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Gender Subtypes:

-Is there a difference within gender subtypes regarding competence & warmth?

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Abstract

The aim of this study was to find female and male subtypes in Sweden and measure peoples' perceptions of their competence and warmth. This was done through a qualitative survey that collected the subtypes, and a quantitative survey which measured opinions on the different subtypes. The results showed there was a significant difference in competence and warmth within female subtypes as well as male subtypes, indicating that people think there are different types of females and males. This could mean that if people were able to choose a gender subtype instead of general gender it will be possible to reduce gender stereotyping.

Keyword: Gender subtype, Categorization, Stereotype, Competence & Warmth

Table of Contents

Introduction	.....	p.4
<i>Categorization and subtypes</i>	.....	p.4
<i>Stereotype & stereotype threat</i>	.....	p.7
<i>The stereotype content model & exemplars</i>	.....	p.8
<i>Hypothesis</i>	.....	p.10
Method	.....	p.11
<i>Study 1</i>	.....	p.11
<i>Participants</i>	.....	p.11
<i>Material</i>	.....	p.11
<i>Procedure</i>	.....	p.11
<i>Study 2</i>	.....	p.11
<i>Participants</i>	.....	p.11
<i>Material</i>	.....	p.12
<i>Procedure</i>	.....	p.12
Results	.....	p.12
<i>Female competence</i>	.....	p.13
<i>Female warmth</i>	.....	p.14
<i>Male competence</i>	.....	p.15
<i>Male warmth</i>	.....	p.16
Discussion	.....	p.17
<i>Improvements</i>	.....	p.19
<i>Future research</i>	.....	p.19
<i>Conclusion</i>	.....	p.20
References	.....	p.21

Is there a difference within gender subtypes regarding competence & warmth?

"We will not understand *group stereotypes* unless we also know who gets placed in what categories and why, and what attributes are associated with the various categories and why"

- Zebrowitz (1996, p. 80)

There are many different stereotypes about basically everything in the world. When it comes to men and women there are many stereotypes about both sexes, and many different layers of perception. People categorize men and women on many levels, while using many components like personality, attitudes, behavior, beliefs, situational preferences as well as physical appearance (Carpenter & Trentham, 1998, 2001; Deaux, Winton, Crowley, & Lewis, 1985; Eckes, 1994a, 1996). However some stereotypes seem quite global, for instance that women are generally considered to be interdependent and communal with others, and men are expected to be contrasted and autonomous (Markus & Oyserman, 1989). This means that women are thought to be nice and friendly, but not with great power or searching for status. That stereotype is reserved for men. There has been much attempt over the years to minimize the differences in stereotypes about men and women and considerable progress has been made in diversifying previously homogenous fields.

However, there are still many problems with the stereotype differences between men and women. It creates interdependence and power differences between the genders and complex and hostile attitude towards men and women (Glick & Fiske, 1996, 2001). One of the biggest problems however has to do with social role theory (Eagly, 1987) which dictates that people will conform to the social roles that are expected of them; hence women will act more nurturing and men more competitive.

Researchers suggest that a number of more specific subtypes will provide more information and describe the broader social categories better (Deaux, et al., 1985; Eckes, 1994a). This could lead to reduced differences between men and women. For reduced differences to occur it is necessary that there are internal differences between the female subtypes as well as between the male subtypes, since this would mean that they are not general gender stereotypes. In order to investigate if specific female and male subtypes have an internal difference in competence and warmth this study conducted two sub-studies to find female and male subtypes in Sweden and measure peoples' perceptions of their competence and warmth.

Categorization and subtypes

Category refers to a number of objects which are thought to be equal, and they are normally designed by name, for instance: dog and animal. The way humans categorize the world might sometimes seem arbitrary, but it is highly determined. The material objects of the world have a high correlation structure, which determine categories to reduce cognitive load and still yield the most information (Rosch, Mervis, Gray, Johnson & Boyes-Braem, 1976).

There are many ways to categorize people. People can be categorized by age, ethnicity or gender for instance. When people categorize they tend to use global categories, such as male or female instead of subtypes and categories. It has been suggested by researchers that global social categories, for instance gender or age, are too broad and are unable to capture the essence of social perception (Hamilton, 1981; Taylor, 1981). Researchers suggest that a number of more specific subtypes will provide more information and describe the broader social categories better. Examples of categories that have been showed to contain meaningful subtypes are of the elderly (Brewer, Dull, & Lui, 1981), African Americans (Devine & Baker, 1991), and of men and women (Deaux, et al., 1985; Eckes, 1994a).

People are more likely to use specific subtypes when understanding and perceiving men and women, than the more common broad, abstract categories, such as man and woman (Rosch, et al., 1976). Van Twuyver and Van Knippenberg (1998) found that using subtypes as a way of organizing social information was frequently used and that people who had a low identification with their own sex tended to subtype more than those with a high identification. When forming impressions and categorizing, people tend to focus on salient attributes in others. Stereotypes and subtypes may be used for classification when people fit clearly established categories (Sherman, 1996). Carpenter and Trentham (1998) suggested that salient attributed can be used when classifying subtypes, which would give a more salient principle of organizing than, for instance, gender. There has been several patterns discovered which are associated with subtypes of men and women (Carpenter & Trentham, 1998; Deaux, et al., 1985; Eckes, 1994a, 1994b).

Subtypes and cluster of subtypes are more distinct than general stereotypes and are interrelated and differentiated from one another. The categories which are likely to be used when classifying will be influenced by the gender of the target person (Carpenter, 1993). The schemata's for classification for organizing information seems to correspond reasonably well with the existing classifications about oneself (Gordon, 1968) and other people (Ostrom, 1975). This means that the way people organize information and categorize people will depend on how they view themselves and their own subtype membership (Carpenter and Trentham, 2001). Brewer and Gardner (1996) suggested that not all subtypes are associated

the same for men and women. Subtypes and categories of subtypes have been shown to be both differentiated and interrelated from one another, and different from more generic stereotypes about gender. There is less distinctiveness between subtypes of men than subtypes of women, and the subtype categories tend to focus on work and family roles as well as physical appearance (Deaux et al., 1985, Study 3; Eckes, 1994a, 1994b). Subtypes of men are generally perceived more negative than the subtypes of women (Carpenter, 1993). However stereotypes on women are generally perceived more negatively than stereotypes on men (Basow, 1980).

There are many studies which show that when it comes to gender stereotypes, subtypes are equally accessible and strong regarding both women and men, and that they do not vary with respect to either the extent which people endorse the stereotypes or the content of the stereotype (Deaux & Lewis, 1984; Deaux et al., 1985). However, Carpenter and Trentham (1998) found that there was a difference in participants' ability to generate subtypes, depending on their gender and gender-role orientation. Men were more likely to generate subtypes regarding sexual style and derogatory subtypes, and women were more likely to generate subtypes regarding demographics and interpersonal roles (Carpenter & Trentham, 1998).

Previous research has identified gender subtypes where possible female subtypes could include: *athletic woman*, *housewife*, *business woman*, and *sexy woman*; and possible male subtypes could include: *athletic man*, *blue-collar working man*, *business man* and *macho man* (Deaux et al. 1985, Study 3). In Germany Eckes (1994a) conducted a study with similar findings where the subtypes for women were: *career woman*, *housewife*, *chick*, and *women's libber*, and the subtypes for men were: *macho*, *professor*, *yuppie*, *hippy*, *punk*, and *bourgeois*. Eckes' findings indicate that gender stereotypes have many levels, components and cognitive constructs. In Coats and Smith's (1999) study, people's perceptions of gender subtypes, and to which extent they were context dependent was explored. The research method was conducted by having two dissimilar exemplars of the subtypes which the participants were exposed to and subsequently had to list characteristics of the subtypes. The test included the main test as well as three pretests which were conducted to obtain representative set of subtypes, appropriate sets of exemplars and to verify that the participants predicted variations on particular features between the exemplars. The intention of the main test was to obtain descriptions of the different subtypes by exposing participants to exemplars. Four different groups were used for the four different tests. The research showed that the selected male subtypes included: *intelligent man*, *family man*, *businessman*, *athletic man*, *playboy*, *badboy*,

and *blue-collar worker*. The research also showed that the selected subtypes for females included: *feminist, professional woman, bitchy woman, homemaker, promiscuous woman, athletic woman, and naive woman*. The results from the main study indicated that judgments about gender subtypes are not based on abstract representations that are stored and retrieved but rather context sensitive and flexible. However recently activated exemplars still affect the judgment of subtypes, and not just the general social groups (Coats & Smith, 1999). This means that gender stereotypes can be altered depending on the context.

Stereotype & stereotype threat

There is still an underrepresentation of women in academic fields such as science, engineering, technology and mathematics (Cheryan & Plaut, 2010). Since many of these fields are considered incongruent with female gender roles (Cheryan & Plaut, 2010) it has been suggested that it is the perceived lack of similarity that is the cause. The same can be seen for males in female dominated fields such as English. Despite considerable progress many women do not feel similarity with typical male gender roles. This even though there are many different types of gender roles.

Gender stereotype has many negative effects. Glick and Fiske (1996, 2001b) conducted studies on different types of subtypes and power differences, where gender was a factor. The results indicated that there are great power differences between the genders which create hostile attitudes. Both studies confirm that prejudices on gender are complex with derogatory or hostile attitude patterns. People categorize men and women on many levels, while using many components like personality, attitudes, behavior, beliefs, situational preferences as well as physical appearance (Carpenter & Trentham, 1998, 2001; Deaux, et al., 1985; Eckes, 1994a, 1996). Social role theory (Eagly, 1987) dictates that people will conform to the social roles that are expected of them; hence women will act more nurturing and men more competitive.

Another problem with gender roles is stereotype threat. The term was coined by Steele and Aronson (1995), who in their study found evidence that black American students performed worse on tasks framed as diagnostic of intellectual ability compared to when it was framed as non-diagnostic of ability. The same effect could not be found for white American students. The reason for this was that when people strive to do well on a task where there is an in-group stereotype, they will perform according to the stereotype. This is because a “threat” is caused which makes the person underperform. Hence a stereotype threat is thought to be a situational threat that potentially can affect a group member’s performance if there is a negative stereotype present (Steele & Aronson, 1995). This means that if there is a stereotype

that women should have low competence they will conform to this if they are aware of the stereotype. Coats and Smith (1999) argue that there seems to be more stereotypes on general group level, which could mean that there are fewer and less salient stereotypes on gender subtypes. This could in turn help reduce female and male stereotype threat.

Early models of mental representations of general stereotypes indicates that they were thought to be stable cognitive structures or schemata, which essentially means that they were thought to be summary representations that captured a social groups relevant features (Taylor, 1981). Schemata are believed to derive on information learned through information gained via family, friends and the media and through social interactions. According to this theory, stereotypes exists as stable structures which we store and retrieve in order to categorize new information based on their similarity to other schema. However, the fact that human judgment is proven to be highly influenced by context, challenges the plausibility of purely schematic stereotyping (Hamilton & Sherman, 1994; Smith & Zárate, 1992). This means that stereotypes are not fixed structures but are changing over time, which can be a good thing since this means that they can change. There has been an account to see stereotype as fluid, constructed at a point in time, and on the knowledge available at that time (Haslam, Turner, Oakes, McGarty, & Hayes, 1992; Mullen, 1991; Smith & Zárate 1992). Usually there is some core information available but much depends on the context surroundings at the time of retrieval, thus it is possible to say that stereotypes are not single units stored in memory but flexible, temporary concepts which are constructed.

The stereotype content model & exemplars

Another way of looking at social groups and their attributes is through the stereotype content model (SCM; Fiske, Cuddy, Glick, & Xu, 2002), which is a more general model that is applicable to many different groups. It dictates that the stereotype content that groups develop is determined by the structural relationship between social groups. It also states that competence and warmth are the core dimensions of stereotypes, where competence refers to the ability to succeed at high status tasks, and warmth refers to socioemotional orientations towards others. Outgroups are thought to differ in the way that they are capable to threaten and harm the goals of the ingroup, and to which extent they intend to threaten and harm the ingroup. Fiske et al., (2002) also suggests that many stereotypes are a mixture of competence and warmth, where high ratings on one results in low ratings on the other dimension. Women are for instance thought to be high on warmth and low on competence, while the reversed is true for men (Eagly, Wood & Diekmann, 2000; Eckes, 1994b). Some research has suggested that the relationship between competence and warmth can be found in gender subtypes

(Eckes, 1994b), where traditional subgroups (housewives, motherly types) are considered to be warm but not competent, and nontraditional subtypes (career woman, feminist) are perceived to be competent but not warm.

Eckes (2002) researched envious and paternalistic gender stereotypes in two studies. In the envious stereotype, groups were depicted with some males and females as competent but not warm, and in the paternalistic they were viewed as warm but not competent. The results showed that many gender subtypes are viewed as high on either competence or warmth and low on the other. The study also showed strong support for the theory that interdependence was perceived as warmth and status as competence. The first study was conducted by having participants rate 17 female subgroups and 24 male subgroups on competence and warmth. The items found on the competence scale were: competent, competitive, confident, intelligent and independent. On the warmth scale the items found were warm, likable, good-natured, sincere and tolerant. The ratings were not done from personal beliefs but rather in what way the participants thought they were viewed by others to reduce concerns regarding social desirability. In the second study participants were asked to rate 20 labels of social groups on two sets of items. The first set included three-item measure of the perceived warmth and competence, instead of five to prevent fatigue. The second set comprised three items from the status, cooperation and competition scales (Eckes, 2002). The study provided strong evidence that the SCM might be used in the future in reducing stereotypes and prejudice by giving examples of the different subtypes and hence change the status and power differentials that exists in the male-female relationships in society.

Exposure to specific exemplars can have a strong effect on the way people think of other social groups (Bodenhausen, Schwartz, Bless, & Wanke, 1995; Lewicki, 1985; Schwartz & Bless, 1992; Smith & Zárate, 1990, 1992). In a study performed by Bodenhausen et al. (1995) it was found that participants who had been primed with an example of well-liked African American felt that there was greater discrimination in society compared to participants who did not receive such prime. The view one has of a social group may vary depending on the context and what comes to mind. Smith and Zárate (1990) conducted a study which indicated that after exposure on a training set to categorize people based on written descriptions, participants tended to keep categorizing in the same way in new cases instead of on typical information. The study supported the notion that categorizing and stereotyping information is influenced by exemplars. There are different models proposed of stereotype representation that emphasize the role of exemplar in social judgment (Park, Judd, & Ryan, 1991; & Zárate, 1990, 1992). There are a number of factors which dictate if

judgment or exemplars has a bigger role in the effect. Research suggests that increasing knowledge and familiarity with a group will shift judgment to be more abstract based instead of exemplar based (Klein, Loftus, Trafton, & Fuhrman, 1992; Sherman, 1996), which is more common when making judgments about in-groups (Park et al., 1991).

Research has shown that there are several issues connected to stereotypes and their context sensitivity. In research done by Bodenhausen et al. (1995) it was shown that by priming a specific exemplar (a category member), broad social categories could be altered. If the same sensitivity of context can be found at the level of category subtypes, it is more likely that specific exemplar information will be included. Since experience with a group leads to more reliance on abstract representations and less on exemplars (Klein et al., 1992; Sherman, 1996), this would mean that judgment of subtypes would be more exemplar based since by definition people have less experience with them than a whole group. It seems that there are more stereotypes on general group level, which would mean that representations of subtypes would rely more on specific exemplars (Coats & Smith, 1999). Hence using subtypes could decrease general stereotypes on gender, given that there is a difference between the subtypes.

Hypothesis

Previous research suggest that there are gender subtypes that are more specific than general categories which will provide more information and better describe the broader social categories (Deaux, et al., 1985; Eckes, 1994). However, not all subtypes for men and women have the same associations (Brewer and Gardner, 1996). In this study, two sub-studies aim to investigate the gender subtypes that exist in Sweden and if there are any differences on competence and warmth between these gender subtypes. This because if there are internal differences between these gender subtypes, that would indicate that they do not conform to general gender stereotypes since they will not hold a single value for females nor a single value for males. In order to investigate if there are any differences between the female subtypes on competence and warmth and if there is a difference between the male subtypes on competence and warmth, four hypotheses were made and tested:

Hypothesis 1: There will be differences in people's ratings on competence in all female subtypes.

Hypothesis 2: There will be differences in people's ratings on warmth in all female subtypes.

Hypothesis 3: There will be differences in people's ratings on competence in all male subtypes.

Hypothesis 4: There will be differences in people's ratings on warmth in all male subtypes.

Method

This study entailed two sub-studies. Study 1 was conducted to acquire a representative set of gender subtypes for the Swedish population. The purpose of Study 2 was to investigate whether there was a difference in people's perceptions of competence and warmth in the different female and male subtypes. Each of the two data collections contained different participants.

Study 1

Participants. The purpose of Study 1 was to obtain a representative set of subtypes for men and women in Sweden. 21 participants, eleven female and ten male, participated in the study. They were all students at Lund University with an age span of 19-25 years ($M = 22$, $SD = 1.69$). They were recruited by the experimenter, who asked if they would be interested in taking part in a two-minute test about categorization, where the interest of the study was to obtain different categories, or rather subtypes of men and women, that were considered meaningful, distinct and representative.

Material. The participants were given a blank piece of paper, a pen and received instructions from the experimenter to write down as many subtypes of men and women as they could think of.

Procedure. The same procedure as used by Carpenter & Trentham (1998) was used where participants were asked to generate a list during two minutes, where the experimenter let them know when one minute had passed. They were informed that the experiment would take about two minutes and that they in no way were obligated to complete the survey and could stop at any time if they wanted to. The participants generated 145 subtypes, where 111 were unique. These subtypes were then matched into seven different categories for women and seven different categories for men. For women the categories included: *Career woman*, *Feminist*, *Nurturing woman*, *Athletic woman*, *Aggressive woman*, *Older woman*, and *Young woman*. For men the categories included: *Career man*, *Family man*, *Athletic man*, *Dissatisfied older man*, *Ladies man*, *Alpha man*, and *Blue-collar worker*. After the experimenter had sorted the categories two additional experimenters categorized the subtypes as well in order to optimize the categories.

Study 2

The objective of Study 2 was to investigate the differences between how different subtypes of women and men are regarded on competence and warmth.

Participants. The participants in Study 2 included 42 people, both students and non students, who lived, studied or worked in Lund. There were 22 female and 20 male participants with an age span of 18-56 ($M = 29$, $SD = 10.12$). Participants were recruited by the experimenter who asked people if they were interested in participating in a study about categorization of gender subtypes. If they were interested the experimenter collected their e-mail and the study was then e-mailed to them the same day.

Material. The questionnaire was constructed by the seven subtypes of women (*Career woman, Feminist, Nurturing woman, Athletic woman, Aggressive woman, Older woman, and Young woman*) and the seven subtypes of men (*Career man, Family man, Athletic man, Dissatisfied older man, Ladies man, Alpha man, and Blue-collar worker*). Participants were instructed to rate these subtypes on scales reflecting competence and warmth, on a scale of 1-7, where 1 equaled not at all, and 7 very much. To measure competence the words used were: “*Competent, Confident, Independent, Competitive and Intelligent*”, and to measure warmth the word used were: “*Tolerant, Warm, Good natured and Sincere*”. In order to keep competence and warmth balanced a fifth word was added by the experimenter to warmth which was “*Social*”. Competence and warmth items were jumbled and did not come in order, and were based on the scales used by Conway, Pizzamiglio and Mount (1996) as well as by Fiske et al. (2002). Two questionnaires were distributed. About half of the participants (22 participants) were asked to rate their personal beliefs on how they viewed the subtypes and the other half (20 participants) were asked to rate on the basis of how they thought the subtypes were viewed by society. This was done in order to reduce social desirability and at the same time get some answers indicating peoples own beliefs. Participants were also asked to indicate their age, which subtype they felt they belonged to the most, and were able to write a comment at the end of the questionnaire.

Procedure. The participants were asked to take part in a survey about categorization of gender subtypes, and if they were interested the study would be e-mailed to them. They were informed that the experiment would take about 15 minutes and that they in no way were obligated to complete the survey and could stop at any time if they wanted to. The survey was then e-mailed to the participants, and when they had finished the survey the participants e-mailed it back to the experimenter. Half of the participants completed a survey on personal beliefs about gender subtypes and half completed a survey on how they perceived society thought about the different subtypes.

Results

The results from Study 1 and 2 are presented below. Study 1 categorized gender subtypes into representative female and male subtypes and Study 2 measured each subtypes scores on competence and warmth. Study 1 was categorized by the experimenter and then categorized by two additional controllers which led to fourteen categories to be constructed, seven female (*Career woman, Feminist, Nurturing woman, Athletic woman, Aggressive woman, Older woman, and Young woman*) and seven male (*Career man, Family man, Athletic man, Dissatisfied older man, Ladies man, Alpha man, and Blue-collar worker*).

In Study 2 the five items that constituted competence (*Competent, Confident, Independent, Competitive and Intelligent*) were computed into one variable named Competence for each subtype. The same was done for the five items that constituted warmth (*Tolerant, Warm, Good natured, Social and Sincere*) which were computed into the variable Warmth for each subtype.

Repeated measures ANOVAs were used to determine whether there was a significant mean difference between the subtypes. No outliers were found.

Female competence

A one-way repeated measures ANOVA was conducted to compare scores in competence on female subtypes (*Career woman, Feminist, Nurturing woman, Athletic woman, Aggressive woman, Older woman, and Young woman*). The means and standard deviations are presented in Table 1. There was a significant difference between the female subtypes' scores on competence, Wilks' Lambda = .16, $F(6, 36) = 31.67$, $p < .0005$, multivariate partial eta squared = .84, suggesting a very large effect size. As can be seen in Table 1, the subtype that was scored as the most competent was Career woman, and the least competent was Aggressive woman.

Paired sample t-tests were conducted for all pairs and revealed that 15 pairs had significant differences and five did not. The ones that did not show any significant differences were firstly: Feminist ($M = 4.65$, $SD = .77$) and Young woman ($M = 4.54$, $SD = .83$; $t(41) = .85$, $p = .40$, two-tailed). Secondly: Nurturing woman ($M = 4.19$, $SD = .88$) and Aggressive woman ($M = 4.00$, $SD = .98$; $t(41) = .93$, $p = .36$, two-tailed). Thirdly: Nurturing woman ($M = 4.19$, $SD = .88$) and Older woman ($M = 4.21$, $SD = .69$; $t(41) = -.18$, $p = .86$, two-tailed). Fourthly: Nurturing woman ($M = 4.19$, $SD = .88$) and Young woman ($M = 4.54$, $SD = .82$; $t(41) = -1.96$, $p = .06$, two-tailed), and fifthly there was no significant difference between: Aggressive woman ($M = 4.00$, $SD = .98$) and Older woman ($M = 4.21$, $SD = .69$; $t(41) = -1.27$, $p = .21$, two-tailed).

Table 1.

Descriptive Statistics for scores on competence for female subtypes

Subtype	N	Mean	Standard deviation
Career woman	42	5.79	.75
Feminist	42	4.65	.77
Nurturing woman	42	4.19	.88
Athletic woman	42	5.46	.81
Aggressive woman	42	4.00	.98
Older woman	42	4.21	.70
Young woman	42	4.54	.82

Female warmth

A one-way repeated measures ANOVA was conducted to compare scores in warmth on female subtypes (*Career woman*, *Feminist*, *Nurturing woman*, *Athletic woman*, *Aggressive woman*, *Older woman*, and *Young woman*). The means and standard deviations are presented in Table 2. There was a significant difference between the female subtypes' scores on warmth, Wilks' Lambda = .13, $F(6, 36) = 39.97$, $p < .0005$, multivariate partial eta squared = .87, suggesting a very large effect size. As can be seen in Table 2, the subtype that was scored as the warmest was Nurturing woman, and the least warm was Aggressive woman.

Paired sample t-tests were conducted for all pairs and revealed that 15 pairs had significant differences and five did not. The ones that did not show any significant differences were firstly: Career woman ($M = 4.45$, $SD = .92$) and Feminist ($M = 4.14$, $SD = .82$; $t(41) = 1.82$, $p = .08$, two-tailed). Secondly: Career woman ($M = 4.45$, $SD = .92$) and Athletic woman ($M = 4.40$, $SD = .68$; $t(41) = .31$, $p = .76$, two-tailed). Thirdly: Career woman ($M = 4.45$, $SD = .92$) and Young woman ($M = 4.47$, $SD = .54$; $t(41) = -.11$, $p = .91$, two-tailed). Fourthly: Feminist ($M = 4.14$, $SD = .82$) and Athletic woman ($M = 4.40$, $SD = .68$; $t(41) = -1.91$, $p = .06$, two-tailed) and fifthly there was no significant difference between: Athletic woman ($M = 4.40$, $SD = .68$) and Young woman ($M = 4.47$, $SD = .54$; $t(41) = -.76$, $p = .45$, two-tailed).

Table 2.

Descriptive Statistics for scores on warmth for female subtypes

Subtype	N	Mean	Standard deviation
Career woman	42	4.45	.92
Feminist	42	4.14	.82
Nurturing woman	42	5.85	.61
Athletic woman	42	4.40	.68
Aggressive woman	42	2.90	1.00
Older woman	42	5.16	.80
Young woman	42	4.47	.54

Male competence

A one-way repeated measures ANOVA was conducted to compare scores in competence on male subtypes (*Career man, Family man, Athletic man, Dissatisfied older man, Ladies man, Alpha man, and Blue-collar worker*). The means and standard deviations are presented in Table 3. There was a significant difference between the male subtypes' scores on competence, Wilks' Lambda = .15, $F(6, 36) = 35.17$, $p < .0005$, multivariate partial eta squared = .85, suggesting a very large effect size. As can be seen in Table 3, the subtype that was scored as the most competent was Career man, and the least competent was Dissatisfied older man.

Paired sample t-tests were conducted for all pairs and revealed that 16 pairs had significant differences and four did not. The ones that did not show any significant differences were firstly: Family man ($M = 4.83$, $SD = .67$) and Ladies man ($M = 4.89$, $SD = .95$; $t(41) = -.31$, $p = .76$, two-tailed). Secondly: Family man ($M = 4.83$, $SD = .67$) and Blue-collar worker ($M = 4.59$, $SD = .66$; $t(41) = 1.64$, $p = .11$, two-tailed). Thirdly: Athletic man ($M = 5.53$, $SD = .67$) and Alpha man ($M = 5.44$, $SD = .95$; $t(41) = .59$, $p = .56$, two-tailed), and fourthly there was no significant difference between: Ladies man ($M = 4.89$, $SD = .95$) and Blue-collar worker ($M = 4.59$, $SD = .66$; $t(41) = 1.76$, $p = .09$, two-tailed).

Table 3.

Descriptive Statistics for scores on competence for male subtypes

Subtype	N	Mean	Standard deviation
Career man	42	5.98	.57
Family man	42	4.83	.67
Athletic man	42	5.53	.67
Dissatisfied older man	42	3.64	.96
Ladies man	42	4.89	.95
Alpha man	42	5.44	.95
Blue-collar worker	42	4.59	.66

Male warmth

A one-way repeated measures ANOVA was conducted to compare scores in warmth on male subtypes (*Career man*, *Family man*, *Athletic man*, *Dissatisfied older man*, *Ladies man*, *Alpha man*, and *Blue-collar worker*). The means and standard deviations are presented in Table 4.

There was a significant difference between the male subtypes' scores on warmth, Wilks' Lambda = .23, $F(6, 36) = 20.14$, $p < .0005$, multivariate partial eta squared = .7, suggesting a very large effect size. As can be seen in Table 4, the subtype that was scored as the warmest was Family man, and the least warm was Dissatisfied older man.

Paired sample t-tests were conducted for all pairs and revealed that 15 pairs had significant differences and five did not. The ones that did not show any significant differences were firstly: Career man ($M = 4.35$, $SD = .87$) and Athletic man ($M = 4.51$, $SD = .67$; $t(41) = -1.02$, $p = .31$, two-tailed). Secondly: Career man ($M = 4.35$, $SD = .87$) and Ladies man ($M = 4.13$, $SD = .89$; $t(41) = 1.05$, $p = .30$, two-tailed). Thirdly: Career man ($M = 4.35$, $SD = .87$) and Alpha man ($M = 4.27$, $SD = 1.00$; $t(41) = .48$, $p = .64$, two-tailed). Fourthly: Athletic man ($M = 4.51$, $SD = .67$) and Alpha man ($M = 4.27$, $SD = 1.00$; $t(41) = 1.73$, $p = 0.09$, two-tailed), and fifthly there was no significant difference between Ladies man ($M = 4.13$, $SD = .89$) and Alpha man ($M = 4.27$, $SD = 1.00$; $t(41) = -.72$, $p = .48$, two-tailed).

Table 4.

Descriptive Statistics for scores on warmth for male subtypes

Subtype	N	Mean	Standard deviation
Career man	42	4.35	.87
Family man	42	5.40	.71
Athletic man	42	4.51	.67
Dissatisfied older man	42	3.20	.94
Ladies man	42	4.13	.89
Alpha man	42	4.27	1.00
Blue-collar worker	42	4.76	.67

No significant interaction between type of survey (personal beliefs or society's beliefs) and test scores were found, Wilks' Lambda = .90, $F(6, 35) = .68$, $p = .10$, multivariate partial eta squared = .10.

Discussion

This study set out to find which gender subtypes exist in Sweden and if people perceived differences in competence and warmth within the gender subtypes. The results of Study 1 showed that the female subtypes in Sweden could be classified as: *Career woman*, *Feminist*, *Nurturing woman*, *Athletic woman*, *Aggressive woman*, *Older woman*, and *Young woman*. It also showed that the male subtypes in Sweden could be classified as: *Career man*, *Family man*, *Athletic man*, *Dissatisfied older man*, *Ladies man*, *Alpha man*, and *Blue-collar worker*. The subtypes found in Sweden are similar to those found by Coats and Smith (1999) study done in USA. Their research showed that the selected female subtypes included: *feminist*, *professional woman*, *bitchy woman*, *homemaker*, *promiscuous woman*, *athletic woman*, and *naive woman*. Male subtypes included: *intelligent man*, *family man*, *businessman*, *athletic man*, *playboy*, *badboy*, and *blue-collar worker*. The female subtypes that were similar were: *Feminist*, *Professional/Career woman*, *Bitchy/Aggressive woman* and *Athletic woman*. *Homemaker* and *Nurturing woman* were quite similar as well. In Sweden the female subtypes: *Promiscuous woman* and *Naive woman* were not found, but instead included: *Older woman* and *Young woman*. For the males the similar subtypes included: *Family man*,

Businessman/Career man, Athletic man, Playboy/Ladies man and Blue-collar worker. In Sweden the male subtypes: Intelligent man and Badboy were not found but instead included: Alpha man and Dissatisfied older man.

Study 2 measured competence and warmth on all of the gender subtypes using scales used by Conway et al. (1996) as well as by Fiske et al. (2002). The hypotheses were, 1: that there will be differences in people's ratings on competence in all female subtypes, 2: that there would be differences in people's ratings on warmth in all of the female subtypes, 3: that there would be differences in people's ratings on competence in all male subtypes, 4: that there would be differences in people's ratings on warmth in all male subtypes. In accordance with hypothesis 1 there was a statistically significant difference in the mean scores on competence between the female subtypes. This suggests that there are many different types of women who are thought of as differently competent and that there is not only one type of woman. However, not all female subtypes differed significantly from one another which indicate that some female subtypes are seen as equally competent.

The same results were found for the female subtype in warmth, where a significant difference was found between the subtypes, which supports hypothesis 2. Again this supports the notion that there are differences in the general thoughts of females and that they are thought to be different depending on which subtype they belong to. Here it was also shown that not all female subtypes differed from one another and that some subtypes are considered to be equally warm.

In the male subtypes it was found that there was a significant difference between the scores on competence in the different subtypes, which supports hypothesis 3. This indicates that there are differences in people opinions about males and that not all subtypes are considered to be equally competent. Here it was also found that not all subtypes differed significantly from one another.

The same significant results were found on warmth in the different male subtypes thus supporting hypothesis 4 and suggesting that people think there are different types of males who are not considered to be equally warm. Not all subtypes differed significantly from each other suggesting that some subtypes are considered to be equally warm.

The nature of the differences implies that the study was successful in finding differences within the female and male subtypes on competence and warmth. This is a good sign, since it implies that people think differently about different subtypes of females and males. All of the results were congruent with the hypotheses the study presented. A possible explanation for these results is that people really believe that there is a great difference within

females and within males. For this reason it can be assumed that if people were able to choose a gender subtype instead of general gender it would be possible to reduce gender specific stereotypes since there no longer would be just one female and one male. The ability to identify with a chosen subtype could reduce the risk of stereotype threat since people could identify with subtypes that are different from the gender stereotype, for instance general gender stereotypes which state that females should be low on competence and high on warmth (Markus & Oyserman, 1989). This could lead to reduced inequality in society were people themselves can choose a gender subtype to a greater extent than they can choose their gender and hence have a say on if they should be high on competence or warmth. An effect could be that more females and males branch out more into areas that are considered to be incongruent with typical gender roles.

However, the study indicated that some participants had trouble defining with one subtype. They either felt that they were multiple subtypes or could not identify with any of them. This suggests that using subtypes to reduce stereotypes will exclude some people who do not feel they fit any of the gender subtypes.

Improvements

A way of improving this study would be to control for other influential variables by having participants conducting the experiment in the same settings. Since it was a quite large questionnaire participants were more easily recruited by having them being able to conduct the survey at home. This helped with the data collection but did not help in the controlling of other influential variables.

There was no interaction effect between participants own beliefs and societies beliefs. Participants answered in similar ways in the two surveys, so having half of the participants' rate their own beliefs and the other society's beliefs was not necessary in the end. However, since there was no effect it did not harm the study either.

Although there are many obvious reasons why a long survey is beneficial for the experimenter it might cause problems for the participants. Many participants found the survey in Study 2 a bit long and there is a chance that participants lost interest and lack of focus at the end of the survey. It might have helped if participants only answered questions on competence and warmth on either female or male subtypes.

Future research

Future research could be done by comparing gender subtypes scores with general genders scores on competence and warmth, to see if gender subtypes reduce the general difference between men and women. This type of research is not only interesting when it

comes to gender but could be used in many other areas which suffer from inequality. It could for instance be done by comparing foreigners and different subtypes of foreigners' scores on competence and warmth scales.

Conclusion

There are many different types of gender subtypes, and depending on which part of the world people come from, they might differ. It is possible to deduce from the studies that when it comes to gender subtype it would be useful to use it when investigating gender differences since it will give people the opportunity to identify with more than just one role.

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