine yourself at a cocktail party. As you survey the guests with whom you could converse, you notice two women about whom the host provided information. One woman is a nurse whose hobby is quilting. The other woman is a secretary whose hobby is building model cars. Which woman would be more interesting? With whom would you rather speak and become acquainted? You find yourself drawn to conversations with the model car-building secretary and the time before dinner passes rapidly. After dinner, you seek out other conversationalists. Across the room, you see a man of small stature who enjoys sewing and an athletically built man who teaches preschool. With whom would you be more comfortable interacting? Is there something about the petite man who sews that is less comfortable, a bit foreign, and perhaps even threatening? You introduce yourself to the athletically built preschool teacher, finding that you are comfortable and engaged in the conversation.

I suggest that the model car building secretary and the athletically built preschool teacher have something in common – they are optimally distinct others. Each is a good group member in that he or she fits cultural notions of what men and women are like. In addition, each possesses some distinct and counter-stereotypic feature that makes the person interesting and unique. Thus, I define an **optimally distinct other** as someone who has core features of a group stereotype, while also possessing at least one non-stereotypic attribute.

The goal of this work is to examine the possibility that interactions with optimally distinct people will be preferred over interactions with uniformly stereotypic or counter-stereotypic people. More specifically, I suggest that optimally distinct people may be comfortable because stereotypes can be applied to facilitate interactions (Brewer, 1988; Fiske &

Taylor, 1991) *and* interesting because their distinctiveness piques interest and motivates personalization (Brewer, 1988). To examine this suggestion and derive testable hypotheses, I first review literature addressing the importance of the group to the self. Then I discuss past research on target features. Finally, I integrate key findings from the two aforementioned lines of research, culminating in a general hypothesis.

The Need to Belong and Group Membership

The need to belong is a fundamental human motive that affects cognition, emotion, behavior, and health (Baumeister & Leary, 1995). In fact, the need to belong has been suggested to facilitate physical and psychological survival, by underlying all other social motives and influencing nearly all human activity (Fiske, 2004). In other words, the need to belong (or be related to others) is “essential for facilitating optimal functioning...and personal well-being” (Ryan & Deci, 2000, p. 68). Consistent with these ideas, belonging is positively associated with physical health and negatively associated with social rejection, poor physical health, and poor psychological outcomes (see Baumeister & Leary, 1995; Sommer, Williams, Ciarocco, & Baumeister, 2001).

Membership in social groups may satisfy the need to belong. One may identify with a group and take on the positive features of that group, as suggested by social identity and self-categorization theory and research (e.g., Turner, Oakes, Haslam, & McGarty, 1994; Hertel & Kerr, 1999). Doing so creates positive social identities that bolster esteem and self-regard (Hogg & Abrams, 1988; Branscombe & Wann, 1992; Biernat, Vescio, & Green, 1996), while satisfying one’s basic need to belong. Consistent with this notion, findings from research using minimal group paradigms shows that people identify with and positively differentiate ingroups from outgroups (e.g., exhibit ingroup favoritism or outgroup derogation), even in trivial domains with

random group memberships (Tajfel, Billig, Bundy, & Flament, 1971). Findings also indicate that group membership and positive differentiation of ingroups from outgroups are associated with positive psychological outcomes (e.g., Crocker, Luhtanen, Blaine, & Broadnax, 1994; Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003; Lee, 2005) and a positive sense of self (Turner, Oakes, Haslam, & McGarty; see Crocker & Luhtanen, 1990).

Balancing the Need to Belong and the Need to be Distinct

Importantly, people are motivated to be *both* good group members *and* distinct individuals, or to be optimally distinct. In other words, the need to belong is tempered and constrained by the need to be distinct (Brewer, 1991). People do not want to belong at the cost of individuality, such that they are completely interchangeable members of a group.

Optimal distinctiveness theory (Brewer, 1991) draws explicit attention to individuals' competing social needs and suggests that the ideal state is optimal distinctiveness, when the need to be distinct and to belong are in balance and satisfied. For instance, one may shift ingroup identities and comparison strategies to protect social and personal identities across contexts (see Brewer, 1991). Consistent with this suggestion, when depersonalized (i.e., not seen as individuals), people value memberships in smaller groups, which provide more opportunity for individual differentiation. By contrast, when personalized (i.e., seen as individuals), people value memberships in larger groups, which are more variable and provide more opportunity to belong (Brewer, Manzi, & Shaw, 1993; Hornsey & Hogg, 1999).

The foregoing points raise an interesting question – if we are motivated to be optimally distinct individuals, what do I fancy in others? Do perceivers prefer optimal distinctiveness in others as they do in the self? Do perceivers like good group members with idiosyncratic features? As a starting point for initial considerations of these questions, I review research that

examines how target stereotypicality influences person perception. I then integrate considerations of motives for belonging, noted above, with research on person perception to forward predictions about preferences for interactions with optimally distinct others.

Stereotypicality and Person Perception

There are two kinds of stereotyping effects. Stereotypes sometimes exert an assimilative influence on judgments, such that an individual is evaluated consistently with stereotypes of their ingroup (e.g., Brewer, 1988; Fiske & Neuberg, 1990). Other times, people are compared to and differentiated (or contrasted) from stereotypes of their ingroup (Biernat & Kobryniewicz, 1997; Biernat & Manis, 1994; Biernat, Manis, & Nelson, 1991). There are a host of factors that determine whether assimilative or contrastive effects emerge (for a review see Biernat, 2005). Of particular relevance to the present work is how target stereotypicality (or general fit with a category) affects the tendency to assimilate a person to stereotypes of or differentiate and contrast a person from stereotypes of their ingroup. Below I turn attention to this issue.

Assimilating Stereotypic Group Members to Stereotypes

Good group members, or people who are stereotypic in that they have core characteristics of their ingroup, are assimilated to stereotypes of their group.¹ The possession of core characteristics make stereotypic group members easy to categorize into social groups and categorization provides the basis stereotype-based judgment. When stereotypes are used as a backdrop against which information about another is interpreted and judged, there is no elaboration of information about that individual beyond the knowledge presented by the content of the stereotype. In other words, targets are perceived in accordance with group-based stereotypes (Brewer, 1988). For example, stereotypic women are judged as less competent than

¹ I will address what constitutes a “core characteristic” after considering assimilation and contrast effects.

similarly performing men (Biernat & Kobrynowicz, 1997). Likewise, stereotypic Blacks are judged as less capable than similarly performing Whites (Biernat & Kobrynowicz).

Contrasting Counter-Stereotypic Group Members from Stereotypes

Bad group members, or people who violate expectations by possessing counter-stereotypic attributes, are compared to and contrasted from stereotypes of their ingroup. Expectancy violation leads to more extreme evaluations in the direction of the violation (Jussim, Coleman, & Lerch, 1987). When group members negatively violate expectations (e.g., a cold woman), they are evaluated more harshly than are similarly performing people to do not violate expectations (Eideman & Biernat, 2003; Levine, 1989; Vescio & Biernat, 1999; Bown & Abrams, 2003; see also Rudman & Glick, 2001). By contrast, when group members positively violate expectations (e.g., an athletic woman), they are evaluated more favorably than similarly performing but non-expectancy violating person (e.g., a man, Biernat & Vescio, 2002). Positive evaluations do, however, have an implicit qualifier – “Wow, she’s great – *for a woman.*” Although seemingly positive, such positivity is driven by surprise and is associated with condescending niceties (Vescio, Gervais, Snyder, & Hoover, 2005) and potentially leads subsequent sabotage (see Rudman & Fairchild, 2004; Rudman & Glick, 1999, 2001).

Assimilation and Contrast in Relation to Optimal Distinctiveness

Some contexts inspire assimilative stereotyping effects, whereas other contexts inspire contrastive stereotyping effects (for reviews see Biernat, 2005; Stapel & Suls, 2007). As a result, judgments of stereotyped group members often have specific effects on people’s behaviors toward members of that group that vary across contexts. For example, assimilative stereotyping effects lead to *negative* perceptions of and behaviors toward individuals who belong to

negatively stereotyped groups. Alternatively, contrastive stereotyping effects lead to *positive* perceptions of and behaviors toward people who surpass low stereotype-based expectations.

Importantly, *both* assimilative and contrastive stereotyping effects sometimes occur in a single context (Biernat & Vescio, 2002; Biernat, Vescio, & Manis, 1998). This can occur when people are simultaneously good group members (readily categorized as members of a given group, such as men or women), but distinctive in counter-stereotypic, positive (or neutral, but not negative) ways. For instance, a particular woman may be a “good group member” in that she appears appropriately gendered and exhibits the core behaviors required of a good woman, but also counter-stereotypic in some distinctive way (e.g., an excellent athlete). In such instances, a member of a negatively stereotyped group may be the recipient of negative behaviors that follow from assimilative stereotyping tendencies that operate on some sorts of judgments (e.g., less stellar position assignments to women than men). At the same time, women may be the recipients of positive behaviors of other sorts that result from contrastive stereotyping processes (e.g., excessive praise – or “Wow” effects). The simultaneous assimilation to and contrast from stereotypes is precisely what is likely to occur with optimally distinct individuals.

Although the stereotypes associated with visible groups of great social meaning (e.g., race, age, gender) influence perception and judgment in an array of contexts, stereotypes operate most strongly in contexts that are relevant to those stereotypes. Below, I briefly address how domain stereotypicality could affect the perceptions of group members.

Stereotype Relevance of a Domain

Past research has found that people stereotype others (and themselves) more strongly in stereotype relevant (vs. irrelevant) domains, or domains where the stereotypes of groups to which people belong imply that members of a given group have critical shortcomings (e.g.,

Steele & Aronson, 1995; Vescio, Snyder, & Butz, 2003; Vescio, Gervais, Snyder, & Hoover, 2005). In STEM domains (science, technology, engineering and mathematics), for instance, the attributes predictive of success are stereotypically associated with dominant groups (White men) but not women and members of some ethnic minority groups (e.g., African Americans, Latino/Latinas). Stated differently, women and members of disadvantaged ethnic groups are stereotypically perceived in ways that imply that members of those groups have critical shortcomings that may impede success in STEM domains. Thus, in stereotype relevant domains, decision makers are often particularly attentive to the dimensions that predict success or failure, as well as being attentive to group memberships of relevance to those dimensions (see Vescio et al., 2003; 2005; 2006). In such instances, stereotypes inform and guide decisions, providing information of apparent relevance, such that decision makers are less motivated go beyond category based perception (Brewer, 1988; Fiske & Neuberg, 1990).

The discussion of domain relevance points to a potential boundary condition in the preference for interactions with optimally distinct versus uniformly stereotypic or counter-stereotypic people. Although people may generally prefer interactions with others who are optimally distinct, these preferences may not occur in situations where stereotypes based on group membership are in concert with what is necessary for success in a given domain. In such situations, then, people may prefer interactions with stereotypic people under the assumption that they will do well in stereotyped domains. Here, stereotypes stemming from group membership may imply that certain individuals have task applicable strengths or shortcomings.

Hypothesis and Study Overview

The foregoing considerations provide the basis of the general hypothesis that motivated the present work; namely, **I predict that people prefer interactions with optimally distinct**

others over uniformly stereotypic others or counter-stereotypic others. Above, I discussed research arguing that despite the need to belong, people have a competing need to be distinct. The ideal state is optimal distinctiveness, when both needs are satisfied. I am interested in the question of whether we seek the same balance of belonging and distinction in others that we do in the self. In addition, research on target stereotypicality indicates that targets are either assimilated to stereotypes about their group (when they are good, stereotypic group members) or contrasted from stereotypes about their groups (when they are counter-stereotypic). Yet, assimilation and contrast can occur simultaneously when a member of a negatively stereotyped group can be easily categorized as a member of that group (or is a generally good group member) but is also counter-stereotypic and positively violates low stereotype based expectations. Integrating these lines of research, I suggest that people may prefer interactions with optimally distinct (vs. uniformly stereotypic or counter-stereotypic) others.

The suggestion that optimally distinct others may be preferred over uniformly stereotypic and counter-stereotypic others has not received previous empirical attention, but is consistent with findings that stereotypes are revised following contact with outgroup members who are “typical” group members that have some stereotype disconfirming attributes (e.g., Johnston & Hewstone, 1992; Hewstone & Hamberger, 2000). As noted, however, it is possible that this effect will be moderated by domain stereotypicality. Because domains often have stereotypes associated with success, those who are uniformly stereotypic in ways applicable to the domain may be preferred over optimally distinct targets. This should, however, only occur when the stereotypes associated with the target are directly relevant to the task at hand.

To facilitate the examination of this overarching hypothesis, I conducted two pilot studies. The first pilot study was designed to determine the perceived sex of a set of faces and to

equate sets of faces in terms of physical attractiveness. The second and pilot study was conducted to determine the gender stereotypicality of various tasks (domains).

I then conducted an initial set of three studies that were designed to test the prediction that people would prefer interactions with optimally distinct (vs. stereotypic or counter-stereotypic) others. After finding documenting optimal distinctiveness effects in some, but not all predicted conditions, of studies 1 through 2, Study 4 was designed to clarify and extend findings.

Pilot 1: Target Sex and Attractiveness

Method

The goal of this pilot test was to identify a set of male and female stimulus targets that varied in target stereotypicality but were equivalent in terms of attractiveness. FaceGen software was used to randomly generate White faces. Each face was then manipulated to create a set of faces that varied in masculine and feminine features. Faces were then presented to participants, who reported their perception of the gender of each face and the attractiveness of each face.

Participants

Participants were 90 undergraduates at the Pennsylvania State University (female=46 and male=44), who were run in groups of 4 to 10 and received course credit. Data from two female participants were lost due to computer malfunctions. As a result, the working data set was comprised of the responses of 88 participants (44 females, 44 males).

Materials

Using FaceGen software, faces of different 16 different 20 year old White people were randomly generated. Each face was generated given a selection typical in levels of attractiveness and left/right facial symmetry (based on preset options provided in the FaceGen software). Each face was generated randomly by the software choosing various shapes/sizes/positions of different

facial features (e.g., eyes, nose, mouth, jaw line, etc.). Each of the 16 faces was then manipulated to create 18 different versions. Each face was manipulated in the following manner. On a continuum of “very male” to “very female,” I created 9 different sex levels of each face (each 10 points apart on the sex sliding scale). Thus, a typical and randomly generated female face was manipulated to make a completely female version and a completely male appearing version. In addition, there were seven versions that fell in between the extreme, each created by moving 10 points (or mouse clicks) up the scale from completely female to completely male. In addition, this task was completed twice for each face. First, nine versions of a face were created with skin that depicted a “typical” male facial texture. Second, nine additional versions of face were generated with a “typical” female texture.² The female texture was generally lighter and smoother than the male texture. In addition, many faces with the male texture were slightly darker where most men grow facial hair. The resultant 18 versions (9 with male texture and 9 with female texture) of each of 16 faces produced a total of 288 faces. As described below, the 288 faces were presented to participants, who rated the gender and attractiveness of each face.

Procedure

After signing a consent statement, each participant was presented with 144 faces that either had skin of female texture or male texture. Participants saw each face one time. Faces were presented in random order on a computer using e-Prime software. Half of the participants judged the sex of each of the 144 faces by pressing the “M” key if they thought the face was male or the “F” key if they thought the face was female. After a 15 second break, they then considered each of the 144 faces a second time (presented in a different random order) and rated each target on attractiveness using a 7-point Likert scale (1 = unattractive, 7 = attractive). The other half of

² Male textured versions were created by setting the skin texture at 5 points below the typical male option in FaceGen. Female textured versions were created by setting the skin texture five points below the typical female texture option on FaceGen.

participants rated attractiveness then judged sex. Across trials, each face appeared on the screen until the participants pressed a key indicating their response and the presentation of targets were separated by a 500 ms lag, during which time a triangular pattern of stars appeared on the screen. After responding to all 144 faces for both tasks, participants were debriefed and thanked.

Results

The goal of the first pilot test was to identify sets of faces that were stereotypically male, optimally distinct male, gender ambiguous, optimally distinct female, and stereotypically female. To achieve these goals three sets of analyses were performed. First, I performed analyses that examined whether participant gender influenced judgments of target gender for any of the 288 faces. Second, given pre-determined criteria for defining faces into one of the five groups (stereotypically male, optimally distinct male, gender ambiguous, optimally distinct female, stereotypically female), sets of faces were selected. Third, and finally, within each set of faces, participants' ratings of attractiveness were compared to assure each of the five sets of targets contained faces that were perceived as equally attractive.

Did Participant Sex Influence Perceptions of Target Sex?

To examine the question of whether participant gender influenced judgments of target sex in the most conservative manner, estimates of target sex were examined separately for each of the 288 faces. For each face, ratings of target sex (0=male and 1=female) were submitted to a one-way Analysis of Variance (ANOVA) with participant sex as the only between participants factor. An alpha of 0.10 was used as a criterion for exclusion; thus, if gender differences were significant at $p < .10$, faces were dropped from the set of stimulus materials. Of the original 288 faces, significant or marginally significant effects of participant gender emerged on estimates of the gender of 21 target faces. These 21 faces were dropped from the stimulus set.

Sorting of Uniformly Gendered, Optimally Distinct, and Ambiguous Faces

To sort faces into uniformly sexed (unambiguously male or female), optimally distinct (male with distinct female feature and female with distinct male feature) and sex ambiguous groups, proportions of male and female judgments were compared. When 85% or more of the participants labeled a given face male (or female) faces were deemed unambiguously gendered (uniformly male or uniformly female). When 65-75% of the participants labeled a face male or female, faces were deemed optimally distinct for their sex. This cutoff ensured that the majority of participants still recognized the face as a member of a specific sex-based group, yet not a completely stereotypic member. Finally, faces in which 45-55% of the participants labeled sex male or female were deemed sex ambiguous; approximately half of the participants judged a given face to be male and the other half said female. Using these criteria, 56 faces were omitted from the stimulus set. Of the remaining faces, 138 faces were categorized as stereotypically male, 21 faces were categorized as optimally distinctly male, 18 faces as stereotypically female, 13 faces as optimally distinct female, and 21 faces were categorized as sexually ambiguous.

Within Each Set of Faces, Are Targets Equally Attractive?

After the faces were categorized based on sex, they were matched for level of attractiveness. Each of the five types of faces was submitted to a target category ANOVA. Target category was a within-participants factor in this analysis (and had levels that corresponded to the number of faces in the category, as noted above). When significant target category effects emerged, I removed the highest and lowest rated faces in each group and again computed the ANOVA. Extremely rated faces were omitted until a final sample of similarly attractive faces within each category remained, all $F_s < 1$. After this analysis, I was left with 48 stereotypically

male faces, 12 optimally distinct male faces, 13 sexually ambiguous faces, 7 optimally distinct female faces, and 10 stereotypically female faces.

To secure 12 faces in each of the possible conditions, I conducted an additional and identical pilot test. The final sample of faces consisted of 63 stereotypically male faces, 26 optimally distinct male faces, 18 sexually ambiguous faces, 20 optimally distinct female faces, and 23 stereotypically female faces. See Appendix A for example faces.

Pilot 2: Gendered and Gender-neutral Activities

In a second pilot test, I examined the gender stereotypicality of various tasks. Daily tasks were generated by undergraduate Research Assistants and compiled by the first author.

Method

Participants

Participants were 42 undergraduates at the Pennsylvania State University (females=21 and males=21), who were run in groups of 7 to 10 and who received course credit.

Procedure

After signing a consent statement, each participant considered 100 daily activities presented in a random order on the computer. For each activity, participants rated the gender relevance of the task using a 7-point scale (1 = masculine, 7 = feminine).

Results

To analyze this data, I first computed an ANOVA using participant sex as a between-subjects variable. Any items that were rated significantly differently by male and female participants were dropped from all subsequent analyses. Second, I computed a t-test to compare the mean for each remaining item with the mid-point of the scale (4). Any items that were not significantly different from the mid-point were labeled gender-neutral activities (e.g., go to the

library, play with a dog). Items rated significantly higher than the mid-point of the scale were labeled feminine (e.g., do a project for education class, go shopping for food), whereas items rated lower than the mid-point of the scale were labeled masculine (e.g., discuss politics, play pool). After categorizing the items as masculine, feminine, or gender-neutral, I computed successive within-participants ANOVAs for each separate group, alternately removing the lowest and highest rated variables until a group remained that did not significantly differ from each other (all F s < 1, p s = n.s.). The final activities can be found in Appendix B.

Study 1

Method

Participants and Design

Participants were 76 (43 female, 33 male) students enrolled in introductory courses at the Pennsylvania State University, who received course credit and who were run in mixed-sex groups of four to ten. The study used a target sex (male or female) X target features (stereotypic, counter-stereotypic or optimally distinct) X activity (masculine, feminine, or gender-neutral) X participant sex (male or female) mixed model design. Target gender, target features and activity were within-participants factors. Participant gender was a between participants factor.

Materials

Faces. Based on Pilot Studies 1A and 1B, I randomly selected faces that fit each of the six categories of interest: stereotypic male, stereotypic female, optimally distinct male, optimally distinct female, counter-stereotypic male and counter-stereotypic female. Counter-stereotypic male and female faces were taken from faces rated as sexually ambiguous in pilot testing.

Names. Male and female names were selected based on information the Social Security Administration presents on popular baby names (<http://www.ssa.gov/OACT/babynames/>).

Names were selected from the list of the 50 most popular given names in 1986 and 1987 (years of birth for most participants). Names were selected using the following rules: (1) only names with common nicknames were chosen, though full names were consistently presented; (2) no female names with diminutives as endings (e.g., ette, elle, etc.) were used; (3) I used no names using “y” or “a” as an ending, as they are more frequently female than male names (e.g., Ashley, Tiffany, etc.); and (4) I excluded names requiring only single or double letter change to go from masculine to feminine version (e.g., Alexander and Alexandra). Based on those rules, 12 female names were chosen (Nicole, Elizabeth, Megan, Rachel, Christine, Shannon, Natalie, Katherine, Margaret, Jillian, Allison, and Jennifer) and 12 male names were chosen (Michael, Christopher, Matthew, William, Daniel, David, Andrew, Joseph, James, Jonathan, Nicholas, and Steven).

Activities. Using results from Pilot Study 2, I selected and presented activities that were stereotypically masculine (e.g., discuss politics or play pool), feminine (e.g., do the dishes or work at a department store), or gender-neutral (e.g., go to a party or watch a sitcom).

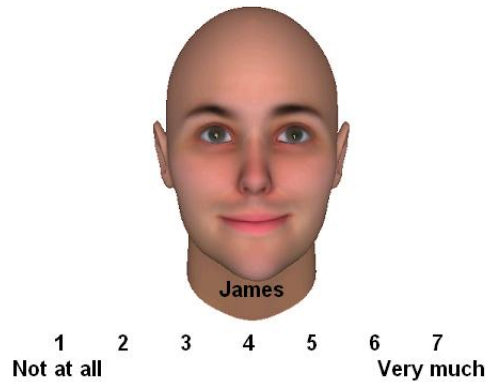
Procedure

After signing a consent statement, participants saw stereotypic, counter-stereotypic and optimally distinct male and female faces (with a gendered name beneath each image, see Figure 2.1 below). Participants were asked to consider interacting with each individual while doing a gender-neutral, masculine, or feminine activity and to report how much they would like to engage in the activity with the target person using a 7-point scale (1=not at all; 7=very much).

Participants rated four targets in each of the conditions created by crossing target sex, target feature, and activity (e.g., a stereotypic male and a masculine task, an optimally distinct female and a gender-neutral task, etc.) resulting in 72 trials that were presented in random order. Upon completion, participants were debriefed and thanked.

Figure 2.1. Example stimuli from Study 1.

How much would you like to do a project for engineering class with James?



Results

Preference for interaction was submitted to a target sex (male or female) X task (masculine, gender-neutral, feminine) X target stereotypicality (stereotypic, optimally distinct, counter-stereotypic) X participant sex (male or female) mixed model Analysis of Variance (ANOVA). Target sex, task, and target stereotypicality were within-subjects variables in this analysis. Participant sex was a between-subjects variable. Participant sex did not exert any main or interactive effects and, therefore, will not be discussed further.

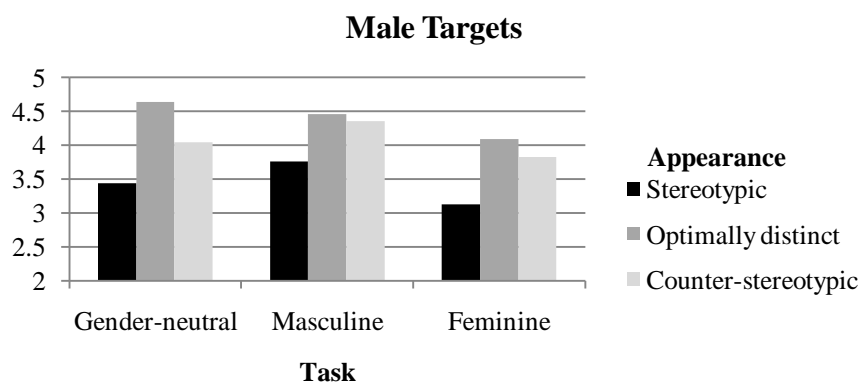
This analysis produced several effects. There were main effects of task, $F(2, 73) = 19.10$, $p < 0.001$, and stereotypicality, $F(2, 73) = 39.15$, $p < 0.001$. Participants preferred masculine (vs. feminine or neutral) tasks and optimally distinct (vs. stereotypic or counter-stereotypic) targets. These two effects also interacted, $F(4, 71) = 3.58$, $p < 0.01$; in feminine domains, participants preferred optimally distinct targets over all others but, in masculine domains, stereotypic and optimally distinct targets were similarly preferred. Two other lower order interactions emerged from this analysis. A target stereotypicality X target sex interaction, $F(2, 73) = 98.83$, $p < 0.001$, indicated that participants preferred optimally distinct males but stereotypic females. A target sex

X task interaction, $F(2, 73) = 19.23, p < 0.001$, also showed that interactions with male targets were preferred in masculine and gender-neutral domains (but not feminine domains).³

Importantly, however, the above effects were all qualified by the predicted target sex X task X target stereotypicality interaction, $F(2, 73) = 3.25, p < 0.01$ (see Figure 2.2 below). To decompose this interaction, simple effects tests were performed by computing separate task X target stereotypicality ANOVAs for ratings of male targets and ratings of female targets.

For male targets, the task X stereotypicality interaction was significant, $F(4, 74) = 5.38, p < 0.01$. As shown in the figure below, in both feminine and gender-neutral tasks, optimally distinct male targets were preferred over counter-stereotypic male targets, $ts(75) > 2.43, ps < 0.05$, who were preferred over stereotypic male targets, $ts(75) > 5.62, ps < 0.001$. In contrast, in masculine tasks, optimally distinct and counter-stereotypic male targets were preferred similarly, $t(75) < 1, p = n.s.$, and both were preferred over stereotypic male targets, $ts(75) > 5.15, ps < 0.001$.

Figure 2.2. Study 1 pattern of results for male targets.

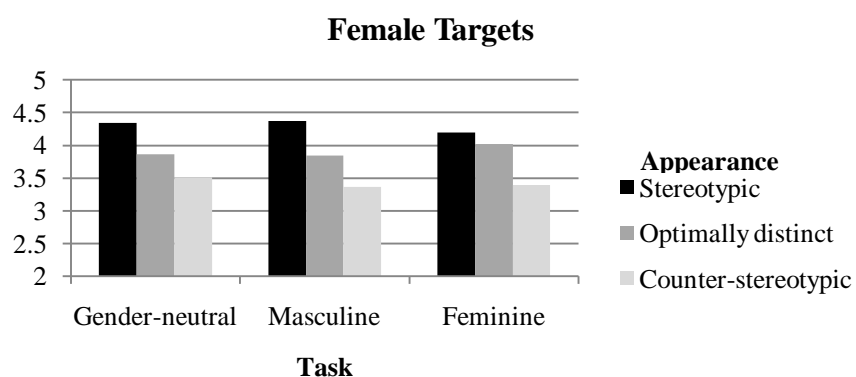


For female targets, the task X stereotypicality interaction was marginally significant, $F(4, 74) = 2.30, p < 0.07$. As depicted in Figure 2.3, in both masculine and gender-neutral tasks,

³ For corresponding means of lower-order interactions, please contact the first author.

stereotypic female targets were preferred over optimally distinct female targets, $t(75) > 5.14$, $ps < 0.001$, who were preferred over counter-stereotypic female targets, $t(75) > 3.87$, $ps < 0.001$. However, in feminine tasks, stereotypic female targets were only marginally preferred over optimally distinct targets, $t(75) = 1.82$, $p < 0.05$, but both were preferred over counter-stereotypic female targets, $t(75) > 5.64$, $ps < 0.001$. Thus, for female targets, I found no support for my prediction; optimally distinct female targets were not preferred over uniformly stereotypic and counter-stereotypic targets. Instead, stereotypic female targets were preferred.

Figure 2.3. Study 1 pattern of results for female targets.



Discussion

Study 1 was designed to test the prediction that optimally distinct others are preferred over uniformly stereotypic and counter-stereotypic others. The results of Study 1 partially supported predictions. Consistent with predictions, optimally distinct men were preferred over stereotypic and counter-stereotypic men. In contrast to predictions, however, stereotypic women were preferred over optimally distinct and counter-stereotypic women.

I did predict that optimal distinctiveness effects would be moderated by target gender and, in hindsight, I realized that use of hairless targets (male and female) could have adversely affected by attempts to manipulate optimal distinctiveness in female targets. While lack of hair

can be assimilated into stereotypic, optimally distinct, or counter-stereotypic representations of males, it cannot be assimilated into similar representations of females. All females, regardless of their level of gender stereotypicality, are expected to have hair. The lack of hair on female targets may have been perceived as a cross-gendered attribute. Thus, females labeled stereotypic may actually be optimally distinct without the presence of hair (e.g., having very stereotypic facial features, but a cross-gendered baldness). If stereotypic females are actually optimally distinct, there would be a similar deviation from stereotypicality for the targets labeled optimally distinct (actually counter-stereotypic) and counter-stereotypic (actually extremely counter-stereotypic).

Study 2

Study 2 was designed to address the possibility that baldness affected the results of Study 1. Thus, Study 2 was identical to Study 1 except that the images were not full heads. Anything outside the interior features of the face was masked (see Appendix C for examples). Masking the rest of the head minimized distraction due to a lack of hair on female targets. The results of Study 2 may support my initial predictions (i.e., optimally distinct targets preferred when group stereotypes are not relevant to the task at hand, and stereotypic targets preferred in group stereotypes are relevant), or may replicate the results from Study 1 (i.e., optimally distinct males and stereotypic females preferred regardless of domain).

Method

Participants and Procedure

In Study 2, participants were 97 undergraduates of the Pennsylvania State University (44 female and 53 male), who received course credit for participation in a study identical to Study 1.

Results

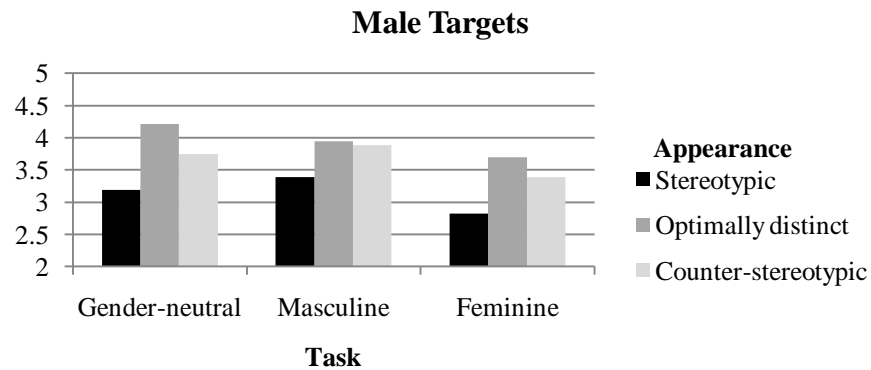
Preference for interaction was submitted to a target sex (male or female) X task (masculine, gender-neutral, feminine) X target stereotypicality (stereotypic, optimally distinct, counter-stereotypic) X participant sex (male or female) mixed model ANOVA. Target sex, task, and target stereotypicality were within-subjects variables in this analysis. Participant sex was a between-subjects variable. Participant sex did not exert any significant main or interactive effects and, therefore, will not be discussed further.

As in Study 1, this analysis produced several lower order effects. There were significant main effects of task, $F(2, 93) = 16.72, p < 0.001$, and stereotypicality, $F(2, 93) = 63.86, p < 0.001$. Participants preferred masculine (vs. feminine or neutral) tasks and optimally distinct (vs. stereotypic or counter-stereotypic) targets. In addition, there was a main effect of target sex, $F(1, 94) = 15.93, p < 0.001$. Participants preferred female over male targets. Three other lower order interactions also emerged from this analysis. First, a target stereotypicality X task interaction, $F(4, 91) = 2.52, p < 0.05$, indicated that participants preferred optimally distinct targets in masculine and gender-neutral domains, but stereotypic and optimally distinct targets in feminine domains. Second, a target stereotypicality X target sex, $F(2, 93) = 106.91, p < 0.001$, indicated that participants preferred optimally distinct men but stereotypic women. Finally, a target sex X task interaction, $F(2, 93) = 16.42, p < 0.001$, indicated that participants preferred interacting with men in masculine and gender-neutral tasks, but not in feminine domains.

Importantly, replicating Study 1, the above effects were qualified by the predicted target sex X task X target stereotypicality interaction, $F(4, 91) = 8.45, p < 0.001$ (see Figure 2.4). To interpret this interaction, simple effects tests were performed by computing separate task X target stereotypicality ANOVAs for ratings of male targets and ratings of female targets.

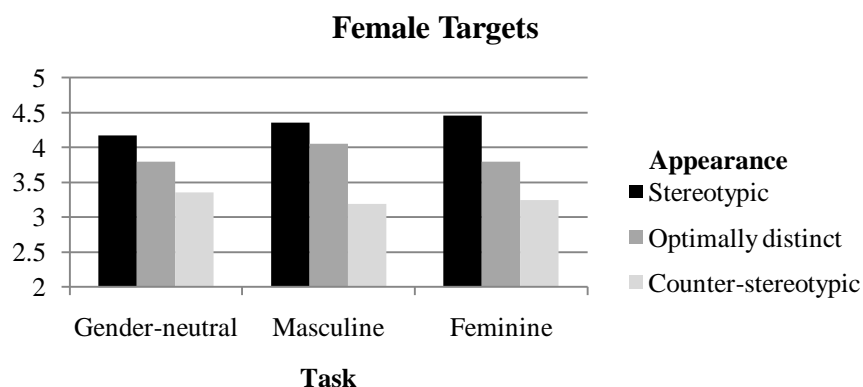
For male targets, there was a task X stereotypicality interaction, $F(4, 93) = 3.49$, $p = 0.01$. As Figure 2.4 shows, in feminine and gender-neutral tasks, optimally distinct targets were preferred over counter-stereotypic male targets, $ts(97) > 4.12$, $ps < 0.001$, who were preferred over stereotypic targets, $ts(97) > 5.39$, $ps < 0.001$. By contrast, in masculine tasks, optimally distinct and counter-stereotypic male targets were preferred similarly, $t(97) < 1$, and both were preferred over stereotypic targets, $ts(97) > 4.02$, $ps < 0.001$. These findings replicated Study 1.

Figure 2.4. Study 2 pattern of results for male targets.



For female targets, the task X stereotypicality interaction was significant, $F(4, 93) = 6.58$, $p < 0.001$. As shown in Figure 2.5 below, regardless of task, stereotypic female targets were preferred over optimally distinct female targets, $ts(97) > 3.57$, $ps < 0.001$, who were preferred over counter-stereotypic targets, $ts(97) > 4.49$, $ps < 0.001$. Although the pattern of results is the same across task conditions, the effect sizes within type of task varied (masculine, $\eta^2 = 0.44$; feminine, $\eta^2 = 0.47$; gender-neutral, $\eta^2 = 0.29$). These findings generally replicate those of Study 1.

Figure 2.5. Study 2 pattern of results for female targets.



Discussion

The purpose of Study 2 was to rule out the possibility that target baldness affected the results of Study 1. Specifically, baldness cannot be readily incorporated with stereotypes of women, so the baldness of the female targets could have obscured a preference for optimally distinct others. The results from Study 2, however, replicated those of Study 1, indicating that the findings of study 1 cannot be attributed to the baldness of female targets. Regardless of context and as in Study 1, the findings of Study 2 suggest that optimal distinctiveness was preferred in males, whereas stereotypicality was preferred in females.

Upon further consideration of these results, I wondered if the images used for stereotypic women and optimally distinct men were more attractive than images used in other conditions, which could have led to preferences for those targets over others. Returning to the pilot data, I found that these two groups were rated significantly more attractive than optimally distinct women, who were rated more attractive than stereotypic men or any counter-stereotypic targets. To eliminate this confound, I reselected equally attractive images across conditions.

Study 3

Study 3 was identical to Study 2 with one exception. In Study 3, I removed the potential confound of different attractiveness ratings across condition. To do so, I obtained average attractiveness scores for each group (e.g., optimally distinct female, stereotypic males, etc.) and then compared them to each other. The only two groups that were equal in attractiveness were stereotypic females and optimally distinct males. The original average scores ranged from a low of 2.14 (out of 7, for stereotypic males) to a high of 3.26 (out of 7, for stereotypic females). Thus, to select faces that were rated equally attractive within and across groups, I returned to the original faces in the three lower-rated groups (optimally distinct females, stereotypic males, and counter-stereotypic males/females). Again, I computed within-participant ANOVAs for the faces in each group, but this time I made sure to select faces to remove so that the average ratings of attractiveness for the group centered around 3.15. I was able to successfully gather faces that were rated equally attractive within each group, as well as making sure that there were equal attractiveness ratings across groups. The final average attractiveness ratings for each group ranged from 3.11 to 3.24, which did not significantly differ from each other.

Method

Participants and Procedure

Participants were 85 undergraduates of The Pennsylvania State University (50 female and 35 male), who received course credit and completed the same procedures as in Studies 1 and 2.

Results

Preference for interaction was submitted to a target sex (male or female) X task (masculine, gender-neutral, feminine) X target stereotypicality (stereotypic, optimally distinct, counter-stereotypic) X participant sex (male or female) mixed model ANOVA. Target sex, task,

and target stereotypicality were within-subjects variables in this analysis. Participant sex was a between-subjects variable. Participant sex did not exert any significant main or interactive effects and, therefore, will not be discussed further.

This analysis produced several lower order effects. There were main effects of target sex, $F(1, 83) = 25.04, p < 0.001$, task, $F(2, 82) = 18.71, p < 0.001$, and stereotypicality, $F(2, 82) = 49.17, p < 0.001$. Participants preferred female (vs. male), masculine tasks (vs. feminine or gender-neutral), and optimally distinct (vs. stereotypic or counter-stereotypic) targets.

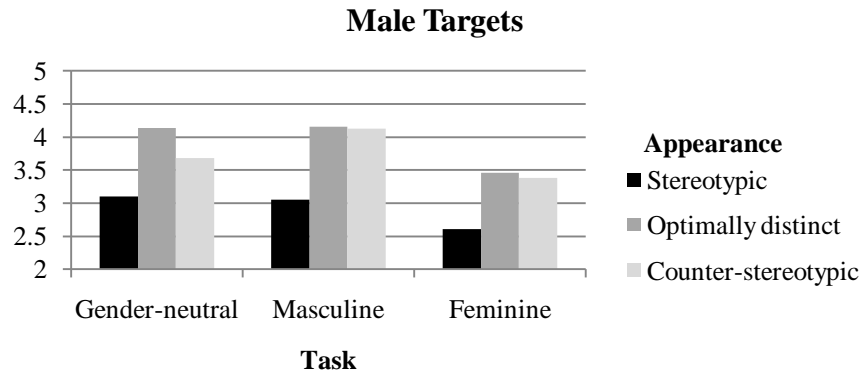
Three other lower order interactions also emerged from this analysis. First, a target stereotypicality X task interaction, $F(2, 82) = 3.40, p < 0.02$, indicated that participants preferred optimally distinct targets in masculine and gender-neutral domains, but stereotypic and optimally distinct targets in feminine domains. Second, a target stereotypicality X target sex, $F(2, 82) = 148.24, p < 0.001$, indicated that participants preferred optimally distinct men but stereotypic women. Finally, a target sex X task interaction, $F(2, 82) = 44.26, p < 0.001$, showed that participants preferred men in masculine and gender-neutral tasks, but not in feminine domains.

Importantly, replicating Studies 1 and 2, the above effects were qualified by the predicted interaction among target sex, task, and target stereotypicality, $F(4, 80) = 6.07, p < 0.001$. To interpret these interactions, simple effects tests were performed by computing separate task X target stereotypicality ANOVAs for ratings of male targets and ratings of female targets.

For male targets, replicating the findings of Studies 1 and 2, the task X stereotypicality interaction was significant, $F(4, 80) = 4.08, p < 0.01$. As shown in Figure 2.6 below, in gender-neutral tasks, optimally distinct targets were preferred over counter-stereotypic targets, $t(84) = 4.64, p < 0.001$, who were preferred over stereotypic targets, $t(84) > 4.94, p < 0.001$. For masculine and feminine tasks, optimally distinct and counter-stereotypic male targets were

preferred similarly, $ts(84) < 1.04$, and both were preferred over stereotypic targets, $ts(84) > 7.34$, $ps < 0.001$.

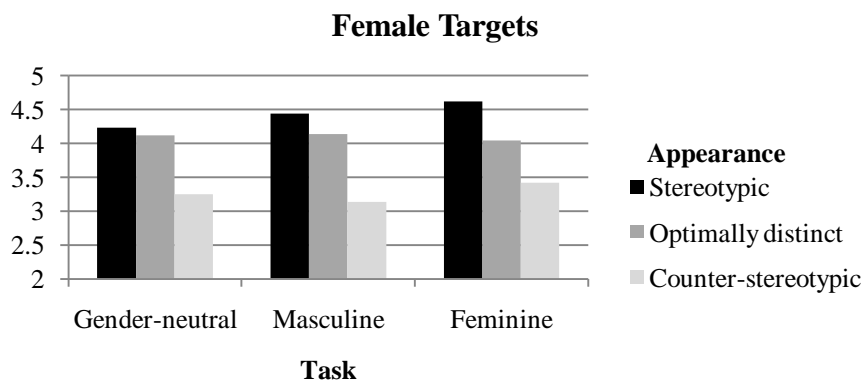
Figure 2.6. Study 3 pattern of results for male targets.



For female targets, also replicating prior findings, the task X stereotypicality interaction was significant, $F(4, 80) = 2.97$, $p < 0.03$. As shown in Figure 2.7 below, regardless of task, stereotypic female targets were preferred over optimally distinct female targets ($ts(84) > 2.58$, $ps < 0.05$), who were preferred over counter-stereotypic targets ($ts(84) > 5.89$, $ps < 0.001$).

Although the pattern of results is the same across task condition, the effect sizes varied across task condition (masculine task, $\eta^2 = 0.51$; feminine task, $\eta^2 = 0.40$; gender-neutral task, $\eta^2 = 0.40$).

Figure 2.7. Study 3 pattern of results for female targets.



Discussion

The goal of Study 3 was to examine whether the pattern of findings documented in Studies 1 and 2 could be attributable to target attractiveness. Even after strictly controlling for attractiveness, the results of Study 3 replicated those of Studies 1 and 2. Again, findings clearly indicated that, regardless of context, optimally distinct men are preferred, whereas stereotypic women are preferred. But why might target sex moderate optimal distinctiveness effects?

The moderation of optimal distinctiveness effects by target sex may be related to the fact that I altered target's physical appearance, which may be a more important to judgments of women than men. For example, women are presented in more sexually objectifying ways in the media than are men (Goffman, 1979; Fredrickson & Roberts, 1997). In addition, stereotypic looking women (but not stereotypic looking men) are judged in object-like terms, meaning attention is given to individual features rather than the holistic sum of features (Gervais, 2008). People are as able to identify the sexualized body parts of women they have seen before (chest or waist apart from body) as they are to identify that they have seen that person before, but are only able to identify men in a holistic manner (i.e., they cannot identify men's body parts; Gervais, 2008). As a result, women have different self-concepts than men due to self-objectification, having internalized the notion that what they look like is more important than what they are capable of, what they do, or how they feel (Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998).

If appearance is a more important criterion in the judgments of women, there is likely a parallel criterion for men – one that carries great importance when men are judged. It is possible that gender appropriate behavior may be the critical along which men are evaluated. Consistent with this suggestion, social theorists and researchers have noted that “appropriate” masculine (versus feminine) behavior is very rigidly defined (Feinman, 1981; Kimmel, 2008). Boys learn,

at young ages, that counter normative gender behavior has negative repercussions. Gender-atypical (compared to typical) teen boys report more bullying and victimization, more loneliness, and fewer friends (Young & Sweeting, 2004). College aged men also show discomfort and threat responses when prompted to behave in gender atypical ways and often use assertions of heterosexuality to appease such threat (Bosson, Prewitt-Frelino, & Taylor, 2005). This indicates that the pressure to conform to normative standards of masculine behavior is quite high for men.

If an important criterion for judging men is masculine behavior, whereas an important criterion for judging women is appearance, the particular way in which I manipulate optimal distinctiveness should have implications for the specific pattern of effects that emerge. In studies 1 through 3, I only manipulated optimal distinctiveness via appearance. Thus, if appearance is important for women, it is logical that a preference for stereotypically appearing women would emerge. This is exactly what I found in Studies 1 through 3. However, in the previous studies there was no possible way for me to assess the impact of masculine behaviors, because at no time were behaviors attributed to the targets. In order to test the effects of behaviors, I have to attribute behaviors to each target. Specifically, if masculine behaviors are important for men, then I have to attribute masculine behaviors to some men but feminine behaviors to other men. In attributing different behaviors, I can assess whether the behaviors of men are important when people make judgments about them.

To examine the possibility that behaviors are an important criterion for judging men, I operationalized optimal distinctiveness differently in Study 4 than in Studies 1 through 3. In Study 4, I again had participants rate a series of male and female faces, except I used only the stereotypically appearing faces from Study 3. Using stereotypically appearing faces keeps appearance controlled and indicates good group membership, but provides an important feature

in the judgments of women. In addition, since the domain of the interaction had no effects in Studies 1 through 3, I used a gender-neutral domain for Study 4, a “getting to know you” conversation. Then, I planned to cross target sex with either masculine or feminine behaviors. To gather behaviors rated as masculine or feminine, I conducted a pilot study on desired professions (see below). I opted to use desired professions as a proxy for masculine and feminine behavior because I expected that professions would give an indication about behaviors, but were something that could clearly be articulated as masculine or feminine.

Thus, in Study 4 I integrated the following. First, I am working under the assumption that masculine behaviors are an important criterion for judging men, whereas stereotypic appearance is important for judging women. Second, I used only stereotypically appearing faces, to make sure that all targets were categorized as good group members. Third, I had participants rate both their interest in interacting with each target and how much they think they would like each target, to see whether those two indices varied (it is possible to be interested in talking to someone that you do not like). Finally, I included masculine and feminine behaviors and crossed those with target sex. Combining all of these changes, I predicted a reversal of the patterns found across Studies 1 through 3. Specifically, I predicted that stereotypic *men* would be preferred over optimally distinct men, whereas optimally distinct *women* would be preferred over stereotypic women. This predicted pattern of results would be in direct contrast to the pattern found in Studies 1 through 3, where optimally distinct men were preferred but stereotypic women were preferred. Below, I articulate the pilot study used to gather masculine and feminine behaviors and then move into Study 4.

Pilot 3: Gender Stereotypicality of Professions

A pilot test was conducted to indicate the gender stereotypicality of various professions. Professions were generated by undergraduate Research Assistants and compiled by the first author. When possible, gender-neutral terms were used (e.g., mail carrier, as opposed to mailman), and broad categories were used (e.g., doctor, as opposed to pediatrician).

Method

Participants

Participants were 126 undergraduates at the Pennsylvania State University (females=93 and males=33), who received course credit and were run in groups of 7 to 10. Data from 3 subjects were lost due to computer malfunctions. This left a working data set comprised of the responses of 123 participants, including 93 females and 33 males.

Procedure

After signing a consent statement, each participant rated 100 randomly presented professions using 7-point scales (endpoints labeled 1 = masculine, 7 = feminine).

Results

Results were analyzed in three phases. In the first analysis, I tested for effects of participant gender. The rating of the gender stereotypicality of each profession was submitted to a participant gender one-way ANOVA. Any professions on which men and women reported significantly different perceptions of stereotypicality were dropped from the stimulus materials.

Second, participants' ratings of each target were compared the mid-point of the scale. Professions that significantly differ from the mid-point will be classified as gender stereotypic professions. Professions significantly lower than the mid-point were classified as stereotypically masculine professions, whereas professions significantly higher than the mid-point were

classified as stereotypically feminine professions. Professions that did not approach significance (e.g., $t < 1$) when compared to the mid-point were classified as gender-neutral professions.

Finally, I conducted a within participants ANOVA for each group of professions. This analysis was conducted to ensure that there were not significant differences in perceived stereotypicality within groups of professions (stereotypically masculine, feminine or gender-neutral). When significant effects emerged, I dropped the most extremely rated profession and computed the analysis again until there were no significant differences within each group (all $F_s < 1$). The list of final masculine (e.g., doctor, judge), feminine (e.g., choreographer, nurse), and gender-neutral professions (e.g., journalist, paralegal) can be found in Appendix D.

Study 4

As I articulated above, it is possible that there are different domains that guide preferences for stereotypic versus optimally distinct men and women. In particular, I argued that stereotypic looks may be an important criterion when judging women, but masculine behaviors may be an important criterion when judging men. If so, I expect that the pattern of results present in Studies 1 through 3 – a preference for optimally distinct men but stereotypic women – will be reversed in Study 4. Specifically, I predict that stereotypic males (those who desire masculine professions) will be preferred over optimally distinct men (those who desire feminine professions). In contrast, I predict that optimally distinct women (those who prefer masculine professions) will be preferred over stereotypic women (those who desire feminine professions). This pattern of results would be reversal of the pattern found in Studies 1 through 3, indicating that there are different domains in which optimal distinctiveness is preferred in women and men.

Method

Participants and Design

Participants were 90 undergraduates of The Pennsylvania State University (54 female and 36 male), who received course credit. Study 4 used a sex of target (male, female) X desired profession (masculine, feminine) X participant sex (male, female) mixed model design. Sex of target and desired profession were within-participants factors in this design, whereas participant sex was a between participants factor. As in Study 3, equally attractive faces were used.

Procedure

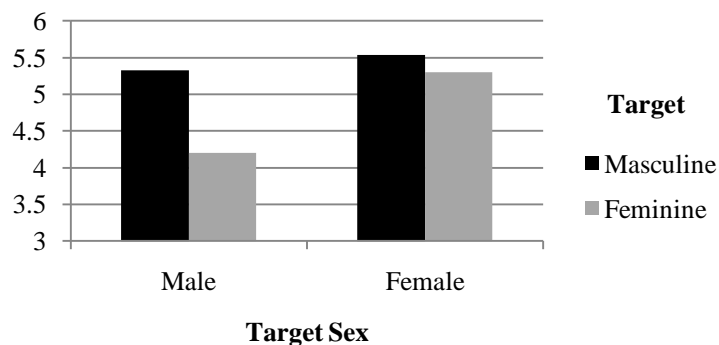
After signing a consent statement, participants were told that they would be rating people as if they were to have a “getting to know you” conversation with them. Participants were told that they should envision having a 5 minute conversation with each person. Participants were told that the images they would see are actual students whose pictures have been scanned and put into a computer program with most of the individuating characteristics (e.g., hair, jewelry, etc.) removed. As stated above, I used only unambiguously male or female faces in Study 4, choosing faces at random from those previously categorized as stereotypically male or female. Stereotypically masculine (e.g., CEO or Judge) and feminine professions (e.g., Flight attendant or Nurse) were randomly chosen based on the results of Pilot 3. Each participant rated 8 exemplars from each condition, or 32 total targets, and rated each target on both liking and interpersonal interest. Participants indicated their opinions using a 9-point scale (1 = not at all to 9 = very much). The trials were randomized across participants. In addition, half of the participants indicated liking then interpersonal interest; the other half indicated interpersonal interest then liking. When they were finished, participants were debriefed and thanked.

Results

The data were analyzed in several steps. I first correlated ratings of liking and interest. Because liking and interest were significantly correlated, $r = 0.81$, $p < .001$, I averaged across the two ratings to create a single preference score.

Preference ratings were submitted to a target sex (male, female) X desired profession (masculine, feminine) X participant sex (male, female) mixed model ANOVA. Target sex and profession were within-participants factors in this analysis. Participant sex was a between participants factor, but it exerted no main or interactive effects, so will not be mentioned further.

Three significant effects emerged from this analysis. The main effects of target sex, $F(1, 89) = 53.81$, $p < 0.001$, and desired profession, $F(1, 89) = 71.87$, $p < 0.001$, revealed that female targets were preferred over male targets and that masculine professions were preferred over feminine professions. Importantly, however, the two main effects were qualified by the predicted target sex X desired profession interaction, $F(1, 89) = 101.50$, $p < 0.001$. Means for this interaction are shown in below. As predicted, stereotypic men (those desiring a masculine profession) were preferred over optimally distinct men (or those wanting a feminine profession), $F(1, 89) = 35.52$, $p < 0.001$. In contrast, reverse was true for women; optimally distinct women (or those wanting masculine professions) were preferred over stereotypic women (or those wanting feminine professions), $F(1, 89) = 9.32$, $p < 0.05$.

Figure 2.8. Pattern of results for Study 4.

Discussion

Study 4 was designed to investigate preferences for optimal distinctiveness in men and women based on stereotypically masculine and feminine behaviors. I predicted that people may use different criteria when making judgments about men and women, thus influencing a preference for stereotypicality versus optimal distinctiveness. Based on the results of Studies 1 through 3, it seems that looks are an important criterion when making judgments of women, whereas stereotypic behaviors are an important criterion when making judgments of men. Consistent with this notion, in Study 4, stereotypic men were preferred, whereas optimally distinct women were preferred. This is a complete reversal of the results in Studies 1 through 3, where optimally distinct men were preferred but stereotypic women were preferred.

General Discussion

Studies 1 through 4 were designed to test the prediction that optimally distinct others are preferred over uniformly stereotypic and counter-stereotypic others. In Studies 1 through 3, I manipulated optimal distinctiveness via the faces of targets and found support for the hypothesis in target males, but not in target females; optimally distinct men, but stereotypic women, were preferred. These findings were replicated and alternative viable explanations were ruled out.

When left with convergent evidence of preference for optimally distinct men and stereotypic women, I wondered whether different domains were important when perceivers made judgments of target men and women. Specifically, I wondered whether it was possible that the physical appearance norms were more important for women than for men. If so, this would explain why stereotypically appearing women were always preferred over optimally distinct and counter-stereotypic women in Studies 1 through 3. To examine the possibility, I identified masculine behaviors as a probable area in which men were expected to be stereotypic. In Study 4, I controlled the stereotypicality of men's and women's physical appearance and manipulated gendered behavior through desire for masculine or feminine professions. If masculine behavior was an important criterion when judging men, the effects from Studies 1 through 3 should be reversed. Consistent with this notion, the findings of Study 4 were a reversal of prior findings, such that stereotypic men and optimally distinct women were preferred.

Together, the results of these four studies suggest that people prefer interactions with men and women who are optimally distinct in a particular way. People seem to prefer interactions with others who are good group members with respect to important gendered dimensions, but who are distinct (or gender atypical) in less important dimensions. For women, appearance seems to be the important dimension in making judgments, as people preferred interactions with women who looked stereotypic but behaved in masculine ways. For men, masculine behavior seems to be the important dimension in making judgments, as people preferred interactions with men who behaved in stereotypic ways but who looked optimally distinct.

Although, together, the results of Studies 1 through 4 are consistent with the notion that looks are important to judgments of women whereas behaviors are relatively more important to judgments of men, the initial studies do not provide the most critical test of this notion. While

Study 4 is the closest to test it, Study 4 includes only one level of appearance stereotypicality – those who are stereotypic. Thus, it cannot adequately assess how counter-stereotypic appearance in women interacts with stereotypic and non-stereotypic behaviors. For example, it is possible that counter-stereotypically appearing women who behave in feminine ways would be equally liked as women who are stereotypic in appearance while behaving in masculine ways. Should this pattern emerge, it would violate the conclusion that looks are an important criterion when judging women. It is equally possible that counter-stereotypically appearing men are disliked, regardless of the masculinity of their behaviors, which would indicate that behaviors are no more important in the judgments of men than they are in the judgments of women.

To more critically test the notion that there may be different domains of importance for judgments of women and men, the next logical step is to conduct experiments that fully cross the variables of appearance and behavior. These studies must include participants who look like good group members and those who do not look like good group members, and must also include both masculine and feminine behaviors (as in Study 4). In addition, future studies should more clearly articulate the variables of looks and behavior. While facial structure gives some indication of stereotypicality or counter-stereotypicality, people have no choice over it. However, other aspects of appearance, such as hairstyle or clothing choice, are within the control of individual and also provide clear indications of stereotypicality or counter-stereotypicality. Similarly, while desired professions provide some indication of masculine and feminine behaviors, they are an imperfect proxy, as each profession includes many behaviors, each of which could be masculine or feminine. Thus, future studies should include more direct representations of masculine and feminine behaviors, rather than using professions as a proxy.

CHAPTER 3

Optimal Distinctiveness via Specific Gender Stereotypes

The research in Chapter 2 examined the possibility that people might prefer interactions with optimally distinct others versus uniformly stereotypic or counter-stereotypic others.

Findings suggest, however, that optimally distinct others are preferred only in some situations.

People appear to prefer optimally distinct (a) men who behave in stereotypically masculine ways and have non-stereotypic appearances and (b) women who have stereotypic appearances and behave counter-stereotypically (or in masculine ways). I came to this conclusion after integrating the results of the studies presented in Chapter 2. In Studies 1 through 3, participants saw faces that varied in stereotypicality and expressed preferences for interactions with female targets who looked stereotypic but male targets who looked optimally distinct. Since appearance seemed to be more important in the perceptions of women than of men, I wondered if gendered behaviors would be more important in the perceptions of men than of women. As an initial examination of this possibility, in Study 4 I presented participants with stereotypic appearing men and women, but varied the targets expressed desire for a profession (either masculine or feminine). The results of Study 4 were the opposite of those found in Studies 1 through 3; participants preferred optimally distinct women, but stereotypic men. Importantly, this was the pattern expected if optimally distinct women were those who appeared stereotypic but behaved in counter-stereotypic ways, whereas optimally distinct men were those who behaved stereotypically but in some ways had counter-stereotypic appearances.

The goal of the theory and research in Chapter 3 is to more critically consider the suggestion that people prefer optimally distinct (a) men who behave in stereotypically but have non-stereotypic appearances and (b) women who have stereotypic appearances and behave

counter-stereotypically. In other words, the studies in Chapter 2 do not provide a critical test of the notion that optimally distinct others are preferred, but what constitutes optimally distinct others varies as a function of target gender. To more critically assess why different domains may be important in perceptions of men and women, I discuss the meaning of gender within psychology and for individuals. I then articulate predicted patterns of optimal distinctiveness expected for men and women and outline two studies that critically test those predictions.

The Nature of Gender

Gender is a social construction of roles, abilities, appearance and preferences that describe how men and women tend to be and prescribe what men and women should be (Crawford & Unger, 2004). As such, the perception of biological sex quickly morphs into gendered notions of what one can and should do. In fact, by an early age, children learn both their sex and the corresponding toys with which they should (and should not) play, colors to like (and not like), and activities to enjoy (or not enjoy; Martin & Little, 1990). However, the conceptualization of gender has changed over time, both within psychology and in U.S. society more generally. I briefly discuss these changes below, and then articulate how a focus on central components of gender stereotypes helps to expand our conceptualization of gender.

Historically, conceptions of gender have changed from a unidimensional continuum, to separate orthogonal constructs of masculinity and femininity, to a multifaceted constellation of gender-related features. Originally, gender in psychology and society was a unidimensional construct (Constantinople, 1973), such that masculinity was conceived of as the absence of femininity and vice-a-versa. However, as more women became involved in advanced psychological study, the definitions of gender began to change as social theorists and researchers noted that gender is not actually a unidimensional construct.

Curiosity about the center of the “continuum” led psychologist Sandra Bem to suggest that gender was better conceptualized as two orthogonal continua upon which a person could vary. Addressing personality traits associated with masculinity and femininity, she argued that masculinity and feminine could be crossed to depict four subtypes of people. Thus, a person could be categorized as high or low in masculinity and femininity simultaneously, leading to one of four general “gendered” descriptions (i.e., masculine – high only in masculinity, feminine – high only in femininity, androgynous – high in both masculinity and femininity, or undifferentiated – high in neither masculinity or femininity; Bem 1974). Although Bem’s two-dimensional framework enhanced the understanding of gender in psychology, some of Bem’s contemporaries were dissatisfied with two-dimensions as the only way to think about gender.

Later psychologists (e.g., Spence, 1984) subsequently outlined a multidimensional framework, including more than gendered personality traits. Thus, gender was conceptualized both as a phenomenological sense of one’s own “maleness” or “femaleness” and a constellation of traits such as personality, behavior, appearance, and social roles, all of which could be weighted differently in individual conceptualizations of gender (Spence, 1984). Two women may, for instance, have similar phenomenological notions of their own gender identity (i.e., their own “femaleness”), but differ in their own perceptions of why they are feminine. One woman may feel feminine given how she looks, whereas another woman may feel similarly feminine because of the activities she prefers (e.g., “feminine” pastimes like knitting and needlepoint). The multidimensional framework of gender represented a step forward in the way that psychologists understood gender, expanding the conceptualization of gender from only personality to a constellation of descriptive elements. However, despite the theoretical advance,

subsequent (and most current) research on gender still tended to investigate gender by using the personality traits of agency and communion to represent gender.

The multidimensional conceptualization of gender – that gender is not solely about personality, but can be something different for each person depending on their own presentation of their gendered selves – aligns with the notion of gender performativity. Gender performativity is the idea that gender is not something innate, but instead is performed through repetitious acts (such as putting on make-up, engaging in specific tasks, or in interactions with others; Butler, 1990; 1993). Thus, in order to understand how gender functions, particularly as related to optimal distinctiveness, I must understand how men and women perform gender.

There are, however, gender differences in the domains in which gender is performed and gender performativity is expected. In other words, men and women may perform gender by maximizing central domains of their gender stereotype. As I stated earlier, central components (or domains) of gender are those that provide clear indications of another person's gendered identity. In addition, it is likely that there is less room for variation in what is considered a central component of gender, meaning that the confines of acceptable behavior are smaller for this component than other components. Thus, to be optimally distinct, men and women must perform gender within the standards of "acceptability" in the central domains of the masculine or feminine gender stereotype. In other words, as long as women and men adhere to the standards of central gender domains, they are allowed to deviate in other, less-central ways; subsequently becoming optimally distinct. Below, I will argue that appearance (for women) and behaviors (for men) are domains of central importance when performing and perceiving gender.

Gender: Appearance, Behavior, and Deviance

Looks are important to how women view themselves and are viewed by others. When women view themselves, self ratings of femininity are strongly and positively correlated with ratings of the importance of one's appearance (Twenge, 1999). The importance of appearance to women is such that some women internalize a third party perspective on the self or self-objectify, viewing themselves as "objects to be looked at and evaluated" and judging themselves only in terms of their appearance (Fredrickson & Roberts, 1997, p. 177). In women, self-objectification leads to body shame, restricted eating, and uses up cognitive resources, resulting in diminished intellectual performance (Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998).

When women are viewed by others, appearance is still seems to carry significant importance. For example, there are intensified prescriptions to attend to appearances for women but not for men (Prentice & Carranza, 2002). In addition, in reference to the ideal woman, "appearance...still tops the list" as the fundamental dimension of femininity (Twenge, 1999, p. 500). These intensified prescriptions often emerge in the way women are portrayed in print media, with more focus on their bodies (in comparison to the display of men's bodies) and in the content of advertisements for "beauty-enhancing" products (Fredrickson & Roberts, 1997). Indeed, Fredrickson & Roberts argue that the sexualization of the female body is ubiquitous, as it occurs whenever a female body is present in actual or implied (e.g., media-based) interpersonal interactions. This sexualized portrayal has specific effects on judgments. First, and perhaps most insidious, women – but not men – are judged in object-like ways, meaning that perceivers focus on specific body parts, rather than the whole person (Gervais, 2008). Second, when men look at women (note existence of specific words for that behavior, e.g., "ogle" or "leer;" see Fredrickson & Roberts, 1997) it is often accompanied by evaluative commentary (Gardner, 1980).

In contrast, research and theory seem to imply that behaviors, more so than appearance, have importance for men when judging themselves and for others when judging men. Many scholars argue that there is a narrow definition of “appropriate” masculine behavior (Feinman, 1981; Kimmel, 2008). Traditionally, and most frequently, masculinity has been conceptualized as having three components (e.g., Thompson & Pleck, 1986; Kimmel, 2005). The first component of masculinity is toughness, which includes elements of mental, emotional, and physical toughness in interactions with others. The second component of masculinity is status, which encompasses dominant behaviors such as achieving success, commanding respect, and providing for a family. The third component of masculinity, a flight from the feminine, is conceptualized less as appearance and more as a direct refutation of aspects of femininity, such as submission, sensitivity, and feminine activities. All three of these components directly address masculinity as a creation of dominant (or agentic or powerful) behaviors. Thus, masculine self-concepts are directly tied to dominant behaviors.

What’s more, dominant behaviors are important to men’s self perceptions. For men, masculine self ratings involve a collection of traits and behaviors that represent male dominance, such as competitive (or sporting) behavior, the rejection of feminine traits (such as nurturing), having male friends, and physical expansiveness, all of which can be construed as dominance (Twenge, 1999; see also Kimmel, 2005). Men also report discomfort when engaging in an act that is associated with feminine behaviors. In a clever manipulation, for instance, men engaged in the same behavior (braiding) that was made to be either consistent with masculine behaviors (braiding rope) or consistent with feminine behaviors (braiding hair; Bosson, Prewitt-Frelino, & Taylor, 2005). Only when they braided hair did men express discomfort. Additionally, in a meta-analysis of the endorsement of masculine traits (e.g., those found in the Bem Sex Role Inventory,

such as assertive, forceful, ambitious, or competitive), men's self-ratings did not change over time, (Twenge, 1997). Thus, masculinity is both narrowly and consistently defined by dominance behaviors, which are important to men.

Dominant behavior is also important when making judgments about men. There are intensified prescriptions for dominance-related behaviors, such that men are expected to be leaders, ambitious, assertive, decisive, competitive, aggressive, intense, and forceful (Prentice & Carranza; Bem, 1974). In fact, other gendered displays (e.g., men's appearance) can be overlooked in the presence of masculine behaviors, as Spence noted nearly a quarter century ago:

For example, the masculinity of a slightly built man whose voice and body movements seem effeminate may be suspect... However, if it is later observed that the man is forceful and assertive in his dealings with others...his physical attributes and mannerisms are likely to be heavily discounted, the ultimate assessment being that he is fairly masculine (Spence, 1984, p. 88-89).

Consistent with this notion men tend to strongly endorse items that reject feminine behaviors (e.g., "it bothers me when a man *does* something that I consider 'feminine,'" emphasis mine; Thompson & Pleck, p. 538). This is consistent with findings showing that men prefer to interact with other men in masculine (as opposed to gender-neutral or feminine) domains, perhaps out of a desire to avoid engaging in gender-violating behaviors (Thomas & Vescio, 2009).

Finally, there is also ample evidence that men and women are punished for gender atypicality. Gender atypical girls and boys are, for instance, more likely to be victimized at school and have lower scores on multiple measures of psychological well-being (Young & Sweeting, 2004). Both adult men and adult women sabotage gender atypical (vs. gender normative) behavior of others (Rudman and Fairchild, 2004), particularly when perceivers reject more modern egalitarian notions of gender roles (Brutus, Montei, Jex, King, & King, 1993). For instance, women are often the targets of backlash if they do not demonstrate sufficiently

feminine traits (Rudman & Glick, 1999) and are liked less when they succeed in male domains (Heilman, Wallen, Fuchs, & Tamkins, 2004). The punishment of gender atypicality is also well known. Findings show that those who perform well in a gender atypical domain often hide their accomplishments to avoid backlash (Rudman & Fairchild).

Summary

Based on the above considerations, central gender domains vary for women and men. For women, looks may be of central importance in the performance and perception of gender. For men, behaviors may be of more central import in the performance and perception of gender. Looks for women and behaviors for men involve intensified prescriptions, are rated highly in relation to the gendered self, and inform and affect perceivers' judgments of women and men. However, since Study 4 (above) was not a rigorous test of these assumptions, I articulate my predictions in relation to the specific patterns of optimal distinctiveness for men and women and then articulate two studies designed to test my hypotheses.

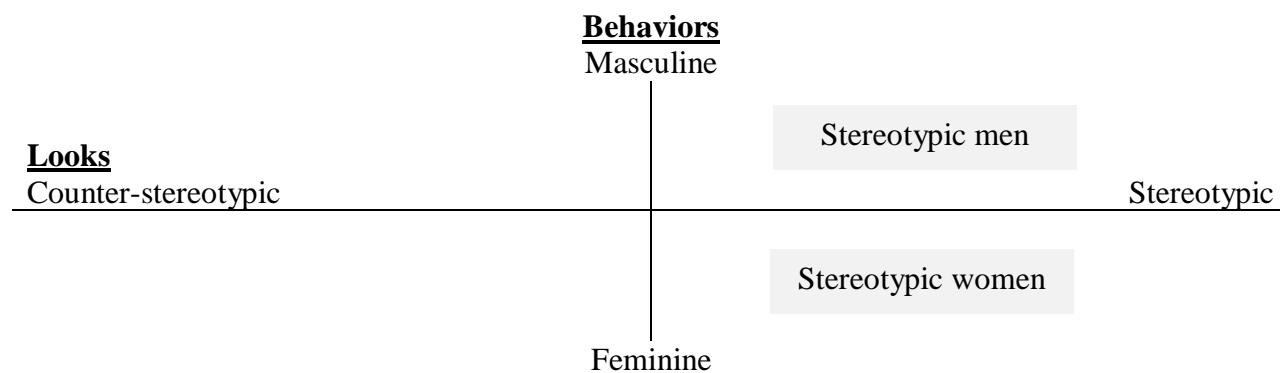
Hypotheses and Study Overview

Above, I argued that people prefer optimal distinctiveness in others, but that patterns of optimal distinctiveness vary for women and men. I defined optimally distinct others as those who have core characteristics of their gender in-group, but who also have at least one non-stereotypic characteristic. In addition, the foregoing considerations suggest that there are some domains of gender stereotypes that are more central than others – looks for women and behaviors for men. Together, these considerations lead to the possibility that women must look like good group members (or be stereotypically feminine), but stereotypically appearing women who also exhibit counter-stereotypic behaviors are preferred over uniformly stereotypic women (who both look like and act like good women). In contrast, men must behave like good men, but men behaving

in masculine ways who are also counter-stereotypic in appearance will be preferred over uniformly stereotypic men. These combinations provide evidence of good group membership via stereotypic gendered information in a central domain, as well as unique personalizing features via non-stereotypic gendered information in less central domains.

To elaborate on these predictions, consider Figure 3.1 below in which behaviors (masculine or feminine) and target appearance (masculine or feminine) are crossed. In this figure, stereotypic men are depicted by the upper right quadrant, where they both appear stereotypic and behave in masculine ways. In contrast, stereotypic women appear in the lower right quadrant, where they both appear stereotypic and behave in feminine ways. Of course, the stereotypicality of appearance is not embodied the same for men and women, but the point is that stereotypically appearing men and women look like what is expected for their sex.⁴

Figure 3.1. Stereotypicality via looks and behaviors for women and men.



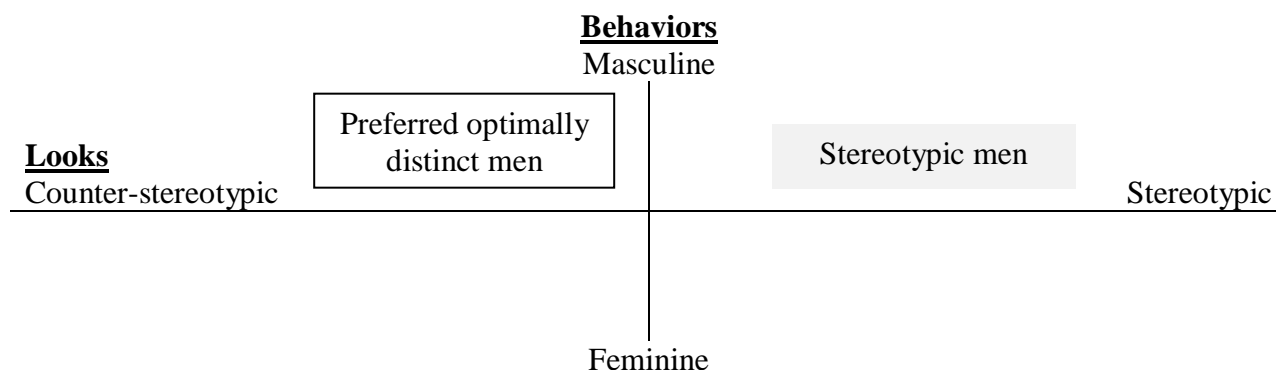
What, then, would an optimally distinct other look like compared to stereotypic others?

Compared to the stereotypic man, depicted in the upper right quadrant of Figure 3.2, an

⁴ These hypotheses rest on the following assumption: counter-stereotypic appearance will likely take the form of cross-gendered appearance (e.g., men looking feminine). For men, multiple variations could emerge. For example, either a primped and put together appearance or long hair could be considered a feminine appearance for men. The first would likely result in a label like “metrosexual,” whereas the second would likely be associated with heavy metal rockers. Either utilization of a feminine appearance in men would presumably have same result.

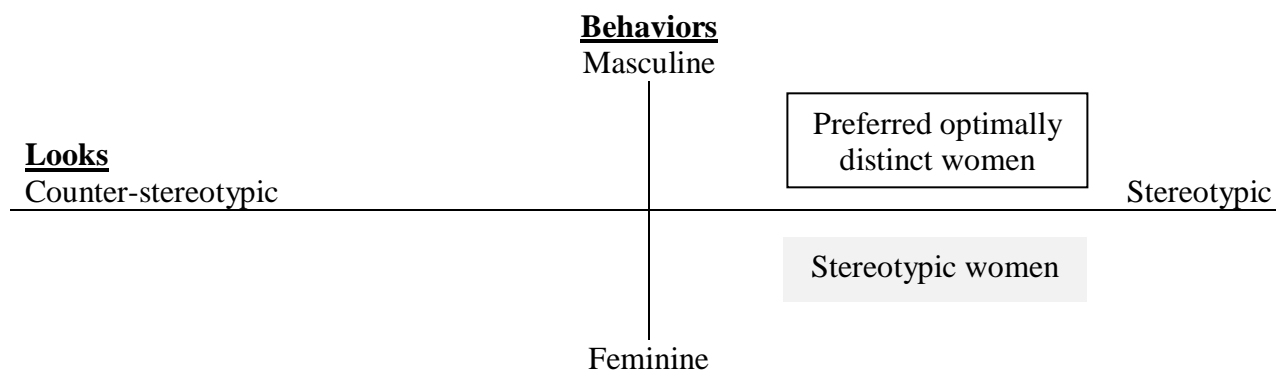
optimally distinct man would exhibit masculine behaviors but be counter-stereotypic in appearance, which is represented by the upper left quadrant of Figure 3.2 below.

Figure 3.2. Optimally distinct and stereotypic men based on behaviors and looks.



Stereotypic and optimally distinct women, by contrast, are depicted in Figure 3.3 below. As noted, stereotypic women would appear in the lower right quadrant, looking like “good women” and exhibiting feminine behaviors. Compared to the stereotypic woman, an optimally distinct woman would also look like a “good woman” but would exhibit stereotypically masculine behaviors, rather than stereotypically feminine behaviors.

Figure 3.3. Optimally distinct and stereotypic women based on behaviors and looks.

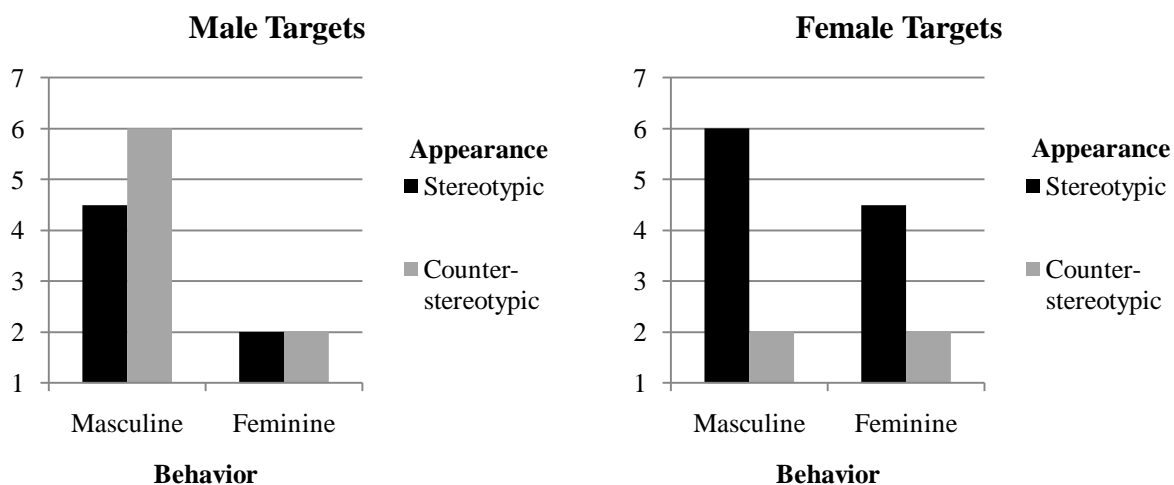


Studies 5 and 6 were designed to test these predictions. Toward that end, male and female participants were brought to the lab, considered a series of male and female targets and indicated the degree that they would be interested in interacting with each target. Male and female targets

were either stereotypic or counter-stereotypic in their appearance and described as behaving in masculine or feminine ways. In other words, each study used a participant gender (male or female) X target gender (male or female) X target appearance (stereotypic or counter-stereotypic) X target behavior (masculine or feminine) mixed model design. Target gender, target appearance, and target behavior were within participants variables in each study, whereas participant gender was a between participants variable.

Given the design of the studies, the following pattern of results was expected. When considering interactions with male targets, as shown in the left panel of Figure 3.4 below, I expected a clear preference for interactions with men who behaved in masculine ways over men who behaved in feminine ways. More importantly, however, I expected that there would be greater preference for interactions with optimally distinct men (appropriately behaving but counter-stereotypic appearing men) over uniformly stereotypic men. When considering interactions with female targets, as shown in the right panel of Figure 3.4 below, a different pattern was expected. Here, I expected that interactions with stereotypic appearing women would be preferred over counter-stereotypic appearing women. In addition, among stereotypic women, I expected a greater preference for interactions with optimally distinct women (stereotypically appearing but masculine behaving women) over uniformly stereotypic women.

Figure 3.4. Predicted pattern of results for Studies 5 and 6.



Implicit in these predictions are the presence of both masculine and feminine behaviors and stereotypic and counter-stereotypic appearance. I will address each of these in turn. First, at the end of Chapter 2, I discussed the issues with using desire professions as a proxy for masculine and feminine behavior. As noted, professions can be clearly delineated as masculine or feminine in general, but also encompass a variety of behaviors that may or may not match with the overall label of masculinity/femininity. In the studies designed to test predictions, it is critical to have a specific operationalization of masculine and feminine behaviors. Thus, I conducted a pilot test (see Pilot 4, below) where participants rated literal behaviors (e.g., going to the grocery store, eating at a fast food restaurant) for masculinity and femininity. This is a more direct operationalization of behavior, in contrast to the use of professions in Study 4 above. Behaviors were also equated in terms of valence.

Second, as noted (see general discussion of Chapter 2), people have no control over the structure of their facial features but control over their selection of profession. As a result, there was a potential confound in Study 4 in that facial appearance was not controllably and desired profession was controllable. As a result, the reversal of effects could be due to the controllability

of gender displays rather than optimal distinctiveness per se. In other words, it is possible that people allow women some degree of choice over how they display gender, but allow men little choice (i.e., if a behavior is controllable men must exhibit masculine performances). This interpretation is consistent with the argument that men have less variability in what is considered “appropriate” masculine behaviors. However, if controllability over gendered behaviors is the actual explanation for the different patterns found in Studies 1 through 3 versus Study 4, I would expect that any type of controllable gendered display would provide the same results. Thus, controlling one’s expressed preference for a profession should be the same as controlling aspects of appearance (e.g., hairstyle or clothing choice, not facial structure or height). To rule out that possibility (i.e., eliminate the controllability confound), I decided to include controllable aspects of physical appearance. Thus, prior to the studies in this chapter, I also conducted a second pilot test to ascertain the stereotypicality of different hairstyles for men and women. Should controllability be the driving factor, in the studies below I would see a preference for stereotypic male targets and optimally distinct female targets.

After the pilot studies, I attempt to more critically test predictions in two studies that use controllable forms of appearance (hairstyle – long or short) and behavior (daily activities). Prior to describing the studies, however, I detail the pilot testing done in preparation for the studies contained in Chapter 3 (Study 5 and Study 6).

Pilot 4: Gendered and Valenced Behaviors

To identify masculine or feminine behaviors I conducted a pilot test on daily behaviors.

Method

First, 150 behaviors and hobbies were generated by undergraduate research assistants. When generating ideas, research assistants were instructed to think of daily activities (e.g.,

studying for a class), hobbies (e.g., kayaking), or behaviors that men engaged in but women did not and vice versa. These behaviors were then compiled into a master list for this pilot test.

Participants

Participants were 125 (53 male and 72 female) undergraduates of The Pennsylvania State University. Participants completed the experiment in return for credit toward the active research portion of their grade in an introductory psychology course. Participants were run in mixed-sex groups of six to eight, but worked at computers placed in individual work spaces.

Procedure

After signing a consent statement, participants were told one of two things. Half of the participants were told that they would be categorizing behaviors based on masculinity and femininity and that their task was simply to indicate how they perceived each presented behavior. These participants made their ratings using a scale of 1 = masculine to 7 = feminine. The other half of the participants were told that they would be rating behaviors based on positivity or negativity. These participants make their ratings using a scale of 1 = positive to 7 = negative. The behaviors were presented in a different randomized order for each participant. When the experiment was complete, participants were debriefed and thanked

Results

First, I submitted the ratings of gender and valence to separate ANOVAs using participant sex as a between-participant variable. Any behavior that male and female participants categorized differently for gender or for valence was dropped from both datasets. Second, using the dataset of valence ratings, I computed t-test comparing the valence of each item to the midpoint of the scale. Because I did not want to run into any issues with valence of the behavior and did not want to include it as an additional variable, I dropped all behaviors rated significantly

higher than the mid-point of the scale. These behaviors were all rated as positive behaviors by the participants. Finally, I computed a t-test to determine categorization by gender, comparing all behaviors to the midpoint of the scale. Any remaining behaviors that were rated significantly lower than the mid-point of the scale were labeled masculine (e.g., fixing household items) and any behaviors rated significantly higher than the mid-point of the scale were labeled feminine (e.g., planning an activity for kids). The final list of behaviors can be found in Appendix E.

Pilot 5: Stereotypicality of Hairstyles

The goal of this pilot study was to make sure that the short hairstyles of women and the long hairstyles of men are perceived to be counter-stereotypic for their sex.

Method

Participants

Participants were 43 undergraduates at the Pennsylvania State University (female = 23 and male = 20), who received course credit and were run in groups of 4 to 10.

Materials

Pictures of men and women with long and short hair were compiled by undergraduate Research Assistants. For each group, 8 pictures were gathered. Each picture was cropped as closely as possible to show just the neck and head of each person. In some case, pictures could not be cropped without getting too blurry, so some images also show the upper shoulders. After being cropped, the pictures of men with long hair and women with short hair were edited a second time to erase everything but the hairstyle (for example images, see Appendix F).

Procedure

After signing a consent statement, participants were told that they would be rating hairstyles for masculinity and femininity. Each participant was presented with 32 hairstyles.

Participants rated each hairstyle using a scale of 1 = feminine to 7 = masculine. The hairstyles were presented in a different random order for each participant. After responding to all 16 hairstyles, participants were thanked and debriefed.

Results

To assess whether each group of hairstyles was considered masculine or feminine, I first averaged the ratings for all the hairstyles in each group. Next, I compared the ratings for each hairstyle to the mid-point of the scale. I expected to find that the long hairstyles of both men and women would be rated significantly lower than the mid-point, indicating femininity, whereas the short hairstyles of both men and women would be rated significantly higher than the mid-point, indicating masculinity. Using a t-test, this is exactly what I found. The long hairstyles of both men ($M = 2.52$) and women ($M = 2.51$) were rated significantly lower than the mid-point, $t(45) > 9.62$, $ps < 0.001$. In addition, the short hairstyles of both men ($M = 5.82$) and women ($M = 4.72$) were rated significantly higher than the mid-point. Thus, short hair on women and long hair on men can be considered counter-stereotypic, $t(45) > 5.53$, $ps < 0.001$.

Study 5

The goals of Study 5 were threefold. First, Study 5 was designed to test the predictions that emerged from the synthesis of results found in Studies 1 through 4, which are that while optimal distinctiveness is preferred, the preference takes different forms for men and women. Second, Study 5 will allow me to rule out the possible explanation of controllability that could account for the different patterns of results found in Studies 1 through 3 versus Study 4. All of the manipulations of gender in Study 5 are controllable. Third, Study 5 is designed to be a more accurate test of the relative importance of behavior versus appearance for male and female

targets. Thus, in this study, I include a different operationalization of gendered appearance as well as a clarified set of gendered behaviors.

My predictions remain the same. I predict a preference for optimally distinct others, though I predict that the nature of the optimal distinctiveness will vary for women and men. Specifically, I predict the preference for optimally distinct women will emerge when women are stereotypic in appearance but counter-stereotypic in behaviors. For men, I predicted the preference for optimal distinctiveness will emerge when men are stereotypic in their behaviors but counter-stereotypic in their appearance.

As outlined above, data was collected using a target sex (male or female) X target features (stereotypic or counter-stereotypic) X target behavior (masculine or feminine) X type of conversation (getting to know you or adjustment to college) within-participants design. Participants were again presented with male and female stereotypic and counter-stereotypic appearing targets. Additionally, a masculine or feminine behavior was presented with each target. Participants were asked to indicate how much they would like to engage in a “getting to know you” conversation with each person and how much they would like to talk to the person about their own adjustment to college.⁵

Method

Participants

Participants were 102 (51 male and 51 female; 80% White) undergraduates of The Pennsylvania State University. Participants completed the experiment in return for credit toward

⁵ These two types of conversations are included because it is possible that I instituted demand characteristics in Studies 1 through 4. In other words, I could have created a false preference for optimally distinct others in situations where there is little to talk about. However, given a topic (adjustment to college) that involves revealing a bit more personal information, any demand characteristics, if they exist, should disappear. If demand characteristics occurred, I would expect optimal distinctiveness effects in only the “getting to know you” conversation condition.

the active research portion of their grade in an introductory psychology course. Participants were run in mixed-sex groups of six to eight, but worked at computers in individual work spaces.

Materials

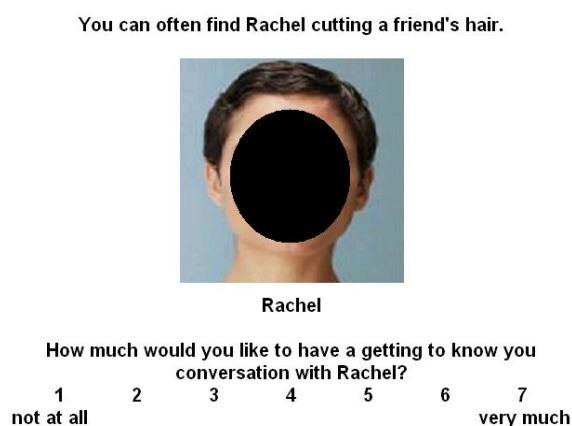
The images used in this study were selected based on the results of the pilot test explained above (see Pilot 5). As in all prior studies, male and female faces were paired with the appropriately gendered names used in the prior studies. The behaviors used in this study were also chosen based on the results of the pilot test explained above (see Pilot 4). An example screen that participants saw is below.

Procedure

After signing a consent statement, participants were told that they will be indicating how much they would like to interact with various other people. Participants were presented with only the hairstyle of each target as a controllable aspect of their appearance (see Figure 3.5 below and Appendix F for examples). Thus, participants were presented with a series of pictures of stereotypic and counter-stereotypic appearing men and women. In each picture, the head, neck, and sometimes shoulders of a target were visible but the face was covered by a black circle. Each face was presented with a male or female name and a behavior in which the target often engages. Participants indicated their desire to interact with the target using a 7-point Likert scale (1 = not at all and 7 = very much). Participants rated four targets for each combination of the independent variables, rating a total of 32 faces. Faces were rated each target twice, once while imagining a “getting to know you conversation” and while imagining a conversation about the participant’s own adjustment to college. The order in which participants rated the faces was counter-balanced across the imagined conversation such that some participants experienced the “getting to know you” conversation condition first, while other participants experience the adjustment to college

conversation condition first. Finally, within conversation condition, the targets were presented in a different randomized order for each participant. When the experiment was complete, participants were debriefed and thanked.

Figure 3.5. Example stimuli from Study 5.



Results

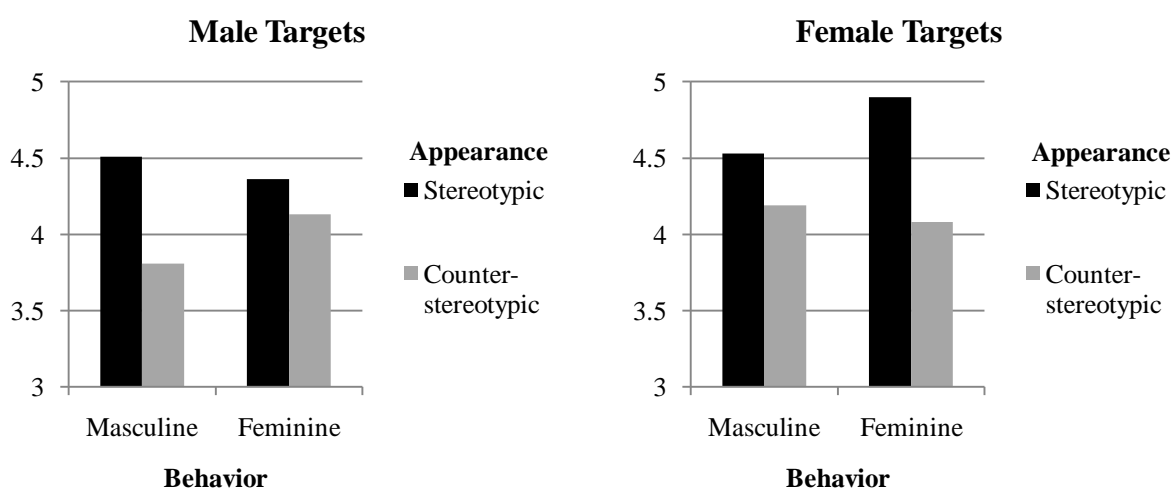
Participants' interest in interaction was submitted to a type of conversation (getting acquainted or college adjustment) X target sex (male or female) X target appearance (stereotypic or counter-stereotypic) X target behavior (masculine or feminine) X participant sex (male or female) X order (getting acquainted first or college adjustment first) mixed model ANOVA. Type of conversation, target sex, target stereotypicality, and target behavior were within-participants factors in this analysis. Participant sex and order were between-participants factors in this analysis. There were no effects of order, so this factor will not be mentioned further.

Several significant effects emerged from this analysis. First, a main effect of target sex, $F(1, 100) = 12.63, p < 0.001$, indicated that participants preferred interacting with female targets ($M = 4.42$) over male targets ($M = 4.20$). This effect, however, interacted with participant sex, $F(1, 100) = 36.35, p < 0.001$, such that interactions with female vs. male targets were preferred by male participants, but not female participants. Second, a main effect of target stereotypicality,

$F(1, 100) = 70.66, p < 0.001$, indicated that participants preferred interactions with stereotypic targets ($M = 4.58$) over counter-stereotypic targets ($M = 4.05$). Third, target behavior interacted with participant sex, $F(1, 100) = 35.04, p < 0.001$; female participants preferred interactions with targets who had engaged in feminine behaviors, whereas male participants had a significant preference for interactions with targets who engaged in masculine behaviors.

More importantly, the predicted interaction between target sex, target appearance, and target behavior was significant, $F(1, 100) = 53.24, p < 0.001$. The pattern of means for male and female targets associated with this interaction is depicted in Figure 3.6 below. To interpret this interaction, I conducted target appearance X target behavior ANOVAs separately for male and female targets.

Figure 3.6. Pattern of results for Study 5.



For male targets, I expected a significant interaction between type of behavior and target appearance, as well as a stronger main effect for type of behavior than for target appearance. The predicted main effect for type of behavior did not emerge, $F(1, 101) < 1.10$. However, a main effect for target appearance did emerge, $F(1, 101) = 51.31, p < 0.001$; stereotypically appearing targets were preferred over counter-stereotypically appearing targets. The predicted interaction

between target features and target behavior emerged, $F(1, 101) = 16.29, p < 0.001$, but the pattern was not what was predicted. I predicted that men who behaved in masculine ways but who looked counter-stereotypic would be preferred over men who behaved in masculine ways but looked stereotypic (i.e., optimally distinctiveness effect). Instead, stereotypically appearing men, regardless of behavior, were preferred over all others, all $ts(101) > 2.75, ps < 0.01$.

For female targets, I expected a type of behavior X target appearance interaction, as well as a stronger main effect for target appearance than for type of behavior. The main effect for target appearance emerged, $F(1, 101) = 47.25, p < 0.001$; stereotypic targets were preferred over counter-stereotypic targets. A main effect for type of behavior also emerged, $F(1, 101) = 3.98, p < 0.05$; women engaging in feminine behaviors were preferred over those engaging in masculine behaviors. The relative strength of each of the main effects is consistent with my predictions. The predicted interaction between target features and target behavior emerged, $F(1, 101) = 12.44, p < 0.001$, but the pattern was not as predicted. Instead, stereotypic appearing and feminine behaving women were preferred over all others, all $ts(101) > 3.77, ps < 0.001$.⁶

Discussion

A preference for optimally distinct others over uniformly stereotypic and counter-stereotypic others was predicted. I also predicted that people would prefer particular forms of optimal distinctiveness that varies as a function of target gender; namely, I predicted that women

⁶ Four theoretically less relevant interactions also emerged from this analysis. First, target sex, target stereotypicality, and participant sex interacted, $F(1, 100) = 16.29, p < 0.001$; female participants preferred interactions with stereotypic (vs. counter-stereotypic) targets, whereas male participants preferred interactions with stereotypic female targets. Second, target sex, target behavior, and participant sex interacted, $F(1, 100) = 17.66, p < 0.001$; female participants preferred interactions with feminine behaving others, whereas male participants preferred interactions with male targets behaving in masculine ways. Third, target stereotypicality, target behavior, and participant sex interacted, $F(1, 100) = 12.62, p < 0.001$; female participants preferred feminine behaving others, whereas male participants preferred stereotypic others who behaved in feminine ways but counter-stereotypic others who behaved in masculine ways. Finally, type of conversation, target sex, and participant sex interacted, $F(1, 100) = 4.40, p < 0.05$; male participants preferred female targets, whereas female participants preferred male partners for getting acquainted conversations but had no preference for college adjustment conversations.

who looked like good women but who behaved in masculine ways would be preferred over other women, whereas men who behaved in masculine ways but looked counter-stereotypic would be preferred. Finally, I also conducted this study to rule out controllability as the driving mechanism behind the different patterns of results that emerged in Studies 1 through 4.

The results of Study 5 were not, however, consistent with predictions. Optimal distinctiveness effects did not emerge. Instead, people preferred interactions with uniformly stereotypic targets, regardless of target gender. In other words, people preferred interactions with others who looked like and behaved like good men and women. The pattern of preferences for uniformly stereotypic targets has two implications.

Prior to engaging in an analysis of the possible reasons that the findings of Study 5 failed to replicate prior findings, I turned attention to the question of whether the findings of Study 5 could be replicated. Toward that end, I conducted Study 6 using the exact same methodology and the exact same behaviors. However, since facial information was present in the studies in which optimal distinctiveness emerged (Studies 1-4), I incorporated facial information into Study 6. In addition to altering hairstyle, consistent faces were included. The inclusion of faces in Study 6 also increases the external validity of the study, as there are no instances where people would be exposed to others who have black circles covering their faces. Prior to conducting the study, however, I needed to identify faces that were rated equally attractive across conditions (stereotypic and counter-stereotypic men and women). I, therefore, conducted a pilot test.

Pilot 6: Attractiveness of Targets

Method

Participants

Participants were 82 undergraduates at the Pennsylvania State University (female = 44 and male = 38), who received course credit and were run in mixed-sex groups of 4 to 10.

Materials

Pictures of White men and women with long and short hair were compiled (over 100 pictures of each gender X hair length category). Each picture showed the neck and head of a man or woman (for sample images, see Appendix G).

Procedure

After signing a consent statement, participants were told that they would be rating pictures the attractiveness of people in photographs. Each group of images was divided into two groups and each participant was presented with one half of the images for each group. Participants rated each picture using a scale of 1 = not at all attractive to 7 = very attractive. The pictures were presented in a different random order for each participant. After responding to all the images, participants were thanked and debriefed.

Results

To gather groups of equally attractive faces, I analyzed the data in multiple steps. First, using an ANOVA, I removed pictures that were rated significantly different by male and female participants. Second, I computed a within participants ANOVA for each group of pictures (e.g., women with short hair). When a significant effect emerged, I dropped the lowest and highest rated images and computed a subsequent ANOVA. I continued in this pattern until all of the images in each group were rated similarly on attractiveness. Finally, once I had a grouping of

pictures for each group, I averaged the ratings for the images in each group and computed a within-participant ANOVA to compare across groups, $F(3) < 1.4$.

Study 6

Study 6 used a target sex (male, female) X target appearance (stereotypic, counter-stereotypic) X target behavior (masculine, feminine) within-participants design.

Method

Participants

Participants were 96 (47 male and 49 female; 91% White) undergraduates of The Pennsylvania State University, who received course credit and were run in groups 6 to 8.

Materials

The images used in this study were selected based on the results of the pilot test explained above. Eight images from each group were chosen for this study. Of note, I tried to equate the rates of smiling across all of the groups. Although it was not possible to perfectly equate the groups based on smiling, I ended up with smiling rates as follows: women with long hair, 3 out of 8 (with two partial smiles); women with short hair, 3 out of 8 (with one partial smile); men with long hair, 2 out of 8 (with one partial smile); and, men with short hair, 3 out of 8 (with one partial smile). After randomly assigning the pictures to condition, I made sure that the smiling pictures were distributed as equally as possible, making adjustments where necessary. Below is an example of what participants saw during this study.

Procedure

After signing a consent statement, participants were asked to indicate how much they would like to interact with various others. Study 6 used the same behaviors, gender appropriate names and stereotypic and counter-stereotypic appearing male and female targets that were used

in Study 5. The only difference in the pictures used for Study 6 is that they included facial information and were matched for attractiveness both within and across groups. In addition, participants rated each target imagining both a “getting to know you” conversation and a conversation about adjustment to college. The order of imagined conversation was counter-balanced across participants and targets were presented in a different random order for each participant within type of conversation. Again, participants indicated their desire to interact with the target using a 7-point Likert scale (1 = not at all and 7 = very much). Participants rated four targets for each combination of the independent variables, rating a total of 32 faces.

Figure 3.7. Example stimuli from Study 6.

You can often find David singing in a group.



David

How much would you like to have a getting to know you conversation with David?

1	2	3	4	5	6	7
not at all						very much

Results

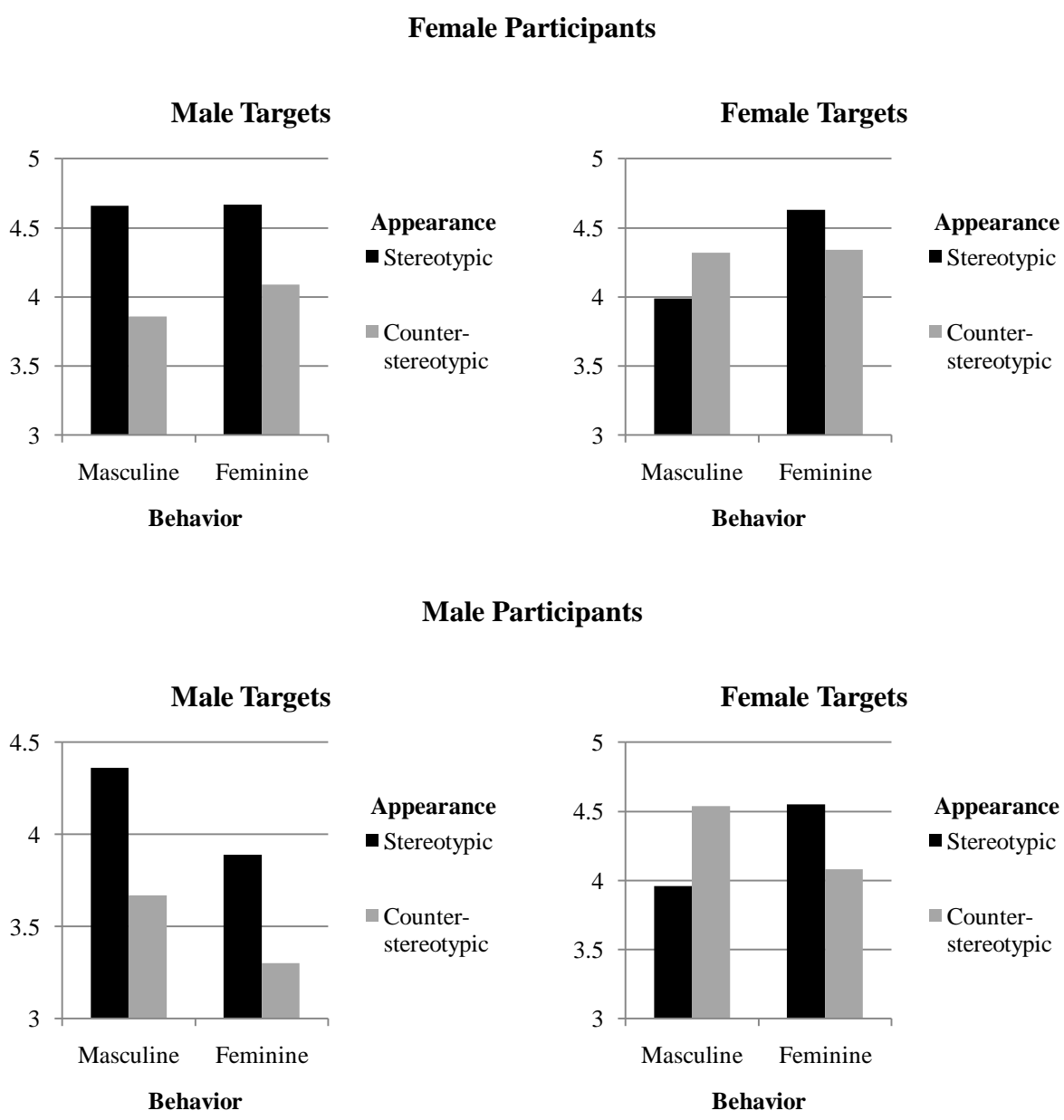
Participants’ interest in interaction was submitted to a type of conversation (getting acquainted or adjustment to college, see footnote 5) X target sex (male or female) X target appearance (stereotypic or counter-stereotypic) X target behavior (masculine or feminine) X participant sex (male or female) X order (getting acquainted first or second) mixed model ANOVA. Type of conversation, target sex, target stereotypicality, and target behavior were within-participants factors in this analysis. Participant sex and order were between-participants factors. As in Study 5, there were no effects of order, so this factor will not be mentioned further.

Several significant effects emerged from this analysis. First, a main effect of target sex, $F(1, 94) = 7.63, p < 0.01$, indicated that participants preferred interacting with female targets ($M = 4.27$) over male targets ($M = 4.06$). This main effect, however, interacted with participant sex, $F(1, 94) = 7.72, p < 0.01$, such that interactions with female vs. male targets were preferred by male participants, but not female participants. Second, a main effect for stereotypicality, $F(1, 94) = 48.29, p < 0.001$, indicated that participants preferred interactions with stereotypic targets ($M = 4.34$) over counter-stereotypic targets ($M = 3.99$). Third, target behavior interacted with participant sex, $F(1, 94) = 27.67, p < 0.001$; female participants preferred interactions with targets who had engaged in feminine behaviors, whereas male participants preferred interactions with targets who engaged in masculine behaviors. Finally, a main effect of participant sex, $F(1, 94) = 5.41, p < 0.05$, indicated that female (vs. male) participants rated targets more highly.

More importantly, and replicating Study 5, the predicted interaction between target sex, target appearance, and target behavior was significant, $F(1, 94) = 77.88, p < 0.001$. However, this interaction was qualified by an interaction with target sex, $F(1, 94) = 4.65, p < 0.05$. The pattern of means for this interaction is depicted in Figure 3.8 below. This interaction qualified many other lower-level interactions. The significant interactions qualified by the four-way interaction above are as follows: target sex X target stereotypicality, $F(1, 94) = 64.17, p < 0.001$, indicating a preference for stereotypic over counter-stereotypic male targets but no preference among female targets; target sex X target behavior, $F(1, 94) = 16.56, p < 0.001$, indicating a preference for male targets engaging masculine behaviors and female targets engaging feminine behaviors; and, target stereotypicality X target behavior, $F(1, 94) = 26.77, p < 0.001$, indicating a preference for stereotypic targets who engaged in feminine behaviors but counter-stereotypic targets who engaged in masculine behaviors. This last interaction was further qualified by an

interaction with participant sex, $F(1, 94) = 6.85, p < 0.01$, indicating that female participants preferred stereotypic targets engaging feminine behaviors but did not preference either behaviors in counter-stereotypic targets, whereas male participants did not preference stereotypic targets based on their behaviors, but distanced from counter-stereotypic targets who behaved in feminine ways.

Figure 3.8. Pattern of means for female and male participants in Study 6.



To interpret this interaction, I conducted target sex X target appearance X target behavior ANOVAs separately for male and female participants. For both male ($F(1, 46) = 47.11, p < 0.001$) and female participants ($F(1, 48) = 30.01, p < 0.001$), the three-way interaction was significant. Thus, within participant gender and to further decompose the interactions, I computed separate target appearance X target behavior ANOVAs for both male and female targets. As in Study 5, predictions were not supported.⁷

Male participants

For male targets, there was a type of behavior main effect, $F(1, 46) = 13.90, p = 0.001$; male targets who engaged in masculine behaviors were preferred over those who engaged in feminine behaviors. There was also a significant main effect of appearance, $F(1, 46) = 37.90, p < 0.001$; stereotypic male targets were preferred over counter-stereotypically targets.

For female targets, the interaction between target stereotypicality and target behavior emerged, $F(1, 46) = 61.05, p < 0.001$. The pattern of means for this interaction partially replicated Study 5; stereotypic looking female targets who engaged in feminine behaviors were again preferred, but here they were preferred equally to counter-stereotypic looking female targets who engaged in masculine behaviors, $t(46) < 1$. These two targets were preferred over all other targets, $ts(46) > 4.84, ps < 0.001$.

⁷ Four theoretically less relevant interactions also emerged from this analysis, all including type of conversation. None of them replicated across Studies 5 and 6, nor did any consistent patterns emerge within these interactions in Study 6. First, type of conversation, target appearance, and target behavior interacted, $F(1, 94) = 8.80, p < 0.01$; participants always preferred stereotypic male targets over counter-stereotypic male targets, but this preference was stronger when talking about adjustment to college. Second, type of conversation, target sex, and target appearance interacted, $F(1, 94) = 5.01, p < 0.05$; when having a getting to know you conversation, participants preferred stereotypic targets who engaged in masculine behaviors, but preferred all stereotypic targets when having a conversation about adjustment to college. Third, type of conversation, target behavior, and participant sex interacted, $F(1, 94) = 5.16, p < 0.05$; for both types of conversation, feminine behaving female targets were preferred, but this preference was stronger in a getting to know you conversation. Finally, type of conversation, target sex, and participants sex interacted, $F(1, 94) = 18.28, p < 0.001$; male participants always preferred female over male conversation partners, but this effect was stronger when having a conversation about adjustment to college, whereas female participants had no preferences based on the sex of their conversation partner.

Female participants

For male targets, replicating Study 5, the main effect of target appearance was significant, $F(1, 48) = 49.85, p < 0.001$; female participants preferred stereotypically appearing male targets over counter-stereotypically appearing male targets. Contrary to Study 5, the target appearance X target behavior interaction was not significant, $F(1, 48) = 2.92, p > 0.10$. In Study 6, female participants appeared to respond to the appearance of male targets.

For female targets, in contrast to Study 5, the main effect of target appearance did not emerge, $F(1, 48) < 1, p > n.s.$ Replicating Study 5, the main effect of target behavior did emerge, $F(1, 48) = 18.70, p < 0.001$, such that female participants preferred female targets who engaged in feminine behaviors. Also replicating Study 5, the interaction between target appearance and target behavior emerged, $F(1, 48) = 25.47, p < 0.001$. Female participants preferred uniformly stereotypic female targets over all other targets, $t(48) > 2.97, ps < 0.01$.

Discussion

The results of Study 6 generally replicated the results of Study 5, although participant sex additionally moderate emergent effects. Male participants responded like the participants in Study 5, preferring uniformly stereotypic male targets. However, male participants also preferred uniformly counter-stereotypic female targets. Likewise, as in Study 5, female participants preferred uniformly stereotypic female participants, but either optimally distinct or stereotypic male targets. In sum, despite minor variations, Study 6 findings replicated those of Study 5.

General Discussion

From the outset, I predicted that optimally distinct others would be preferred over uniformly stereotypic and counter-stereotypic others. After integrating the results of Studies 1 through 4 (see Chapter 2), I also predicted that the preferred expressions of optimal

distinctiveness would vary as a function of target sex. Specifically, I predicted that males would be preferred when their optimal distinctiveness took the form of stereotypic behaviors combined with a counter-stereotypic appearance, whereas females would be preferred when their optimal distinctiveness took the form of a stereotypic appearance combined with counter-stereotypic behaviors. I designed Studies 5 and 6 to examine the disparate effects of appearance and behaviors on preferences for optimally distinct others. In addition, Study 5 was designed to rule out the possible effect of controllability as an alternative mechanism driving my results.

Contrary to my predictions, optimally distinct others were not preferred in Studies 5 and 6. Moreover, these two studies did not replicate any of the patterns found in Studies 1 through 4. Instead, a general preference for uniform stereotypicality emerged in both studies. Participants preferred male and female targets who both looked and behaved in stereotypic ways. This pattern of results also rules out the alternative mechanism of controllability, as a controllability result would have replicated the results of Study 4 from Chapter 2. This replication did not emerge.

The looming question is “why did I not find any evidence of a previously replicated and manipulated preference for optimally distinct others?” There are multiple possibilities as to why this could have occurred. Recall that at the end of Chapter 2, I expressed interest in extending results by investigating the effects of appearance *and* behaviors. Changes to either could have affected my results, so I will examine each of the variables in turn.

Appearance

I changed the operationalization of target appearance from facial features to something within the control of the target, their hairstyle. Thus, the use of hairstyle could have led to a lack of replication, since all the studies in which a preference for optimal distinctiveness emerged

used facial features to operationalize appearance. However, I have evidence that hairstyle did not cause this effect, as I ran two other studies not reported here.

First, I ran the same study described above but use the original faces rather than the hairstyles used in Studies 5 and 6. The procedures were the same, including ratings of a desire to interact with each target while having two different conversations. In addition, the behaviors were the same as used in Studies 5 and 6, daily behaviors carefully pilot tested to be masculine or feminine. The results from this study, while minimal, still provide some evidence of a preference for uniform stereotypicality. Specifically, in this study I found a preference for female targets over male targets, stereotypicality over counter-stereotypicality, and feminine behavior over masculine behavior. In addition, I found an interaction between the sex of the target and the appearance of the target. Male targets were equally liked regardless of their stereotypicality, but female targets were preferred when they were stereotypic over counter-stereotypic.

Second, I ran the same study as above (and the same as Studies 5 and 6) after a second set of pilot testing for the faces. I realized that the original pilot study to categorize the faces had been completed with bald heads, so did a second round of pilot testing using masked faces (i.e., only the interior features of the face were visible). Using the faces that emerged from this pilot test (which were all also equal in attractiveness) and the same method and behaviors as used in the Studies 5 and 6 and the study above, I still found a general preference for uniform stereotypicality. Specifically, I found that female targets were preferred over male targets, and that participants preferred targets whose behaviors matched their sex (e.g., women engaged in feminine behaviors). However, I also found an interaction between target sex, target appearance, and target behavior. This interaction indicated that male targets were equally liked regardless of

their appearance or behaviors. In contrast, female targets were liked most when they were uniformly stereotypic, meaning they both looked and behaved in stereotypic ways.

Based on the results of these two additional studies, it is highly unlikely that my new operationalization of appearance dramatically affected the results. Indeed, when using the same operationalization of appearance, I still found a general preference for uniform stereotypicality.

Behavior

Another possibility is that the change in operationalization of behaviors in Studies 5 and 6 affected the results. After Study 4, in which I used desired masculine or feminine professions as a proxy for behavior, I was careful to pilot test pure unremarkable daily behaviors to find some that were exclusively masculine and exclusively feminine. I argued above that professions, while easily categorized as either masculine or feminine, likely encompass behaviors that could be both masculine and feminine (e.g., being a doctor has behaviors within it that are likely quite masculine, such as problem solving, but also has behaviors within it that are likely quite feminine, such as a warm bed-side manner). Thus, using pure behaviors in Studies 5 and 6, I attempted to avoid the possibility of compound behaviors present in professions. Interestingly, I used these same behaviors in the additional studies I ran (described above) and got similar results to those found in Studies 5 and 6.

Thus, a more provocative explanation for the changes in my results may be that the behaviors I used affected the patterns found. To this point, I have been very focused on the dimensions of masculinity and femininity in the behaviors I selected. However, this is not the only way to conceptualize behaviors, nor is it the only way to conceptualize of behaviors as it relates to gender. Another common way to categorize behaviors is in regards to the presence or absence of agency and communalism, which are often conflated with masculinity and femininity.

Thinking about the definitions of both agency and communalism, it is easy to see why they are conflated in the minds of many. Agency can be easily described as being in control or having power in a situation. These behaviors (control and leadership) are often ascribed to men or described as masculine. Communalism can be easily described as concern for others' well-being. This behavior (nurturance) is often ascribed to women and described as feminine.

However, while agency and communalism co-vary with masculinity and femininity, they are distinct constructs. It is theoretically possible to have a masculine or feminine behavior that is high or low in either agency and/or communalism. I turn my attention to this possibility in Chapter 4.

CHAPTER 4

Testing an Alternative Model

The first six studies were designed to address the question of whether people prefer optimally distinct others over those who are uniformly stereotypic or uniformly counter-stereotypic. Optimally distinct others might be preferred over stereotypic and counter-stereotypic others because they are both comfortable (because they are good group members) and interesting (due to their non-stereotypic characteristic).

The general idea that motivated the present research was examined in an initial set of studies (presented in Chapter 2). In Studies 1 through 3 of Chapter 2, I tested the idea that optimally distinct others would be preferred over uniformly stereotypic and counter-stereotypic others by showing participants pictures of faces that varied in stereotypicality, based on pilot-testing where faces were categorized by participants as male or female. Interestingly, different patterns emerged in preferences for interactions with men and women. Consistent with prediction, people preferred interactions with optimally distinct men over interactions with stereotypic or counter-stereotypic men. Contrary to predictions, people preferred interactions with stereotypic appearing females more so than interactions with optimally distinct or counter-stereotypic women. This pattern emerged and was replicated over a series of three studies, leading me to wonder whether there might be different characteristics that determine people's preferences for interactions with men and women. More specifically, I wondered if it was possible that preferences for interactions with women were primarily driven by women looks, with stereotypic women being more desirable interaction partners than optimally distinct or counter-stereotypic women. In contrast, I thought it might be possible that preferences for interactions with men are driven more strongly by how men behave rather than how they look.

For example, perhaps participants would find men who engage in stereotypic behaviors, such as assertiveness, more desirable interaction partners than men who engage in counter-stereotypic behaviors, such as passiveness.

Study 4 (see Chapter 2) was designed to provide an initial test of the idea that different characteristics drive people's preferences for interactions with others. More specifically, Study 4 was designed to test whether stereotypic looks were an important criterion for women, but stereotypic behaviors an important criterion for men. Study 4 was like the previous three studies in that participants were presented with a series of male and female faces and corresponding gender appropriate names. However, in Study 4, all of the faces presented were stereotypically appearing men and women, meaning that all of them were good group members based on their appearance. Study 4 differed from the prior studies in the following important ways. First, because the domain of interaction did not influence the results, Study 4 used a gender-neutral domain of having a "getting to know you" conversation. Second, rather than asking solely about desire to interact with the targets presented, Study 4 asked participants to rate both their comfort and interest in an interaction with the person on the screen. Most importantly, I manipulated optimal distinctiveness of each target through the inclusion of a behavior, specifically a desired career that was traditionally masculine or traditionally feminine. Uniformly stereotypic targets were those who looked stereotypic and desired a matching profession (e.g., men who desired a masculine profession. In contrast, optimally distinct targets were those who looked stereotypic but desired a non-matching profession (e.g., men who desired a feminine profession).

By manipulating optimal distinctiveness through a combination of looks and behavior, I was able to examine the possibility that different characteristics drive people's preferences for interactions with men and women. If looks matter for women but behaviors matter for men, the

general pattern of results from Studies 1 through 3 should be reversed. I should see a preference for optimally distinct women (those who prefer masculine professions) but a preference for stereotypic men (those who prefer masculine professions). Consistent with this prediction, the results of Study 4 indicated that optimal distinctiveness was preferred in women whereas stereotypicality was preferred in men. In other words, I optimally distinct women were preferred over stereotypic women, but stereotypic men were preferred over optimally distinct men.

Together, the pattern of results from Studies 1 through 4 was consistent with the notion that there are different domains in which a preference for optimal distinctiveness emerges for men and women. Men seemed to be able to vary in their appearance, but not in their behaviors. In contrast, women seemed to be able to vary in their behaviors, but not in their appearance.

Study 4 did not, however, provide a rigorous examination of the prediction that there were different domains in which a preference for optimally distinct men and women may emerge. Thus, in the next set of studies (presented in Chapter 3), I attempted to replicate my prior results while providing a more rigorous test of predictions, as well as generalize more externally valid forms of appearance and behavior. To generalize the effects from Studies 1 through 4, I used a dimension of appearance that is controllable (hairstyle) and actual daily behaviors rather than desired professions. The results of Studies 5 and 6 indicated that there is a preference for stereotypic appearing targets over counter-stereotypic appearing targets. The overall message from the studies in Chapter 3 is that looks matter for everyone, such that one must “look like” a good man or woman first and foremost. Beyond looks, most of the effects of the masculinity and femininity of the targets behaviors were in further contributing to stereotypicality effects. Behaviors came together with target appearance such that participants preferred men doing masculine behaviors and women doing feminine behaviors. However,

masculine and feminine behaviors often differ in very significant ways, such that masculine behaviors are generally more agentic and feminine behaviors are generally more communal.

Another way to conceptualize behaviors used in these studies is via the presence or absence of agency or communalism. *Agentic behaviors* are those where the actor is in power or has control of a situation whereas *communal behaviors* are those where the actor is concerned about the well-being of others. Although agency vs. communalism often co-vary with the masculinity vs. femininity of a behavior, agency vs. communalism and masculinity vs. femininity are, in fact, distinct dimensions. To illustrate how these two dimensions of behavior co-vary, I will review theoretical conceptualizations of masculinity and femininity, discuss the concept of gender performativity, and present statistical evidence that masculinity vs. femininity co-vary with agency vs. communalism. From there, I will outline two possible models to examine the effects of agency vs. communalism and optimal distinctiveness. Finally, I will explain pilot testing and a final study that was designed to assess the possible effects of agency vs. communalism on preferences for optimal distinctiveness in others.

Masculinity and Femininity

As I stated earlier, many scholars argue that there is a narrow definition of “appropriate” masculine behavior in contrast to the definition of “appropriate” feminine behavior (Feinman, 1981; Kimmel, 2008). Traditionally, and most frequently, masculinity has been conceptualized as having three components (e.g., Thompson & Pleck, 1986; Kimmel, 2005). The first component of masculinity is power and status, such as achieving success and commanding respect. The second component of masculinity is toughness in interactions with others (mental, emotional, or physical) – clearly indicative of agentic or powerful behaviors. The third component of masculinity, a flight from the feminine, is conceptualized as a direct refutation of

aspects of femininity, such as submission, sensitivity, and feminine activities (which are the antithesis of dominance and agency, see Bosson, Prewitt-Frelino, & Taylor, 2005). Importantly, there is a precarious nature of masculinity. Masculinity must be constantly performed, reaffirmed and demonstrated through appropriately masculine behaviors that often involve aggression (Vandello, Bosson, Cohen, Burnaford, & Weaver, 2008).

Femininity is conceptualized in complementary and opposing terms to masculinity. For women, agency is not considered important. Instead, women are assumed to behave communally or to exhibit behavior that indicates their concern about the well-being of others. There are intensified prescriptions for communal behaviors, such as being warm/kind, sensitive, friendly, polite, cooperative, and having an interest in children (Prentice & Carranza, 2002). Historically, agency (often via assertiveness) was seen as a negative trait for women to have (Costrich, Feinstein, Kidder, Maracek, & Pascale, 1975), or simply not a trait that women had. The Bem Sex Role Inventory listed feminine traits as things like understanding, sensitive to others' needs, and conscientious (Bem, 1974). It is these behaviors and traits that women were, and often still are, expected to have. Unfortunately, there is less (if any) theorizing on the nature of femininity such as there is about masculinity, so these trait constellations are often the only measure of femininity as a unique construct. Instead, much research has focused on women who are presumed to not have the traits of communality (I will address this in the Discussion).

Performing Gender, Literally

With the descriptions of gendered behaviors above, it is interesting to note that Butler (1990; 1993) argues that gender is a performance; that through engaging in various behaviors consistently, we each create our gendered selves. While engaging in the practice of physical displays of gender is certainly a way to create our gendered selves, many people likely assume

that the acts of physical display are simply a display of the gendered self as it exists, not that they are acts of creation. Although we, the perceivers, can glean gendered information quite quickly from solely gendered appearance such as facial structure or hairstyle (Ito & Urland, 2003), people engage in many other gendered behaviors beyond physical appearance.

As with physical appearance, the gendered behaviors expected of men and women differ dramatically, as discussed above. Men are assumed and expected to behave in ways that are agentic, meaning that they have power over others and over the outcomes of others. In contrast, women are expected to be communal, meaning that they care about the emotional needs of others and take care to make sure that others are healthy, well-cared for, and emotionally stable.

Based on the conceptualizations of masculinity and femininity noted above, and Butler's gender performativity points, appropriate performances of masculinity (or behaviors for men) are agentic behaviors, where the actor is in power or has control of a situation. All of the behaviors above – power, toughness, and a flight from the feminine – represent a sense of constant agency in interactions with others. Consistent with this, there are intensified prescriptions for agentic behaviors, such that men are expected to be leaders, ambitious, assertive, decisive, competitive, aggressive, intense, and forceful (Prentice & Carranza, 2002; Bem, 1974). The importance of these agentic behaviors has not changed over time (Twenge, 1997). For men, masculine self ratings involve a collection of traits and behaviors that represent male dominance, such as competitive (or sporting) behavior, the rejection of feminine traits (such as nurturing), having male friends, and physical expansiveness, all of which can be construed as agency (Twenge, 1999; see also Kimmel, 2005). In contrast, femininity can be performed as agentic or not, though is almost always preformed as communal.

Masculinity ≠ Agency and Femininity ≠ Communalism

Although masculinity is often conflated with agency and femininity conflated with communalism, masculinity vs. femininity and agency vs. communalism are distinct constructs. To examine whether these dimensions predictably covaried in the first studies, I conducted a follow-up study ($n = 49$) in which an independent sample of participants rated the behaviors from Studies 5 & 6 on the dimensions of agency and communalism. Recall that these behaviors had been previously pilot-tested as either masculine or feminine. Prior to rating the behaviors, I provided participants with the following definitions: agency was defined as “having control or representing power in a situation,” whereas communalism was defined as “concern for others’ well-being, caring.” Participants rated each behavior first for agency and then for communalism.

After computing average scores for agency and communalism for behaviors previously classified as masculine or feminine, I found that feminine (vs. masculine) behaviors were rated more communal and masculine (vs. feminine) behaviors were more, both $t_s(48) > 5.18$, $p_s < 0.001$. Masculine behaviors were also rated significantly more agentic than the midpoint of the scale, whereas feminine behaviors were rated significantly more communal than the midpoint of the scale, both $t_s(48) > 4.71$, $p_s < 0.001$. However, neither agency ratings of feminine behaviors nor communalism ratings of masculine behaviors differed from the midpoint of the scale, $t_s < 1$.

Since the scores for masculinity and femininity approximated the midpoint of the scale on their non-stereotypical dimension, there must have been some behaviors that were high in both agency and communalism within those labeled masculine and feminine. Indeed, not all individual masculine/feminine behaviors followed the pattern that emerged across masculine/feminine behaviors. Specifically, when comparing the ratings for each individual behavior to the midpoint of the scale, some items emerged as high in both agency and

communalism (e.g., fixing things around the house, labeled in prior studies as a masculine behavior), and some were low in both agency and communalism (e.g., reading a magazine, labeled in prior studies as a feminine behavior). Expectedly, some items emerged as high in one variable and low in the other (e.g., “modeling,” a feminine behavior high in agency but low in communalism, or “calling a friend to talk,” a feminine behavior low in agency but high in communalism). Thus, it is clear that the presence of agency does not imply the absence of communalism, and vice versa. Below, I outline two possible models of optimal distinctiveness via an integration of agency and communalism.

Alternative Possibilities

As described, the agency and communalism of behaviors often covary with the masculinity and femininity of behaviors, respectively. Thus, agency and communalism could affect perceptions of target men and women and be central to perceptions of stereotypicality and/or optimally distinctiveness. If so, this points to another model that could more accurately encompass perceivers’ perceptions of male and female targets and test for a preference for optimal distinctiveness. Specifically, it is possible that a preference for optimally distinct others would emerge when looking at behaviors that are crossed regarding agency and communalism.

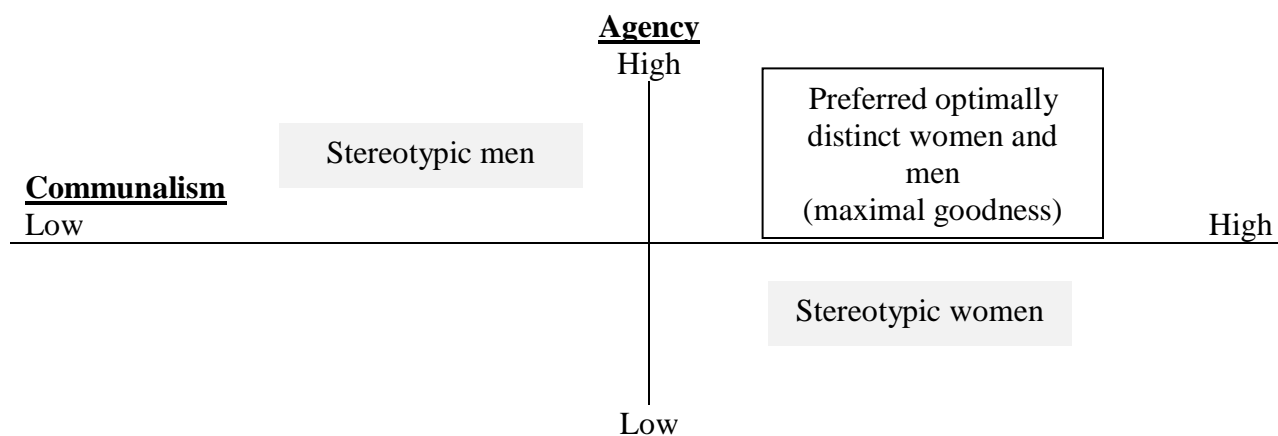
In the preceding research, the following patterns emerged. First, optimal distinctiveness effects do occur (Chapter 2). Second, perceivers prefer those who are stereotypic, especially in how they look (Chapter 3). In addition, the literature review above indicates that agency is important to masculinity and communality is important for femininity. This indicates that stereotypic men are those who engage in behaviors high in agency but low in communalism, whereas stereotypic women are those who engage in behaviors high in communalism but low in

agency. However, these assumptions indicate two possible presentations of optimal distinctiveness in men and women regarding agentic and communal behaviors.

Weak Optimal Distinctiveness

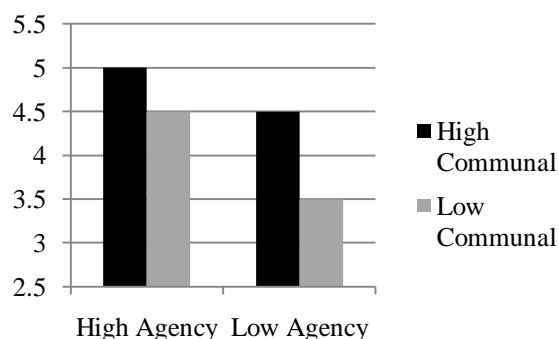
Targets may be optimally distinct (having one non-stereotypic feature) by demonstrating a “maximal goodness” pattern. In other words, assuming that targets are good group members based on how they look, an optimally distinct person may be one who is both high in agentic and communal behavior. This pattern would indicate a preference for optimally distinct others because preferred targets would have core features of their group, as well as one unique, non-stereotypic feature. Visually, this model is as follows:

Figure 4.1. Weak version of optimal distinctiveness via agency and communalism for women and men.



For this model, the predicted pattern of means is presented in Figure 4.2 below. The graph depicts the additive combination of two significant main effects, such that targets who engage in high agency/high communal behaviors are preferred over targets who are high in either agency or communalism but not both, who are, in turn, preferred over those who behaved in both low agentic and communal ways.

Figure 4.2. Predicted pattern of results for weak support of optimal distinctiveness.



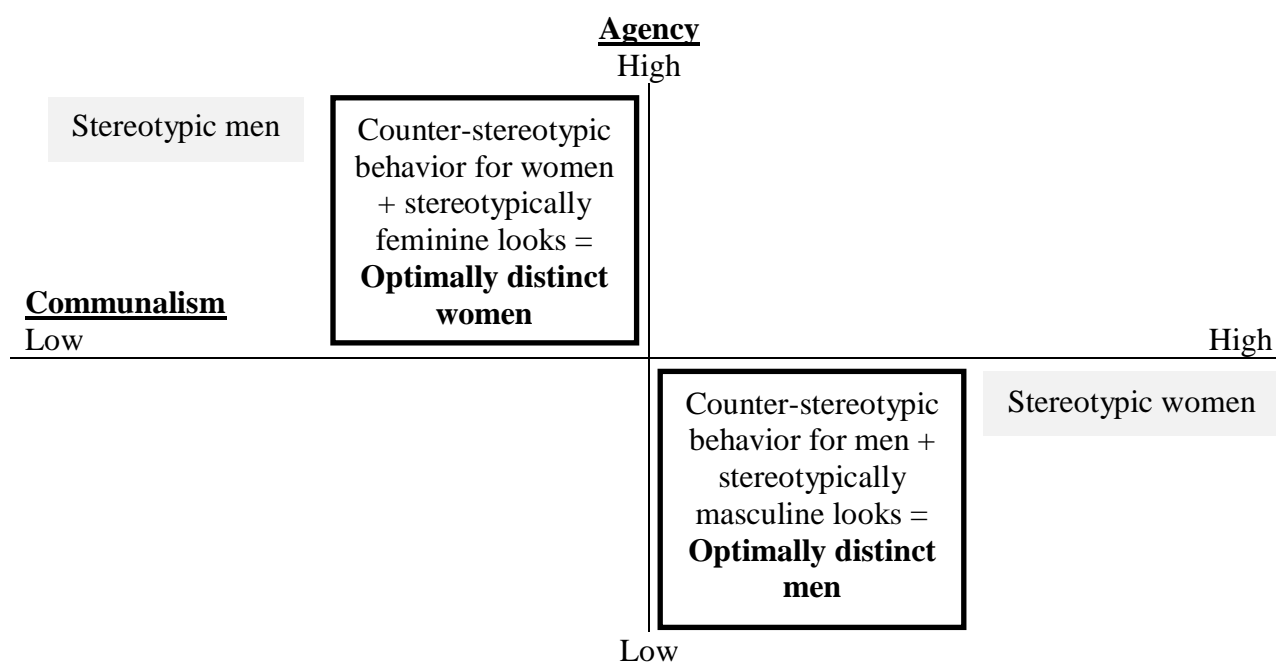
If it is agency and communalism that drive perceptions of others as optimally distinct, the masculinity and femininity of the behaviors is not necessarily important. Thus, this weak test of optimal distinctiveness could be supported by the results of earlier studies since the behaviors attributed to targets in prior studies likely implied agency and communalism in varying degrees. For example, when using desired professions as a source of behavior (as in Study 4), there is a clear difference in agency between masculine and feminine professions, such that masculine professions are more agentic. However, not all of the masculine professions are devoid of communalism. In fact, many of them could have high levels of communalism, as they are professions designed to make the lives of others better (e.g., athletic trainer, chef, dentist, doctor, judge, professor, and scientist). However, while the feminine professions were clearly indicative of communalism, they were not indicative of agency. Thus, the results of Study 4 could have indicated a preference both men and women who engage in highly agentic and highly communal behaviors – or both optimally distinct men and women.

Strong Optimal Distinctiveness

A strong prediction of a preference for optimally distinct others relies on the data from Chapter 3, that looks are incredibly important in person perception and when interacting with others. It is possible that looks provide enough in the way of “core characteristics,” one of the

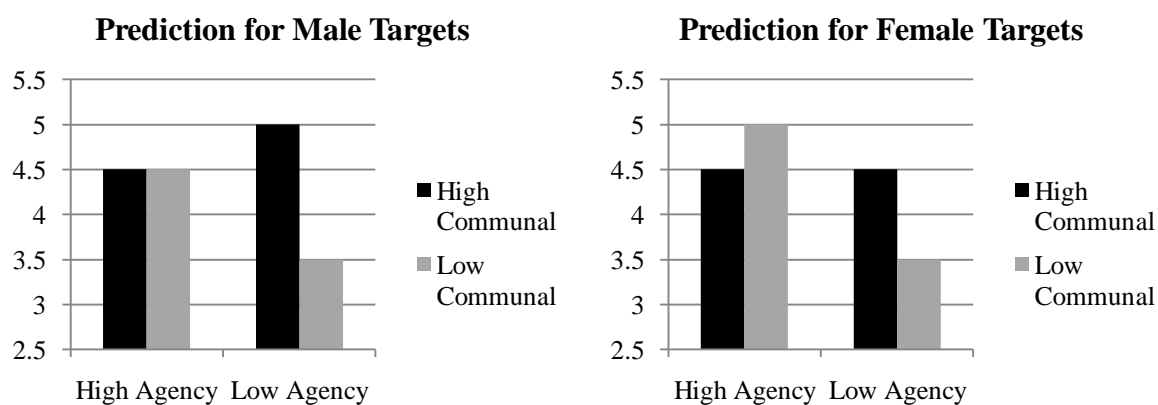
fundamental dimensions of my definition of optimally distinct others. If so, then the agentic/communal behaviors of men and women may not affect group categorization. In this case, counter-stereotypic behaviors of men and women would be the “unique, non-stereotypic attribute” present in my definition of optimally distinct others. The counter-stereotypic behaviors of men and women are simply the direct opposite of stereotypic behaviors. In other words, stereotypic behavior for men is high agency and low communalism, so counter-stereotypic behavior for men would be low agency and high communalism. For women, stereotypic behavior is low agency and high communalism, so counter-stereotypic behavior for women would be high agency and low communalism. Incidentally, the assumed combination of these behaviors (high agency and lacking communalism) is presumably the type of behavior in women that leads to backlash (see discussion of backlash above). Thus, the strong test of optimal distinctiveness is visually depicted in Figure 4.3 below.

Figure 4.3. Strong version of optimal distinctiveness via agency and communalism for women and men.



The particular pattern predicted to drive the three way interaction is depicted in Figure 4.4 below, which indicates a preference for optimally distinct targets. As stated above, this strong prediction articulates optimally distinct targets as those who look like good group members but who engage in behaviors that are counter-stereotypic for their sex (e.g., men engaging in low agency/high communal behaviors). In addition, targets who engage in behaviors that are consistent with what is expected for their sex (i.e., men doing agentic behaviors and women doing communal behaviors) should be liked more than average. Finally, targets who engage in behaviors low in both agency and communalism should be disliked relative to all others.

Figure 4.4. Predicted pattern of results for strong support of optimal distinctiveness.



Overview

In order to test these models, I need to gather behaviors that fall into each of the four quadrants created when crossing agency and communalism. Thus, to assess the importance of agency and communalism in preferences for optimally distinct others, I conducted another pilot test before conducting a final full study. In the pilot test, I searched for behaviors that fall within the quadrants created when the dimensions of agency and communalism are crossed. Finally, in the last study I paired behaviors from the pilot test below with the stereotypic images used in the

previous two studies. As in all prior studies, I predict that optimally distinct targets will be preferred, and the results from Study 7 could show weaker or stronger support for this prediction.

Pilot 7: Crossing Agency and Communalism in Behaviors

I conducted this pilot test to identify more behaviors that fall in the four quadrants created when agency and communalism are crossed. Specifically, I am looking for behaviors that are high in agency and communalism and behaviors that are low in agency and communalism. I am also looking for behaviors that high in one variable and low in the other.

Method

Participants

Participants were 39 undergraduates of The Pennsylvania State University, who received course credit and were run in groups of six to eight, but worked at individual computers stations.

Procedure

After signing a consent statement, participants were given definitions for agency and communalism. Agency was defined as “having control or representing power in a situation” and communalism was defined as “concern for others’ well-being, caring.” Participants were then rating a series of behaviors on agency and communalism using a 7 point-scale (endpoints labeled 1 = not at all to 7 = very much). Approximately half (20) of the participants rated the behaviors on agency, whereas the other half (19) rated behaviors on communalism. The behaviors were presented in a different randomized order for each participant. When the experiment was complete, participants were debriefed and thanked.

Results and Discussion

First, I submitted the ratings of agency and communalism to separate ANOVAs using participant sex as a between-participant variable. Any behavior that male and female participants

categorized differently for agency or communalism was dropped from the dataset. Second, I computed a t-test on the ratings of agency or communalism in comparison to the mid-point of the scale. Any behaviors not rated significantly different from the mid-point of the scale were removed. Behaviors that were rated significantly lower than the mid-point of the scale were labeled low in agency or communalism and any behaviors rated significantly higher than the mid-point of the scale were labeled high in agency or communalism. Third, I compiled the average ratings of agency and communalism into one file to find those behaviors that fell into the four quadrants of interest. Some examples of behaviors are as follows: high agency and high communalism – “is a motivational speaker” and “raises money for cancer;” high agency and low communalism – “is a television producer” and “manages a chain of pubs;” low agency and high communalism – “walks a friend’s dog” and “hosts a party for a coworker;” and, low agency and low communalism – “takes a nap” and “watches TV.” All behaviors are in Appendix H.

Study 7

Study 7 was designed to test whether optimally distinct targets (as determined by the agency and communalism of one’s behaviors) are preferred over stereotypic and counter-stereotypic targets. More specifically, the results from Study 7 could support either a weak or strong version of this prediction. Weaker support for this prediction would show a “maximal goodness effect” such that male and female targets who engage in high agency/high communal behaviors were preferred over their stereotypic or counter-stereotypic counterparts. Stronger support for this prediction would show a preference for male and female targets who engage in counter-stereotypic behaviors (e.g., low agency/high communal for men and high agency/low communal for women) over all other same-sex targets. This pattern would indicate that

stereotypic looks provide core characteristics of group membership, satisfying the “good group member” part of the definition of optimal distinctiveness presented in the preceding chapters.

Study 7 used a target sex (male or female) X agency of behavior (high or low) X communalism of behavior (high or low) within-participants design. Participants were presented with stereotypic looking male and female targets and were simultaneously presented with a behavior falling into the conditions above. As in previous studies, participants were asked to indicate how much they would like to engage in a “getting to know you” conversation. However, the other conversation condition (about adjustment to college) was dropped from this study since it did not meaningfully qualify any findings or exert a reliable influence.

Method

Participants

Participants were 61 (25 male and 36 female; 85% White) undergraduates of The Pennsylvania State University, who received course credit and worked at computer stations.

Procedure

After signing a consent statement, participants were told that they would engage in two distinct tasks involving their opinions of people and behaviors. First, participants indicated how much they would like to interact with various other people. Participants were presented with a series of pictures of stereotypic looking men and women. The images used in this study were the stereotypic images used in Study 7. As in all prior studies, all male faces were paired with male names and all female faces were paired with female names. Above each face was a behavior that the target engaged in recently, which were chosen based on the results of Pilot 7. Beneath each face was a male or female name. The same names used in prior studies were used here. Participants indicated their desire to interact with the target using a 7-point Likert scale (1 = not

at all and 7 = very much). Participants rated a total of 32 faces, 4 in each cell (e.g., four male faces who engaged in a behavior that was both highly agentic and highly communal). Faces were rated while imagining a “getting to know you” conversation. As noted above, I did not manipulate the type of conversation since that variable did not exert a reliable influence in prior studies. The targets were presented in a different randomized order for each participant. Second, after rating all faces, participants rated each of the behaviors on positivity/negativity (1 = negative to 7 = positive) and masculinity/femininity (1 = feminine to 7 = masculine).

I am measuring valence, but I do not think it is important to equate the valence of the behaviors. Although it seems like a statistical issue to equate the behaviors, I argue that it is, in reality, a conceptual issue. By equating the valence of behaviors across condition, I think that I would lose some of what makes the behaviors what they are. However, by measuring valence, I may be able to equate valence across the conditions and rule out its effect. In addition, I am measuring masculinity/femininity because I assume that high agency/ low communal behaviors are stereotypically masculine and that low agency/high communal behaviors are stereotypically feminine. However, these measurements will provide a test of these assumptions.

After rating all of the targets, participants were represented with each behavior they saw earlier. First, they rated the valence of each behavior using a scale of 1 = negative to 7 = positive. Second, they rated the masculinity/femininity of each behavior using a scale of 1 = feminine to 7 = masculine. When the experiment was complete, participants were debriefed and thanked.

Results

Behavioral stereotypicality

Before analyzing data relevant to the hypothesis, I wanted to make sure that the quadrants I had labeled as stereotypically masculine and feminine behaviors were actually perceived to be

masculine/feminine by participants. Recall that in the model above, I labeled behaviors that were high in agency but low in communalism as stereotypically masculine, whereas behaviors that were low in agency but high in communalism I labeled stereotypically feminine. Thus, I compared average ratings for each type of behavior and then compared each average to the midpoint of the scale. The averages for each type of behavior were as follows: high communal/high agency, $M = 3.59$; high communal/low agency, $M = 3.34$; low communal/high agency, $M = 5.21$; and, low communal/low agency, $M = 4.42$. All the averages were significantly different from the midpoint of the scale, all $ts(60) > 4.89$, $ps < 0.001$. As I had assumed in the model above, behaviors that were high in agency but low in communalism were rated the most masculine of all types of behaviors, all $ts(60) > 2.59$, $ps < 0.01$, whereas behaviors that were low in agency but high in communalism were rated the most feminine of all types of behaviors, all $ts(60) > 7.77$, $ps < 0.001$.

Optimal Distinctiveness Testing

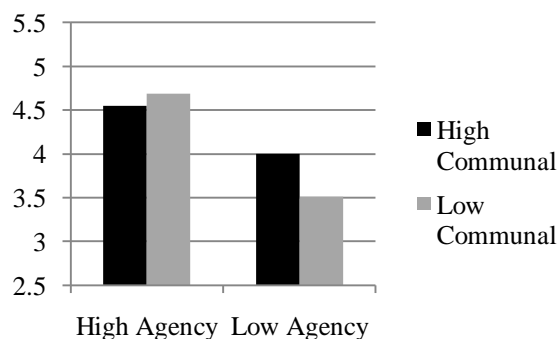
Participants' interest in interaction was submitted to a target sex (male, female) X behavior agency (high, low) X behavior communalism (high, low) X participant sex (male, female) mixed model ANOVA. Target sex, behavior agency, and behavior communalism were within-participants factors in this analysis. Participant sex was a between-participants factor.

Several lower order effects emerged from this analysis. First, main effects for behavior agency, $F(1, 58) = 69.05$, $p < 0.001$, and behavior communalism, $F(1, 58) = 5.64$, $p < 0.05$, indicated that participants preferred interacting with targets whose behaviors were high versus low in agency and communalism, respectively. Second, participant sex was involved in two interactions. Participant sex interacted with behavior communalism, $F(1, 58) = 6.29$, $p < 0.05$, showing that female participants preferred interactions with high (vs. low) communal behaving

targets, whereas preferences of male participants did not vary as a function of target's behavior communalism. Participant sex also interacted with target sex, $F(1, 58) = 12.15, p < 0.001$; female participants preferred interacting with male (vs. female) targets, whereas the preferences of male participants did not vary as a function of target gender. Third, target sex interacted with both behavior agency, $F(1, 58) = 5.41, p < 0.05$, which showed a preference for targets who engaged in agentic behaviors (a preference that was stronger for male vs. female targets) and behavior communalism, $F(1, 58) = 45.47, p < 0.001$, which showed that participants preferred communal behaving men but did not show preferences for female targets based on communalism.

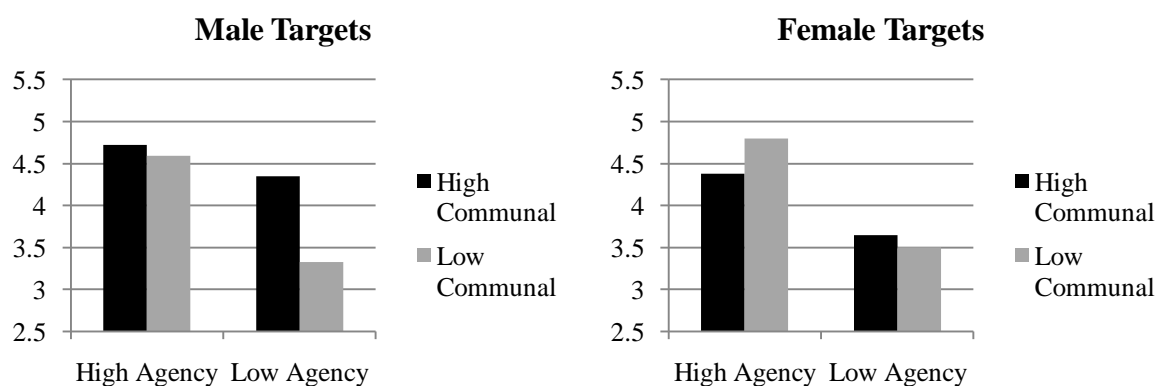
More importantly, the behavior agency X behavior communalism interaction, predicted by the weak form of predictions, was significant, $F(1, 58) = 24.96, p < 0.001$. Interestingly, however, the pattern of means does not match predictions. Instead, as shown in Figure 4.5 below, participants preferred targets who engaged in high agency behaviors over all other behaviors as the means for the two high agency conditions did not differ, $t(60) < 1, p = \text{n.s.}$ However, both of these conditions were preferred over either of the low agency conditions, $t_s(60) > 6.42, p_s < 0.001$. When agency was absent, participants preferred targets who engaged in highly communal (vs. low communal) behaviors, $t(60) = 6.05, p < 0.001$.

Figure 4.5. Principal comparisons for weak support of optimal distinctiveness in Study 7.



As predicted by the strong statement of the optimal distinctiveness hypothesis, however, the agency X communalism interaction was qualified by an interaction between behavior agency, behavior communalism and target sex, $F(1, 58) = 4.51, p < 0.05$. The means for this interaction are depicted in Figure 4.6 below. As stated above, I predicted that male and female targets who engaged in behavior counter-stereotypic for their sex would be preferred over all other targets. Next, I predicted that targets who engaged in behaviors consistent for their sex would be liked more than average (i.e., be rated higher than the midpoint of the scale) and that targets who engaged in behaviors that were low in agency and communalism would not be liked.

Figure 4.6. Pattern of means showing strong support of optimal distinctiveness in Study 7.



To decompose the three-way interaction, I conducted separate behavior agency X behavior communalism ANOVAs for male and female targets. Within gender, I predicted an interaction between behavior agency and behavior communalism.

For male targets, the predicted interaction between behavior agency and behavior communication was significant, $F(1, 59) = 28.47, p < 0.001$. Consistent with predictions, male targets who engaged in either counter-stereotypic behavior (low agency/high communal) or behaviors consistent with their sex (any type of high agency behavior) were liked more than average, all $t_s(60) > 3.53, p_s < 0.001$. In addition, male targets who engaged in low agency/low

communal behaviors were liked less than average, $t(60) = 4.66, p < 0.001$. Contrary to predictions, however, male targets who engaged in highly agentic and highly communal behaviors were not preferred over all other male targets. Instead, male targets who engaged in highly agentic behaviors – regardless of the communalism of their behavior – were preferred over all other targets. All adjacent cell mean comparisons were significant, $ts(60) > 4.03, ps < 0.001$, with the exception of the comparison between the two highly agentic cells, $t < 1.3, p = n.s.$

For female targets, the predicted interaction between behavior agency and behavior communication again emerged as significant, $F(1, 59) = 14.87, p < 0.001$. Consistent with predictions in the strong model, female targets who engaged in high agency/low communal behaviors (i.e., behavior counter-stereotypic for their sex) were preferred over all other targets. To analyze the cell means, I conducted t-test for the means of adjacent cells. All adjacent cell mean comparisons were significant, $ts(60) > 2.75, ps < 0.01$, with the exception of the comparison between the two low agency cells, $t(60) = 1.59, p = n.s.$ In addition, as predicted, female targets who engaged in low agency/low communal behaviors were liked less than average, $t(60) = 3.82, p < 0.001$. Although I predicted that female targets engaged in any form of communal behavior (behavior consistent with their sex) would be liked more than average, this only occurred for female targets who engaged in high agency/high communal behaviors, $t(60) = 2.98, p < 0.005$. Female targets who engaged in low agency/high communal behaviors were liked less than average, $t(60) = 2.85, p < 0.01$.

These findings are quite consistent with the stronger version of the optimal distinctiveness hypothesis. As predicted, stereotypically appearing female targets who engaged in counter-stereotypic behaviors were preferred over all other female targets. The same cannot be said for male targets who engaged in completely counter-stereotypic behaviors. However, with

the knowledge that American society rewards agency, it is worthwhile to compare the ratings of all targets who engaged in low agency behaviors. Thus, I conducted a target sex X behavior communalism ANOVA using only those targets who engaged in low agency behaviors. A main effect of target sex, $F(1, 60) = 7.17, p < 0.01$, indicated a preference for male vs. female targets, and a main effect of behavior communalism, $F(1, 60) = 36.60, p < 0.001$, indicated a preference for high communal vs. low communal behaviors.

Importantly, the target sex X behavior communalism interaction was significant, $F(1, 60) = 46.19, p < 0.001$. This interaction indicated that male targets who engaged in low agency/high communal behaviors were preferred over all other targets who engaged in low agency behaviors, regardless of the level of communalism in their behaviors, $ts(60) > 5.39, ps < 0.001$. There were no significant differences between any of the other conditions, $ts(60) < 1.59, ps = n.s.$

Additionally, male targets who engaged in low agency/high communal behaviors were the only targets engaging in low agency behaviors rated significantly higher than the midpoint of the scale, $t(60) = 3.53, p < 0.001$. All other targets were rated significantly below the midpoint of the scale, $ts(60) > 2.85, ps < 0.01$. Thus, in the absence of agency, only optimally distinct men were liked, supporting the predictions of the strong model above.

What about Valence?

As stated earlier, participants rated the valence of the behaviors used in Study 7. Across the conditions, there were significantly different average ratings for valence, $F(1, 57) = 69.31, p < 0.001$. High agentic/high communal behaviors were rated an average of 6.05 on a 7 point scale (highly positive), high agentic/low communal behaviors were rated an average of 5.11, low agentic/high communal behaviors were rated an average of 5.05, and low agentic/low communal behaviors were rated an average of 3.35. All of these means differed significantly from each

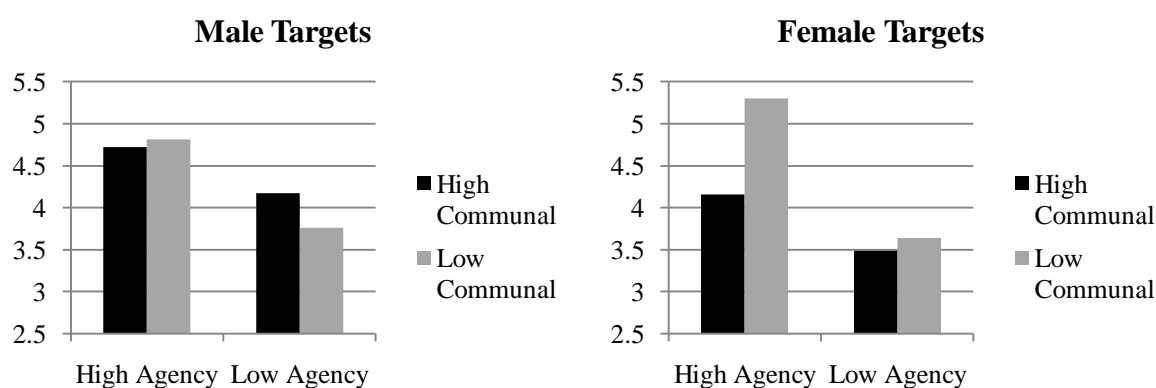
other, all $t(59) > 5.67$, $ps < 0.001$, with the exception of the comparison between high agentic/low communal and low agentic/high communal behaviors, $t(59) < 1$, $p = n.s.$ This pattern matches what is expected from an additive combination of two main effects (as discussed above) and is unsurprising, as American culture values those who do good things over those who do bad things. It is perfectly logical that highly communal behaviors would be rated more positively than behaviors that are low in communalism. In addition, American culture values those who are agentic, rewarding them with higher pay, prestige, and other honors. Again then, it is logical that highly agentic behaviors would be rated more positively than behaviors that are low in agency. It simply does not make sense to equate “searching the internet” (a low agency/low communal behavior) with “raising money for the homeless” (a high agency/high communal behavior). By equating these behaviors in terms of valence, I would be artificially reducing some of the natural variance present across these behaviors.

One may still wonder, however, if the patterns reported above were driven by the valence of behavior. There is no evidence that this is the case. First, the pattern of results does not follow the pattern of positivity ratings, which it would if valence were driving the results (e.g., showing highest ratings for high agency/high communal behaviors, as predicted by the weak test of optimal distinctiveness, slightly less high ratings for behaviors high in one variable, and low ratings for variables low in both variables). For neither male nor female targets were those engaging in highly agentic and highly communal behaviors most preferred. In addition, I should also see nearly the same ratings for male and female targets (nearly the same, assuming that target sex could affect the ratings somewhat). However, none of these patterns emerged.

Furthermore, I recomputed the analyses above using behaviors that were closely approximated in valence. To do this, I found one behavior in each condition that had similar

ratings of valence. In the conditions with high agency, high communalism, or both, I found equivalent ratings, $F(2, 58) < 1, p = \text{n.s.}$ However, I was unable to find behaviors equivalent in the low agency/low communal condition. The means for the three equivalent behaviors I could find had the following valence ratings: high agency/high communal = 5.55; high agency/low communal = 5.44; and, low agency/high communal = 5.38. The items used for the low agency/low communal behaviors had valence ratings of 4.39 (for male targets) and 3.34 (for female targets, as the behavior used for male participants was not used for female targets do to random assignment of the behaviors within conditions). Although this analysis must be interpreted with caution, running the same analyses as above, I find the following pattern.

Figure 4.7. Pattern of means for equally valenced behaviors showing strong support of optimal distinctiveness in Study 7.



This is, quite literally, the same pattern of means found when using behaviors of different valence, and possibly shows stronger support for the strong test of optimal distinctiveness. When equating (as much as possible) for valence, I again find that men are liked when they engage in agentic behaviors, regardless of the level of communalism in the behaviors. Although there is less of a preference for men who engage in low agency/high communal behaviors, the pattern is still the same. Additionally, I find an even stronger preference for women engaging in high

agency/low communal behaviors when I equate valence across conditions. Based on these arguments, both theoretical and statistical, I argue that valence did not affect the pattern of results articulated above and that valence is largely irrelevant to the interpretation of my results.

Discussion

Study 7 was designed to test both my overarching research question as well as test competing predictions of preference based on the agency and communalism of behaviors in male and female targets. In analyzing the data, I found support for the stronger test of optimal distinctiveness and did not find support for the weak test of optimal distinctiveness. In the strong test of optimal distinctiveness, I predicted that the appearance of the targets would provide core characteristics of their group membership, leading to a preference for those targets who engaged in behaviors that were counter-stereotypic for their sex. For female targets, this is exactly what I found. Female targets who engaged in high agency/low communal behaviors were preferred over all other female targets. This indicates that the stereotypic appearance of the female targets provided core characteristics of their group membership and the behaviors provided a unique, non-stereotypic feature.

Although male targets who engaged in counter-stereotypic behavior were not preferred outright over all other male targets, this data still provides some support for the strong test of optimal distinctiveness. As I stated above, American society values agency in behaviors. We value agency such that it is rewarded with positive regard and social/economic rewards (e.g., hiring, raises, etc.). Overall, the means for targets engaged in any sort of high agency behavior were significantly higher than the means for targets engaged in any sort of low agency behavior. However, when looking at the means for only those targets who engaged in any type of low agency behavior, the one cell predicted by the strong test of optimal distinctiveness is clearly

preferred over all others. In other words, stereotypically appearing male targets who engage in low agency/high communal behaviors (behaviors counter-stereotypic for their sex) are preferred over all other targets who engage in any sort of low agency behavior. Thus, disregarding the social reward for agentic behaviors, optimally distinct men are preferred, even over completely stereotypic women. This is a counter-intuitive and fascinating pattern.

Finally, the patterns supporting the strong optimal distinctiveness predictions held true even after approximately equating for valence across the types of behaviors. In fact, when the behaviors were equally positive, I found even stronger preferences for optimally distinct women (those who engage in behaviors counter-stereotypic for their sex) and still found that optimally distinct men were preferred over all targets who engaged in low agency behaviors. More than any of the previous studies, this study provides a solid test of and support for my overarching research question. To answer the question, there are indeed times when people prefer optimally distinct others over those who are uniformly stereotypic or counter-stereotypic.

Of interest is the relation of the results of this study to research on backlash toward agentic women. According to Rudman (1998), backlash is directed at women who are presumed not to have the feminine virtues of communalism and often manifests as social exclusion or economic sanctions. For instance, agentic-behaving women are often the targets of backlash in that they are often assumed to be less hireable than similarly behaving men (Rudman & Glick, 1999) and are liked less when they succeed in male domains (Heilman, Wallen, Fuchs, & Tamkins, 2004). In addition, agentic women are often the targets of sabotage when others have some control over their outcomes (Rudman & Fairchild, 2004), especially when powerful others reject egalitarian notions of gender (Brutus, Montei, Jex, King, & King, 1993). Backlash, and

subsequent sabotage, is common enough such that those who are gender non-normative often hide their accomplishments to avoid negative repercussions (Rudman & Fairchild).

In backlash research, backlash is operationalized by providing agentic behaviors for female targets, making the assumption that agency and communalism are on two ends on one continuum. Although there is some argument as to whether the backlash for women in feminized domains stems from engaging in agentic behaviors or violating feminine codes of communality, the fact remains that women who do not behave like “good women” are derogated in various ways. Backlash researchers note that it is theoretically possible that backlash may not to emerge if highly agentic women also provided some information about communality, despite the difficulties in presenting both adequately (see Rudman & Glick, 1999, p. 1009).

However, the results of this study show that women who would ordinarily experience backlash in domain of hiring are actually *preferred* in interactions. One possible explanation for these apparently conflicting results could be that expressing interest in interacting with a person is not the same thing as expressing support for that person in a way that does not uphold the status quo. If so, changing the domain (or the dependent variable) in this study could provide results that are more consistent with the backlash literature. Alternatively, providing direct information about communality in replications of the backlash studies could provide some softening of the effects for female targets.

CHAPTER 5

General Discussion and Future Directions

The present theory and research examined the hypothesis that people prefer interactions with optimally distinct others over uniformly stereotypic and counter-stereotypic others. At the outset, optimally distinct others were defined as others who are good group members, in that they have core features of their in-group, while simultaneously having at least one non-stereotypic attribute. This definition encompasses optimal distinctiveness via any social category.

Across the initial set of studies (Studies 1 through 3, Chapter 2), I found much evidence of optimal distinctiveness effects, but those effects were qualified by target gender. More specifically, I found that people preferred optimally distinct appearing males over most other male targets and preferred stereotypically appearing females over all other female targets. These effects replicated in all three initial studies designed to rule out competing alternative viable explanations for the results. After these studies, I wondered whether men and women were expected to be stereotypic, or good group members, in different domains. Specifically, since I manipulated optimal distinctiveness via appearance, I thought it might be possible that women were expected to be stereotypic in terms of their looks, whereas men could vary in their appearance. Turning to literature on masculinity, masculine behaviors emerged as a possible domain in which men were expected to be stereotypic. If women were expected to be stereotypic via appearance but men were expected to be stereotypic via behaviors, the preferred optimally distinct men and women could be optimally distinct in different ways.

To examine the prediction that men and women may use different domains to achieve acceptable optimal distinctiveness, I altered the manipulation of optimal distinctiveness in the following study. Specifically, I varied the gendered behaviors of the targets, saying that each

target desired a masculine or feminine profession and using only stereotypically appearing men and women. In Study 4, I predicted a reversal of the pattern in Studies 1 through 3. In contrast to the results of the prior studies, I predicted that interactions with *stereotypic* males would be preferred over interactions with optimally distinct males, but that *optimally distinct* females would be preferred over stereotypic females. This is exactly the pattern I found. Although Study 4 provided some indication that behaviors and looks vary in importance for women and men in relation to optimal distinctiveness, it was not a rigorous test of these predictions because it only included stereotypically appearing targets. Thus, I could not adequately examine whether looks were important for women, as predicted, or for men.

Integrating the results of the first four studies, I predicted that a preference for optimally distinct others, provided that optimal distinctiveness took specific forms in men and women. I predicted that men would be preferred if their optimal distinctiveness emerged from a combination of stereotypic behaviors with counter-stereotypic looks. In contrast, I predicted that women would be preferred if their optimal distinctiveness emerged from a combination of stereotypic appearance with counter-stereotypic behaviors. Study 5 was designed to be a rigorous test of these predictions, while also ruling the possibility that controllability over the self (or its lack) drove the results of prior studies. Participants again expressed how much they would like to interact with each target. Contrary to my predictions, in Study 5 I found stereotypicality effects rather than optimal distinctiveness effects; participants preferred stereotypic targets (stereotypic appearing and behaving targets) over optimally distinct and counter-stereotypic targets. These findings were largely replicated in Study 6, standing in contrast to the original findings.

The results of Studies 5 and 6 did not support my predictions, did not replicate the patterns found in Studies 1 through 4, and did not provide support for the competing prediction

of controllability. Although it was possible that changing my operationalization of appearance led to the change in my patterns, I ruled that out as highly unlikely due to two other studies using faces (not hairstyles) and the same behaviors used in Studies 5 and 6 that showed similar results. Thus, these studies pointed me toward an investigation into the behaviors used in Studies 5 and 6, in particular toward a different way of conceptualizing the behaviors aside from masculinity/femininity. Specifically, I thought that agency and communalism, constructs distinct from, but conflated with, masculinity and femininity, could be affecting my results. In a telling post test, I found that while the behaviors labeled as masculine and feminine Studies 5 and 6 did vary in terms of agency and communalism, there were also many behaviors within the categories of masculinity and femininity that were rated as high or low in both agency and communalism.

Finally, in Study 7, I moved away from my original model, an orthogonal crossing of the gendered dimensions of looks and behaviors. Instead, I operated with the assumption that looks were of primary importance for all targets, using an orthogonal crossing of agency and communalism in behaviors to test the prediction that optimally distinct others are preferred over uniformly stereotypic and counter-stereotypic others. From this model, I articulated two possible patterns of results that could support my overall prediction that optimal distinctiveness is preferred over uniform stereotypicality. In the first possibility, I argued that a preference for optimal distinctiveness would emerge in as a “maximal goodness” positivity pattern, where both male and female targets who engaged in high agency and high communal behaviors were most preferred. The pattern of data from Study 7 did not support this conclusion.

In the second pattern, I argued that a preference for optimal distinctiveness would emerge as a preference for the combination of stereotypically appearing targets engaging in completely cross-gendered behaviors (e.g., men behaving in low agency/high communal ways). These two

patterns are related, but vary in the strength with which they support my predictions, the second pattern being showing stronger support. The data I gathered in Study 7 more clearly supported second, and stronger, pattern. For female targets, those who engaged in high agency but low communal behaviors (behaviors that are completely cross-gendered) were preferred over all other female targets. For male targets, I found that men were preferred overall when they engaged in any sort of highly agentic behavior. However, when looking at both male and female targets who engaged in low agency behaviors, optimally distinct males (those who engaged in highly communal behaviors) were the only targets liked more than average.

Integrating all of the data presented in this dissertation leads me to the following conclusions. First, optimal distinctiveness, though by no means common, does occur and is preferred in some settings. I found preferences for optimally distinct men in Studies 1 through 3 and for optimally distinct women in Studies 4 and 7. Second, while I had originally hypothesized that looks were a more important variable for women, there are signs indicating the importance of appearance for both men and women. Specifically, in almost every study, stereotypically appearing people were preferred over those who did not look stereotypic, including male targets.

Third, it is important to note that the results of Studies 4 and 7 seem to conflict with the results of many prior studies showing backlash or diminished liking for women who engage in masculine behaviors or show success at male tasks (e.g., Rudman & Glick, 1999; Rudman & Fairchild, 2004; Heilman, Wallen, Fuchs, & Tamkins, 2004). In other words, the female targets most preferred in this study were nearly the same as female targets who experience backlash in other lines of research (e.g., Rudman & Fairchild, 2004). I think there are three possibilities as to why these results diverge from prior research. First, it is possible that the distinction between agency and communalism present in Study 7 provided information different enough from that

provided in backlash research that highly agentic women were liked. However, I think this is unlikely, because the women most liked in Study 7 were those who engaged in behaviors low in communalism. In addition, Study 4 showed a similar pattern to Study 7, but did not have the distinction between agency and communalism. Second, it is possible that the patterns of results present in others' work are due to the perception of violating the status quo. This is a possible scenario, as in my studies, I was simply looking at whether or not the targets were preferred in imagined social interactions. In research where agentic women are disliked, there is often the element of long-term interaction (as in a work colleague), and these interactions are usually taking place in a masculine domain, where women are not as common. Third, related to the second possibility, the dislike of agentic women in masculine domains⁸ could be due to a feeling of competition between men and women. In social interactions (as in my research), an optimally distinct woman could be a novel and interesting person with whom to engage. However, in domains where there is competition for limited resources (e.g., jobs, money, etc.), an optimally distinct woman (one who is agentic) could be a threat to one's own well-being, the well-being of those close to the self, or to the established pattern of society.

My fourth conclusion is that this research speaks to broader issues of person perception. In general, competence and warmth are two basic dimensions along which people interpret other's intentions toward the self (Judd, James-Hawkins, Yzerbyt, & Kashima, 2005). Based on this research, women are generally considered warmer than men, while men are considered more competent than women (Fiske, Cuddy, Glick, & Xu, 2002). It is possible that my research sheds light on another way in which perceivers gather information about competence and warmth in their interactions with others. Specifically, looks may provide information about interpersonal

⁸ Although Rudman's work shows backlash toward women in feminized managerial domains, management is still generally considered a masculine domain.

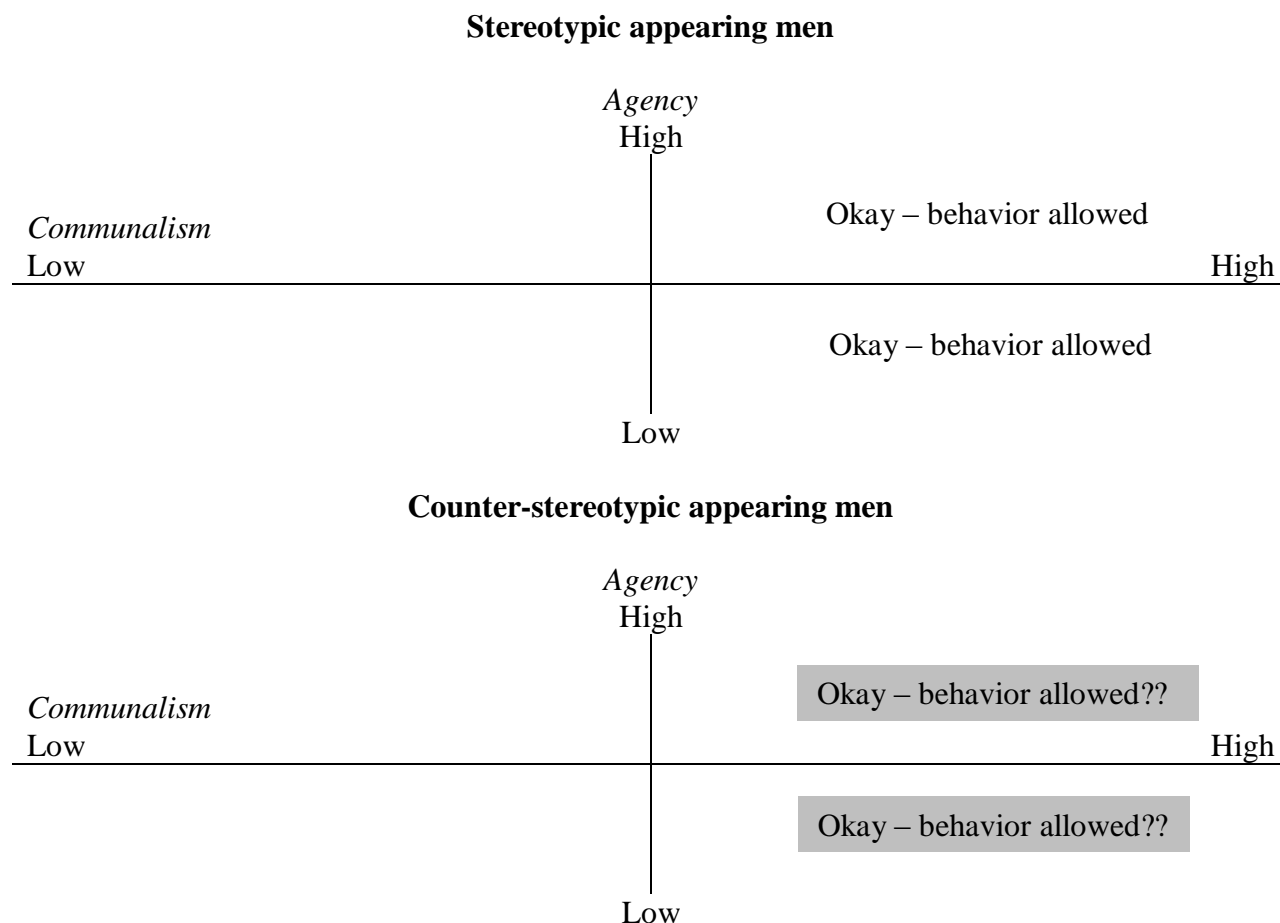
warmth, leading people to prefer interactions with stereotypic looking women and optimally distinct (or counter-stereotypic) looking men, as their features may indicate levels of high warmth. Additionally, behaviors may provide information about competence, leading to preferences for interactions with behaviorally stereotypic men and behaviorally optimally distinct women, as their behaviors may indicate levels of high competence.

Finally, it may make sense to combine the two models. Dimensions of agency and communalism present in the second model provide a great deal of specification. However, because I only used stereotypically appearing people in Study 7, it is unclear how a target's appearance could affect perceivers' preferences when paired with information about agentic and/or communal behaviors. I will no longer argue that counter-stereotypically appearing targets may be preferred over stereotypically appearing targets, but still the extent to which deviation in the domain of appearance is acceptable for women and men is unclear. With a clearer conceptualization of the behaviors important to perform gender, it remains important to integrate other modes of gender performativity and display. Gendered appearance is a logical way to move forward. In the two studies in which optimal distinctiveness effects emerged for female targets, only stereotypically appearing targets were used. Thus, the question of how counter-stereotypically appearing targets would be perceived is as of yet unanswered, especially when integrating the variables of agency and communalism. I propose the following possibilities.

First, it is still possible that counter-stereotypicality in appearance is not of central importance for men. If so, integrating the two models used above would result in something like what is displayed in Figure 5.1 below. The top figure shows the results of Study 7, in which only stereotypic appearing targets were used. However, the bottom figure (for counter-stereotypically appearing men) is conjecture. In this figure, I propose that counter-stereotypically appearing men

who behave in agentic ways will still be liked. However, as an alternative to what is presented below, a study including counter-stereotypically appearing male targets could indicate that men's appearance is also important in person perception, meaning that all counter-stereotypic male targets are disliked. Future research (see below) could address this question easily.

Figure 5.1. Integration of models from Chapters 3 and 4 for male targets.

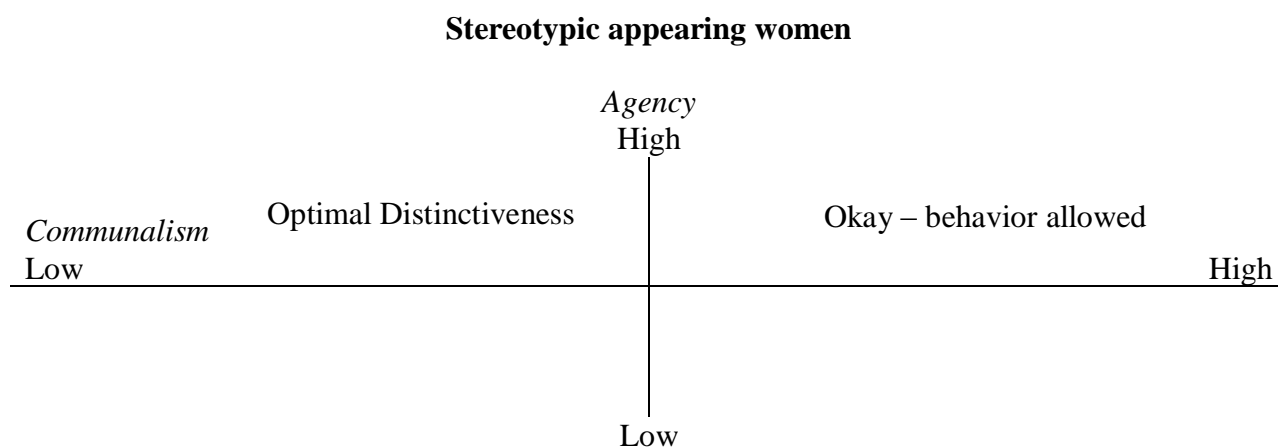


Responses to counter-stereotypically appearing women are of interest, as well. There is still a large body of research indicating that women's bodies and appearance are of central importance. However, there are two possibilities could emerge with the inclusion of counter-stereotypically appearing female targets into the results of Study 7. First, it is possible that the

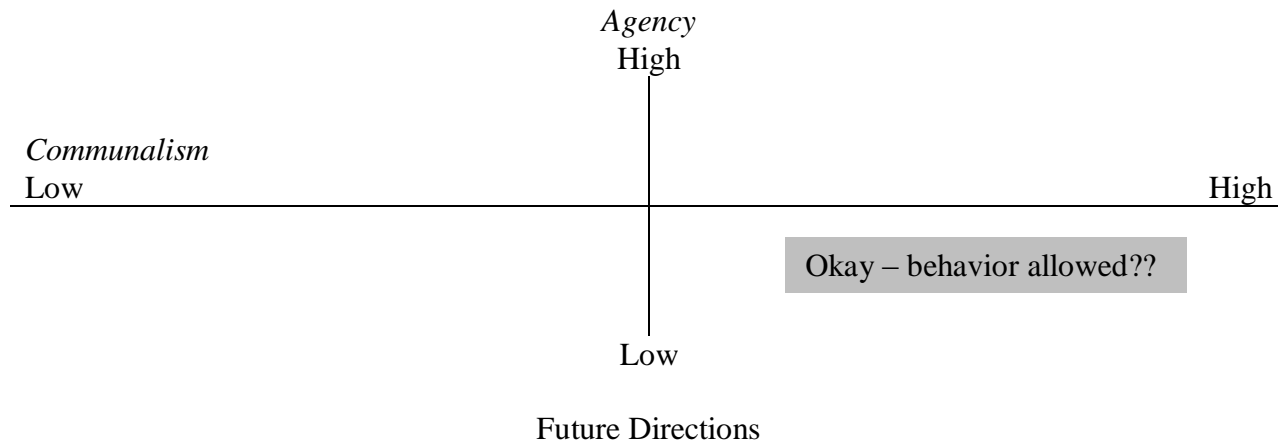
agency and communalism of a behavior is all that matters for women. In this case, counter-stereotypically appearing targets would be responded to as to stereotypically appearing targets.

Second, it is possible that while the agency and communalism of a behavior have some bearing on perceptions of women, a woman's appearance is also important. As with men, however, the results of Study 7 do not provide the answers to this question. Thus, integrating the two models for women would also provide new information about acceptable ways for women to perform gender. In the first part of Figure 5.2 below are the results of Study 7 for women, showing a preference for optimally distinct women. The second figure below shows conjectured results integrating the potential importance of appearance for women. In this second figure, although it is possible that counter-stereotypically appearing women would be given the same or preferential ratings when compared to stereotypically appearing women, I have depicted the possibility that counter-stereotypically appearing women who are stereotypic in their behaviors (showing no agency) would be liked as they do not upset the status quo.

Figure 5.2. Integration of models from Chapters 3 and 4 for female targets.



Counter-stereotypic appearing women



Below, I note six possible avenues of future research on gender and optimal distinctiveness.

First, as I discussed in the general discussion above, agency and communalism are clearly important for men and women. However, an integration of the two models I used throughout this research would provide more nuanced information than is present in Study 7. Because of the body of literature showing the importance of appearance in women's perceptions of themselves and others' perceptions of women, ignoring possible effects of looks would be a mistake. In addition, it is possible that looks are an important part of gendered performance for men, too, despite the relative lack of research about the impact of appearance when judging men. Thus, by replicating Study 7 and including counter-stereotypic targets, the effects of appearance could be articulated in concert with the effects of agency and communalism. Performing gender may be about literal behaviors, but it is also about the performance of physicality.

Second, although the integration of models is a logical next step, the majority of these studies explicitly pit the dimensions of appearance and behavior against each other, or I make the implicit assumption that these two dimensions are in conflict but only study one dimension. However, in future research I could focus exclusively on one experimental domain. It is certainly possible that optimal distinctiveness could emerge in a person when information is only provided

about looks *or* behavior. For example, optimal distinctiveness based on looks alone could be a femininely dressed woman with a feminine face, who also has a buzzed haircut. For behaviors, an optimally distinct man could engage in predominantly masculine behaviors (e.g., playing football), but have one non-stereotypic behavior (e.g., baking cookies). Conducting studies that focus on a single dimension would simplify the discussion of optimal distinctiveness by removing much of the variability associated with multiple experimental domains. Although either appearance or behaviors could be used in any future single-dimension research, behaviors may be a more logical choice. First, and most pragmatically, behaviors are easier to quantify and pretest. Second, within any given culture, there is a wider range of acceptable stereotypic behaviors, making the behavioral variability of experimental targets more believable. Third, there are also more sub-domains of behaviors available to use in an experimental context than there are sub-domains of appearance. Fourth, many appearance-related cues could be partially explained as behaviors (e.g., putting on make-up is both a behavior and part of appearance). Finally, using behaviors alone would make future research on optimal distinctiveness more relatable to current research, as most research on gender stereotypes involves behavioral variability, not appearance-based variability.

Third, although I included a partial investigation of the valence of agentic and communal behaviors, future research could attempt to fully investigate whether valence of behaviors has any effect on the preference for interacting with others. While this research is intuitively sound – after all, it is perfectly logical that valence affects our preferences for others – this may be harder to do than to think about. Specifically, it might be nearly impossible to find behaviors that cross agency and communalism while being equivalent in terms of valence. As a culture, US society

tends to admire those who do good things for others (high communal behaviors) and those who have power (indicative of agentic behaviors).

Fourth, in the tradition of Lewin's "the person in the situation" approach, there are participant characteristics that could affect preferences for optimally distinct versus stereotypic others. For example, it is possible that there are effects of age, education, class, etc., in what types of gendered performance one prefers in others. Thus, conducting studies using samples other than college students is important. In addition, there are individual difference variables that could moderate the effects. For instance, the endorsement of traditional gender roles could affect preferences for optimally distinct others. It is likely that those who endorse traditional gender roles may prefer stereotypic targets over optimally distinct targets, whereas those who do not endorse traditional gender roles may show a stronger preference for optimal distinctiveness.

Fifth, in my original conceptualization of optimal distinctiveness in others, I argued that those who are optimally distinct might be simultaneously comfortable and interesting. However, I only conducted one study that directly measured comfort and interest. In order to more fully articulate what is unique and important about those who are optimally distinct, a measure of comfort and interest could be an important investigation. This is especially true in light of the stereotype change literature; findings have, for instance, consistently indicated that contact with good group members who possess stereotype-disconfirming characteristics, or optimally distinct others, inspires the revision of stereotypes due to ease of categorization and attention paid to disconfirming characteristics (e.g., Johnston & Hewstone, 1992; Hewstone & Hamberger, 2000).

Finally, future research examine the conditions that promote backlash effects (e.g., Rudman & Fairchild, 2004) versus optimal distinctiveness, and backlash research may be extended by inclusion of designs that fully cross agentic and communalistic behavior. It is

possible that the preference for optimally distinct women seen in Studies 4 and 7 would not emerge in a hiring domain due to competition. However, it is also possible that the preference for optimally distinct women may remain, meaning that backlash would be avoided. This would be a provocative and interesting application for research on optimal distinctiveness.

Concluding Statement

The studies presented here were designed to examine whether people prefer optimally distinct others over uniformly stereotypic and counter-stereotypic others. Based on the results of these seven studies, the resounding (and very social psychological) answer is “it depends!” A target’s appearance seems to exert a strong influence on the perception of gender stereotypicality and stereotypic appearance is likely equally important regardless of a target’s gender. In addition, a target’s behaviors also seem to exert an influence in the perception of gender stereotypicality, most likely through the presence or absence of agency and communalism. Thus, although this research does not provide unequivocal support of my optimal distinctiveness hypothesis, it does make a unique contribution to psychological literature. Namely, although stereotypic people are nearly always preferred over counter-stereotypic people, optimally distinct people can both be perceived and are sometimes preferred over stereotypic targets. As individuals who want to be optimally distinct ourselves, this should come as no surprise.

Although the series of studies presented in this dissertation pointed to more questions than answers, the work also points to interesting new research directions. The questions raised provide avenues for new research. In the end, there are many avenues of research to follow that relate to the preference for optimally distinct others and the boundaries of such effects.

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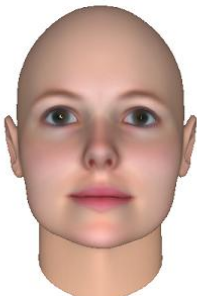





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Appendix A. Example images from Study 1

Sex of Face	Stereotypicality of face		
	Stereotypic	Optimally distinct	Counter-stereotypic
Female faces			
Male faces			

Appendix B. Final list of daily tasks used in Studies 1 through 3

Masculine

discuss politics
do a project for engineering class
go on a hike
go out to eat at a fast food restaurant
go to the bar
go to the gym
play Frisbee
play pool
watch a soccer game
play a card game







Feminine

cook a meal for a boyfriend/girlfriend
do a project for education class
do a project for HDFS
do the dishes
do the laundry
go for a walk
go shopping for food
go to the park
play twister
study at a coffee shop
work at a department store

Gender-neutral

go mini-golfing
go running
go swimming
go to a concert
go to a party
go to the library
hang out at an apartment
play with a dog
study at the HUB
study for a test
walk around campus
watch a sitcom
work at a grocery store
work at a restaurant

Appendix C. Example masked faces used in Studies 2, 3, and 4 (stereotypic and optimally distinct only).

Sex of Face	Stereotypicality of face		
	Stereotypic	Optimally distinct	Counter-stereotypic
Female faces			
Male faces			

Appendix D. Final professions used in Study 4.

Masculine

Accountant
Archeologist
Athletic trainer
CEO
Chef
Dentist
Director
Doctor
Entrepreneur
Judge
Manager
Meteorologist
Professor
Scientist

Feminine

Choreographer
Flight attendant
Interior decorator
Librarian
Model
Nurse
Stay-at-home parent

Gender-neutral

Artist
Baker
Editor
Journalist
News anchor
Paralegal
Pharmacist
Psychologist
Sales person
Tour guide

Appendix E. Final behaviors used in Studies 5 and 6.





Masculine behaviors

Walking a date home
Enlisting in the armed forces
Boxing
Paying for dinner
Buying a drink for someone
Playing a video game
Fishing
Initiating sex
Pulling out someone's chair
Building things
Throwing a pitch
Explaining technology to someone
Being the bread-winner
Checking someone out
Fixing things around the house
Opening a door for someone
Watching sports





Feminine behaviors

Caring for a sick friend
Cooking for someone
Reading a magazine
Giving someone a hug
Planning an activity for kids
Singing in a group
Watching a sunset
Going grocery shopping
Serving dinner
Cutting a friend's hair
Letting someone else pay for dinner
Calling a friend to talk
Staying at home to care for children
Modeling
Sewing clothing

Appendix F. Example hairstyle pictures used in Study 6.

Sex of Face	Stereotypicality of face	
	Stereotypic	Counter-stereotypic
Female		
Male		

Appendix G. Example images used in Studies 6 and 7 (stereotypic only).

Sex of Face	Stereotypicality of face	
	Stereotypic	Counter-stereotypic
Female		
Male		

Note: At least two, but not more than four, pictures from each category were shown smiling.

Appendix H. Final behaviors used in Study 7.

High Agency and High Communal

Is a motivational speaker
Heads a volunteer organization
Organizes a community fundraiser
Raises money for cancer
Raises money for the homeless
Helps an acquaintance meet new friends

High Agency and Low Communal

Is a television producer
Is an advertising executive
Is a movie director
Manages a chain of pubs

Low Agency and High Communal

Volunteers at the local library
Walks a friend's dog
Is a campus tour guide
Hosts a part for a coworker
Organizes a neighborhood carpool

Low Agency and Low Communal

Takes a nap
Reads a newspaper
Searches the internet
Watches TV
Plays solitaire
Orders home delivery

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Curriculum Vitae

Education

The Pennsylvania State University, Ph.D., Psychology, 2009
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Thomas, M.A. (2005). Review of the book *Midlife lesbian relationships: Friends, lovers, children, parents*. *Sex Roles, 52*(7/8), 555-556.

Presentations

Thomas, M.A. & Vescio, T. K. (2008, February). Interpersonal intrigue: Optimally distinct others. Poster presented at the annual meeting of the Society for Personality and Social Psychology. Albuquerque, NM.

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