

Gender schemas in perception of gender-neutral images

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Background: Gender stereotypes are still a social problem. They display themselves in the process of perception by activating a gender schema as well as androcentrism and gender polarization lenses.

Objective: This paper addresses the dependence of perception on social stereotypes and schemas. The research aimed at understanding how a gender-neutral image of a cat is perceived, and checking such factors as gender schema, gender-stereotyped context, the animal's weight, the identification of participants with an animal on basis of their own gender.

Design: A Female Cat or Male Cat Test, consisting of 12 pictures, was constructed for this research. We also used the Masculinity, Femininity and Gender Type of Personality Inventory, the Russian version of the Male Attitude Norms Inventory. Tests were conducted on 197 students in Saint-Petersburg and Moscow.

Results: A cat was perceived as male 6.4 times more often than as a female, when each case of perception was counted. It was seen as male 7.2 times more often than as a female when we analyzed how the cat was seen in general by each participant. A gender-stereotyped context influenced perception for some participants. There was no influence of the animal's weight or identification of participants with an animal on basis of their own gender.

Conclusions: The research supports the hypotheses that perception of a picture of a gender-neutral animal can be explained mainly by gender schema and the interplay between "lenses" of gender polarization and androcentrism. When the last one was activated, the cat was seen as male. Most of cases when the animal was seen as a female can be explained by the influence of polarization lenses (through gender-stereotyped context in the pictures).

Keywords: gender neutral image, gender schema, androcentrism, polarization lens, male, female, perception

Introduction

Although people are usually convinced that they have an objective picture of the world around them, their perception is profoundly subjective and highly influenced by their cognitive schemas and preconceptions.

One source of distortion is the gender schema described by Sandra Bem (1981, 2004) in her Lenses of Gender theory. People are prone to misperceive objective facts because of polarization and androcentric lenses.

The gender polarization lens works through creating concepts of femininity and masculinity and seeing them as polar opposites. For example, activity can be seen as masculine and passivity as feminine (Bem, 2004). The androcentric lens shows men as superior to women and male experience as the norm while female experience is the “other”. Moreover, due to androcentrism, social attention is focused on men, so women are invisible (their needs, presence, achievements, etc.) (Bem, 2004).

Gender schema and lenses are embedded in social institutions, cultural discourse, individual psyches. They display themselves through gender stereotypes and are reasons for gender discrimination. For example, Bian, Leslie, and Cimpian (2017) found that “6-year-old girls are less likely than boys to believe that members of their gender are ‘really, really smart’”. Also “at age 6, girls begin to avoid intellectually challenging activities”.

The interplay of androcentrism and polarization lenses can also be seen in the work of Brescoll (2016), showing that gender stereotypes of emotion create problems for women-leaders. On the one hand, they are not allowed to show emotions, but on the other, they are penalized for “being emotionally unexpressive”. Gender stereotypes also influence on women in the field of math. For example, Franceschini, Galli, Chiesi, and Primi (2014) found that female students who had an “implicit gender-math stereotype” were sensitive to a stereotype threat and Fleischmann, Sieverding, Hespeneheide, Weiß, and Koch (2016) found that the same woman is perceived as less professional in computer skills if she is wearing feminine clothing than if she is dressed in a neutral outfit.

There is a small number studies of perception of gender-neutral animal images in the English-language literature, but as far as we know, our research is the first in Russia.

Foreign studies have mainly involved parenting or children. For example, they investigate how parents assign gender to animal characters in a picture while reading books to children (DeLoache, Deborah, & Carpenter, 1987). Some researchers have concentrated on children’s perception of gender-neutral images (Karniol, Reichman, & Fund, 2000).

Methods

We investigated how gender schema and lenses are exhibited in the process of perception through labeling gender-neutral animal pictures. Our research does not involve children, because we see speaking only about issues of parenting as a limitation.

To check whether gender lenses are still very influential in Russia, we investigated perception of gender-neutral images of an animal. We chose a cat for our analysis for linguistic reasons: Russian is a grammatically gendered language, with gender assigned to every noun. For animals, masculine and feminine forms often exist, but for most species one form is dominant in the language.

In the case of a cat, there are two grammatical forms, which are used equally often: *kot* [male cat] and *koshka* [female cat]. Domestic cats are very popular, and

animals of both sexes are seen in everyday life in equal proportions. With respect to grammatical features, it should be added that the species name is *koshka* [female cat], so there is a scientific context in which only one form of the word is used. Still, this particular usage is not grounded in everyday practice, so we don't take it into account.

If people saw the world objectively, a gender-neutral image of a cat would be perceived as just a cat. People don't have special reason to see a cat as male or female, if they are not asked about it and the situation is not connected with breeding. It can be reasonably argued that in Russian we are forced to assign a sex, because there is no gender-neutral form of the word "cat" (as in English). So it must be either *koshka* or *kot*, and the grammar of the language is to blame. But any language reflects its culture, so the situation only clarifies that gender-based schematic processing is embedded on the macro level in Russian culture.

Our first hypothesis was that a gender schema influences perception and, as a result, there will be a strong tendency to assign a particular sex to a gender-neutral animal image (*Hypothesis 1*).

Next, if people perceived only that one artifact and were relatively objective, the image could be perceived as a female cat in about 50% of cases and as a male cat in 50%. When this balance is broken, we need to analyze what influences perception. There could be various reasons, such as:

- 1) a gender-stereotyped context, if the cat is seen as female in a traditionally feminine context and as male in a traditionally masculine one (*Hypothesis 2*);
- 2) the cat's body weight, if there is a significant difference in perceiving a "heavy" cat as male and a "light" cat as female¹ (*Hypothesis 3*);
- 3) identification with the animal (on the basis of participants' gender), if men label the cat as male and women label it as female or if there is a parallel between the person's gender and their perception of the animal's sex (*Hypothesis 4*);

Participants

Data were collected from 197 people (165 men, 32 women) in 2015–2016. Their age ranged from 17 to 57 years ($M=24.76$, $SD=8.16$). They were mainly students at Saint Petersburg Institute of Psychology and Social Work ($N=168$) majoring in psychology ($N=97$), social work ($N=47$), or taking a one-year evening course in general psychology ($N=24$). Other participants were visitors to Gender Studies in the Psychology Section of the Lomonosov International Conference for Students and Young Scientists conducted at Moscow State University in 2016 ($N=29$). 19.3% of participants ($N=38$) had a bachelor's degree or higher educational level; 14.2% ($N=28$) had secondary professional education; 23.4% ($N=46$) had graduated from high school, and the educational level of the first two groups tested was not recorded (43.1%, $N=85$).

All participants were assured of procedure anonymity. There were eight groups tested separately, with some variations in procedures that will be clarified later on.

¹ Some participants insisted they perceived the cat as male, because "it was heavy and male cats are fat".

Measures and Procedure

In all cases, the Female Cat or Male Cat Test (Zizevskaia, 2016) was administered at the beginning. Other tests were given right after it, using a *counterbalanced* measures design. Participants were not aware of the aim of the testing before their debriefing.

Female Cat or Male Cat Test. This test was constructed specially for this research. The stimulus materials consisted of black and white pictures of a cat in different contexts. The cat had no biological sexual features and no clothing, decoration etc., so it was an absolutely gender neutral image. The pictures were very schematic and drawn in the Microsoft Paint program by simple lines and circles.

There were 3 types of context shown. Some pictures showed the cat in situations that could be perceived as masculine or feminine by people holding gender stereotypes, and some were planned to be gender neutral.

Female-stereotype pictures included: “cat near baby carriage” (Fig. 2); “ironing” (cat near ironing board, with iron plugged into a socket); “watering flowers”; “embroidering” (cat near embroidery on a frame and a needle with thread); “cooking fish” (cat near a frying pan with fish).

Male-stereotype pictures were: “cat near car” (Fig. 3); “building wall” (cat near a brick wall and a trowel); “smoking pipe”; “fishing” (cat near a fishing rod and pond with two fish in it); “changing a lightbulb” (cat near a lightbulb and chandelier with one empty socket).

Neutral pictures included: “cat near open book” (Fig. 1); “cat near trousers”; “cat near aquarium with fish”; “drawing” (cat near easel with fish, palette, and brush); and “washing dishes” (cat near an open water tap and a sink full of dishes).

The first version of the test, presented to the first group of participants (N=24), consisted of the 15 pictures mentioned above (Zizevskaia, 2016). Later only 12 pictures were used and 3 pictures were taken out of the test due to their unclarity for participants (“cooking”, “changing lightbulb”, “washing dishes”). The short version of the test was used for one group (N=29, visitors to the International Conference at Moscow State University) and included: “cat near book” (neutral); “cat building wall” (masculine stereotype); “cat near baby carriage” (feminine stereotype).

There were some modifications in the sequence of pictures for the different groups, but only the difference in the first picture turned out to influence the results. So we differentiate only two conditions: “cat near book” (79.2%, N=156) and “cat near baby carriage” as the first image (20.8%, N=41).

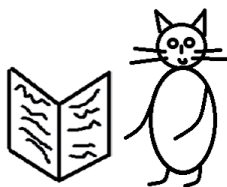


Figure 1. “Cat near book”

(heavy)



Figure 2. “Cat near baby carriage”

(light)



Figure 3. “Cat near car”

(light)

During debriefing, some people claimed they perceived the cat as a male “because it is heavy”. Therefore, we drew a thinner (lighter) version of the cat (the head was left the same, but the trunk was made thinner), to check if the weight or body size influences perception. The heavy cat (Figure 1) was shown to 75.6% (N=149), and the thin (light) cat (Figure 2, 3) was shown to 24.4% (N=48).

The majority of participants (87%) were tested in groups (from 21 to 29 people) by showing the pictures on a screen. Only the first group (13%) was tested by showing printed pictures and one by one or in small groups (2–4 people).

All participants were told the “cover story” that we were studying perception of black and white images, and that they are not connected with each other. The instruction was to describe “who is doing what in the picture”.

Russian version of the Male Attitude Norms Inventory (RMANI). The RMANI (Kletsina, Ioffe, 2013) is based on The Male Attitude Norms Inventory II (Luyt, 2005), but was partly adapted and its first phase, for testing, was used with Russian participants. It is composed of 40 items referring to participants’ attitudes toward masculinity stereotypes. It helps to distinguish participants who deny conventional norms of masculinity from those who accept such norms. RMANI has five scales: “toughness”, “self-reliance”, “success”, “unemotional sexuality”, and “homophobia”.

All items were statements to which participants responded on a scale of 1 (*strongly disagree*) to 5 (*strongly agree*).

As in the first phase of testing (Kletsina et al., 2013) internal reliability was good for the overall test, but low for some scales, we decided to indicate Cronbach’s alphas for all scales in both cases. Cronbach’s alphas were as follows: .93 for the overall test in our research (.7 in the testing phase), .82 for the “toughness” scale (.45 in the testing phase), .8 for the “self-reliance” scale (.33 in the testing phase), .78 for the “success” scale (.66 in the testing phase), .43 for the “unemotional sexuality” scale (.08 in the testing phase), and .87 for the “homophobia” scale (.11 in the testing phase). Although the overall test results’ reliability is good in both cases, the scale results can be mentioned with the proviso that they are just a starting point for further research.

Masculinity, Femininity and Gender Type of Personality Inventory (MFGTPI). The MFGTPI (Lopuhova, 2013) is the Russian analog of the Bem Sex Role Inventory (Bem, 1974), which was adapted to the local context and gender norms. The MFGTPI is composed of 27 items, with a scale of femininity and a scale of masculinity, and makes it possible to identify the type of personality (masculine, feminine, androgynous, unidentified). The MFGTPI asks participants to indicate how well each of the 27 masculine, feminine, and neutral personality characteristics describes them. The scale ranges from 1 (*Never true*) to 5 (*Always true*).

Results

Assigning Sex to an Animal Image

To check our Hypothesis 1, that a gender schema causes a tendency to assign a particular sex to an animal image, we analyzed the words used for naming the cat.

The answers were sorted into three main groups 1) seeing the animal as a male, 2) perceiving it as a female, 3) providing no information about the cat's sex (e.g., when there were impersonal sentences).

The “female cat” group included the further words: *koshka* [female cat], with number of cases=224; *kysia* [a diminutive form of *koshka*] with n=12; “housewife” with n=2; “mother cat” with n=5; “cat wife” with n=1; *kisa* [a diminutive] with n=5; “aunt cat” with n=1; “grandmother cat” with n=1; and *kiska* [another diminutive] with n=14.

The “male cat” group included the further words: *kot* [male cat] with n=1,470; *kotik* [a diminutive form of *kot*] with n=198; *kote* [a form of male cat] with n=12; the name of a profession in masculine grammatical gender form with n=5; “father cat” with n=3; “he” with n=2; *koteika* [a diminutive] with n=2; “teenage male cat” with n=1; “grandfather cat” with n=1; “husband” with n=1; and “son cat” with n=1.

There were two cases that couldn't be put into any of the groups. Once the cat was called “an animal”, so it was considered neuter (because the grammatical gender of the word is neuter). And there was one answer “*mama-kot*” [mother male cat], which presumably displayed inner dissonance on the part of the participant.

In analysis, most of cases were coded as “male cat” or “female cat” and these two groups were used for testing hypotheses.

We analyzed the information in two ways:

1. Counting every picture as one perception (Figure 4)
2. It turned out that despite their instructions, participants perceived all the pictures as a connected story. This can be explained by the gestalt Principle of Closure: that objects grouped together are perceived as a whole. And here the pictures are close to each other in time, since they are shown sequentially. The character remains identical in all pictures for each participant, reinforcing the effect of continuity.

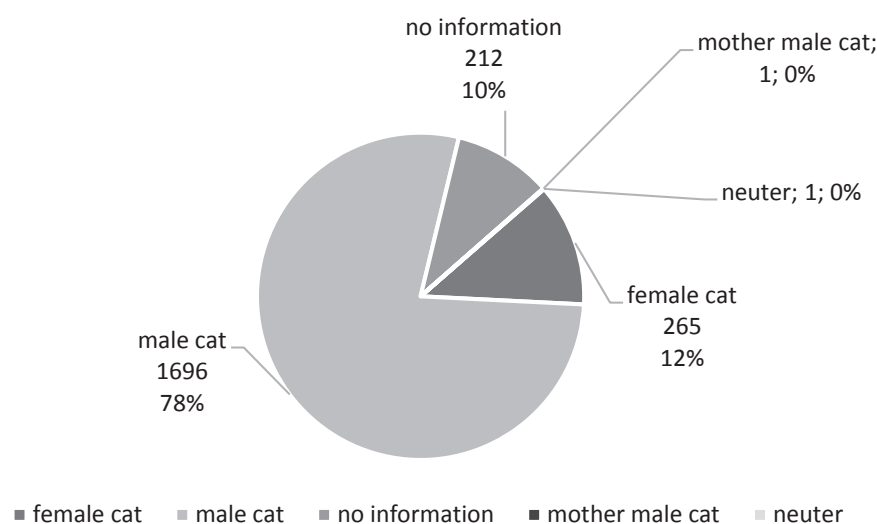


Figure 4. Perception of each picture (N of pictures=2,175, N of participants=197)

Qualitative analysis of the answers confirmed this continuous perception of the pictures. Participants used such constructions as “the same cat”, “after that”, “and”,

“then”, etc. Moreover, they mentioned previous pictures in their descriptions (e.g., “the cat is going to press the trousers from picture number 2”), and developed a story relying on previous images (e.g., “the cat felt tired and decided to smoke”). One participant even invented a story about the cat and his friend the squirrel. Since there was strong evidence of continuous perception, for each participant we counted how the cat was seen generally — as male or female (Figure 5).

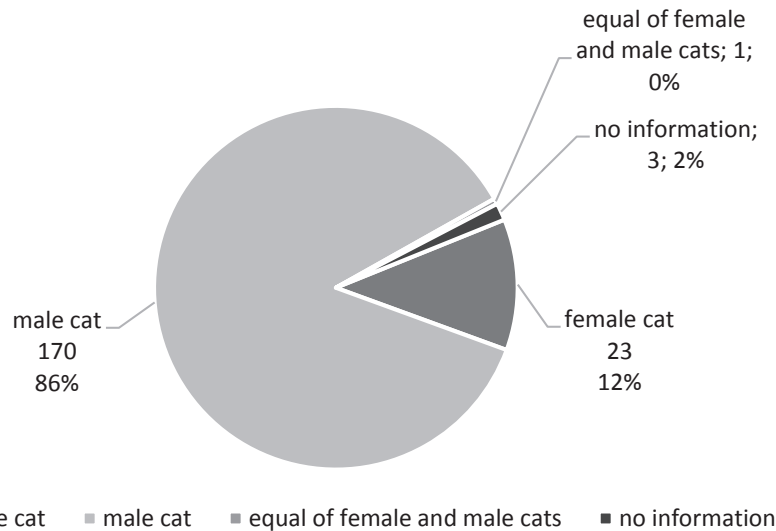


Figure 5. Perception of the cat's sex by each participant (N=197)

Figure 4 shows that the picture was perceived as showing a male cat 1,696 times, whereas a female cat was perceived only 265 times. Figure 5 illustrates the fact that 86% of participants (n=170) generally saw a male cat, while only 12% (n=23) saw a female cat.

Thus, the cat was perceived as a male 6.4 times more often than as a female, when we count each case of perception, and as a male 7.2 times more often than as a female when we analyze how the cat was generally seen by each participant.

Influence of Context on Perception of Animal's Sex

We used two ways to analyze the influence of feminine, masculine, or neutral context on labeling sex (Hypothesis 2): 1) we analyzed the influence of the first stimulus; 2) we made a qualitative analysis of cases when continuous perception was interrupted.

Influence of the first stimulus on perception of animal's sex. There were two pictures used as the first stimuli: “cat near baby carriage” (feminine stereotype picture) and “cat near book” (neutral one). We hypothesized that a lens of polarization could be activated by the “baby carriage” image, so there would be a significant difference between people in groups with different first stimuli.

The results showed that the influence of the first stimulus was different for female and male participants (Figure 6). For females, the frequencies were not significantly different $X^2(1)=1.44$, $p=.23$, and the majority perceived the cat as male. On the contrary, the first stimulus turned out to be connected with how men

saw the animal and the relation between variables was significant, $X^2(1)=12.87$, $p<.000$.

We also checked if there was an influence of the first stimulus on calling the animal female at least once. The results were quite similar. The difference was not significant for women, $X^2(1)=0.56$, $p=.813$, and but it was significant for men, $X^2(1)=6.73$, $p=.009$.

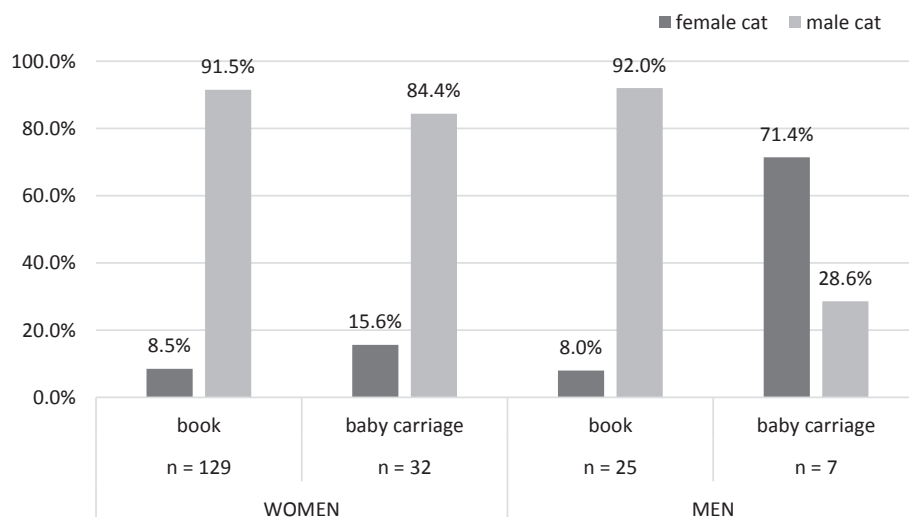


Figure 6. Perception of animal's sex by men and women in groups with a different first stimulus (N=193).

Qualitative Analysis of Cases with Interruption of Continuous Perception and Other Displays of Polarization Lens in Participants' Answers

We examined how stereotyped context causes interruption in continuous perception of the cat's sex. 25 participants (12.7% of the total number) assigned a different sex to the cat in different answers. Among them, there were four participants in whose description we didn't find any influence of stereotyped context on perception. But there were three cases that had other features (not changing of sex) which showed the influence of polarization lens. Thus we distinguished 24 participants (12.2% of the total number) that had a linguistically displayed polarization lens and 21 of them (10.7% of the total number) were doing it by changing the animal's sex in perception.

We observed different patterns of the manifestation of polarization lenses. Sometimes, it looked like an influence of female stereotypes. For example, 11 of participants (10 women and 1 man) generally called the animal a "male cat", but only for "cat with baby carriage" image did they use "female cat" (e.g., "koshka has kids", "koshka walking with a baby"). One participant (a woman) used the word "maternity" for the first "baby carriage" picture and then saw an animal as a "male cat". And another seemed to have dissonance, reacting to the same stimulus by writing "mother kot [male cat] walking with a kitten".

The embroidery context influenced two answers. Participants were writing about a male cat, but in one case (a man) it was temporally changed into "grandmother cat", and in the other (a woman) into "the wife female cat is embroidering a pillow".

The picture with ironing made one person (a man) write that “the male cat is satisfied with his wife”. So there was passiveness-activeness that showed the existence of a polarization lens.

Sometimes male stereotypes played the main role. For example, three participants (women) reacted to the “cat near a car” image and changed the animal from “female cat” to “male cat” temporarily or permanently.

The fishing context influenced one person (a woman) to call the animal a “male cat”.

And one participant (a woman) changed the perception of “building a brick wall” so as to save her “female cat” story by changing it to “*kysia* [a diminutive form of female cat] is walking along the Kremlin Wall” (changing “building” to “walking”).

Four participants’ answers showed an influence of both types of stereotypes and two or more pictures. One participant (a woman) reacted to almost all the images as activating stereotypes. Her male cat was fishing, smoking, building a wall and “choosing a car”, and the female cat was “taking a kid for a walk”, “ironing”, “embroidering”, “taking care of flowers”. Two participants switched from describing the cat predominantly as male to female for just two pictures in each case: 1) the cat near a baby carriage and the cat watering flowers (a man); 2) ironing and watering (a woman). The other person (male) was writing about a male cat and reacted quite emotionally when he saw it in the “ironing” context, “It’s not a *kotik* [a diminutive form of male cat], it’s somebody’s housewife!” And he continued this idea with the next picture, with trousers, “...is going to press her husband’s trousers”.

To validate the idea that the participants really showed the effect of a polarization lens, we hypothesized that people chosen through qualitative analysis will have more gender stereotypes than people whose gender stereotypes were not strong enough to cause interruption of continuous perception. An independent-sample t-test was conducted on the results of RMANI (N=90). There was a significant difference in total scores for the group with a strong influence of a polarization lens, $n=8$, ($M=145.5$, $SD=11.7$) and the group without such influence, $n=82$, ($M=128.3$, $SD=23.2$), $t(88)=2$, $p=.042$. Thus, people with a strong polarization lens had more stereotypes about masculinity. This group also showed a significantly higher score ($M=33$, $SD=4.1$) on the RMANI self-reliance subscale than the others ($M=28$, $SD=6.4$), $t(88)=2$, $p=.043$; and they had higher scores on the RMANI homophobia subscale ($M=21.9$, $SD=6.9$), $t(88)=3$, $p=.003$.

Influence of cat’s body weight on perception of animal’s sex. We analyzed whether the cat’s body weight can change the perception of an animal’s sex (Hypothesis 3). Due to the influence of the first stimulus, participants who were shown the baby carriage as the first image were excluded from this analysis¹. We explored how the cat’s sex was generally perceived by each participant, and didn’t find significant difference between “heavy cat group” and “light cat group”, $X^2(1, N=154)=0.001$, $p=1$. There was also no difference between men and wom-

¹ We could not provide separate analyses because we did not have a group with a light cat and a baby carriage as the first stimulus.

en when counted separately. To sum up, it showed that the cat's heaviness was not the reason participants saw it as a male. So the claim of some participants that they perceived the cat as a male "because it is heavy" didn't have statistical confirmation.

Influence of identification with the animal on perception of animal's sex. In order to check influence of identification (Hypothesis 4) we analyzed:

- 1) if men perceive a male cat while women see a female cat (Hypothesis 4);
- 2) if there is a parallel connection between the person's gender and the animal's sex (Hypothesis 4)

First, we checked correlations between the participant's and animal's sex. As there was a difference between women and men in being influenced by the first stimulus when it was female-stereotyped ("cat with baby carriage"), we excluded those cases from statistical analysis. In all the other cases, perception of a male cat was equally distributed between men and women, $X^2(1, N=154)=0.008$, $p=1$. Thus, there was no influence of identification with the animal (on basis of sex).

In order to understand the influence of gender type of personality (defined by the Masculinity, Femininity and Gender Type of Personality Inventory), we checked whether there were significant differences between masculine ($n=6$), feminine ($n=20$), androgynous ($n=45$), and unidentified ($n=5$) people in seeing a male or female cat. The relation between variables was not significant, $X^2(3, N=76)=1.59$, $p=.662$, so gender type of personality was not connected with perception of the cat's sex.

In order to check if there were separate influences of femininity or masculinity in gender structure on perception, we conducted an independent-sample t-test for the femininity scale and the Mann-Whitney Test for the masculinity scale ($N=76$).

There was no significant difference in the femininity level for the group that perceived the cat as female, $n=11$, ($M=32.8$, $SD=6.1$) or for those who perceived the cat as male, $n=65$ ($M=33.8$, $SD=5.4$), $t(88)=-.53$, $p > .05$. The same two groups did not differ significantly in masculinity, with $U=241.5$, $Z=-1.7$, $p=.086$. No difference was found on either scale when we analyzed men and women separately. All things considered, there was no connection between the participants' gender type or gender structure of personality and their perception of the cat's sex.

Conclusion

We found out that people, when perceiving a gender-neutral animal, did not reflect objective reality, but automatically transformed it through a gender schema and assigned a particular gender to an image.

We tried to find factors influencing perception of the cat and tested a variety of hypotheses. The cat's weight (heaviness or lightness) and the participant's own gender type and structure turned out to have no influence on perception.

It seems quite intriguing that our results about gender influence are contrary to the study on perception of gender-neutral pictures conducted in Israel (Karniol et. al., 2000). Their research showed that female participants saw gender-neutral pictures more often as female, while masculine, androgynous, and gender-uniden-

tified children saw them more often as male. We hypothesize that the difference in findings could be caused by one of two reasons: 1) the Israeli study tested children aged 9–12, whereas we tested adults, so self-identification might work differently; 2) the children were asked about the masculinity or femininity of the pictured character, so their answers were less automatic.

Next, there was no direct influence of the participant's sex on the perception of the cat as male or female, through identification with the pictured character. But there was one particular situation when men and women reacted differently, to be discussed below. We assume that people's perception of gender-neutral images is influenced by a lens of polarization and a lens of androcentrism interacting with each other (Bem, 2004).

The lens of polarization showed itself in the fact that a neutral image was generally perceived as male. Although an equal proportion of male and female cats live with people, there were 7.2 male cats to 1 female cat in the answers.

On the other hand, when we turn to cases when the cat was seen as female, we find it was mainly caused by activation of a polarization lens when stereotyped pictures were shown. But the interplay between the two lenses caused different answers for men and women when they were shown "cat with baby carriage" as the first stimulus experimental condition. While the lens of androcentrism remained dominant for women, men were more influenced by the lens of polarization, presumably because, as Bem (2004) noticed, penalties for violation of gender norms were stricter for men.

Further analysis could help to understand how the lens of androcentrism and the lens of polarization can reinforce each other and influence the perception of gender-neutral animals. It is quite possible that initially the lens of polarization assigns activeness as a trait to masculinity and passiveness as a trait to femininity, so when an animal is seen as a main character in a story (every story implies acting by its nature), it is perceived as active. Then the link between two types of activeness (masculinity-activeness and main character-activeness) can make people see the cat as male.

Butler (2004) has stated that gender is not something stable, but a process. Gender lenses are processes as well. They don't only influence perception, but they are constructed again in every act of perception. From this point of view, choices made by participants can be seen as working to maintain gender lenses and, as a result, gender inequality. Furthermore, following this pattern, women remain invisible and secondary to themselves.

The question is how to escape from patterns that create gender discrimination, using our knowledge of the gender schema's influence. In our opinion, the problem can be partly solved through raising people's awareness of automatic gender labeling. Since this is a linguistic case, we need to start a discussion about gender-neutral language. There can be two ways to achieve language gender equality. First, through adding to a language more feminine forms. Now we can observe this trend in the creation and widespread use of new feminine forms for many words indicating professions (e.g., *avtorka* [female author]). We can also use both grammatical forms together (e.g., *skazal_a* ["said" with two verbal endings]). But to make our perception absolutely free, not only from particular lenses, but from gender

schema in general, we should create new neutral gender forms in language. We cannot simply use the male form as a neutral one, because, as Gygax, Gabriel, Sarasin, Oakhill, & Garnham (2008) showed, people automatically think only about a man in this case, so we just enforce the lens of androcentrism. We can create new linguistic forms that are gender neutral, as has been done in English, when “they” is used as a singular, gender-neutral pronoun (or new words are created, such as “ze”). So it seems that we need a new word for cat, a new way to speak about cats and – most important – a new way to think about cats.

Limitations

The research was conducted on the basis of the Russian language and in Russia, so there may be linguistic and cultural difference with other countries. We chose one particular animal for analysis, so the results cannot be extrapolated to perception of all animals (or creatures) without considering other factors.

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