

Does K-pop reinforce gender inequality? Evidence from a new Asian data set

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Abstract:

As K-pop is rising as a cultural ambassador of Korea and gaining popularity globally, the sexual objectification of female idols in K-pop products which conflicting with the gender-mainstreaming policies that Korea is pursuing has aroused scholars' attention. Using a unique and newly collected data set of 4,882 observations from K-pop fans across several representative Asian countries, this paper investigates the relationship between the consumption of K-pop and gender attitudes. Findings suggest that a higher level of K-pop consumption is related to less egalitarian gender attitudes. This paper argues that the industry that Korea promoted as a culture ambassador contains elements that reinforce its sexist culture, which continues to be a big obstacle for women to receive and pursue equal opportunity.

Keywords:

K-pop/ Gender stereotypes/ Sexual objectification/ Gender inequality/ Gender attitudes

I. Introduction

Since the mid-2000s, the K-pop (Korean¹ pop music) market has experienced double digit growth rates. In 2012, this industry's revenue reached nearly US\$3.9 billion, with export earnings of US\$235.10 million (Korea Creative Content Agency 2012). K-pop was recognized by *Time magazine* as "South Korea's Greatest Export" (Time 2012); *The Economist* also dubbed K-pop culture as "Asia's foremost trendsetter" (The Economist 2014). Being used as a "soft power" in Korea's economic development, K-pop's success is closely related to the support from the Korean government. In 2013, the Export-Import Bank of Korea announced its decision to provide loans and credit guarantees worth US\$917 million to promote the entertainment industry over the following three years (The Korea Times 2013). The Korean government has been earmarking 1% of the national budget for spending on subsidies and low-interest loans to cultural industries, launching agencies to promote and expand K-pop exports, and setting up more cultural departments at universities (Leong 2014).

As K-pop is rising as a cultural ambassador of Korea and gaining popularity globally, its content is conflicting with the gender-mainstreaming policies that Korea is pursuing. Keen-eyed audiences have pointed out the sexual objectification of female idols and the stereotyping of sexist gender roles in K-pop products. In many K-pop music videos or live performances, female idols often wear revealing clothing and make suggestive, often erotic dance moves:

----- "*... female idols are seen in either skin tight clothing or barely there shorts accompanied by body waves or self-stroking while talking about their pounding heart from a first infatuation*"...(Gabrielle 2013, 1)

While sexual objectifying is routine in K-pop, other forms of sexism can also be found in other media forms. In 2012, skincare brand Mamonde (a brand owned by Korea's biggest skincare and cosmetics company, Amore Pacific) released a commercial advertisement, featuring Yuri (a member from one of the most representative K-pop girl groups in Korea - Girls' Generation). At the beginning of the

¹ In this paper, Korea and Korean refer to the Republic of Korea, or South Korea, and the citizens of South Korea.

advertisement Yuri was frustrated by not being able to afford a designer purse, and then all of the sudden, she came up with a “total solution” (the name of the skincare product), which is simply getting a boyfriend. This commercial infuriated many feminist fans:

----“*this advertisement is outrageously gendered in the worst possible way. It isn't even attempting to be subtle in its portrayal of the complete subordination of women to men*”... (Dana 2012, 1)

It is clear that the decisions about costumes, choreography, and lines are usually not for the idols to make. As some scholars pointed out, young K-pop idols' bodies and sexuality “are not only just objectified primarily for male's pleasure and to help sales, they are objectified as normative commodities under corporate govern-mentality (Kim 2011, 342).

The sexism in K-pop may be a reflection of Korea's “unfailing” patriarchal and sexist culture. Although Korea has successfully modernized its economy, infrastructure, and education, it lags far behind in achieving gender equality. In 2015, Korea ranked as low as 115 out of 145 countries in the Global Gender Gap Index (GGGI 2015), sitting alongside South Asian or MENA countries well-known for their high discrimination against women and coming in well below stubbornly patriarchal Japan. Korea's gender wage gap is the largest of any rich country; in the Economist's “Glass-ceiling index”, there are five indicators measuring the friendliness towards working women, Korea has ranked the lowest of all OECD countries since this index established (The Economist 2015). From January to August in 2015, 87% of the victims who reported violent crimes were women. It's illegal if a camera phone didn't produce a shutter sound (as in Japan), because up-skirt filming is too common in Korea.

The great importance given to K-pop in promoting Korea's national image and the paradox of Korea's success in economic development and bad performance in gender issue warrant a careful research into the relationship between the prevalence of sexist portrayals and sexual objectification in K-pop and Korea's sexist culture. As related literature reveals, when gender stereotypes overwhelmingly present in media, the ways they reinforce traditional gender roles may distort viewer's gender attitudes,

making it difficult to counter stereotypical behavior, fostering prejudice and discrimination (Espinosa et al. 2010). In that way, does the sexism in K-pop reinforce non-egalitarian gender attitudes? Although the study of K-pop from gender perspective has gained popularity, there is still a lack of researches that provide clear evidence of K-pop's influence on gender attitudes. This paper tries to fill this gap by providing empirical findings to identify the relationship between the consumption of K-pop and the level of egalitarian gender attitudes.

The following parts of this paper will first go through literature about gender stereotypes in the media and their effects on gender role perceptions, it will also provide evidence of gender stereotyping in Korean media and sexual objectification in K-pop and then propose the research hypothesis. To test hypothesis, this paper conducted an online survey. The later parts will detail the survey design, collection, processing and report the survey results along with the interpretations. Finally, the conclusion will summarize the findings and state its limitations.

II. Related Literature on Media's Effects on Gender Attitudes

It's clear that when certain portrayals of men and women repeatedly appear in the media, they become gender stereotypes. Regardless of whether those portrayals are the mirror of reality, they can still have consequential reinforcement of gender stereotypes on society by affecting the audience's perception of reality, guiding and shaping their behavior (Lafky et al. 2010). Previous literature has closely examined those stereotypes in the media and identified how they affect our gender attitudes.

Media stereotypes of men and women

Studies reveal that in TV programs for all ages, men are often portrayed as logical, competitive (Wood and Reich, 2006), independent, aggressive and dominant over women (Morris 2006), while women are often submissive, passive (Dill and Thill 2007), dependent, incompetent, sometimes "dumb" (Wood 1994). In general, women are often seen inferior to men. A typical case of media reinforcing stereotypes of women can be found in 1992, when a new talking Barbie doll designed by Mattel (Toy manufacturer), said "Math class is tough", a message reinforces the stereotype of "women cannot do math" (Wood 1994).

Media's influences on gender attitudes are particularly profound for younger generation. When constantly exposed to those portrayals of men, young men often feel the need to not appear vulnerable or weak, in order to match the expected masculinity on them (Kimmel 2008). Correspondently, compare to women, men are more likely to get depressed, to get involved in violence and suicidal behaviors (Pollack 1998). When constantly exposed to those portrayals of women, young girls endorse ideas about the importance of appearance and how they are inferior to men in many aspects. Stereotypes can lower women's perceptions of their abilities (Eisend 2010), which in turn affect their educational and career decisions in a way that limit their possibilities (Correll 2004).

Media Stereotypes of men and women in family life and in the workplace

Relationships between women and men in the media are portrayed in a way that not just reinforces their identities, but also the traditional arrangements between them.

Although nowadays more women are pursuing advanced degrees and joining the workforce than before, they are still twice as likely as men to be portrayed in a domestic setting (Morris 2006). Typically, as caregivers, women are tied to preparing meals, doing house chores, and taking care of children or other family members (Glascok 2001). On the other hand, while wives and mothers are substantially more likely to be seen outside the home than before, husband and fathers are still where they were. There are some stereotypes of men which media reinforced by not presenting them, for example, men are seldom shown doing housework (Brown and Campbell 1986), they are typically represented as uninterested in and incompetent at homemaking, cooking, and taking care of children (Horovitz 1989).

Those stereotypes reinforce the traditional beliefs: that women need men to complete their lives and their final adscription is family; that men need to be succeed—financially, in particular— in order to be worthy by their family (Wood 1994). These beliefs reinforce the traditional division of breadwinning and caregiving responsibilities between men and women, which has been creating numerous difficulties for working women to advance their career. While most men can still focus on their work and career development, most working women suffer from juggling work and family, after getting married or having children. As a result, many women have to find an “easier” job, which does not permit them to fully carryout their talent and abilities (Slaughter 2013).

In the workplace setting, men were twice as likely as women to be portrayed in leading positions at work, while women were portrayed in more subordinate positions (Morris 2006). In addition, when women were portrayed as career woman, especially those in high positions, they are either single or facing a broken family (Elasmar et al. 1999).

Media’s images about working men and women reinforce the already stereotypical gender attitudes in the workplace, which have led to discrimination against women in the workplace. (Madeline 2001). For example, stereotypes such as “women don’t need equal pay because they are married” (because the husband is the chief breadwinner and the wife’s salary is only a supplement) has led to discrimination in wage, hiring and promotion against women (Dodds 2006).

Sexual objectification of women in the media

Sexual objectification as an extreme form of gender stereotyping in the media involves women or men being portrayed primarily as an object of sexual desire, rather than as a whole person (Stanford Encyclopedia of Philosophy et al. 2010). Compare to men, women are more likely to be portrayed as sex objects (Morris 2006). Typically, in advertisements for makeup, perfume or hair product, women are portrayed as “irresistible” to men because they used the right products (Wood 1994). On top of that, women are often featuring unrealistic body shape in video games (Dill and Thill, 2007) and often shown dancing provocatively in revealing clothing as they try to gain men's attention in music videos (Texier 1990).

The effects of media’s sexual objectification of women are direct and damaging. Researches show that, if women view media as a means of comparison for body image, they are likely to suffer body dissatisfaction, or even depression and eating disorder (Aubrey et al. 2007). Moreover, sexual objectification of women in the media could be a culprit of normalizing violence against women (Wood 1994).

III. Evidences of Gender Stereotyping and Sexual Objectification in Korean media and K-pop

As the majority of K-pop fans also follow other forms of Korean media, such as movies, TV dramas, TV entertainment program, before examining the sexist culture in K-pop, it is necessary to identify the gender stereotypes in Korean media. Generally, they are consistent with those reviewed in previous literature, except for the stereotyping in Korean media is more severe, and more concerned with physical appearances, especially for women.

The obsession with youth and “beauty” in women in Korean media

“Missing elderly women” in the media is an associated phenomenon reinforces the worshipping of youth in Korean women, although it can be observed in many countries, the case in Korean media is worse (Cho 2012). In contrast to the rapidly aging society, very few old women appear in Korean media (Prieler 2012) and the old women in most of Korean dramas and movies are repeatedly played by the same actresses (2012). On top of that, unlike medias in other countries, the requirements of youth and beauty in women in Korean media go beyond the entertainment broadcasts, even in news shows, female newscasters are expected to be young and physically attractive (Jeon 2011) .

Worshipping specific beauty types has also resulted in the demeaning of unattractive people in Korean media. In many popular Korean dramas and romantic comedies such as the “Birth of a Beauty” (2014) and “200 Pounds Beauty” (2006), the destiny of the “ugly and fat” leading actresses is often somehow predictable----in the end, she successfully gains the love of her old crush, or takes revenge on her betrayed ex-boyfriend, or climbs to the top of her career, by having a full body and facial plastic surgery and becoming totally physically attractive. Being physically attractive was emphasized as the only way to success in those settings.

The portrayal of the miserableness in unattractive women is another way that Korean media reinforces the importance of appearance. In Korean comedy variety shows such as *Gag concert*, female gagmen’s bodies were often the subject of ridicule. “Over-weight” or “unattractive” female gagmen are often facing incredibly abusive

language about their appearance on the stage (Patricia 2013). In reality, unattractive people have very low self-esteem because of this kind of representation (Kim and Han 2014).

The importance of appearance reinforced by the media reflects the reality more or less. It is perhaps difficult to refute when visitors to the country describe Korea as “a society obsessed with appearance”, when cosmetic-surgery clinics are “as many as convenient stores”. In fact, 6.5 in every 10,000 people in Korea have had plastic surgery (The Economist 2013). Though, the decision of having plastic surgery could be made not just out of personal aesthetic but serious concern about livelihood. Not until recently, it is not only legal but commonly assumable for an employer to require photos, details of bodily-related facts such as height and weight from job applicants (Jung 2015). According to a recent survey conducted by *Saramin* (an online recruitment website), 75.7 percent of Korean employers said job applicants' photos affect their chances of getting interviews, correspondently 68.3 percent of job applicants admitted that they photo-shopped their resume photos and 28.5 percent said they were willing to have cosmetic surgery if it would help them land a job.

Sexual objectification in K-pop

Needless to say the obsession with youth and “beauty” in K-pop, the sexual objectification in this booming industry is the main topic when reviewing sexism in Korean media. In fact, K-pop has received a lot of criticism from its own fans for sexually objectifying women:

-----“*female idols are often dressed in hoo-ha-length miniskirts, shoot sexy, come-hither looks into the cameras, and booty pop their way through televised performances, leaving “Ajeosshi” (middle aged men) drooling at the mouth and young girls with unrealistic images of what they should be*”(Ladner 2013, 1)

Approximately, the trend of stimulating fans' sexual fantasies started at 2007, led by Girls' Generation, one of the most representative Korean girl groups, famous for their youth (average seventeen years old in 2007) and sensual legs with tight, skinny jeans. Keeping in pace with the trend, more girl groups are eager to wear short skirts, hot pants and have sexy and even erotic choreographies in their performances.

Revealing thighs was the first trend among girl groups. Korean entertainment news has always been keen in promoting those trends by giving them nicknames or hashtags. Yoo-yi, a member from a girl group After School was dubbed as “Thigh Yoo-yi,” as she has a pair of beautiful shaped legs, leading the “honey thigh” syndrome (Jeon 2014). As new trends such as “11 Abs” and “ant waist”, which refer to the revealing shape of muscle in female idols’ abdominals when they wear bras in their performances, emerged, more and more idols joined the concept to amaze fans with their sexiness (2014). A recent controversial “trend” involved another Korean girl group Girl’s Day’s outfits. During a live performance of their song “Twinkle Twinkle”, the girls wore very short miniskirts with white underpants underneath completely exposure, for which they were teased as leading the “diaper fashion”(allkpop 2011). Some audience expressed their dissatisfaction with the inappropriateness of outfits worn by minors as their youngest member Hye-ri was only sixteen years old.

Sexual objectification of female idols is more easily found in the lyrics and choreography in K-pop music videos. A typical example is the “Touch My Body” presented by one of the most popular Korean girl groups, Sistar. While the title has already released some clues about the contents, some fans still felt disappointed to their loving girl group when seeing them singing “*Touch my body, oh everybody...*” with the “awkward” choreography of spanking each other’s buttocks (Yeon 2014).

As the decisions related to the choreography, costumes, or lyrics in K-pop are most likely attributed to the management companies and the decisions about cameras’ moving or “gaze” are for the broadcasting companies to make, studies started to focus on how music television programs such as Inkigayo (Seoul Broadcasting System) and Music Core (Munhwa Broadcasting Company) contribute to the sexual objectification of female idols. According to Saeji (2013), music television programs sexually objectify women through the ways that emcees of the broadcasts frame performances and the ways their camera draws attention to sexualized body parts. Although the racy performances by the girl group Kara in 2012 has raised public debate on the impact of sexually provocative performances on young people and eventually spurred calls for amendments to the Juvenile Protection Law, none of those music broadcasters had

changed the sexually objectifying performance themes on their shows since then (2013). In this environment, many Korean women, especially impressionable young girls are encouraged to develop the same concepts of beauty, sexiness and powerlessness in order to meet the Korean media and K-pop's ideals of femininity.

Previous literature has identified how media stereotypes affect audience's perception of gender roles, reinforce traditional gender attitudes and foster discrimination against women. Consider the overwhelmingly presented sexist portrayals in Korean media and the sexual objectification in K-pop products, it's hard to avoid suspicions of K-pop's negative influence on young fan's gender attitudes. Hereby, this paper proposes the following hypothesis: the level of consumption of K-pop is negatively correlated with K-pop fans' level of egalitarian gender attitudes.

IV. Data and Methodology

In order to identify the correlation between the level of consumption of K-pop and the level of egalitarian gender attitudes and test the hypothesis, this paper uses data which is directly collected from an online survey for K-pop fans from around the world.

Survey design

The design of the questionnaire follows the International Men and Gender Equality Survey² and the cross-national Survey of Family and Changing Gender Roles³. The questions measuring gender attitudes were developed mainly based on the gender stereotypes and gender stereotypical behaviors reviewed in the literature, while taking the influence of Confucianism into consideration.

The questionnaire has three sections. Section one includes seven questions collecting demographic information, such as age, sex, household size, marital status, education level, nationality, etc.

Section two includes five questions measuring the level of consumption of K-pop, such as how much time and money the fans are willing to spend on K-pop related activities and products. In this section, respondents will be given several answers representing different levels of appreciation to choose.

In section three, there are eighteen statements employed the five-point Likert scale to measure respondents' gender attitudes. Most of the statements, with several exceptions, contain gender stereotypical or sexist concepts, for example, "In terms of housekeeping and taking care of children, women are naturally better than men." Respondents are instructed to state whether they agree with the statements by choosing one answer from "Strongly agree/ Partially agree/ Neither agree nor disagree/ Partially disagree/ Strongly disagree". Statements in this section are divided into several topics, which respectively measure their level of egalitarian gender attitudes toward: identity; family life; child-raising practices; workplace. The complete questionnaire⁴ can be found in the Appendix.

² Conducted by International Center for Research on Women (ICRW) and Instituto Promundo in 2010

³ Conducted by International Social Survey Programme (ISSP) in 2012

⁴ Some questions are not used in this study, such as questions related to attitudes toward homosexuality

Data collection

After designing, the survey was translated into Chinese and Korean. The English and Korean versions were implemented through “Google Form” and the Chinese version was implemented through “Wenjuanxing”—a free Chinese online survey website.

The survey was put online through social network sites such Twitter, Facebook, and Weibo (a Chinese version of Twitter) for three weeks from October 21st to November 8th 2014. It received a total of 6,414 responses. The distribution of survey received major help from two K-pop idols personally: Fei from Miss A (girls group) and Ok Taec-yeon from 2pm (male group). Fei helped with the distribution by introducing it to a leader of her fan clubs, and the leader helped sharing the Chinese version in their fan club’s Weibo; Ok Taec-yeon helped me finish the survey and share it on his Twitter account. Both Fei and Ok Taec-yeon’s contribution are huge, as they have huge number of fans.

After deleting the duplicate and invalid data, there were 6,317 effective observations left, and 98 percent of the respondents claim that they are K-pop fans. The respondents’ average age is 23, although the range is from 12 to 70, most of the respondents are below 30. 96 percent of the respondents are female. This might be due to the fact that most respondents are fans of Ok, Taec-yeon and Fei, and both of them have more female fans than male fans. However, it is consistent with an undocumented consensus in K-pop industry, that although there are male groups and female groups, the majority of K-pop fans are female. Most of the respondents are from Asian countries, and Chinese account for the largest group, followed by Thai. America is the only non-Asian country with more than one hundred respondents. In summary, most of the respondents are young Asian females.

Data processing

In order to better correspond to the research topic, this paper only includes observations from Asian countries with relatively large data sample, which means the variable “Nationality” only include the nationalities with 200 observations or more.

After selection, there are 7 nationalities – Korean, Chinese, Indonesian, Japanese, Malaysian, Taiwanese, Thai, with 4,882 observations remain as total observations.

The independent variables are the respondents' demographic characteristics, such as age, sex, nationality, household size, marital status, education level, family income level; and variables that reflect the intensity of K-pop fandom, such as the length of being a K-pop fan; monthly K-pop related expenses; frequency of fan activities; as many of the fans are still students, the share of monthly family income spent on K-pop activities will also be used as a variable to reflect the intensity of K-pop fandom. "K-pop fandom index" is the sum of the values of above mentioned variables related to K-pop fandom. To acquire the value of those variables, I coded the response to a number from 0 to n, for example, to question "How often do you listen to/ watching/ following your favorite K-pop stars' music/ video/ TV programs, SNS?" there are seven optional answers: Multiple times per day/ Once per day/ Multiple times per week/ Once per week/ 2-3 times per month/ Once per month/ Rarely", number 1 is correspond to "Rarely" and 7 is correspond to "Multiple times per day". Accordingly, a higher value of the "K-pop fandom index" corresponds to a higher consumption level of K-pop. If the respondent stated that he or she is not a K-pop fan, the value of the "K-pop fandom index" will be 0. Detailed notes about coding of the responses are listed alone with the questionnaire in the Appendix.

The dependent variable is "Gender attitudes index". This index is constructed from responses for the eighteen attitude-related statements in the questionnaire. As stated earlier, there are five options for respondents to choose as their level of endorse to a sexism or egalitarian statement. All responses have been coded between 1 and 5 where a higher number means more egalitarian gender attitudes. Thus a higher value of the "Gender attitudes index" also corresponds to more egalitarian gender attitudes. Additionally, three specific statements in section three were selected as dependent variables as they are more illustrative than a combined gender index in addressing certain prevalent gender role attitudes in public. The statements are: "In terms of housekeeping and taking care of children, women are naturally better than men."; "It's embarrassing if husbands earn less than their wives."; "It is natural for men to occupy

leading positions at work.” They are also coded in the way that a higher number represents more egalitarian gender attitudes.

Summary statistics

Table 1 shows the descriptive statistics of all variables used in the following analysis; also, instead of the full name, the abbreviation of variables will be used in the following analysis.

Table 1. Summary statistics

Variables	Abbreviation	Mean	Standard Deviation	Minimum	Maximum
Age	Age	23.36	7.09	12	70
Sex (dummy variable; 1=female)	Sex	0.97	0.17	-	-
Household size (number of family members)	Household size	4.25	1.55	1	26
Marital status (dummy variable; 1=never married)	Never married	0.93	0.26	-	-
Expected education level (years of schooling)	Expected edu. level	17.24	1.47	9	18
Monthly family income (in USD, Mid-point value of the income level)	M family income	2416.79	2234.65	250	7000
Since when did you become a K-pop/ "Hallyu" fan? (Ranking of length in years)	K-pop fan length	3.85	1.30	0	6
How much per month are you willing to spend on your favorite K-pop stars related commodities/ activities? (in USD, Mid-point value of the expenses level)	K-pop fan expense	141.10	227.29	0	1250
The share of monthly family income spends on K-pop activities	K-pop fan exp./ Family income	0.12	0.32	0	5
How often do you listen to/ watching/ following your favorite K-pop stars' music/ video/ TV programs, SNS? (Ranking of frequency)	K-pop fan activities	6.43	1.37	0	7
Consumption of K-pop	K-pop fandom index	12.38	2.87	0	19
Gender attitudes	Gender attitudes index	49.43	11.41	18	88
“In terms of housekeeping and taking care of children, women are naturally better than men.”	Statement a	2.59	1.16	1	5

“It’s embarrassing if husbands earn less than their wives.”	Statement b	3.10	1.21	1	5
“It is natural for men to occupy leading positions at work.”	Statement c	2.85	1.25	1	5
Nationality (dummy variable)	Number of observations	Percentage			
Korean	325	7%	-	-	-
Chinese	1737	36%	-	-	-
Indonesian	396	8%	-	-	-
Japanese	276	6%	-	-	-
Malaysian	266	5%	-	-	-
Taiwanese	219	5%	-	-	-
Thai	1663	34%	-	-	-

Notes: N=4882, for attitude related variables a higher value indicates more egalitarian gender attitudes.

V. Results Analysis

Descriptive analysis of gender attitudes and K-pop fandom in Asia

According to the summary statistics, the mean of “Gender attitudes index” is 49.43, the minimum is 18 and maximum is 88 (the possible range is 18~90). As “K-pop fan expense” and “K-pop fan exp./ Family income” are influential variables in measuring K-pop fandom, Table 2 examines the relationship between the average values of “Gender attitudes index” and different levels of “K-pop fan expense” and “K-pop fan exp./ Family income”

Table 2. Average value of “Gender attitudes index” by expense

K-pop fan expense (\$)	Gender attitudes index (Average)	K-pop fan exp./ Family income %	Gender attitudes index (Average)
0	52.21	0	52.21
0-50	50.00	0-1%	51.95
50-100	49.73	1%-2%	50.61
100-200	49.95	2%-5%	50.69
200-500	47.90	5%-10%	48.86
500-1000	44.33	10%-15%	48.30
Above 1000	42.84	Above 15%	46.58

From Table 2, we can tell that the average values of “Gender attitudes index” at different expense levels have a declining trend when the “K-pop fan expense” or “K-pop fan exp./ Family income” increased. In other words, the more a respondent spends on K-pop products or activities the more likely he or she possesses less open gender attitudes.

Regression analysis of gender attitudes and K-pop fandom in Asia

To test the hypothesis, this paper is running multivariate OLS regressions. The regression models trying to identify the relationship are summarized in equation (1) below, where G is the dependent variable and refers to the gender attitude index or gender-related attitudes.

$$G_i = \beta + Kpop'\gamma + X'\delta + \varepsilon_i \quad (1)$$

Kpop refers to a vector containing variables related to individual *i*'s level of K-pop consumption, while vector *X* contains variables related to individual *I*'s personal demographic and socioeconomic background.

Table 3. K-pop fandom and gender attitudes in Asia

Dep. Variable: Gender attitudes index							
	1	2	3	4	5	6	7
K-pop fan length	0.05 (0.13)				0.26* (0.14)	0.23 (0.14)	
K-pop fan expense		-0.007*** (0.00)			-0.007*** (0.00)		
K-pop fan exp./ Family income			-2.61*** (0.50)			-2.58*** (0.50)	
K-pop fan activities				-0.30** (0.12)	-0.27** (0.13)	-0.36*** (0.13)	
K-pop fandom index							-0.27*** (0.06)
Age	0.05* (0.03)	0.05* (0.03)	0.04 (0.03)	0.05* (0.03)	0.04 (0.03)	0.04 (0.03)	0.06** (0.03)
Sex	1.55 (0.95)	1.95** (0.94)	1.49 (0.94)	2.00** (0.96)	2.19** (0.95)	1.88** (0.96)	2.26** (0.95)
Household size	-0.27** (0.11)	-0.27** (0.11)	-0.27** (0.11)	-0.28** (0.11)	-0.28*** (0.11)	-0.28** (0.11)	-0.28*** (0.11)
Never married	3.01*** (0.71)	3.09*** (0.70)	2.97*** (0.70)	3.11*** (0.71)	3.06*** (0.70)	2.98*** (0.71)	3.27*** (0.71)
Expected edu. level	0.84*** (0.11)	0.79*** (0.11)	0.81*** (0.11)	0.84*** (0.11)	0.78*** (0.11)	0.80*** (0.11)	0.84*** (0.11)
M family income	0.0005*** (0.00)	0.001*** (0.00)	0.0004*** (0.00)	0.0005*** (0.00)	0.001*** (0.00)	0.0004*** (0.00)	0.001*** (0.00)
Korean	Reference	Reference	Reference	Reference	Reference	Reference	Reference
Chinese	2.40*** (0.69)	2.38*** (0.67)	2.30*** (0.68)	2.42*** (0.68)	2.74*** (0.69)	2.69*** (0.70)	2.13*** (0.68)
Indonesian	-4.69*** (0.85)	-4.65*** (0.84)	-4.76*** (0.84)	-4.63*** (0.85)	-4.40*** (0.84)	-4.50*** (0.85)	-4.77*** (0.84)
Japanese	1.06 (0.92)	1.66* (0.92)	1.18 (0.92)	1.23 (0.93)	1.92** (0.92)	1.49 (0.93)	1.35 (0.92)

Malaysian	0.60 (0.95)	0.71 (0.94)	0.62 (0.94)	0.68 (0.95)	0.97 (0.94)	0.89 (0.95)	0.57 (0.94)
Taiwanese	4.11*** (0.98)	4.00*** (0.95)	4.01*** (0.96)	3.96*** (0.96)	4.31*** (0.97)	4.25*** (0.98)	3.58*** (0.97)
Thai	-3.86*** (0.68)	-3.39*** (0.67)	-3.78*** (0.67)	-3.79*** (0.68)	-3.19*** (0.68)	-3.57*** (0.68)	-3.77*** (0.68)
N	4882	4882	4882	4882	4882	4882	4882
Constant	29.76*** (2.38)	30.90*** (2.33)	31.38*** (2.36)	31.45*** (2.43)	31.48*** (2.41)	32.53*** (2.44)	32.47*** (2.41)
Adj. R2	0.09	0.10	0.09	0.09	0.11	0.09	0.09

Note: Standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1

Table 3 shows the results of estimating equation (1). It contains several models for which each has different combinations the five K-pop fandom variables.

Models (1) to (4) include K-pop variables one at a time. Both absolute K-pop fan expenses and the relative share of these expenses in family income are negatively and highly significantly related to gender attitudes. That is, higher K-pop expenses are related to less egalitarian gender attitudes. The frequency of K-pop fan activities is also negatively and statistically significantly related to egalitarian gender attitudes. K-pop fan length does not seem to play a significant role. These results are confirmed when including all variables at the same time as was done in models (5) and (6). Finally, the composite K-pop fandom index is negatively related to egalitarian gender roles (model (7)).

Socio-economic & demographic factors as well as national effects are also found significant in explaining gender roles across Asia. Older age, female sex, smaller household size, single or never married, better education and higher income all contribute to more egalitarian gender attitudes. Concerning country effects, *ceteris paribus*, Taiwanese and Chinese show the most egalitarian attitudes while Indonesian and Thai show very traditional gender believes.

Regression analysis of gender attitudes on selected statements

As stated earlier, three specific statements about gender attitudes were selected as dependent variables. Their relationships with respondents' demographic characteristics and K-pop fandom are listed in Table 4.

Table 4. K-pop fandom and selected gender attitude statements

Dep. Variable:	“In terms of housekeeping and taking care of children, women are naturally better than men.”		“It’s embarrassing if husbands earn less than their wives.”		“It is natural for men to occupy leading positions at work.”	
	1	2	1	2	1	2
	K-pop fan length	-0.01 (0.01)		0.04*** (0.01)		0.02 (0.01)
K-pop fan exp./ Family income	-0.12** (0.05)		-0.26*** (0.05)		-0.22*** (0.05)	
K-pop fan activities	-0.02 (0.01)		-0.01 (0.01)		-0.04*** (0.01)	
K-pop fandom index		-0.01*** (0.01)		-0.01 (0.01)		-0.03*** (0.01)
Age	0.001 (0.00)	0.002 (0.00)	0.01* (0.00)	0.01** (0.00)	0.01*** (0.00)	0.01*** (0.00)
Sex	0.1 (0.09)	0.12 (0.09)	0.31*** (0.10)	0.34*** (0.10)	0.41*** (0.10)	0.44*** (0.10)
Household size	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.03*** (0.01)	-0.03*** (0.01)
Never married	0.25*** (0.07)	0.26*** (0.07)	0.09 (0.08)	0.12 (0.08)	0.22*** (0.08)	0.25*** (0.08)
Expected edu. level	0.05*** (0.01)	0.06*** (0.01)	0.07*** (0.01)	0.07*** (0.01)	0.06*** (0.01)	0.06*** (0.01)
M family income	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00001* (0.00)	0.00 (0.00)	0.00002** (0.00)
Korean	Reference	Reference	Reference	Reference	Reference	Reference
Chinese	0.58*** (0.07)	0.57*** (0.07)	0.45*** (0.08)	0.40*** (0.07)	0.35*** (0.08)	0.30*** (0.07)
Indonesian	-0.44*** (0.08)	-0.45*** (0.08)	-0.23** (0.09)	-0.26*** (0.09)	-0.76*** (0.09)	-0.79*** (0.09)
Japanese	0.14 (0.09)	0.14 (0.09)	0.15 (0.10)	0.12 (0.10)	-0.10 (0.10)	-0.11 (0.10)
Malaysian	-0.16* (0.09)	-0.17* (0.09)	0.32*** (0.10)	0.28*** (0.10)	-0.31*** (0.10)	-0.33*** (0.10)
Taiwanese	0.49*** (0.10)	0.48*** (0.10)	0.49*** (0.11)	0.42*** (0.10)	0.08 (0.11)	0.02 (0.10)
Thai	-0.29*** (0.07)	-0.29*** (0.07)	-0.14* (0.07)	-0.17** (0.07)	-0.52*** (0.07)	-0.54*** (0.07)
N	4882	4882	4882	4882	4882	4882
Constant	1.41*** (0.24)	1.39*** (0.24)	1.29*** (0.26)	1.26*** (0.26)	1.51*** (0.26)	1.49*** (0.26)
Adj. R2	0.13	0.13	0.06	0.06	0.12	0.12

Note: Standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1

As all three statements are gender stereotypical, a higher value of the variable is consistent with higher disagreement with each statement.

In regards to “Statement a”: “*In terms of housekeeping and taking care of children, women are naturally better than men*”, K-pop fan length and the frequency of K-pop fan activities show negative correlations with the statement but not significant. The share of K-pop fan expense in family income and the composite K-pop fandom index both have negative and statistically significant correlation with the value of “Statement a”. The results indicate that a respondent with higher K-pop expense is more likely to agree with the gender stereotypical statement and support a traditional division of caregiving responsibilities between men and women.

In regards to “Statement b”: “*It’s embarrassing if husbands earn less than their wives*”, K-pop fan length seems to have a weak but statistically significant positive correlation with the statement. Although the coefficients of the frequency of K-pop fan activities and the K-pop fandom index both show negative trends, they are not significant. The share of K-pop fan expense in family income is negatively and significantly correlated with the statement. That is, respondents with higher K-pop expenses are more likely support a traditional division of breadwinning responsibilities between men and women.

“Statement c”, “*It is natural for men to occupy leading positions at work*”, reflects the attitude towards different genders’ having different levels of authority in the workplace. From the results we can tell that expect for K-pop fan length, the share of K-pop fan expense in family income, the frequency of K-pop fan activities along with the K-pop fandom index all have negative and statistically significant correlation with the statement. That is, a respondent with higher consumption level of K-pop is more likely to support a sexist authority in the workplace.

In regards to the effects of demographic characteristics, the results are largely consistent with the findings in Table 3. Older age, female sex, smaller household size, never married and higher education level all contribute to more egalitarian gender attitudes and higher disagreement with the statements. Family income seems to play an insignificant role in affecting respondent’s attitudes toward the statements. The results of country effects are also largely consistent with the findings in Table 3.

Chinese show the most egalitarian attitudes while Indonesian and Thai show very traditional gender attitudes.

To sum up the results of Table 4, respondents with higher consumption level of K-pop, respondents with larger family size and respondents from Indonesia are more likely to support a traditional gender division of family responsibilities both in the household and in the workplace; female respondents and respondents with higher education level, never married respondents, also Chinese respondents are more likely to support a non-traditional gender division of family responsibilities both in the household and in the workplace.

VI. Conclusion

It is evident that there is a connection between sexist gender stereotypes in the media and traditional gender attitudes and sexist culture. And it is reasonable to suspect that the prevalence of sexist portrayals in Korean media and the sexual objectification in K-pop have reinforced Korea's "unfailing" patriarchal culture and hindered the course of gender equality. This paper provides evidence for this argument by using a new Asian data set to identify the relationship between the consumption of K-pop and the level of egalitarian gender attitudes.

The survey results confirm the hypothesis that a higher consumption level of K-pop is correlated with less egalitarian gender attitudes. On average, someone who follows K-pop activities more often is more likely to share less open gender attitudes. A fan that spends more on K-pop products or activities is more likely to possess less open gender attitudes. Additionally, individuals with higher K-pop consumption level are more likely to support a more traditional gender division of responsibilities both in the household and in the workplace.

The survey results also show differences among different demographic groups. Women and older respondents have more open gender attitudes. Individuals from large family possess less open gender attitudes. Women who never married, obtaining a higher level of education, or greater wealth are more likely to share open gender attitudes. Additionally, female and individuals who have never been married and are more educated are more likely to support a non-traditional gender division of responsibilities both in the household and in the workplace.

While some of the findings were somewhat predictable, other findings came out as "surprises". Generally, younger people are expected to possess more open or egalitarian gender attitudes, as they were born and raised in an era with more mainstream knowledge of progressive and modern ideas such as gender equality or feminism. However, younger K-pop fans seem to be less open to progressive gender attitudes and more often possess traditional views regarding the gender roles of men and women. It is arguable that the reason behind this contradiction is consistent with the one behind the paradox of Korea's success in economic development and failure

in gender issues; that once empowered with economic prosperity, Korean culture reinforced its traditional gender attitudes.

Although this thesis has identified some interesting empirical findings, there are two major limitations in the survey analysis. First, there is a limitation in the data collection, as the survey is an online one, the sample population is not likely to be a completely representative of the population as a whole. However, it is a very large sample, which reduces the problem of non-representation. Second, although the survey results have found a correlation between the consumption of K-pop (or the intensity of K-pop fandom) and the level of egalitarian gender attitudes, they were not able to identify causality. There is a potential two way causality, which means it is arguable that a K-pop fan's less open gender attitudes are not because he or she is more "obsessed" with K-pop, but because those individual with less open gender attitudes are more drawn to K-pop.

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Appendix

Table A1. Questionnaire and coding notes

No.	Section 1: Personal Information	Code
1	Age	
2	Biological sex	
	Male	0
	Female	1
3	Household size	
4	Marital status	
	Single, never married	1
	Married or domestic partnership	0
	Separated	0
	Divorced	0
	Widowed	0
5	Nationality	Country dummy
6	<i>Current education level</i>	
7	Expected highest education level	
	Middle school or lower	9
	High school	12
	Undergraduate school	16
	Graduate school or above	18
8	<i>Employment status</i>	
	Student	
	Employed for wages	
	Self-employed	
	Homemaker	
	Out of work and looking for work	
	Out of work but not currently looking for work	
	Serving in the military	
	Retired	
	Unable to work	
9	Monthly family income (in USD)	
	Above 8000	7000
	5000-8000	7000
	3000-5000	4000
	2000-3000	2500
	1000-2000	1500
	500-1000	750
	0-500	250
Section 2: K-pop Fandom		
10	Are you a fan of K-pop/“Hallyu”?	
	Yes	1
	No	0
	What is K-pop/“Hallyu” ?	0
11	Since when did you become a K-pop/ “Hallyu” fan?	

		Since more than 10 years ago.	6
		Since 6~9 years ago.	5
		Since 3~5 years ago.	4
		Since 1~2 years ago.	3
		Since last year.	2
		Recently (less than a year).	1
12	How much per month are you willing to spend on your favorite K-pop stars related commodities/ activities? (in USD)		
		Above 1000	1250 /6
		500-1000	750 /5
		200-500	350 /4
		100-200	150 /3
		50-100	75 /2
		0-50	25 /1
13	How often do you listen to/ watching/ following your favorite K-pop stars' music/ video/ TV programs, SNS?		
		Multiple times per day	7
		Once per day	6
		Multiple times per week	5
		Once per week	4
		2-3 times per month	3
		Once per month	2
		Rarely	1
14	From the following answers which is the no.1 reason that makes them attractive to you?		
		Physical Appearance	
		All	
		Other	
		Personality	
		Professional attitude	
		Talent	
		0	
Section 3: Gender attitudes			
15	<i>I have felt satisfied being a woman/man (as my biological sex).</i>		
16	<i>I have felt pressured by others to be a "proper" woman/man (as my biological sex).</i>		
17	<i>It would be better for me to live as a man than as a woman/ a woman than as a man (as my counter biological sex).</i>		
18	To be a man means you should possess the qualities of masculinity and assertiveness.		
		Strongly agree	1
		Partially agree	2
		Neither agree nor disagree	3
		Partially disagree	4
		Strongly disagree	5
19	To be a woman means you should possess the qualities of femininity and submissiveness.		
20*	Men should be stronger than women physically and mentally.		
		Strongly agree	5

		Partially agree	4
		Neither agree nor disagree	3
		Partially disagree	2
		Strongly disagree	1
21	A man should protect a woman from being hurt even when the woman is physically stronger than the man.		
22	Economically, it is more beneficial for a woman to find a good marriage than working hard in the workplace.		
23	Instead of focusing on climbing the career ladder, it's wiser for a woman to put in more time and energy towards her appearance (skin care, hair, keeping fit, fashion, etc.).		
24	Men should pay as much attention to their physical appearance as women.		
25	It's natural for a boyfriend to take care of all the expenses when dating his girlfriend.		
26	In terms of housekeeping and taking care of children, women are naturally better than men.		
27	It's embarrassing if husbands earn less than their wives.		
28*	It's not a problem for a husband to be a full-time housekeeper or a stay-at-home dad if his wife's income is sufficient.		
29	Sons, not daughters, are financially responsible for their parents after retirement.		
30	As a part of a child's development, young boys have to recognize the importance of cultivating a masculine identity.		
31	As a part of a child's development, young girls have to realize the need to develop feminine characteristics.		
32	It is natural for men to occupy leading positions at work.		
33	It's natural for men to get promotions easier than women.		
34	It's almost impossible for a woman to balance her career and her love life/ marriage/ children/ family, if she is aiming for the top in her career.		
35	If a woman decided to keep working after getting married, she should try to find an "easier" job or part-time job.		
36	<i>What is your sexual orientation?</i>		
		<i>I don't want to answer this question</i>	
		<i>I like men</i>	
		<i>I like women</i>	
		<i>I like both men and women</i>	
37*	<i>Homosexuality should be accepted by society.</i>		
38*	<i>Same-sex marriages or civil unions should be recognized legally.</i>		
39*	<i>Gay or lesbian couples should have the legal right to adopt a child.</i>		
40*	<i>I have no problem making friends with gays.</i>		
41*	<i>It would not be a problem if my child turned out to be a gay/lesbian.</i>		
42*	<i>I would consider joining in gay pride events to show my support.</i>		

Notes: Only the answers for questions or statements which were used in the regression analysis were coded, unused questions or statements are in italic font. In section 3, for statements contain gender stereotypical concepts or sexism, "Strongly disagree" is coded "5"; for statements contain gender egalitarian idea, (marked "*" on the question number) "Strongly disagree" is coded "1".