



# Grunting Alone? Online Gender Inequality in Extreme Metal Music

Julian Schaap and Pauwke Berkers

Erasmus University Rotterdam

*j.schaap@eshcc.eur.nl; berkers@eshcc.eur.nl*

## Abstract

The extreme metal scene is a highly skewed field of cultural production in which women are greatly underrepresented. As tokens, women are likely to be subjected to gender-biased evaluations, the male gaze, and are held accountable when breaking gender roles. This paper investigates the online gender dynamics in extreme metal by conducting a content analysis of the comments on videos of female and male performers of 'vocal covers' on YouTube. Surprisingly, men and women tend to be evaluated along similar lines, suggesting the possibility that women might utilize the Internet for individual music production to circumvent offline gender inequality.

**Keywords:** extreme metal; gender; tokenism; YouTube; scenes; vocal covers

## Introduction

Metal is one of the few music genres that still polarizes people. According to Weinstein, "it is hard to think of other human phenomena, outside child torture and cannibalism, that evoke such intense abhorrence" (1991: 237). On the one hand, liberal (rock) critics argue that metal music is simplistic and lacks serious political commitment. On the other hand, commentators of the religious Right have claimed – even in court – that this music leads to deviant behavior (drug use, violence, Satanism) among adolescents (Walser 1993: 139). Even among the musically tolerant, metal is a genre that is most likely rejected. Hence, people tend to listen to "anything but heavy metal" (Bryson 1996). Despite, or because of, its controversial status, metal is anything but a marginal phenomenon. Metal and hard rock acts have held high positions in the *Billboard 100*, particularly during the 1980s (Harrison 2007; Sernoe 2005), and international metal festivals; for example, *Wacken Open Air* in Germany, which attracts tens of thousands of dedicated fans each year.

Metal music is primarily popular among men, both as consumers and producers (Krenske and McKay 2000). While some scholars have signaled a rise in female participation (Gruzelier 2007; Purcell 2003), gender still plays an extremely important role in defining what is metal and what it is not (Hill 2012). This is particularly the case for extreme metal, a cluster of metal subgenres characterized by sonic, verbal and visual transgression (Kahn-Harris 2007: 29). Drawing on previous studies, we focus on two explanations of such gender inequality. First, playing in a band is largely a male homosocial activity, that is, learning to play in a band is largely a peer-based – rather

than individual – experience, shaped by existing sex-segregated friendship networks (Bielby 2003; Clawson 1999). Second, rock music, such as metal, is often defined as a form of male rebellion vis-à-vis female bedroom culture (Frith and McRobbie 1990). As a result, women are tokens within extreme metal scenes (Kanter 1977). They are part of a numerical and symbolic minority, making them more visible than men. Consequently, they are more likely to be evaluated on their group category and non-ability traits rather than their individual skills.

However, the emergence of the Internet and online social media have created new modes of social conduct that might contest existing gender inequality. Social media might facilitate or empower women to actively engage in extreme metal scenes. First, the performance of covers on video sharing website YouTube allows women (and men) to produce metal music without needing an actual band. Second, bedroom cultures have become increasingly screen-rich (Livingstone 2007), shattering the traditional distinction between public (male) and private (female) participation (Lincoln 2005). However, few studies have actually addressed the gendered relationship between online and offline music scenes (Bennett and Peterson 2004), revealing a substantial research gap on how music scenes operate in an increasingly digitized world.

This paper addresses the online gender dynamics in extreme metal by examining the evaluations of females (and males) performing vocal covers on YouTube. We have conducted a quantitative and a qualitative comparative content analysis of YouTube user-comments on videos of males and females performing such vocal covers. Grunting – growling with a low-pitched, guttural voice – has particularly strong masculine connotations, making it a less conventional form of female participation. Our analysis focuses on three possible consequences of tokenism (Kanter 1977: 206-242). First, being highly visible, female participants are likely to receive gender-biased evaluations, based on their group membership rather than on their individual skills. Second, their visibility might lead to a male gaze, being evaluated in sexual or romantic terms. Third, as tokens are only allowed to play particular roles (encapsulation), they are likely to break these roles when performing extreme metal music, resulting in surprised or negative reactions. Thus, this study not only adds to existing research on (extreme) metal music but it further opens up the discussion about how offline gender relations are reproduced and/or challenged by online communication.

## **Extreme Metal as a Genre**

The term 'heavy metal' originated in the early 1970s to describe a music genre that combined blues rock and psychedelic music. Most scholars, critics and fans cite British and American bands Blue Cheer, Deep Purple, Cream, Led Zeppelin and Black Sabbath as its prime founding fathers. From its early days through the 1980s, metal developed into a music genre with clearly codified conventions. Sonically, metal is characterized by power in terms of sheer volume, technical virtuosity, speed, and rivalry between guitarist(s) and vocalist (Weinstein 1991: 22-27). Thematically, one can distinguish two major themes in metal. First, lyrics and aesthetics often deal with aggression (war, violence, death, human and/or personal suffering) and the occult (old mythologies, Satan, religion) (Frandsen 2011; Vasan 2011). Second, although Dionysian themes of sex, drugs and rock and roll are not typical for metal per se, some lyrics do celebrate the rock and roll ethos as such. Visually, metal fans typically distinguish themselves from the more mainstream male look by their dark clothing and long hair, which is generally meant to aesthetically complement the physical act of head banging. In general, two looks can be distinguished (Weinstein 1991): the 'authentic look' (street clothes: jeans, mostly black T-shirt, preferably depicting a band logo) that signals identification with other "proud pariahs" (Weinstein 1991: 272) and a 'biker look' (leather, metal studs) that signifies male rebellion.

By the mid-1980s, metal became increasingly fragmented into different subgenres, including death metal, black metal, grindcore and, later, metalcore. Following Kahn-

Harris (2000), we group these genres under the moniker of extreme metal. As (predominantly American and UK) metal bands grew immensely popular in the 1980s, disappointed metal fans looked for more extreme music to distinguish themselves from 'mainstream' metal fans. Well-known examples of extreme metal bands that have received worldwide acclaim are Cannibal Corpse (US), Suffocation (US), Morbid Angel (US), Napalm Death (UK), Carcass (UK), Entombed (Sweden), Dismember (Sweden), Mayhem (Norway), Marduk (Norway), Dimmu Borgir (Norway), Cradle of Filth (UK) and Gorefest (Netherlands). Extreme metal differs from other subgenres of heavy metal in its transgression of sonic, thematic and visual boundaries. Extreme metal's sonic excess is characterized by high levels of distortion (also in the vocals – grunting or screaming), less focus on guitar solos and melody, emphasis on technical control, and fast tempos (at times, more than 200 beats per minute). Its thematic transgression can be found in more overt and/or serious references to Satanism and the darker aspects of human existence that are considered out of bounds or distasteful, such as death, suicide and war. In contrast to other kinds of heavy metal, extreme metal's lyrics are more vivid and unambiguous regarding these topics, sometimes also containing overt instances of sexism and misogyny (James 2009; Purcell 2003). Visual transgression ranges from dramatic make-up suggestively termed 'corpse paint', to medieval weaponry, bloody/horrific artwork and predominantly black clothing while more traditional metal outfits, as discussed earlier, remain in place.

Not surprisingly, academic interest in extreme metal has focused mainly on its transgressive nature (Brown 2011), for example its anti-Christian themes (Cordero 2009), racist ideologies (Beckwith 2002), or misogynist lyrics (Kahn-Harris 2003). Yet, extreme metal is also 'extreme' with regard to its gender representation, that is, it is a highly skewed field of cultural production in which women are – both numerically and symbolically – underrepresented. The consequences of such gender inequality are highly debated among popular music scholars. Is sexism still widespread in (online) extreme metal scenes (Kahn-Harris 2007; Vasani 2011), or is the focus so strongly on music that gender is made irrelevant to its participants (Hill 2012)? Combining insights from popular music studies and gender scholarship, this article will contribute to this debate.

### **Numerical Underrepresentation of Women in Extreme Metal**

Scholars have demonstrated that men are numerically dominant within extreme metal, both as audience members and as performers. Previous studies have demonstrated that the vast majority of the metal audience consists of males, varying from 65-70% in the United States (Purcell 2003: 100), to 70-75% in the United Kingdom (Gruzelier 2007: 62) and 85% in Germany (Chaker 2013). Although the number of female performers within extreme metal is steadily increasing (Purcell 2003), with Mel Mongeon (Fuck the Facts), Rachel van Mastrigt-Heyzer (Sinister) and particularly Angela Gossow (Arch Enemy) as principal exemplars of women's ability to front extreme metal bands<sup>1</sup>, they remain a numerical minority in a male-dominated field of cultural production (Mudrian 2004: 250-252). As such, women are tokens within extreme metal, that is, members of the numerical minority (less than 15%) in skewed groups (Kanter 1977: 208; Roth 2004). Before we discuss the consequences of this token position, we will first address two primary causes for the lack of women in the production of metal music: band formation and hegemonic understandings of masculinity and femininity.

First, extreme metal music is usually not performed by a sole individual but by a group of individuals, who together form a band. Previous studies have shown that band formation is largely a peer-based – rather than individual – experience, shaped by existing sex-segregated friendship networks (Bielby 2003; Clawson 1999). According to Bayton (1998: 81), "a male band starts when a group of friends (usually at the same school, of the same age, and living in the same locality) gradually evolves into a rock

group.” However, because bands arise from friendship groups, the tendency among teenagers is to have boy bands and girl bands rather than mixed ones. As such, bands operate as tight-knit units in which homosocial solidarity – social bonds between people of the same sex (Sedgwick 1985) – plays a crucial role (Clawson 1999). Indeed, several scholars have argued that men exclude women from bands or from the bands’ rehearsals, recordings, performances, and other social activities (Cohen 1991: 208). Not only are women considered a threat to these male bonds by creating sexual tension, they are also suspected of not being as dedicated as their male counterparts.

Second, norms of masculinity and femininity have been closely aligned with rock (including extreme metal) and pop respectively. While both genres are characterized by a particular sound or style of playing music, rock music has historically been constructed as a form of male rebellion against female domesticators and the ideology of romance (Frith and McRobbie 1990). Metal music in particular is grounded in masculine notions of power, control and competition (Weinstein 1991: 102-106). Rock artists are “the men who take to the streets, take risks, live dangerously and, most of all, swagger untrammelled by responsibility, sexual and otherwise” (Frith and McRobbie 1990: 374), in other words, perform hegemonic masculinity. Pop artists “embrace and celebrate rituals of heterosexual love, romance and commitment” (Schippers 2002: 24), that is, emphasize femininity. Women are mainly regarded as passive and private consumers of allegedly slick, prefabricated – hence, inferior – pop music (Coates 1997: 53), excluding them from participating as high status rock musicians (Frith 1983).

Thus, extreme metal is actively produced as masculinist. It represents “a spectacle of male power and offers a musical means through which men can demonstrate their manhood” (Cohen 1997: 29). As the production of extreme metal virtually equals the production of gendered boundaries, few women have successfully pursued a career in this masculine genre (Kahn-Harris 2007). Yet, some women do want to participate in extreme metal music, wishing to escape “stifling adolescent situations” (Krenske and McKay 2000: 302). This paradoxically brings them into another position of being subjected to male oppression and sexism: the extreme metal scene (Vasan 2010). The development of the Internet and social media might provide pathways into metal as they arguably provide possibilities for democratic and emancipatory change in music scene participation (Bennett 2004; Ferrero 2007).

### **Online Music Production, Vocal Covers and Gender Inequality**

Music scene participation has changed, leading to virtual scenes as a result of two mutually reinforcing developments. First, the arrival of the Internet and social media made it easier to share recorded fragments and to create songs without the producers being in each other’s physical presence. As a result, bands are able to produce and distribute their music directly and globally without being obstructed by spatial, social, cultural or geographical limitations (Gafarov 2011). The use of social networking sites such as Soundcloud, BandCamp, MySpace and YouTube has resulted in virtual metal scenes, complementing local and trans-local formations of music scenes (Bennett and Peterson 2004). Second, the availability of relatively affordable recording software has offered musicians the opportunity to create a quality recording studio within the privacy of their own homes (Théberge 2001; Whelan 2006). As a result, amateur musicians are able to program and produce drum and bass lines themselves, making physical band formation less of a necessity.

The arrival of virtual scene participation particularly impacts on music genres with strong scene identities, such as extreme metal. The Internet has opened up the possibility for scene-participants to “use the internet both as a subcultural resource and as a medium for participation” (Williams and Copes 2005: 70), extending the physical boundaries of traditional offline music scenes. Participants oftentimes exhibit a “productive anxiety” (Shank 1994, cited in Hesmondhalgh 2005: 27), a strong motivation not only to consume music but also to produce music themselves in one

way or the other. An increasingly popular – yet understudied – form of music participation is the online vocal cover. Individuals cover the vocals of songs in front of their webcam and upload their recorded performance to video-sharing websites such as YouTube. Through the vocal cover, “spectators become fans, fans become musicians, and musicians were always already fans” (Hesmondhalgh 2005: 27). Whereas rock musicians have traditionally been found to work best in groups and tend to compose and rehearse simultaneously (Abramo 2011: 22), the vocal cover allows women and men to participate in rock and metal music as individuals, without needing a band. Moreover, by performing covers of (male) artists instead of their own music, women and men can (partly) appropriate an existing fan base, claim canonized works and prove their musical abilities (Gregory 2013: 31).

Instead of receiving feedback from their band members, people doing vocal covers receive feedback from mostly anonymous people in the form of number of views, number of ‘likes’ and ‘dislikes’ and in the comments viewers can post under the video (see also Burgess and Green 2009). Being identifiable on YouTube is a matter of choice rather, so commenters often enjoy a veil of anonymity and thus feel free to be honest and ‘authentic’ (Zhao, Gramuck and Martin 2008) or harsh and antagonistic (Lange 2007). These comments function as a looking-glass self, which people may use to evaluate their performance. As such, YouTube can be used to actively engage with metal music or even to experiment with the possibility of pursuing an artistic career. Vocal covers might even function as a virtual springboard (De Koster 2010: 91), acting as semi-blind auditions for women (and men) who want to join an offline band.

Even though the live performance will undoubtedly remain “the holiest of heavy metal communions” (Gruzelier 2007: 59), easier and cheaper production and distribution of metal music online might change the way extreme metal music is made and subsequently might help women to circumvent gender dynamics that exist within offline spheres. Although it is evident that geographical and inter-cultural limitations on participation in the metal scene are partially alleviated by virtual participation (Kruse 2010), it is unclear whether the offline structure and discourse of gender inequality is reproduced or thwarted. While indeed finding some level of liberation and escape from mainstream society in the extreme metal scene, these women arguably have to pay the price of being a token member within this male-dominated scene (Vasan 2011: 336). In order to study the possible consequences of tokenism, we turn to gender studies.

### **Consequences of Tokenism**

According to Kanter (1977), tokens are members of the numerical minority (less than 15%) in skewed groups. As such, numbers are essential in processes of tokenism. Yet, gender status also matters greatly (Yoder 1991: 180-181). Men and women generally face different status expectations unrelated to the task itself, that is, widely held cultural beliefs that evaluate one sex (male) as generally superior and diffusely more competent than the other (female) (Ridgeway 2011: 60). In other words: “[W]omen’s competence is often evaluated more harshly than men’s, regardless of their numerical proportions and even when they exhibit equal or superior performance” (Roth 2004: 193). In addition, women in male-typed occupations, such as performers in metal music, are more likely to face the consequences of tokenism than men in female-typed professions (Yoder 1991: 181-184). Here we distinguish between three possible consequences of tokenism: i) high visibility leading to gender-biased evaluations, ii) visibility resulting in a ‘male gaze’, iii) surprised or negative reactions when (encapsulated) gender roles are broken.

First, because of their visibility, tokens face strong performance pressures (Ridgeway 2011: 76-77), being largely evaluated on the basis of their group category rather than individual characteristics, resulting in ‘gender-biased evaluations’. Women are likely to be evaluated as women – instead of individuals – when performing metal music. This is particularly the case given that men are often cognitively resistant to

disconfirming information (Roth 2004), leading to the often articulated phrase ‘you play pretty well, for a girl’ (Carson, Lewis and Shaw 2004: 87).

Second, “a token does not have to work hard to have her presence noticed, but she does have to work hard to have her achievements noticed” (Kanter 1977: 216). Hence, women are more likely to be evaluated on the basis of appearance and non-ability traits (Johnson-Grau 2002), leading to female objectification and sexualization. Film scholar Laura Mulvey (1975) coined the term ‘male gaze’ to describe the ways in which women are looked at by men to control them, and are made the passive objects of the gaze. She distinguished two modes of the male gaze (“to-be-looked-at-ness”): the voyeuristic and the fetishistic (Mulvey 1975: 16). Simply put, the voyeuristic gaze refers to looking at someone as an object of erotic control (scopophilic instinct). The fetishistic gaze is also about control, but more in terms of worshipping and objectifying certain aspects of women. In this article we loosely translate both gazes into, on the other hand, the one hand, an ‘erotic gaze’, where women performers are evaluated as ‘hot’ or ‘sexy’ and, second, a ‘romantic love gaze’, in which women are talked about as potential partners and girlfriends to satisfy male desire.

Third, tokens are usually only allowed to play particular roles. Kanter refers to this as role encapsulation, that is, “such stereotypical assumptions about what tokens ‘must’ be like, such mistaken attributions and biased judgments, tend to force tokens into playing limited and caricatured roles” (1977: 230). As women in rock music are primarily type-cast into the role of singer or backing vocalist (Bayton 1998: 26), they are likely to violate traditional gender roles – particularly with regard to the female body – when grunting or screaming in extreme metal music (Kahn-Harris 2007: 76). These stereotypical roles provide learned expectations, which often lead to, at best, surprise, and at worst, negative reactions when women do not properly fulfill their gender roles in the performance of extreme metal music.

As the number of women participating in extreme metal increases, they cannot be easily ‘overlooked’ anymore. “[A]s it grows increasingly acceptable and common for females to take on the same activities as males, perhaps the gender gap will continue to close” (Purcell 2003: 100). For example, Riches (2011) shows how males changed their mosh pit intensities when the number of women increased. However, as long as women are tokens, their structural reality also confirms gender stereotypes such as a presumed inability of women to play metal music (Ridgeway 2011), making it exceptionally hard for them to start or join metal bands. When this structure changes, however, men (and women) might open up to more disconfirming attitudes towards gender inequality (Ridgeway 1997: 223).

## Data and Methods

To answer our research question we conducted our study in three steps. First, we examined approximately how many extreme metal vocal covers had been posted on YouTube in July 2012. To achieve this, we performed a systematic search using the terms ‘vocal cover’ and ‘death metal’.<sup>2</sup> This resulted in 5480 hits. Unfortunately, YouTube only allows us to see the first 65 pages of search results. As each page contains 22 videos, our actual population includes 1430 of the most viewed videos. On every page we selected the first video that i) covered a song within the extreme metal genre (using the democratically chosen genre-tags on <http://www.musicbrainz.org>); ii) was grunted/screamed rather than sung; and iii) visibly showed the performer in action (rather than obscuring her/himself by only uploading sound with pictures). Out of this sample of 65 videos, only two were made by female performers. This suggests that the numerical underrepresentation of women is even more profound on YouTube (3%) than within offline extreme metal scene participation.

**Table 1 – Characteristics of Selected Vocal Cover Videos on YouTube (July 2012).**

Gender	Covered artist	Covered song	Views	Comments	Likes	Dislikes
--------	----------------	--------------	-------	----------	-------	----------

<b>Female</b>	Conducting from the Grave	Marching Towards Extinction	10187	145	94	14
	Born of Osiris	Abstract Art	43729	510	367	34
	Suffocation	Pray for Forgiveness	24467	302	289	10
	Bring me the Horizon	Pray for Plagues	65462	576	155	477
	Cannibal Corpse	Maniacal	179073	1220	1907	108
	Death	Crystal Mountain	7226	27	N/A	N/A
	Lamb of God	Faded Line	6254	119	67	9
	Satyricon	K.I.N.G.	3413	44	53	8
	Cradle of Filth	Lilith Immaculate	2820	82	22	21
	Underoath	Illuminator	9460	67	138	4
	The Black Dahlia Murder	Deathmask Divine*	1576	32	38	5
	Conducting from the Grave	Eternally Guttled*	1078	32	4	5
	Amon Amarth	Twilight of the Thunder God	13843	46	122	12
	Suicide Silence	No Pity for a Coward*	1006	31	33	1
	Suffocation	Blood Oath	29713	212	202	28
<b>Male</b>	Born of Osiris	Bow Down	10371	172	56	20
	Dying Fetus	Praise the Lord	3010	38	31	4
	Cryptopsy	Phobophile	2629	58	62	2
	Bring me the Horizon	Pray for Plagues	71171	1395	534	56
	Cannibal Corpse	Make them Suffer	9557	121	135	7
	Amon Amarth	Guardians of Asgaard	14216	120	136	62
	Bloodbath	Eaten	6398	46	38	26
	Lamb of God	Omerta	6580	80	106	1
	The Black Dahlia Murder	What a Horrible Night	2435	60	39	1
	Asking Alexandria	Not the American Average*	12720	171	398	10
	Dimmu Borgir	Gateways	3403	37	39	18
	Job for a Cowboy	Entombment of a Machine	48650	915	384	33
	Morbid Angel	Where the Slime Live	3838	53	42	5
	Dissection	Where Dead Angels Lie	2994	32	N/A	N/A
	Suicide Silence	Unanswered	77627	778	397	144

Username are omitted from the table since this is thought to infringe on the perceived privacy (Eysenbach and Till 2001) of the uploaders and commentators.

Username are known to the authors.

\* Song contains misogynist lyrics or content that can easily be interpreted as such.

Next, from the abovementioned 65 videos, we selected 15 videos of male performers based on genre diversity and number of views (highest and lowest). For the selection of women, we did an additional search, using the search term 'female' (women habitually put this tag underneath their videos, possibly marketing their token status), oversampling 15 female videos (see Table 1). First, we used the same basic selection criteria as for the male videos (subgenre, number of views/comments/likes-dislikes).<sup>3</sup> Second, for reasons of comparability, we included only (female) covers of male bands as men do not tend to cover bands with female vocalists.<sup>4</sup> The lyrics of each song were analyzed to assess whether they can be interpreted as misogynist, alienating women from covering them. However, this was not the case.

Then, we analyzed the first 25 comments underneath each video in a quantitative comparative content analysis.<sup>5</sup> Comments were divided, when necessary, between different utterances, ranging from one to four utterances per comment. This made the total number of utterances analyzed 973. We coded all utterances for three general characteristics. First, 'type of utterance' measures whether a comment can be categorized as a general comment, a question, a request or a piece of advice. Second, we recorded the 'topic of an utterance'; in other words, at which aspect of the video the comment was directed. Here we distinguished between the performance itself, the general personality of the performer, the vocal technique, the performer's appearance, the background scenery, and the material or equipment used in the video.<sup>6</sup> Third, we measured whether a response is positive, neutral or negative in nature, that was, the 'evaluation in the utterance'. In addition, we classified the utterances that revealed gender dynamics into three categories, based on the previously discussed theory: 'gender biased evaluation', 'the male gaze' (romantic love gaze and erotic gaze) and 'reactions to the breaking of gender roles'. An elaborate description of these variables (including examples) can be found in the discussion of the results. Unfortunately, YouTube in many cases prevents us from determining the gender of commentators. As previous research has shown, the majority of YouTube commentators are male (Thewall, Sud and Vis 2012: 7) so it seems very likely that most of the commentators in our sample are male as well. As the fourth and final step of the analysis, all utterances of a gendered nature were analyzed qualitatively.

### General Characteristics of Utterances

In general we found surprisingly few differences between female and male vocal covers regarding the general characteristics of the comments (utterances) by type, topic and evaluation. First, table 2 shows the distribution of the type of utterance on the female and male vocal covers. Most common were general comments in which a viewer reveals his or her thoughts and/or opinions (84%). Examples are: "awesome," "you did a good job" or "that was horrible". Questions (asking for a verbal reaction) and requests (asking to cover a specific song) occur less often (from 5% to 7%). Questions oftentimes are about vocal technique ("are those inhales or exhales?" or "are you fry screaming?"), visual aspects of the video ("[are you, JS/PB] in the bathroom?" or "what happened to the cool metal stuff on the walls and such?") or personal background information ("are you in a band?", "how old are you?" or "which area are you in?"). Requests are mostly made about songs ("some *Cannibal Corpse* covers too please!" or "I'd like you to sing *Necrophagist* – 'Stillborn One'"), or to view other YouTube vocalists ("if you get a chance check out my vids and tell me what you think"). Advice is usually formulated in a constructive manner – for both men and women – and the performers themselves also respond positively to these tips. For example, one commentator mentioned how he loved a performers' head banging, but that he also thinks her "highs need the most work. Try pushing more air out so that you get a more 'full' sound." Another viewer suggests the vocalist to "loosen up a little bit. You look hella tensed". Even though there were no gender differences for comments, questions and requests,



women were more likely to get advice than men, 5% and 3% respectively (.057,  $p = .077$ ).

Second, table 2 shows that most utterances address the performance itself (49%) or the personality of the performer (24%). Utterances about the performance itself are usually short: “your highs are pretty decent man” or “amazing!”. Comments about the performer’s personality focus much more on the performer than on the performance. For example, one comment said: “it was a cover done for you, it is obvious that it would be good”. Yet, the relative presence of these topics does not differ between male and female performers. Female performers receive slightly more comments on their vocal technique than males do, 11% compared to 8%. These utterances are often given in the form of advice (.122,  $p = .000$ ). As males are considered to be the genre’s norm, they consider themselves as the ‘natural’ experts on the matter and thus seem to feel responsible to help women out, even if women show no need of requiring help (Schwalbe et al., 2000: 424-425). Surprisingly, our study shows no significant difference in the number of utterances that contain references to the performers’ appearance, revealing that men gather as many remarks on their looks as women do. Men receive comments like “nice side burns”, “awesome hair” or “it looks like ur wearing make-up”. In a similar vein, women are given remarks like “nice hair”, “you look really tall!” or “[you are, JS/PB] so fucking beautiful”.

**Table 2 – General Characteristics of Utterances (n=973).**

	<b>Male videos</b>	<b>Female videos</b>	<b>All videos</b>
<b>Type of utterance</b>			
Comment	84.3% (387)	83.1% (427)	83.7% (814)
Question	5.0% (23)	5.4% (29)	5.2% (51)
Request	7.8% (36)	6.4% (33)	7.1% (69)
Advice	2.8% (13)	<b>5.1%* (26)</b>	4.0% (39)
Total	100% (459)	100% (514)	100% (973)
<b>Topic of utterance</b>			
Performance	49.7% (228)	48.4% (299)	49.0% (477)
Personality	25.9% (119)	23.0% (118)	24.4% (237)
Technique	8.1% (37)	10.5% (54)	9.4% (91)
Appearance	7.7% (33)	7.2% (37)	7.2% (70)
Background	3.3% (15)	1.6% (8)	2.4% (23)
Material	0.2% (1)	1.4% (7)	0.8% (8)
Unrelated	5.7% (25)	7.9% (41)	6.8% (67)
Total	100% (459)	100% (514)	100% (973)
<b>Evaluation in utterance</b>			
Positive	79.7% (366)	75.4% (390)	77.7% (756)
Negative	8.9% (41)	13.0% (67)	12.2% (119)
Neutral	11.3% (52)	11.1% (57)	10.1% (98)
Total	100% (459)	100% (514)	100% (973)

(\* =  $p < 0.1$  / \*\* =  $p < 0.05$  / \*\*\* =  $p < 0.01$ )

Third, the analysis demonstrates that female performers are evaluated just as positively (or negatively) as their male counterparts. In general the comments are strikingly positive, 80% of male and 75% of female performers. The like-dislike ratio underneath the examined videos provides further support for this finding (see table 1).

Thus, our (quantitative) findings suggest that – despite being a numerical minority within the extreme metal scene – women’s abilities are not evaluated more harshly compared to men’s competences (cf. Roth, 2004) nor are they more likely to be evaluated on the basis of appearance than men (cf. Johnson-Grau 2002). However, in order to study more subtle gender dynamics, we will discuss the gendered utterances below.

### Tokenism and Gendered Utterances

In total, 112 out of 973 utterances contained issues about gender. Not surprisingly, women are much more likely to receive gendered utterances than men, 20% (101) compared to 2% (11). Yet, it also means that more than 80% of the utterances did not contain any reference to gender, despite women’s high visibility as tokens. Table 3 shows three types of consequences of tokenism: ‘gender biased evaluation’, both ‘male gazes’ (romantic and erotic) and ‘reactions to breaking of gender roles’.

**Table 3 – Gendered Utterances (n=112).**

	Male videos	Female videos	All videos
Gender biased evaluation	0.2% (1)	6.4%*** (33)	3.5% (34)
Male gaze: romantic love	1.1% (5)	5.4%*** (28)	3.4% (33)
Male gaze: erotic	1.1% (5)	4.3%*** (22)	2.8% (27)
Breaking of gender roles	0.0% (0)	3.5%*** (18)	1.8% (18)
Total	2.4% (11)	19.6% (101)	11.5% (112)

(\* =  $p < 0.1$  / \*\* =  $p < 0.05$  / \*\*\* =  $p < 0.01$ )

First, utterances that contain gender-biased evaluations reveal tokenism as the performer is judged on her group category rather than her individual skills. Of all utterances analyzed, 6% (33) of those directed at women contained gender-biased evaluations (see table 3). Increased visibility due to tokenism frequently causes commentators to both address appearance and skill in the same comment:

on a scale of 1-10, 10 being the best, I give you a 8 on your vocals, a 10 for head banging and doing a vocal cover to *Lamb of God* as a female. (which is really impressive cause Randy Blythe [vocalist of *Lamb of God*, JS/PB] has a very unique style of vocal) and I give you a 10 on how god damn sexy you are.

Apart from the sexual objectification found in the latter sentence of the comment, the reference to covering an extreme metal song “as a female” demonstrates how women are compared to the male norm in extreme metal and thus only come in secondary to men, even when they score a 10 out of 10. These particular lexicological constructions regularly appear within our sample, as commentators that are surprised but supportive on seeing the performance use adjectives and adverbs such as “quite”, “pretty” and “actually” to judge the female performers along gender lines. For example: “I have never actually heard a girl scream before... Manly. Well done that was pretty good actually!” Some commentators are actually aware of their gendered prejudice but nevertheless continue to share this opinion: “you’re not bad, need practice but you’re actually very good for a chick, no offence”. On top of that, by referring to the performer as “a chick”, this commentator marks her as subordinate (again marking her token-status), even though his comment is meant as a compliment for her skills. On seeing a

female performance of brutal death metal band Cannibal Corpse's song Maniacal, one male exposes being baffled by the performers' skills: "wow ur voice is deeper than mine. And i'm a guy".

Second, because of their token position women are sometimes evaluated on the basis of appearance, leading to female objectification and sexualization by the male gaze. 5% of the utterances directed at women contained a romantic love gaze, declaring love or romantic interest in the performer. Examples are found in ironic exclamations of love due to similar interests: "great vocalist, metalhead, blonde, cute... will you marry me?" or "I need a girlfriend like you". Most comments, however, are addressing women's appearance, stating that she is "beautiful" or in any other way attractive as a potential romantic partner. Some males also received similar comment from females however, revealing that women in the online metal scene are – even though scarcely – maintaining an analogous albeit female gaze directed towards men. This was also the case for the more sexualized erotic gaze, of which cases such as: "you're hot, boy!" revealed an empowered turn-round of positions of domination and subordination. Most comments containing an erotic gaze were however directed to females, with unimaginative statements such as "damn, you're sexy" or "this girl is hot as fuck". Interestingly, comments directed at female performers more often contained the romantic love gaze (5%) than the erotic gaze (4%).

Whereas gender-biased evaluations reveal the commentator's implicit dispositions towards female participation in the extreme metal scene, comments referring to the breaking of gender roles show explicit opinions (shock, surprise) on the transgression of such boundaries by women as tokens. Out of all utterances directed at women, 4% (18) contained such remarks, ranging from very positive (in effect, surprise) to a few which were extremely negative (that is, sexism, antagonism). First, female grunters are often met with surprise. For example, on viewing a video in which a black girl performs a song by brutal death metal band *Suffocation*, one commentator writes: "Dude ur first off a woman second off ur black... WTF... I have never seen this before. wow ur fucken awesome". This utterance – which also contains male homosocial discourse as indicated by the use of "dude" to refer to a woman – indicated that the (male) commentator did not expect to see a woman and/or a black person to be into or perform extreme metal music. While his reaction is largely positive, it clearly demonstrates his underlying stereotypical assumption about what roles women conventionally perform. Interestingly, female commentators also responded with surprise: "Awesome! I'm female and have wanted to try to learn death metal vocals too". Others marked similarity to the performer as one fellow female vocalist pointed out:

Nice job. It's good to see an awesome vocalist. I'm one of few in my area and it makes me happy to no end to see that you know what you are doing. Keep up the good work and stay metal.

Such examples illustrate how (online) female performers might inspire other women to question role encapsulation and try to pursue artistic careers in extreme metal music. Second, as can be expected in a masculine scene, not all commentators react positively to women that break with traditional gender roles. For example: "Just let CFTG [Conducting from the Grave] do it please no offense, girls shouldn't scream..." However, extremely negative reactions towards women breaking gender roles were rare, and usually not directed at the female performer. Rather, such utterances were ironic remarks, aimed at other commentators. For example: "So you're a screamer? ha get it? like i made it sexual. fuck I'm funny."

Furthermore, utterances occasionally contained ironic indications of the social reality in the extreme metal scene and positively marking a female's difference to those norms. For example: "Does anyone find it weird when a girl does a cover on a 40-year old metal drunk dude with hair longer than hers?". This comment humorously asks for a reconsideration of these naturalized standards.

## Conclusion

In this article we have studied online gender dynamics in extreme metal by examining the evaluations of females (and males) performing vocal covers on YouTube. Numerically, women are extremely underrepresented (3% of our random sample) in the production of vocal covers online, even more than in the offline metal scene (approximately 30%). Despite their token position, a quantitative analysis of utterances directed at male and female performers revealed few differences with regard to type, topic and evaluation of comments. We found one exception: women are more likely than men to receive advice on technical aspects of their performance. In addition, women are subjected to gender-biased evaluations, romantic and/or erotic love gazes, and commented on for reasons related to the breaking of gender roles. However, while our data suggest that women remain tokens within the virtual metal scene (at least in the case of vocal covers), the number of utterances that address possible consequences of tokenism is relatively low. In other words: despite their token status, they are not that often evaluated on the basis of their group category and non-ability traits. The relative absence of sexism is also striking and is outweighed by comments that encourage women to continue making vocal covers and to join or start bands themselves. Such comments reveal how these YouTube commentators seem mildly supportive of female musical production, summarized in the words of one commentator: “god bless metal chicks”. Possibly the extreme metal scene is indeed opening up with regard to the participation of women, as suggested earlier.

This study has not only added to existing research on metal music but has also shed light on how social realities – and thus gender relations – are affected by online platforms and vice versa. On the one hand, our findings are in line with research conducted on offline metal scenes. Women remain tokens within the virtual metal scene, despite the fact that they are not reliant upon (male) band members in this context, and have the possibility of creating music individually, literally from their bedrooms. On the other hand, our results seem to contradict previous studies that found widespread sexism within extreme metal scenes (Kahn-Harris 2007; Vasan 2011). While we did find the consequences of tokenism expressed through YouTube comments, the vast majority of the utterances were not gendered. On the contrary, our findings suggest a strong focus on music and mutual, intergender support (Hill 2012). Possibly, the consequences of tokenism are cushioned by online interactions in two ways. First, the virtual metal scene, YouTube and other user-generated websites in particular, might function as a virtual springboard of sorts, demonstrating that women can perform extreme metal vocals. In the words of one YouTube commentator: “We (...) would LOVE to have a female vocalist on one of our tracks to prove that girls can do metal just as guys (in some cases even better).” Second, YouTube commentators might refrain from posting sexist remarks as – and we found a few examples of this – they might get negative feedback from other members of the virtual metal scene. In doing so, they also challenge gendered boundaries that have more rigidity within offline metal scenes. It would be interesting to study whether the online reception of these women spills over to the offline scene. In other words: to what extent do they use vocal covers on YouTube – motivated by positive feedback – as a virtual springboard to start an offline musical career? And how do women themselves actively engage with the (anticipated) consequences of tokenism? Future research in music scenes should therefore focus more on the possible cross-fertilization between offline and online scenes.

## Acknowledgements

We would like to thank the editors and the anonymous reviewers for their insightful comments.

## Endnotes

<sup>1</sup> See the YouTube channel 'womenofextrememusic' for an overview of women in extreme metal.

<sup>2</sup> Since users try to maximize the findability of their vocal covers, videos are habitually tagged with several extreme metal subgenres, of which death metal is the most prominent. Furthermore, whereas some subgenres exhibit vocal techniques other than grunting, death metal is almost always grunted.

<sup>3</sup> We did not check for age, level of education and/or nationality since most YouTube users keep this information hidden. As we chose to analyze only videos in which the performer was visible, assessment of gender was unproblematic.

<sup>4</sup> Many female performers tend to cover songs by the aforementioned female-fronted band Arch Enemy. Although this suggests that Gossow figures as some sort of a role model for these women, we excluded these videos as the gender gap is closed via Gossow and not directly by the women performing vocal covers.

<sup>5</sup> Comments that were part of a discussion or responses from the uploader were removed from the analysis.

<sup>6</sup> Topics that were unrelated to the video, such as discussions of metal in general or instances of 'trolling', were labeled as unrelated.

## Bibliography

- Abramo, J. M. (2011) Gender Differences of Popular Music Production in Secondary Schools. *Journal of Research in Music Education* 59 (1): 21-43.  
<http://dx.doi.org/10.1177/0022429410396095>
- Bayton, M. (1998) *Frock Rock: Women Performing Popular Music*. Oxford and New York: Oxford University Press.
- Beckwith, K. (2002) "Black Metal Music is for White People": Constructs of Colour and Identity with the Extreme Metal Scene. *M/C Journal* 5: 3.  
<http://journal.media-culture.org.au/0207/blackmetal.php> Accessed 14 Jan 2013.
- Bennett, A. (2004) Virtual Subcultures? Youth, Identity and the Internet. In Andy Bennett and Keith Kahn-Harris Eds. *After Subculture: Critical Studies in Contemporary Youth Culture*. Eds. Basingstoke and New York: Palgrave Macmillan, 162-172.
- Bennett, A. and Peterson, R. (2004) *Music Scenes: Local, Translocal, and Virtual*. Nashville: Vanderbilt University Press.
- Bielby, W. (2003) Rock in a Hard Place: Grassroots Cultural Production in the Post-Elvis Era. *American Sociological Review* 69: 1-13.  
<http://dx.doi.org/10.1177/000312240406900102>
- Brown, A. (2011) Heavy Genealogy: Mapping the Currents, Contraflows and Conflicts of the Emergent Field of Metal Studies, 1978-2010." *Journal for Cultural Research* 15 (3): 213-242. <http://dx.doi.org/10.1080/14797585.2011.594579>
- Bryson, B. (1996) "Anything but Heavy Metal": Symbolic Exclusion and Musical Dislikes. *American Sociological Review* 61 (5): 884-899.
- Burgess, J. and Green, J. (2009) *YouTube: Online Video and Participatory Culture*. Cambridge: Polity Press.
- Carson, M., Lewis, T. and Shaw, S. (2004) *Girls Rock! Fifty Years of Women Making Music*. Kentucky: The University Press of Kentucky.

- Chaker, S. (2013) "Extreme Metal? It's just a boy thing...!?" Quantitative Befunde zum Geschlechterverhältnis im Black- und Death Metal. Presentation on 11 October 2013 on the international conference "Music, Gender & Difference," Universität für Musik und darstellende Kunst Wien, Austria.
- Clawson, M. A. (1999) Masculinity and Skill Acquisition in the Adolescent Rock Band. *Popular Music* 18 (1): 99-114. <http://dx.doi.org/10.1017/S0261143000008746>
- Coates, J. (1997) One-at-a-Time: The Organization of Men's Talk. In Sally Johnson and Ulrike Hanna Meinhof Eds. *Language and Masculinity*. Oxford: Wiley, 107-129.
- Cohen, S. –  
 (1991) *Rock Culture in Liverpool: Popular Music in the Making*. Oxford: Clarendon Press.  
 (1997) Men Making a Scene: Rock Music and the Production of Gender. In Sheila Whiteley Ed. *Sexing the Groove: Popular Music and Gender*. New York: Routledge, 17-36.
- Cordero, J. (2009) Unveiling Satan's Wrath: Aesthetics and Ideology in Anti-Christian Heavy Metal. *Journal of Religion and Popular Culture* 21 (1).  
<http://dx.doi.org/10.3138/jrpc.21.1.005>
- De Koster, W. (2010) "Nowhere I could talk like that": Togetherness and identity on online forums. PhD. Erasmus University, Rotterdam.
- Eysenbach, G. and Till, J. (2001) Ethical Issues in Qualitative Research on Internet Communities. *Information in Practice* 323: 1003-1005.  
<http://dx.doi.org/10.1136/bmj.323.7321.1103>
- Ferrero, S. (2007) A 'Bounded Virtuality': ICTs and Youth in Alghero, Sardinia. In Paul Hodgkinson and Wolfgang Deicke Eds. *Youth Cultures: Scenes, Subcultures and Tribes*. New York and London: Routledge, 203-216.
- Frandsen, D. (2011) Two Steps Past Insanity: The Expression of Aggression in Death Metal Music. In Colin McKinnon, Niall Scott and Kristen Sollee Eds. *Can I play with Madness? Metal, Dissonance, Madness and Alienation*. Oxford: Inter-Disciplinary Press, 35-40.
- Frith, S. (1983) *Sound Effects: Youth, Leisure, and the Politics of Rock*. London: Constable.
- Frith, S. and McRobbie, A. (1990) Rock and Sexuality. In Simon Frith and Andrew Goodwin Eds. *On Record: Rock, Pop and the Written Word*. London: Routledge, 371-389.
- Gafarov, I. (2011) Qualitative Research in Understanding the Metal Community. In Colin McKinnon, Niall Scott and Kristen Sollee Eds. *Can I play with Madness? Metal, Dissonance, Madness and Alienation*. Oxford: Inter-Disciplinary Press, 73-78.
- Gregory, G. (2013). Transgender Tribute Bands and the Subversion of Male Rites of Passage through the Performance of Heavy Metal Music. *Journal for Cultural Research* 17 (1): 21-36. <http://dx.doi.org/10.1080/14797585.2011.633835>
- Gruzelier, J. (2007) Moshpit Menace and Masculine Mayhem. In Freya Jarman-Ivens Ed. *Oh Boy!: Masculinities and Popular Music*. New York: Routledge, 59-75.
- Harrison, T. (2007) "Empire": Chart Performance of Hard Rock and Heavy Metal Groups, 1990-1992. *Popular Music and Society* 30 (2): 197-225.  
<http://dx.doi.org/10.1080/03007760701267730>
- Hesmondhalgh, D. (2005) Subcultures, Scenes or Tribes? None of the Above. *Journal of Youth Studies* 8 (1): 21-40. <http://dx.doi.org/10.1080/13676260500063652>
- Hill, R. L. (2012) Pleasure in Metal: What Women Fans Like About Hard Rock and

- Metal Music. Heavy Metal Fundamentalisms 4<sup>th</sup> Global Conference, *Heavy Metal Generations*. Prague, 9-11 May, 2012. <http://www.inter-disciplinary.net/critical-issues/ethos/music-metal-politics/conference-programme-abstracts-and-papers/session-9-sources-of-pleasure/> Accessed: 20 May 2013.
- James, R. M. (2009) Autonomy, Universality, and Playing the Guitar: On the Politics and Aesthetics of Contemporary Feminist Deployments of the “Master’s Tools”. *Hypatia* 24 (2): 77–100.
- Johnson-Grau, B. (2002) Sweet Nothings: Presentation of Women Musicians in Pop Journalism. In Steve Jones Ed. *Pop Music and the Press*. Philadelphia: Temple University Press, 202-218.
- Kahn-Harris, K. –
- (2000) Roots?: The Relationship Between the Global and the Local within the Extreme Metal Scene. *Popular Music* 19 (1): 13-30.
- (2003) Death Metal and the Limits of Musical Expression. In Martin Cloonan and Reebee Garofalo Eds. *Policing Pop*. Philadelphia: Temple University Press.
- (2007) *Extreme Metal: Music and Culture on the Edge*. Oxford: Berg.
- Kanter, R. M. (1977) *Men and Women of the Corporation*. New York: Harper Collins.
- Krenke, L. and McKay, J. (2000) “Hard and Heavy”: Gender and Power in a Heavy Metal Music Subculture. *Gender, Place and Culture* 7 (3): 287-304.
- Kruse, H. (2010) Local Identity and Independent Music Scenes, Online and Off. *Popular Music and Society* 33 (5): 625-639.  
<http://dx.doi.org/10.1080/03007760903302145>
- Lange, P. (2007) Commenting on Comments: Investigating Responses to Antagonism on YouTube. Society for Applied Anthropology Conference. Tampa, Florida, 31 March. <http://sfaapodcasts.files.wordpress.com/2007/04/update-apr-17-lange-sfaa-paper-2007.pdf> Accessed 20 May 2013.
- Lincoln, S. (2005) Feeling the Noise: Teenagers, Bedrooms and Music. *Leisure Studies* 24 (4): 399-414. <http://dx.doi.org/10.1080/02614360500199544>
- Livingstone, S. (2007) From Family Television to Bedroom Culture: Young People’s Media at Home. In Eoin Devereux, Ed. *Media Studies: Key Issues and Debates*. London: Sage Publications, 302-321.
- Mudrian, A. (2004) *Choosing Death: The Improbable History of Death Metal and Grindcore*. Washington: Feral House Publishing.
- Mulvey, L. (1975) Visual Pleasure and Narrative Cinema. *Screen* 16 (3): 6-18.
- Purcell, N. (2003) *Death Metal Music: The Passion and Politics of a Subculture*. Jefferson: McFarland.
- Riches, G. (2011). Embracing the Chaos: Mosh Pits, Extreme Metal Music and Liminality. *Journal of Cultural Research* 15 (3): 315-332.
- Ridgeway, C. (1997) Interaction and the Conservation of Gender Inequality: Considering Employment. *American Sociological Review* 62 (2): 218-235.
- Ridgeway, C. (2011) *Framed by Gender: How Gender Inequality Persists in the Modern World*. Oxford: Oxford University Press.
- Roth, L. M. (2004). The Social Psychology of Tokenism: Status and Homophily Processes on Wall Street. *Sociological Perspectives* 47 (2): 189-214.  
<http://dx.doi.org/10.1525/sop.2004.47.2.189>
- Schippers, M. (2002) *Rockin’ Out the Box: Gender Maneuvering in Alternative Rock*. New Brunswick, NJ: Rutgers University Press.

- Schwalbe, M., Holden, D., Schrock, D., Godwin, S., Thompson, S. and Wolkomir, M. (2000). Generic Processes in the Reproduction of Inequality: An Interactionist Analysis. *Social Forces* 79 (2): 419-452. <http://dx.doi.org/10.1093/sf/79.2.419>
- Sedgwick, E. K. (1985) *Between Men: English Literature and Male Homosocial Desire*. New York: Columbia University Press.
- Sernoe, J. (2005) "Now we're on the Top, Top of the Pops": The Performance of "Non-Mainstream" Music on Billboard's Albums Charts, 1981–2001. *Popular Music and Society* 25 (5): 639-662. <http://dx.doi.org/10.1080/03007760500142670>
- Shank, B. (1994) *Dissonant Identities: The Rock 'n' Roll Scene in Austin, Texas*. Hanover, CT: Wesleyan University Press.
- Théberge, P. (2001) "Plugged in": Technology in Popular Music. In Simon Frith, Will Straw and John Street Eds. *The Cambridge Companion to Pop and Rock*. Cambridge University Press: Cambridge, 3-25.
- Thewall, M., Sud, P. and Vis, F. (2012) Commenting on YouTube Videos: From Guatemalan Rock to El Big Bang. *Journal of the American Society for Information Science and Technology* 63 (3): 616-629. <http://dx.doi.org/10.1002/asi.21679>
- Vasan, S. (2011) The Price of Rebellion: Gender Boundaries in the Death Metal Scene. *Journal for Cultural Research* 15:3 (2011): 333-350. <http://dx.doi.org/10.1080/14797585.2011.594587>
- Walser, R. (1993) *Running with the Devil: Power, Gender, and Madness in Heavy Metal Music*. Hanover: Wesleyan University Press.
- Weinstein, D. (1991) *Heavy Metal: A Cultural Sociology*. New York: Lexington Books.
- Whelan, A. (2006) Do You Produce?: Subcultural Capital and Amateur Musicianship in Peer-to-Peer Networks. In Michael New Ed. *Cybersounds: Essays on Virtual Music Culture*. New York: Peter Lang: 57-81.
- Williams, P. and Copes, H. (2005) "How Edge are You?" Constructing Authentic Identities and Subcultural Boundaries in a Straightedge Internet Forum. *Symbolic Interaction* 28 (1): 67-89. <http://dx.doi.org/10.1525/si.2005.28.1.67>
- Yoder, J. (1991) Rethinking Tokenism: Looking Beyond Numbers. *Gender and Society* 5 (2): 178-192. <http://dx.doi.org/10.1177/089124391005002003>
- Zhao, S., Grasmuck, S. and Martin, J. (2008) Identity Construction on Facebook: Digital Empowerment in Anchored Relationships. *Computers in Human Behavior* 24: 1816-1836. <http://dx.doi.org/10.1016/j.chb.2008.02.012>