

Fitness Selfie and Anorexia: A study of 'fitness' selfies of women on Instagram and its contribution to anorexia nervosa

Benson Rajan

The stares of others driving and encouraging the deliberate transformation of one's body into a fit body has become a common narrative of fitness selfies. Research findings show that women who share self images on social media have higher levels of dietary restraint and overvaluation of shape and weight than those who do not (Mclean 2005). Similarly, women who post fitspiration images on social media have a higher drive for thinness and compulsive exercise (Holland 2017). This paper attempts to study the process behind fitness influencers' production and sensory-motor performance of 'fit' visuals as factors contributing to anorexia nervosa and other eating disorders. The theoretical framework of the study draws from semiotic photography theory, which explores the gestural aspects of a visual. Participant recruitment used a purposive (a type of non-probability sampling) approach, coupled with snowball sampling. In-depth interviews were conducted with the participants who are female fitness influencers from India. The semiotic analysis of the selfies shared by the participants substantiated the interviews. The selfies analysed were chosen on the basis of their curation choices, as well as on the number of likes and comments they receive.

Keywords Fitness Selfie, Mental Health, Anorexia, Instagram Influencers, Photography Theory

Introduction

Social media, today, has witnessed a proliferation of fitness narratives. This can be partly explained by the ubiquity of non-communicable diseases that are closely related to the aesthetic body and hence to diet, exercise, and personal care. These chronic non-communicable

diseases or lifestyle diseases result from a relative cessation of physical activity, sedentary daily routines leading to high blood pressure, high blood sugar levels, and at times even premature death (Tabish 2017). The popular narrative around non-communicable diseases emphasizes the risks of obesity that leads to an increased affinity to insulin resistance, cancer, hypertension and the like (Ali and Crowther 2005). These medically ratified criteria of health allow for the legitimization of the 'thin body' as opposed to the 'fit' body and provide social media influencers with material to justify their stance on fitness. Social media fitness narratives are advanced as solutions to these fundamental issues, where individuals present themselves as role models to help others keep lifestyle diseases at bay. The body, then, is used as a site for making health claims, dominated by mediated representations of ideal, fit bodies. This article recognizes that such visual self-portrayals of fitness are not limited to images of the body alone. They also make use of certain other elements—such as sharing of one's current location through GPS coordinates, gym locations, running tracks, distance covered, heart rate measures etc. (Laan 2016) – to depict 'fit' lifestyles.

Through selfies shared on social media applications, such as Instagram, individuals can now display their 'fit' bodies to the digital audience. A majority of fitness-centered visuals track muscle growth, especially mirror selfies that exhibit one's pride in adhering to 'fit' lifestyles, and often, these are accompanied by posts that relay emotions pertaining to soreness, post-exercise exhaustion, etc (Laan 2016). These selfies also involve 'before and after' pictures that indicate the bodily changes occurring over a period of time. All of these together enable the user to share and promote fitness-oriented lifestyles on the premise of being healthy. Popular Instagram micro-celebrities like Kayla Itsines, Rachel Brathen and Mary Helen Bowers use images of their thin, 'fit' bodies to promote workouts ranging from yoga to ballet (Fisher 2018). However, displaying one's body for public scrutiny, specifically on Instagram, could lead to increased pressure on the user to maintain an ideal image of fitness. In pursuit of fit and slender representation, communication becomes competition amongst women when what they can do to their own body becomes an expression of their power (Burke 2006). To cater to their audience, individuals undertake excessive exercise, which in itself, has been linked to eating disorders, specifically anorexia nervosa (Grange and Eisler 1993). Anorexia nervosa is a mental disorder, prevalent mostly amongst adolescent girls and adult women, characterized by a severe fear of weight gain, body image issues and often starving, purging and excessive bodily exercise (Zipfel et al. 2015). Anorexia is constructed as a contradiction between the need to fit in a social group and the production of patriarchal structures that potentially serve as the source of women's alienation (Gatti et. al 2014: 306). This alludes to a space in which femininity can only be controlled by extrinsic systems of signification. In this sense, anorexia is put symbolically as a construction against which the masculine order and the male gaze may be reiterated as a means to returning things to their 'normal' and 'orderly' predispositions (Burke 2006; Gatti et. al 2014). In such a scenario, the female gaze is construed as being una-

ble to distinguish 'normal' from 'excessive', it is implicated in misinterpretations of recognition; particularly in the context of distinctions between what is feminine and what is not, and what looks ailing and what is termed healthy.

Fitspirational and health-fitness blogging entails an elaborate process of creating, manipulating and sharing fitness-related, mediated selfies on Instagram. These selfies often promote a thin, 'fit' body type achieved through excessive emphasis on dietary restraint and excessive exercise. Influencers, through Instagram fitness accounts, represent fit, muscular bodies and uphold these as ideal. With time, hashtags such as #fitspiration and #thinspiration gained popularity, establishing connection to ideal body types.

However, there have been indicators showing that exposure to fitspiration images through new media, have latent, negative consequences including lowered self-esteem and body-comparison, specifically amongst women (Tiggemann and Zaccardo 2015). A study amongst adolescent girls further noted that there was a correlation between frequency of selfie-sharing on social media and levels of body-dissatisfaction, overvaluation of shape and internalisation of the thin ideal (McLean et al. 2015). Further, eating disorders, issues with menstruation and fertility, dietary restraints and guilt-induced eating patterns have been recorded amongst health bloggers (Boepple and Thomson 2014). Often, ideal bodies, as promoted by Instagram accounts, require such bodily features as a thigh gap or the recent 'Toblerone tunnel.' While the thigh gap features a gap between the thighs in a neutral body stance, the 'Toblerone tunnel' is a triangle-shaped gap that allows a woman to fit a bar of Toblerone (a triangle-shaped brand of chocolate) between her upper thighs (Miller 2018). These largely restrictive ideals are then touted as standard, desirable and achievable, body types that women should aspire for.

This leads to the creation of the culturally ideal body that commiserates and condescends the 'unfit' body. It seeks to encourage women to achieve mediated, culturally and medically defined results. In addition, the predicament with 'fitspiration' is connected to its derivation and subsequent development from 'thinspiration'. While largely shunned at present, 'thinspiration' involved an objectification of the anorexic body, justifying it as a lifestyle choice (Bizjak 2015). It used images that validated mental distress and starvation measuring up to anorexia (Bizjak 2015). Fitspiration rejected the concept of emaciated bodies, incorporating health claims into the work put in towards achieving 'fit' bodies. The ideal image, though, still remains a thin frame accompanied by muscle definition. This new ideal involves the encouragement of exercise as a tool to achieve the ideal body. This is often communicated by photographing and circulating 'fit' bodies through Instagram selfies. The quandary, here, is whether these mediated Instagram posts, could lead to interpreting oneself through a body-negative lens and hence encourage adoption of maladaptive exercise behaviours (Bizjak 2015). In several cases, obsessive and maladaptive behaviours underlie the construction of these selfies, manifesting themselves through such disorders as Anorexia Nervosa. The semiotic relations between anorexia, contagion and the female gaze are evidence of the damaging consequences of the

absence of a female gaze within phallogocentric discourse and the impossibility of articulating a uniquely feminine desire within its sexually differentiated symbolic (Baudrillard 1983: 183). The simultaneous objectification of the body as a site for incorporating specific health standards, muscle tone etc., as upheld by fitness bloggers on Instagram, could then present patterns that are somewhat analogous to anorexia nervosa.

In the late twentieth century, the voluntary act of self-starvation was most commonly known as a signifier of anorexia nervosa, an illness dominantly impacting young women in affluent western cultures (Allwood 2010). Ellman (1993) in his research identifies it as a discourse in which the signifier 'anorexia' directs not so much to a clinical ailment but to a range of frequent contradictory arguments related to the production and consumption of imageries of slender femininity, female spectatorship. Anorexia for its semiotic entanglement between embodiment and representational paradigms suggest that the female body presents the necessary circumstances of otherness that is essential to the reproduction of meaning within dichotomous and hierarchical constructions of gender and its representation (Fuss 1992: 715). Judith Butler (1993) identified the chaotic body of woman as the site; against which the dominance of singular, phallic and libidinal economies of reasoning and rationale, has seen the structure of matter and flesh as 'the unrepresentable' or 'the outside' of systems of representation (as cited in Gimlin 1994: 109). Therefore, the alignment of the feminine with this apathetic semiotics of the body is supportive of the cause for its repression and control.

Bordo (1993) discusses how the aspect of disembodiment is the epicenter of exploring anorexia as a cultural embedding. The anorexic woman's withdrawal from the context of embodiment, Bordo argues, is culturally moulded and entails a rejection of the body in its conventional, discursive and symbolic meanings (1993: 145). Bordo approaches anorexic disembodiment amidst a fencing of primarily dualist relations, where the hegemony of mind over body is an integral element of the anorexic impulse to 'get rid of', or 'get out of the body'. In discussing anorexic behavior and its role as a complex symbolic site in popular constructions of idealized femininity, Krauss (1994) does not theorize anorexic subjectivity. He foregrounds the maternal body as a symbolic site in which the principle of orality is of primary significance; he also discusses some theoretical continuities in which the subjective negotiation of images and food is identified specifically as feminine (Krauss 1994; Kelly 1987). Thus, Krauss suggests that through its over-conformist tendencies, the excess of female spectatorship is aligned with a failure to perceive boundaries between the sick and the healthy, the feminine and the freakish, and results in the embodiment of already represented symptoms. In this way, anorexia is tied to conceptions of a hysterical female gaze which through its 'embeddedness' in a disorderly (sexual) body, is pathologically bound to reproduce the symptoms of other bodies and other femininities. In a fitness driven culture on Instagram, this body finds itself performing for the various onlookers and their interpretations of a fit body.

It is against this backdrop that this article attempts to study the process behind fitness in-

fluencers' production and sensory-motor performance of 'fit' selfies and corresponding factors that are analogous to Anorexia Nervosa and other eating disorders. Negotiations between Instagram's 'fit' visuals and the incidence of anorexia amongst women has been analyzed through selfies of 'fit' bodies, studied in the Indian context. This article aims at understanding the hermeneutics of 'fit' selfies posted by women on Instagram. Photography Theory applicable to selfies (Frosh 2015), centered on the 'fit' anorexic body, has been employed. It specifically aims to ascertain whether and to what extent the documentation and embodiment of health ideals by women on Instagram is indicative of anorexia nervosa. This study looks at how the fitness influencer allows her selfies to be guided by the 'mediated voyeur' and hence, uses and manipulates her body and its representation, in ways that can lead to maladaptive behaviours. The manner in which women somatically engage in the production of such 'fit' selfies, therefore, is also a concern that the article engages with. The article also contends that women shape their bodies in ways that embody societal ideas of 'beauty,' and represent this through their Instagram selfies.

Literature Review

a. Selfies and Mediated Voyeurism

Selfies can be understood as photographs that portray the subject either photographed via a mirror or holding a camera/device with an outstretched arm, the camera turned to face the subject (Donnachie 2015). In many respects, they are similar to historical self-portraits. However, as Donnachie (2015) argues, the modern selfie cannot be perceived simply as a derivative of the historical tradition of the 'self-portrait.' It is a contemporary manifestation involving discrete composition, technique, networked distribution, consumption and inundation (Donnachie 2015). While the selfie itself may not be a natural progression of the self-portrait, it is, however, shaped through the gradual, historical emphasis on the self. In this regard, Yesil (2001) traces a history of media voyeurism and exhibitionism and notes that by the end of the twentieth century, mediated emphasis was largely self-centered and self-absorbed. American society believed that outward appearances and public representation offered insights into one's inner personality, heightened by increased emphasis on physical and mental well-being achieved through beauty and wellness regimes (Yesil 2001). Given this context and its bearing on modern discourse, the self is now presenting itself in ways that legitimizes voyeurism. In an age of the Instagram selfie, voyeurism (not limited to its sexual connotation) allows individuals to shape their bodies and behaviour in ways that empower the 'mediated voyeur.' One can structure and manipulate the semiotics of the self based on the positive or negative responses that the Instagram selfie gains. A future selfie would be informed by the responses to past

posts/stories, allowing the voyeur to play a central role in determining how a subject chooses to present oneself. This follows from the principle of self-control of one's semiotic behaviour, of shaping one's behaviour and affective tones in a systematic way in the present, leading to a gradual shift to new experiences (Visakko 2015). It is in this sense that Calvert's (2002) conceptualization of 'mediated voyeurism' gains ground. According to him, 'mediated voyeurism' is 'the consumption of revealing images of and information about others' apparently real and unguarded lives often yet not always for purposes of entertainment but frequently at the expense of privacy and discourse, through the means of mass media and Internet' (Calvert 2002: 2). The 'mediated voyeur,' as this article contends, is an audience of the fitness selfie, informing the future behaviour and actions of the subject of the selfie. In the context of Indian women who pursue fitness, a validation of 'mediated voyeurism' could lead to the adoption of excessive exercise, which is analogous to anorexia.

b. Beauty and Fitness

Fitness, in terms of health, is defined as optimum levels of cardiorespiratory endurance, muscular endurance, muscular strength, body composition, and flexibility (Caspersen et al. 1985). Of these, muscular definition and body composition are manifest in the physical body and are often used to justify mediated, aesthetic and 'fit' bodies. Aesthetically and visually pleasing bodies do not simply serve as ideals of health and longevity but are considered sexually attractive. For instance, through subscription to body composition (measures of fat, bone, muscle and water in the human body), Etcoff (1999) identifies categories of sexual attractiveness. She asserts that women with low waist-to-hip ratios, body symmetry and smooth skin are innately considered sexually attractive (Etcoff 1999). Incidentally, mediated ideals of physical fitness are analogous to categories that define women's ideals of sexual attractiveness. These ideals are then embodied to achieve 'fit', 'sexually attractive,' ideal bodies identified by such parameters as 'low body fat' and 'muscle definition.' These ideals are often synonymous with social ideals of beauty.

One of the behavioral differences between women and men lies in the dissimilar ways in which girls and boys are socialized into society. Contemporary scholars tend to agree that gender is an acquired characteristic; it is socially and culturally constructed (Butler 1990). Therefore, most feminine and masculine characteristics are not innate, but learned through association with others and the mass media. Despite the notion that these characteristics are learned, feminist scholars have argued that society assigns gender to a certain sex. Just as definitions of gender are perpetuated by society, so too are the ways in which people inherently learn to see the female body. In his celebrated book *Ways of Seeing* (1972), John Berger proposes the idea that 'ways of seeing' are culturally constructed, and research has shown that 'our culture privileges male looking' (Shields & Heinecken 2002: 83). There is nothing inherently 'natural' about

seeing women as objects, or celebrating the female beauty ideal of today (a very thin, toned women with large breasts). Many feminist theorists convey that women are positioned—and conditioned—as objects to be looked at by men (Berger 1972; Bordo 1999; Freidan 1963; Mulvey 1975; Wolf 1992).

With the recent exposure to structures of global capitalism, female beauty, specifically, has gained considerable social prominence, coupled with the possibility of beauty becoming a prerequisite of health (Edmonds 2008). Further, Edmonds (2008) argues that the drive to achieve beauty, regardless of the context and methods, can translate as outcomes that either boost or deteriorate physical health. It must be noted here that structures contributing to the achievement of these ideals of 'beauty' and 'fitness' often come at the cost of the same physical and mental health that one seeks to achieve.

c. Social media and body ideals

Through a comprehensive review of literature, Perloff (2014) concludes that exposure to mediated images of 'ideal bodies' predicts patterns of body dissatisfaction and eating disorder symptomatology amongst preadolescent girls and young women. This particular demographic is especially susceptible to the negative effects of body images on social media, as they largely subscribe to content on social media (Perloff 2014). Such content is more persuasive as it is somewhat removed from conventional images of larger-than-life celebrities, and instead champions those images and lifestyles that are promoted by micro-celebrities/attractive peers (Perloff 2018). This observation is essential, as women who are influenced by images of peers are led to believe that these 'thin-idealising' lifestyles are within their reach. They are often driven by the belief that 'fit bodies' can be achieved by simply aping the lifestyle of a thin/fit peer. However, users' experiences of body satisfaction are not simply a result of media exposure, but the process of internalizing mediated and societal ideals (Cramblit and Pritchard 2013). Hence, it has been noted that women exposed to more health and fitness magazines are more susceptible to anorexic and bulimic behaviours and exhibit an increased drive to be thin (Botta 2003). Further, Cramblit and Pritchard (2013) suggest that women exposed to athletic bodies through conventional media (like magazines) internalize a thin, toned female ideal. The idea is to be muscular but within the threshold that is socially permissible for women. Young women's increasing exposure to frequent social media images suggests a shift from conventional magazine readership to social media. Social media's circulation of fitness oriented, inspirational body images has negative consequences on body image. This includes body dissatisfaction, body-surveillance, self-objectification, internalization of the thin ideal and body shame (Fox & Rooney 2015; Manago et al. 2015; Meier and Gray 2014; Tiggemann and Slater 2013). Photo Sharing applications, like Instagram and Pinterest, then, become the sources of exposure to images of athletic bodies that can lead to subsequent internalization.

Equating personal body goals to mediated body goals and resultant body dissatisfaction when these goals aren't met, are an integral part of such a process of internalization (Agliata and Tantleff-Dunn 2004). These mediated ideals are often images of women who champion athletic lifestyles, who are themselves driven or limited by societal ideals of the 'perfect female body.' For instance, Dworkin (2001), in his study on women in fitness, subscribes to Connell's (1987) conception of a fitness-related glass ceiling for women. This suggests that women who seek muscular strength may be limited not just by biology, but by societal ideals of femininity that prescribe upper limits to women's muscularity and strength (Connell 1987). Applicable to his study, Dworkin (2001), noted patterns where women in fitness (moderate weight-lifters) expressed the need to neither gain fat nor extremes of muscle. Extreme muscularity, as embodied by female bodybuilders was shunned and a toned, athletic, thin physique was instead positively graded (Dworkin 2001). Hence, it must be noted that fitness influencers on social media, often themselves embody and promote societal ideals of feminine, attractive bodies. This implies negligible emphasis on improving those medically prescribed fitness parameters that cannot be expressed in bodily terms. Reade (2016) examined representations of 'fit bodies' on Instagram and concluded that female bodies endorsing muscle definition and strength were simply an extension of the conventional, slender, youthful, white and sexualized female ideal. Hence, the present study finds it necessary to move beyond the examination of the effects of mediated images of ideal bodies. A study of the physical, psychological and social processes behind the creation and promotion of 'fit body' selfies by women in fitness is undertaken. Here, the resulting inspirational 'fit' Instagram selfie is seen as a representation of factors corresponding to the 'fit' lifestyle.

d. Thinspiration and Anorexia

The internalization of the 'thin, slender, youthful' ideal and its active pursuit has led to several notable trends on social media. Photo-sharing applications like Instagram and Pinterest often use hashtags with words like thinspiration and fitspiration that are designed to collate inspirational fitness information, otherwise spread across the platform. Talbot et al. (2017) conducted a content analysis of fitspiration, thinspiration and bonespiration on social media platforms including Instagram and found that both fitspiration and bonespiration were variants of thinspiration. While bonespiration idealised bone protrusions, fitspiration emphasized muscle definition, specifically in the abdominal area (Talbot et al. 2017). However, both of these simultaneously idealized the 'thin' body. Hence, the ideology behind 'fit' mediated bodies could be understood as an extension of the messages propagated through thinspiration.

Many researchers conclude that the thin body ideals frequently shown in media may lead to body dissatisfaction and the development of an eating disorder. This may be the result of women becoming dissatisfied when they cannot reach the ideal thinness presented in media

(Thomsen et al. 2001). Thinspiration, through its online presence, has actively participated in the online pro-ana movement, where websites offer content and images that inspire people to aspire for bodies that are closely associated with anorexia nervosa (Johnson and Denver 2015). Here, Johnson and Denver (2015) applies Csipke and Horne's (2007) definition of 'pro-eating disorder websites' conceptualized in the context of internet communities. Here they suggest that content on pro-eating disorder websites either recognizes anorexia as a disorder but discourages treatment or simply justifies it as a personal lifestyle choice (Csipke and Horne 2007). In addition, Boniel-Nissim and Latzer (2011) suggest that members subscribing to pro-ana websites undertake extreme weight loss measures, that are analogical to methods adopted by those diagnosed with anorexia nervosa. They found that college women who frequently expose themselves to social media that exhibit the 'thin-ideal' are more likely to be dissatisfied with their bodies and thereby, more prone to undertaking unhealthy measures of bodily transformation such as guilt-based starvation, self-restricted eating, consumption of weightless pills, etc.

Eating Disorder (2004) acknowledges that one of the defining characteristics of an eating disorder is the distortion of body image and self-perception. Harrison and Cantor (1997) and Bissell and Zhou (2006) discovered that viewing thinness-depicting and thinness-promoting media (TDP) is a catalyst for developing eating disorders and the drive to be thin. In 2012, following controversies around online pro-ana communities, Instagram banned pro-ana content including phrases like 'thigh-gap' and 'thinspiration,' among others (Reynolds 2016). However, despite Instagram's moderation of pro-ana content, users still propagate the idea by using lexical variants with the addition, omission or tweaking of letters (Chancellor et al. 2016). This includes the usage of words like 'thinsporation' or anorexias.' In a similar vein, and in a subtler manner, the ideology behind thinspiration has been re-asserted through fitspiration and its emphasis on excessive exercise.

e. Excessive Exercise and the Anorexic Other

The popular understanding of anorexia is often characterized by an emphasis on the issues of starvation and behaviours related to food. Exercise, as a contributor while mapping out behaviours in anorexia nervosa is often overlooked. However, Grave (2008) notes that excessive and compulsive exercise is clinically observed in close to fifty percent of eating disorder patients, especially those suffering from anorexia nervosa. In this article, excessive and compulsive exercise refer to physical exercise exceeding the duration, frequency and intensity required for physical health, resulting in an increased risk of physical injury and behaviours related to unhealthy prioritization of exercise over other activities (Grave 2008; Davis and Fox 1993; Adkins and Keel 2005; Physical Activity Guidelines Advisory Committee 2008). It is used by individuals to burn calories, maintain shape and elevate mood, with repercussions includ-

ing the maintenance of eating problems (Grave 2008). It must be noted that fitspiration and fitness-oriented Instagram handles often promote exercise as the preliminary route to achieve fitness. The internalization of exercise as the cardinal mode of achieving the 'fit' body can have physical, behavioural as well as psychological repercussions, similar to ones experienced by those diagnosed with anorexia nervosa. For instance, Jong (2017) found that young women exposed to ubiquitous fitness-oriented handles on social media encountered advice urging them to modify behaviour to achieve fitness. This could include a push to exercise or to cut out certain foods from the diet. In addition, encountering such narratives and images brings women to engage in restrictive eating, over-exercising, with the risk of developing an exaggerated view of one's own body (Jong 2017). Hence, the process behind the creation and circulation of photographs, specifically Instagram selfies, is studied in the Indian context. The analogy between a 'fit' body and anorexia is studied largely through the components of excessive and compulsive exercise. This article argues that such behaviours are driven by a fear of being 'Othered' by the Instagram fitness community. Here, Jensen's (2010) concept of 'Othering,' which derives from Spivak's (1980; 1985) conceptualization of the same is utilized. As such, 'Othering' refers to a process where powerful groups, irrespective of their numerical strength, attribute reduced and inferior characteristics to subordinate groups, hence encouraging identity formation amongst the subordinate (Jensen, 2010). Here, women that document their fitness routines through selfies present as the dominant group that represent the idealized 'fit,' slender, muscular body. These women, through their Instagram content, influence other women who seek mobility away from the excluded, 'unfit Other.' As noted above, studies have largely documented the process of identity formation, where this 'unfit Other' is exposed to images of fitness influencers. In order to achieve these idealized, unrealistic 'fit' bodies, the 'Other' then adopts unhealthy behaviors like excessive exercise. However, this study explores the process of 'Othering' by fitness influencers and the relationship between their Instagram selfies and anorexia. In addition, it also looks at the ways in which the fear of lapsing into the 'Other' (by losing muscular definition etc.) drives these influencers to resort to maladaptive eating and exercise behaviour, in addition to editing and manipulating an image of the self.

Theoretical Framework

Frosh (2015) draws from Charles Sanders Peirce's idea of the indexical sign to place the analysis of selfies in a semiotic perspective. Unlike symbolic and iconic sign relations, indexical relations do not represent agencies but act as a stimulus directing our attention towards them. Although natural signs had long been surfaced, Peirce's concept of the index is nevertheless distinctive; Peirce offers various criteria for what accommodates an index: somewhat sporadic category which is at times divided into sub categories. Indexical signs turn the attention

to their objects by blind compulsion (Chandler 2007: 37). Indexicality is characterized by contiguity. Anything that reflects an individual's personality is also indexical (Peirce 1991: 145). This includes handwriting or a distinctive individual style exemplifying artist or photographer. While photographers are also perceived as visually resembling their subjects, Pierce (1991) notes that they are not only iconic but indexical. Photographs, especially instantaneous photographs, are very instructive because we know that in certain respects they are exactly like the objects they represent. But this resemblance is due to the photographs having been produced under such circumstances that they were physically forced to correspond point by point to nature in that aspect then they belong to the class of signs by physical connection [the indexical class] (Chandler 2007).

For this, Frosh invokes the term 'kinesthetic sociability.' He argues that 'selfies conspicuously integrate still images into a technocultural circuit of corporeal social energy that I will call kinesthetic sociability. This circuit connects the bodies of individuals, their mobility through physical and informational spaces, and the micro-bodily hand and eye movements they use to operate digital interfaces' (Frosh 2015: 1609). He uses terms such as indexicality, composition, and reflection to assert the fecundity of selfies.

- Indexicality, according to him, refers to the immediate presence of the subject of the photograph before the camera. It accounts as both a 'trace' of the temporal past as well as an indication of the corporeal performance involved in the act of clicking a selfie. The selfie, here, asserts 'see me showing you me' (Frosh 2015), where the roles of both the producer and the referent are performed by the same person.
- The composition of the selfie allows for the space of the photographic production to be merged with the space in the picture itself. Since the producer of the selfie is also its object, there is no scope for a spatial cleavage between the subject, the camera and the photographer. This specifically accounts for three actions - calculating the angle of the photograph (action of moving the camera before the body for an image), adjusting the body's sensorimotor projection, especially of those parts of the body that serve the purpose for which the image is recorded and the visual and spatial coordination of the body and the camera to arrive at an image on the screen. Such performativity is achieved by conditioning the body to effectively perform a 'fit selfie.' This article accounts, here, for such motor functions as flexing relevant muscles and allowing these to be presented through the proper positioning of the camera in addition to the lighting, etc. It also accounts for the processes of digital editing that serve to achieve a motor-camera coordination beyond the ordinary process of clicking a selfie.
- Moreover, selfies are reflexive on two levels. Firstly, they are self-referent as images. Even with the use of mirrors, the selfies assert a conscious performance of the self. Secondly, selfies are personally reflexive and mimic reflexive verbs in that they record

a self, enacting itself. It is similar to the verb “see” in a sentence like ‘I see myself,’ where ‘see’ would linguistically replicate the selfie in a visual expression.

The implications Frosh draws from employing these three categories is that the selfie, through its performative gestures summons the viewer to respond through sensorimotor actions like reactive selfies, tweets, comments, likes and so on. In general, this implies that the body engages in a circuit of actions that involves the selfie, the reaction and further reaction. This further reaction, in the context of fit-selfies, may involve the embodiment of responses by means of maintaining the visibly fit body. This occurs when women adopt maladaptive practices like compulsive exercise. This framework connects semiotic analysis of the selfie with somatic and psychological themes which this article studies. We are using, thus, Frosh’s concepts as the basis for reading the selfie as a sign, considering that the fit-anorexic body is often involved in incorporating and thereby, embodying the responses directed at the selfies. However, since women undertake fitness initiatives this often leaves distinct marks of the same on their bodies.

Methodology

This article intends to explore the relationship between Indian women’s ‘fitness’ selfies on Instagram and anorexia nervosa, characterized by excessive, compulsive exercise. The analysis of these selfies is based on Frosh’s approach to selfies, as outlined above. Through this, we envision a sensory-motor, somatic and performative continuity between Instagram selfies, responses to them and embodied responses in terms of excessive, compulsive exercise.

Our study focuses on the selfies of Indian women with Instagram fitness accounts. These have been supplemented with semi-structured, qualitative, in-depth interviews of approximately thirty minutes each with select women who are fitness influencers. Semi-structured, in-depth interviews are largely used in qualitative interviewing as they allow interviewer to deeply assess the social and personal matters of individual interviewees (DiCicco-Bloom and Crabtree 2016). These fitness influencers are Indian women aged between 18 to 35 and who have more than 1000 followers on Instagram. These participants perform and promote weight-bearing exercises like weight-lifting and yoga as opposed to cardiorespiratory exercises. This is in keeping with this article’s analysis of ‘fit’ selfies as opposed to ‘thin’ ones. Their accounts, however, are not verified on Instagram, a feature that is characteristic of Instagram celebrities.

Analysis

The selfie as a sensory-motor trigger that allows women fitness influencers to embody received responses becomes problematic when these responses are attached to the context of anorexia. These patterns, in the context of a 'fit' selfie and the 'fit anorexic', emerge when women resort to compulsive and excessive exercise to generate continuous positive responses. Here, and as Frosh (2015) indicates, embodied responses characterize a sensory-motor circuit, where the selfie simply serves as the reflexive verb between the 'I' and the 'myself' and the body versus the body as an embodiment of 'fit' responses received on Instagram.

We will proceed with the analysis of selfies as gestural images using the above categories of Indexicality, Composition and Reflexivity. These three are combined to explore the relationship between the 'kinesthetic sociability of the selfie' and its somatic manifestation in terms of excessive and compulsive exercise, analogous to anorexia nervosa. To substantiate our thesis we study selfies of Fitness Influencers on Instagram, taking into account, in addition, the lived sensory-motor and affective experience of these women corresponding to fitness selfies and the subsequent responses.

a. Indexicality

The selfie often serves as an index that provides a connection between a temporal past as well as the performance involved in producing the image at that point in time. In the context of 'fit' selfies, there is often a continuity between exercise performed by women and the selfie taken. Most fitness selfies are taken in the gym and often use a mirror to communicate the complete range of motion that the body is capable of. Take for instance, the selfies of Participant 1. Most of her selfies are full-length images taken before the mirror. She avoids direct eye contact with the self in the mirror, but instead looks into the camera. The eye-contact with the camera instead of the mirror delivers a certain kind of message since she directs her gaze at the audience as opposed to her self. It fulfills Frosh's idea of performativity as saying 'see me showing you me' as opposed to 'see me looking at me'. This serves as an invitation to the audience indicating that their sensory-motor responses are crucial to performing and celebrating the 'fit' body and subsequently, the selfie itself.

The setting is the gym and the moment frozen in time is often a selfie taken after her workout at the gym. In one such image on her Instagram profile, two selfies are cropped and attached next to each other. One shows her standing before a mirror and staring at the camera. The second, is her crouching forward into a squat position and still staring at the camera. The caption reads, 'Changes don't appear in one or two days!! Consistency and dedication are two main things that play a role', which highlights the indexicality of the image. The performative body, having performed the exercise, draws the audience's attention to the temporality of

the image. The image, frozen in time, is not simply a narrative of the time in question but also of the sensory-motor dedication and consistency in workouts that have brought the 'fit' body into being with time. The existence of the selfie, itself, is dependent on the efficiency of the fitness performance prior to and immediately before the performative act of clicking the selfie.



Figure 1: Participant 6



Figure 2: Participant 2

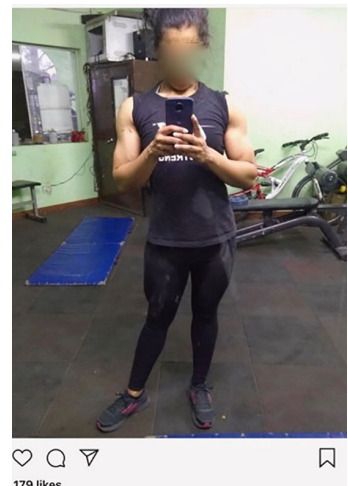


Figure 3: Participant 12

The Instagram profile of Participant 2 abounds with 'fit' selfies that are taken with a partner, both posing before a mirror. The two women pose in their gym wear, the setting being the gym itself (Fig. 1). This is an indication, allowing the performed sociability of physical exercise to transcend the realm of the digital. Selfies of Participants 3, 15, 27 and 6 include a set of two parallel mirror selfies, each frozen at a distinct moment in time. Women are seen in their gym gears in both parallel selfies, seemingly 'fit' except that in the second images they are distinctively 'fitter' and showcase more muscle definition. Captions often indicate their journey from the first selfie to the second, often mirror selfies, the second recording the physical work that has led to progression from the first. Similarly, Participant 1 said:

It is not healthy for women to be below a certain fat percentage for a sustained period. I usually take most of my fitness selfies on Instagram at a time when I'm at an extremely low body fat percentage. I, then, slowly release these over the period of a month or two. I cannot sustain the body in the image for long periods in real life. This helps me get sponsors. (Participant 1, July 30, 2018, personal communication).

This indicates the temporality of the fit body. Yet, the selfie, and the medium of Instagram allow for a morphing of time-space realities where bodies are transported across time, but superficially account for current time. Given that audiences internalize these images, such time-space

discontinuities become problematic. It is within such indexing that selfies necessitate conditions that harbour maladaptive practices in the context of exercise. When the temporal fit body and its multiple images cannot provide substantial content for the fitness-influencers' fitness accounts, they are pushed to embody that level of fitness that characterized their initial set of 'fit' selfies.

The Instagram's feature called 'Stories' enables the display of images and videos that are accessible to viewers only for twenty-four hours post the upload. Fitness influencers are largely using this space for selfies, as opposed to the permanent Instagram profile itself. Participant 16 said, 'I usually post selfies as stories. They are more personal. My Profile, otherwise, has images from photo-shoots', (Participant 16, September 6, 2018, personal communication). The fitness selfie, then, is an expression of a personal invitation to respond and to replicate. The structure of a 'story,' further morphs the space-time continuum where it is perceived that the selfie had been taken in the past 24 hours, consolidating further the temporal indexing of the body photographed.

b. Composition

The performance of the 'fit' selfie becomes specifically important here, as the selfie allows the woman to produce an image of herself that she can manipulate in real-time. This works by accounting for the sensory-motor coordination of the parts or the whole of the woman's body, of the phone camera, and of the dynamics between the camera and the body itself. This kind of performativity is tied to the physical performance of the woman's body during exercise, which is transferred into the act of clicking a selfie. An important component of this involves the angle employed in a selfie. Participant's 4 selfies are mostly taken at a top-down angle and the face is a poker face. Half or whole of her body is vertically under the camera and the face is tilted up, arm outstretched. This pattern is evident in most of her selfies. As Frosh (2015) says, the performance in a selfie is not natural to the body, but a learned act. Here, Participant 4 has trained her body to apply sensory-motor coordination patterns that repeatedly produce a selfie that displays a lean but fit body. Participant 24 further adds, 'The top-down angle makes my face look less chubby and my body look lean', (Participant 24, August 25, 2018, personal communication). Similarly, Participant 15 added, 'I flex relevant muscles when I take selfies. These selfies are also taken under good lighting. Besides, I'm a professional fitness athlete. I find that I get more sponsors when my images are edited. I use basic Instagram filters to edit these selfies', (Participant 15, September 6, 2018, personal communication).

Here, flexed muscles, adjusted to good lighting, serve as a recipe for a good 'fit' selfie. The most recent selfie of Participant 6 (Fig. 2) portrays her wearing a pink gym tee and tights, body placed straight before the camera, the eye again looking into the camera. Inscribed onto the image itself is a phrase that reads, 'Lighting behaves today.' It must be noted that in this selfie, as with most, a poker face is displayed with mobility. Emphasis is on the mobility and capability of the performed, fit body as opposed to an inviting face. The selfie, then, is an in-

vation to somatic feedback and action. The act of flexing muscles is especially reflective of this. Such flexing serves to communicate the work that goes behind the specific flexed muscle that makes such flexing capable in the first place. The 'fit' selfie, then, is a ground for asserting those kinesthetic and somatic achievements that distinguish the 'fit' body from the 'unfit' one. The emphasis on the aesthetics of the soma, can in turn, lead to oblivion of the maladaptive psychological processes that characterize such emphasis.

c. Reflexivity

All fitness selfies are reflexive as ideas of referring to the self, as well as serving as an interface between both the somatic and sensory-motor performance and the subsequent response. All respondents, here, agreed that their selfies consciously cater to the audience at hand. The bridge between the 'I' or the body and the 'myself' or the body embodied with responses is evident in the phenomenon of parallel past and present selfies that indicate progressive journeys of 'fit' bodies. Here, within this reflexivity and a moulding and remoulding of the body and its image, is a recognition of multiple 'Others,' but specifically two categories of the 'Other.' The first involves individuals aspiring to emulate the bodies of women considered 'fitter' because of their muscular physique, rigorous exercise regimes, and dietary controls, etc. With a host of Instagram celebrities (with verified profiles) dedicating their entire profiles to fitness, these aspiring individuals recognise their own selves as the 'Other.' The second, and the more significant one is a conscious, condescending distinction from the 'anorexic Other.' Such a distinction serves to both recognize the body at the center of 'thinspiration' as unhealthy and to mask the problematics involving excessive exercise that characterize one's own body.

The fitness influencers studied within this article do not just post selfies of themselves but also of those that they aspire towards. For instance, Participant 3 has re-posted a selfie taken by Instagram fitness celebrity @anlella_sagra who has 10.9 million followers. Participant 3, on the other hand, has 1000 followers. Similarly, Participant 4 has re-posted a selfie of @chessiekingg who has 398.000 followers while Participant 4 has only about 2000 odd followers. It must be noted that both @anlella_sagra and @chessiekingg have a blue tick (verification) accompanying their names that Instagram uses to distinguish celebrities from non-celebrities. Further, the selfies of celebrities re-posted by Participant 23 and 24 are distinct from their own, in that celebrity selfies allow for affective dimensions of the face to emerge, as opposed to their own selfies that focus almost exclusively on the body. There is, then, a recognition of the superiority of the celebrity as someone who is 'fitter', and hence, a representative of a certain kind of body that one should aspire for (a status not available to the participants' of this survey since they seemingly have relatively 'less fit' bodies). The aspirational model, then, is not the mere corporeality of the celebrity, but the corporeal as mediated by the selfie.

However, in this context, it is the second 'Other' that becomes more problematic. This pro-

cess of Othering involves the condescending call to the 'Anorexic Other,' to join the bandwagon of the 'fit' body. This call to fitness, communicated by 'fit' selfies and accompanying captions, is an allusion to the anorexic body that was tied to the now shunned trend of 'thinspiration.' Within the sensory-motor projection, specifically flexing, there is an aspiration towards popular mediated 'fit' bodies and simultaneously, a condescending invitation to 'unfit' or 'less fit' bodies to mimic bodily processes that qualify this selfie as 'fit.'

For instance, Participant 11 states, 'One of my biggest mistakes in my fitness journey was doing almost an hour of cardio earlier', (Participant 11, July 30, 2018, personal communication). It must be noted here, that cardio and its associated lack of muscle definition points condescendingly to the 'Anorexic Other.' It is this process of condescending 'Othering' that allows for a masking of maladaptive behaviours analogous to anorexia. Instead, it emphasizes the achievement of the mediated 'fit' body, consolidated in the selfie. This invitation, to the Other, also involves a prohibition of the self from lapsing into the 'Anorexic Other' or the 'unfit.' Here, lean, fit bodies are promoted. Such a process of condescension, invitation and prohibition is closely attached to the sensory-motor responses that characterize a 'fit' selfie. For instance, Participant 17 states, 'I love the praise that I get on social media. It keeps me going in my exercise routine', (Participant 17, August 4, 2018, personal communication). Similarly, Participant 19 states: 'The responses to my selfies are extremely important to me', (Participant 19, July 30, 2018, personal communication). The picture, however, is not limited to the selfie as a field that collates responses. Consider the following statement by Participant 4:

When I started working out, muscle definition showed and I took selfies tracking my progress. Several people messaged me on Instagram asking me for advice and complimenting me. I was an inspiration to many. However, to keep this fitness level up, I had to exercise twice everyday for 90 minutes each. I even exercised when I had an injury and had no time for a social life. It was the positive comments on Instagram that kept me going. (Participant 4, August 25, 2018, personal communication)

These sensory-motor responses to the selfie, even if positive, often trigger excessive exercise in catering to the Instagram audience. Tendencies analogous to anorexia emerge when digitized technologies like selfies allow for an embodying of responses in corporeal somatic terms, thus competing Frosh's circuit of kinesthetic sociability. This is precisely why we use the term 'Anorexic Other' indicating the potential presence of 'fit-anorexia' amongst participants given their compliance to excessive compulsive exercise. For instance, in addition to Participant 4, all other participants also admitted to working out for approximately three hours a day, most days of the week. They also admitted to perceiving their workouts as a priority and the presence of uneasiness or paranoia attached to weight-gain or muscle-loss when they miss workouts. This is applicable not just to participants who lift weights but also those who make

movements like yoga a priority. For instance, Participant 8, who has an Instagram account that tracks her yoga practice, states: 'For a long time, I was pushing my body to do certain postures just so that I could post a social media image. It has injured my body quite a few times' (Participant 8, September 9, 2018, personal communication).

Such a tendency is triggered with the formation of what we call the 'selfie-response-embodied response' continuum. The act of clicking a selfie, its display and subsequent responses lead the fitness influencer to embody those responses. This 'selfie-response-embodied response' continuum allows for a range of sensory-motor actions to inform exercise and self-image patterns of fitness influencers. Within this, women hope to distinguish themselves from the 'Anorexic Other', referring to the disapproval of the body at the heart of 'thinspiration.' Yet, the adoption of exercise as a means to maintain and achieve kinesthetic sociability can lead to maladaptive exercise patterns analogous to anorexia. The urge to distinguish oneself from the 'unfit' Other attached to the 'thinspiration' body, instead introduces maladaptive behaviours that now allow fitness influencers to distinguish themselves from the 'Anorexic Other.' Such a tendency involves the conditioning of one's self and its behaviors as analogous to those displayed by clinically diagnosed Anorexic patients. There is a similar justification of the chosen lifestyle just as there was in the tradition of 'thinspiration'.

This article has explored the relationship between the emergence of tendencies analogous to anorexia in the 'selfie-response-embodied response' continuum where the 'selfie' serves as a crucial catalyst in the interplay between the digital, the sensory-motor and the kinesthetic, under the broad umbrella of the psychological. In her classic article 'Visual Pleasure and Narrative Cinema' (1975), Laura Mulvey describes the pleasure in looking as being split between woman as an image (passive) and men as the 'bearer of the look' (active). She explains that 'the determining male gaze projects its fantasy onto the female figure, which is styled accordingly'. Mulvey contends that women are displayed for men's viewing pleasure as sexual objects that embody their desires. Because women are continually positioned as objects, such a schema has come to seem completely natural to both men and women. Furthermore, society's ability to decide what feminine parameters are, puts men at an advantage of subduing people (Shields and Heineken 2002). Thus, patriarchal society is able to control women by 'ways of seeing'.

Kinesthetic Sociability and the Indian Fitness Influencer

The 'kinesthetic sociability' in the context of Indian women as fitness influencers is not just limited to the continuum of 'selfie-response-embodied response.' Other complicated layers arise when one considers the concerns regarding objectification and prohibition informing the continuum. With objectification, several participants stated that many responses to their

selfies were from men, some who objectified their bodies and others who placed limits on their musculature. Participant 6 states, 'I know that eighty percent of my followers are men. I also receive messages from men that sexualize my body', (Participant 6, September 3, 2018, personal communication). Similarly, Participant 12 (Fig. 3) adds, 'Indian men often respond to my selfies saying that they prefer a little bit of meat on my body. They don't want me to have as much muscle definition as I have', (Participant 12, July 31, 2018, personal communication).

Similar claims place a ceiling on women's somatic performance through exercise and on the performance in the act of clicking a selfie. Women often restrict themselves from exercising harder because they are afraid that they will get too muscular and look manly. Sometimes, these remarks come from the women's families. This also includes a certain self-censoring of the body parts on display in the 'fit' selfie in order to cater to the sensibilities of their families. For instance, Participant 24 adds, 'I do not strip down completely to my inner-wear in selfies. I have family on Instagram and they will not be okay with that', (Participant 24, August 25, 2018, personal communication). Similarly, Participant 17 adds, 'I had to hide my weight-lifting activities from my husband's family for a very long time. I often told them I'm taking up a class to cover for all the time I spent lifting', (Participant 17, September 9, 2018, personal communication).

Most participants never completely strip down to their inner wear in fitness selfies like most Instagram Fitness Celebrities often do. Even if the midriff was shown, their selfies always involved cropped or full leggings to cover the lower body. This indicates a certain restriction and self-censoring that serves the larger theme of patriarchy. This theme is closely intertwined with the Anorexic potential explored in the 'selfie-response-embodied response' continuum.

Conclusion

This article has explored the selfies of Indian women Fitness influencers and their relationship with anorexia nervosa. Previous literature has indicated the correlation between anorexia nervosa and compulsive exercise. Here, we further find that the sensory-motor coordination required to click a 'fit' selfie is a continuity of the somatic processes that constitute exercise. The selfie, then is a gestural, self-reflexive image (Frosh 2015), whose sensory-motor and somatic performance manifests a direct invitation to be seen. This allows the audience or the mediated voyeur (Calvert 2002) to respond in terms of likes, messages, comments, etc., which are in turn embodied by the influencer through exercise. Adding to this circuit of Kinesthetic Sociability (Frosh 2015) are contexts of limits to fitness as an embodiment of responses that prohibit a too-fit or exposed body. These responses largely correspond to objectification and norms of patriarchy. Within these emerge patterns of excessive and compulsive exercise that add to the aesthetic value of Instagram selfies but hamper the physical and psychological

health of fitness influencers. It is through these sensory-motor and somatic performances that Instagram selfies are connected to exercise behaviour analogous to anorexia nervosa.

The study can be expanded to the study women's participation from a consumerist perspective where the exercising and dieting industry contribute to the growing discourse on health, beauty and femininity, through emphasis on the slender, anorexic body. This functions towards fulfilling the requirements of masculine pleasure. Here, the pleasure is derived through encouraging the women to participate in body management strategies which again caters to the male gaze and its control over the women's body. The future scope of this study can also dwell on the cultural practices that contribute to encourage anorexia nervosa through excessive exercises. The role of the smartphone apps in creating elements of stylisation in the photographic method also can be explored further to understand the visual domain's contribution to the aestheticisation of the anorexic body.

REFERENCES

- Adkins, Emily C. and Pamela K. Keel 2005. Does 'excessive' or 'compulsive' best describe exercise as a symptom of bulimia nervosa? *International Journal of Eating Disorders* 38(1): 24-49.
- Agliata, Daniel and Stacey Tantleff-Dunn 2004. The impact of media exposure in males' body image. *Journal of Social and Clinical Psychology* 23(1): 7-22.
- Ali, Aus T. and Nigel J. Crowther 2005. Health risks associated with obesity. *JEMDSA* 10(2): 56-61.
- Allwood, Rachel F. 2010. 'You asked what being healthy means to me and the answer is, it means everything': A Feminist Post-Structural Analysis of Disordered Eating, Education and Health. Ph.D. thesis, Loughborough University, UK.
- Baudrillard, Jean 1983c. The Ecstasy of Communication. In: Hal Foster (ed.), *The Anti-Aesthetic*. Washington: Bay Press.
- Bissell, Kimberly and Peiqin Zhou 2006. Must See TV or ESPN: Entertainment and Sports Media Exposure and Body Image Distortion in College Women. *Journal of Communication* 54(1): 5-21.
- Bizjak, Diana E 2015. *Fit is the new thin: Fitspiration and body satisfaction in college age women*. Master's Thesis, Division of Social Work, California State University.
- Boepple, Leah and Joel K. Thompson 2014. A content analysis of healthy living blogs: Evidence of content thematically consistent with dysfunctional eating attitudes and behaviors. *International Journal of Eating Disorders* 47(4): 362-367.

- Boniell-Nissim, Meyran and Yael Latzer 2011. The Characteristics of Pro-Ana Community. In: Yael Latzer and Daniel Stein (eds), *Bio-Psycho-Social Contributions to Understanding Eating Disorders*. New York: Nova Science Publishers, 155-167.
- Bordo, Susan 1993. Anorexia Nervosa: Psychopathology as the Crystallization of Culture. In: *Unbearable Weight: Feminism, Western Culture, and the Body*. Berkeley: University of California Press, 139-164.
- Botta, Renée A. 2003. For Your Health? The Relationship Between Magazine Reading and Adolescents' Body Image and Eating Disturbances. *Sex Roles* 48(9-10): 389-399.
- Burke, Eliza. 2006. Feminine Visions: Anorexia and Contagion in Pop Discourse. *Feminist Media Studies* 6(3): 315-330.
- Calvert, Clay 2002. *Voyeur nation: Media, privacy, and peering in modern culture*. London: Sage Publications
- Caspersen, Carl J., Kenneth E. Powell, and Gregory M. Christenson 1985. Physical Activity, Exercise, and Physical Fitness: Definitions and Distinctions for Health-Related Research. *Public Health Reports* 100(2): 126-131.
- Chancellor, Stevie, Jessica A. Prater, Trustin A. Clear, Eric Gilbert and Munmun De Choudhury 2016. #thyghgapp: Instagram Content Moderation and Lexical Variation in Pro-Eating Disorder Communities. In: CSCW '16 Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing, San Francisco, California, USA, February 27 - March 02, 2016. New York: ACM, 1201-1213.
- Chandler, Daniel 2007. *Semiotics: The Basics*. New York: Routledge.
- Connell, Raewyn 1987. *Gender and power: Society, the person, and sexual politics*. Stanford, California: Stanford University Press.
- Cramblitt, Brooke and Mary Pritchard 2013. Media's Influence on the Drive for Muscularity in Undergraduates. *Eating Behaviors* 14(4): 441-446.
- Csipke, Emese and Outi Horne 2007. Pro-eating disorder Websites?: Users' opinions. *European Eating Disorders Review* 15 (3): 196-206.
- Davis, Caroline and John Fox 1993. Excessive exercise and weight preoccupation in women. *Addictive Behaviors* 18(2): 201-211.
- Donnachie, Karen A. 2015. Selfies, #me: Glimpses of Authenticity in the Narcissus' Pool of the Networked Amateur Self-Portrait. In: Julie Lun (ed), *Rites of Spring*. Perth: Black Swan Press, 61-77.
- DiCicco-Bloom, Barbara and Benjamin F. Crabtree 2016. The qualitative research interview. *Medical Education* 40 (4): 314-321.
- Dworkin, Shari L. Holding Back: Negotiating a Glass Ceiling on Women's Muscular Strength. *Sociological Perspectives* 44(3): 333-350.
- Eating Disorder 2004. In: American Psychological Association. Available at: <https://www.apa.org/helpcenter/eating.aspx>

- Edmonds, Alexander 2008. Beauty and health: Anthropological perspectives. *Medische Antropologie* 20(1): 151-162.
- Ellman, Maud 1993. *The Hunger Artists. Starving, Writing and Imprisonment*. Massachusetts: Harvard University Press.
- Etcoff, Nancy 1999. *Survival of the prettiest: The science of beauty*. New York: Doubleday.
- Fisher, Lauren A. 2018. 21 Inspiring Fitness Girls To Follow On Instagram: All the motivation you need to get in shape—and stay there—in 2018. *Harper's Bazaar*, January 2. Available at: <https://www.harpersbazaar.com/beauty/diet-fitness/g4018/inspiring-fitness-girls-on-instagram/>
- Fox, Jesse and Margaret C. Rooney 2015. The Dark Triad and trait self-objectification as predictors of men's use and self-presentation behaviors on social networking sites. *Personality and Individual Differences* 76 (1):161-165.
- Frosh, Paul 2015. The Selfie, Photography Theory, and Kinesthetic Sociability. *International Journal of Communication* 9(1): 1607-1628.
- Fuss, Diana 1993. Fashion and the Homospectatorial Look. *Critical Inquiry* 18(4): 713-37.
- Gimlim, Debra 1994. The anorexic as overconformist: toward a reinterpretation of eating disorders. In: Karen A. (ed), *Ideals of Feminine Beauty. Philosophical, Social and Cultural Dimensions*. Callaghan, Connecticut: Greenwood Press, 99-113.
- Gatti, Elena, Ionio, Chiara, Traficante, Daniela and Emanuela Confalonieri 2014. I Like My Body; Therefore, I Like Myself: How Body Image Influences Self-Esteem. A Cross-Sectional Study on Italian Adolescents. *Europe's Journal of Psychology* 10(2): 301-317.
- Grange, Daniel L. and Evan Eisler 1993. The link between anorexia nervosa and excessive exercise: A review. *European Eating Disorders Review* 1(2): 100-119.
- Grave, Riccardo D. 2008. Excessive and Compulsive Exercise in Eating Disorders: Prevalence, Associated Features, and Management. *Directions in Psychiatry* 28(21): 273-282.
- Harrison, Kristen and Joanne Cantor 1997. The relationship between media consumption and eating disorders. *Journal of Communication* 47(1): 40-67.
- Holland, Grace and Marika Tiggemann 2017. Strong beats skinny every time: Disordered eating and compulsive exercise in women who post fitspiration on Instagram. *International Journal of Eating Disorders* 50(1), 76–79.
- Jensen, Sune Q. 2011. Othering, identity formation and agency. *Qualitative Studies* 2(2): 63-78.
- Johnson, Hadley A. and Denver 2015. I Will Not Eat! A Review of the Online Pro-Ana Movement. Available at: <https://www.semanticscholar.org/paper/I-Will-Not-Eat!-A-Review-of-the-Online-Pro-Ana-Johnson-Derner/b7a8b83bec0e6df021b83d469ff8ac49c6819c8>
- Jong, Stephanie 2017. An exploration of young females' experiences of fitness culture on social networking sites. Ph. D. thesis, School of Education, Flinders University.
- Kelly, Mary 1987a. On Representation, Sexuality and Sameness. *Screen* 28(1): 5-28.

- Krauss, Rosalind 1994. *The Optical Unconscious*. Massachusetts and London: The MIT Press.
- Laan, Liset van der 2016. *Not Just Another Selfie: An exploration into the technical and interface affordances that shape self-representation in fitness selfies*. Master's Thesis, Faculty of Humanities, Utrecht University.
- Manago, Adrinana M., L. Monique Ward, Kristi M. Lemm, Lauren Reed, and Rita Seabrook 2015. Facebook involvement, objectified body consciousness, body shame, and sexual assertiveness in college women and men. *Sex Roles* 72 (1): 1-14
- McLean, S. A., Paxton, S. J., Wertheim, E. H., & Masters, J. 2015. Selfies and social media: relationships between self-image editing and photo-investment and body dissatisfaction and dietary restraint. *Journal of Eating Disorders*. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4661743/>
- McLean, Sian, Susan J. Paxton, Eleanor H. Wertheim and Jennifer E. Masters 2015. Photoshopping the Selfie: Self Photo Editing and Photo Investment are Associated with Body Dissatisfaction in Adolescent Girls. *International Journal of Eating Disorders* 48(8): 1132-1140.
- Meier, Evelyn P. and Gray, James 2014. Facebook photo activity associated with body image disturbance in adolescent girls. *Cyberpsychology, Behavior, and Social Networking* 17(4):199-206.
- Miller, Korin 2018. Apparently Toblerone Tunnels Are This Summer's Thigh Gap – And Honestly I'm So Over It. *Women's Health*, May 31. Available at: <https://www.womenshealthmag.com/life/a20975365/what-are-toblerone-tunnels/>
- Mulvey, Laura 1975. Visual Pleasure and Narrative Cinema. *Screen* 16(3): 6-18.
- Niedzviecki, Hal 2009. *The peep diaries: How we're learning to love watching ourselves and our neighbors*. California: City Lights Publishers.
- Peirce, S. Charles 1991. *Writings on Semiotics*. London: The University of North Carolina Press.
- Perloff, Richard M. 2014. Social Media Effects on Young Women's Body Image Concerns: Theoretical Perspectives and an Agenda for Research. *Sex Roles* 71(11-12): 363-377.
- Physical Activity Guidelines Advisory Committee 2008. *Physical Activity Guidelines Advisory Committee Report*. Washington, DC: U.S. Department of Health and Human Services.
- Reade, Josie A. 2016. The Female Body on Instagram: Is Fit the New It? *Reinvention: an International Journal of Undergraduate Research* 9 (1). Available at: https://warwick.ac.uk/fac/cross_fac/iatl/reinvention/issues/volume9issue1/reaade
- Reynolds, Emily 2016. Instagram's pro-anorexia ban made the problem worse. *Wired*, March 14. Available from: <https://www.wired.co.uk/article/instagram-pro-anorexia-search-terms>
- Saussure, D. Ferdinand 1915. *Course in general linguistics*, 2nd edition, New York: Hill Book Company.
- Shields, R. Vickie and Dawn Heineken 2002. *Measuring Up: How Advertising Affects Self-Image*. New York: University of Pennsylvania Press.

- Spivak, Gayatri C. 1980. Revolutions that yet have no model: Derrida's limited inc. *Diacritics* 10(4): 29-49.
- Spivak, Gayatri C. 1985. The Rani of Sirmur: An essay in reading the archives. *History and Theory* 24(3): 247-272.
- Tabish, Amin S. 2017. Lifestyle diseases: consequences, characteristics, causes and control. *Journal of Cardiology & Current Research* 9(3): 00326.
- Talbot, Catherine V., Jeffrey Gavin, Tommy van Steen and Yvette Morey 2017. A content analysis of thinspiration, fitspiration, and bonespiration imagery on social media. *Journal of Eating Disorders*, Available at: <https://jeatdisord.biomedcentral.com/articles/10.1186/s40337-017-0170-2>
- Thomsen, R. Steven, McCoy, Kelly and Marleen S. Williams (2001). Internalizing the impossible: Anorexic outpatients' experiences with women's beauty and fashion magazines. *Eating Disorders* 9(1): 49-64.
- Tiggemann, Marika and Slater, Amy 2013. NetGirls: The Internet, Facebook, and body image concern in adolescent girls. *International Journal of Eating Disorders* 46 (6): 630-633.
- Tiggemann, Marika and Zaccardo, Mia 2015. Exercise to be fit, not skinny: The effect of fitspiration imagery on women's body image. *Body Image* 15(1): 61-67.
- Visakko, Tomi 2015. *Self-promotion as semiotic behaviour: The mediation of personhood in light of Finnish online dating advertisements*. Academic Dissertation, Department of Finnish, Finno-Ugrian and Scandinavian Studies, University of Helsinki.
- Yesil, Bilge 2001. Reel Pleasures: Exploring the Historical Roots of Media Voyeurism and Exhibitionism. *Counterblast: e-Journal of Culture and Communication* 1(1), Available at: http://www.nyu.edu/pubs/counterblast/issue1_nov01/media_art_review/yesil.html
- Zipfel, Stephan, Katrin Giel, Cynthia M Bulik, Phillipa Hay, Ulrike Schmidt 2015. Anorexia nervosa: aetiology, assessment, and treatment. *Lancet Psychiatry* 2(12): 1099-1111.

Benson Rajan is Assistant Professor at the School of Business Studies and Social Sciences, Christ University, Bengaluru, India

Email: benson.rajan@christuniversity.in