Celebrity Self-disclosure and Social Cohesion: Perspectives from Ghanaian Instagram Users

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Authors' contributions

This work was carried out in collaboration among all authors. Author FEA designed the study, wrote the protocol and wrote the first draft of the manuscript. Author RB performed the statistical analysis and managed the analyses of the study. Authors KOA and CJH managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

The phenomenon of social cohesion has gained much traction in the extant literature. However, research that assesses how celebrity self-disclosure can be leveraged to engender social cohesion remains very scanty in the existing literature. The current study aims at empirically testing the effect of celebrity self-disclosure on social cohesion while accounting for the roles of fans' behavior, social presence and attachment to celebrities. To realize this aim, data is collected from 306 Instagram users who follow at least one celebrity. The hypothesis intended to realize these aims are tested by adopting structural equation modeling technique. The results show that celebrities' descriptive self-disclosure (but not emotional self-disclosure) influences fans' archiving and commenting behavior. Additionally, celebrities' emotional self-disclosure (but not descriptive self-disclosure) as well as fans' commenting, and archiving behaviors are instrumental in predicting fans' social presence. The study further finds that fans' social presence is essential in predicting their attachment to

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celebrities, while their (fans') attachment to celebrities and social presence are significant antecedents of social cohesion. Furthermore, attachment to celebrities is found to significantly mediate the relationship between social presence and social cohesion. The study provides practical and theoretical insights into understanding social cohesion, celebrity self-disclosure, fans' behavior, social presence and attachment to celebrities.

1. INTRODUCTION

The increasing role of social media and celebrities in shaping lifestyles has gained much interest in the current literature [1,2,3,4,5,6,7,8]. Evidence suggests that celebrity self-disclosure and lifestyles have major influences on the audiences (fans) who emulate them [9]. Social media has gradually become a sine qua non to political socialization-shaping the beliefs, actions, and values of citizens in any society. However, despite the growing state of social media research, little attention has been dedicated to assessing how celebrity self-disclosure engenders social cohesion among citizens.

In an era where social media has gained so much pervasiveness to the extent of becoming a status symbol, most Ghanaians are virtually hooked up to social media platforms like Instagram any day, anytime and anywhere. Accordingly, most celebrities have used Instagram as a platform for connecting with their fans and for purposes of self-disclosure. As a consequence, some fans, especially young adults, have recently become addicted to and influenced by celebrities, based on their self-disclosure, as well as other new social media trends. Through these social media activities, people have unconsciously been united and there appears to be a form of attitudinal and behavioral convergence due to the almost similar approach and nature of behavior on social media. These forms and nature of behavior mostly appear to have been emulated from celebrities and social media trends. Social media has made it possible that irrespective of physical location, people portray a unique form of social cohesion underpinned by influences from celebrity self-disclosure.

Drawing on the evidence of celebrity self-disclosure on social media platforms such as Instagram, we set out to empirically investigate the role of celebrity self-disclosure in engendering social cohesion among young adults in Ghana while accounting for the roles of social presence and celebrity attachment.

Specifically, we argue that because young adults imitate and emulate celebrities through their self-disclosures, there seems to be an apparent similarity in their social media lifestyles and online activities, a phenomenon that builds social cohesion. We contribute from an emerging economy context to the ongoing debate on social media, social presence, celebrity influence, and social cohesion. Though some research has been conducted on social media and celebrities, they have mostly centered on either the content of the celebrities' social media [7,10,11] or on the reasons and motivation of fans to follow celebrities [12,13] as well as the celebrity's parasocial relationships [4]. However, research that assesses how celebrity self-disclosure, social presence, and celebrity attachment influence social cohesion is novel. Specifically, the current study assesses how celebrities' self-disclosure, particularly on Instagram influences fans' attachment to the celebrity and how that leads to enhancing social cohesion. Also, given that one of the major features of Instagram is the function of commenting and archiving, we further explore how fans' act of commenting and archiving creates a consciousness of social cohesion, both with the celebrity and among themselves. Last but not least, a considerable amount of research highlight the fact that social presence is a key underlying condition that facilitates people's experiences in a technologically mediated-communication environment [14,15,4,16]. Consequently, we examine how social presence plays the role of linking celebrities' self-disclosure and followers' act of commenting and archiving with social cohesion.

2. THEORETICAL BACKGROUND

We adopt the social capital and attachment theories as the theoretical lenses for this research.

2.1 Social Capital Theory

Social capital has been conceptualized in the literature as a term referring to social

connections [17,18,19,20]. A major early theorist (Bourdieu, 1985) focused his analysis on the network structure that enables connections. Arguably, the most influential analysis of connections within a network is that of Putnam [21] who proposed the ideas of bonding (family and friends) and bridging (acquaintances) social capital. Extant research on social capital reveals the benefits people obtain through their social networks; strong ties give them emotional support, and weak ties provide them with non-redundant information and different perspectives [22,21]. The OECD operationalizes social capital as "networks together with shared norms, values, and understandings that facilitate co-operation within or among groups" [23]. Many perspectives have evolved from this theory, but most of them have social relations as a core aspect of the theory [24,25,26]. Social capital theory [27] emanates from classical capital theory (Lin, 1999), in which theory, capital is seen as the investment of resources into the marketplace with expected returns. The theory avers that the social structure generates value through access to resources such as knowledge and authority that are embedded within the web of social ties [28]. These resources can be diffused to a person, who can consequently apply the resources to a complex problem [29]. According to Hughes, Le Bon, and Rapp [30], the structure of the network predicts the opportunities and restrictions in accessing embedded knowledge. Additionally, Lin surmises that these opportunities and constraints drive individual action in any social setting (of which social media is part). This theory provides categories for analysis in this study and is duly adopted.

2.2 Attachment Theory

The joint work of Ainsworth and Bowlby [31] produced the attachment theory, which they operationalized as a psychological connectedness which occurs between humans and lingers for a long period. Symbolizing it through a mother and child scenario, scholars have suggested that early in life, strong attachment exists between a mother and child, given that a child's need could only be satisfied by the mother. Later in the lifespan, attachment occurs between adults and can gravitate towards some other targets. Previous research has sought to throw more light on the foregoing. For instance, evidence from Raikes and Thompson [32] sheds more illumination on why consumers form strong attachments towards human brands. Drawing on [33], celebrities are considered as human brands because they represent a subject of marketing efforts. Human brands thrive on brand image which needs to be congruent with customers' actual and desired self-image and which are consistent with their self-concept. This enhances its influence power and the idea that personality is at the center of human brands becomes relevant as it facilitates consumers' ability to identify, differentiate and develop confidence in the brand. Moreover, human brands require some form of visual and psychological identification to give credence to and reinforce successful brand communication [34]. In the spirit of the attachment theory, it can be argued that when human brands enhance people's feelings of relatedness and autonomy and do not subdue their feelings of competence, they are predisposed towards becoming more loyal and strongly attached to such a brand. To this end, Escalas and Bettman [35] underscore that consumers having a high need of belonging are more predisposed towards looking to celebrities for cues about which brands may assist consumers' attempts to meet their needs of affiliation. Besides, Vaiciukynaite et al. [36] posit that within the context of social media posts by brands, hedonic content (entertainment & social types) enhances consumers' sociability behaviors concerning liking, while utilitarian content (informational and promotional) triggers consumers' commenting and liking behavior.

Fans' attachment towards celebrities takes several degrees and levels of intensity. For instance, [37] in a recent study revealed that people who worship celebrities (celebrity worship) for intense-personal reasons are inclined to being unaware that in any given context, there are available options and alternatives; are unwilling to be flexible; demonstrate low self-efficacy in being flexible and have low cognitive flexibility. Based on the preceding discussions, it can be argued that attachment theory is very relevant as far as the relationship and interaction between celebrities and fans on social media is concerned. Consequently, we adopt the attachment theory as the second theoretical field.

2.3 Theoretical Framework

2.3.1 Social cohesion

Scholarly evidence suggests that social cohesion is a complex construct to measure and define. This may be premised on its social and perception-based nature, generally emanating from norms and values. Further, social cohesion

can be described in terms of social bonds that keep society in unison. Recently, social cohesion has been receiving some attention across a myriad of research and theoretical disciplines due to its welfare-content and context. Even though there seem to be varying positions on an accepted definition of social cohesion, numerous approaches have been used in explaining the same. For instance, social cohesion has been conceptualized as a characteristic of society, concerning the social connections and relations between individuals or groups (McCracken, 1998). Similarly, Durkheim [38] operationalizes social cohesion as the interdependence between individuals of society with collective loyalty and integration. Besides, social cohesion can be viewed as the tendency of individuals to work together at all the levels of society to realize the common goals of well-being and welfare (Jeannote, 2003). Consequently, social cohesion is deemed to be more related to a sense of common identity and belongingness. Social cohesion again brings to the fore, elements that bind and hold people together in society and seeks to reduce any form of disunity.

From a social media perspective, the social enhancement literature holds that people behave online in consistently similar ways compared to how they behave offline (face-to-face) [39]. Hence, people with strong and sociable connections offline are predisposed to leverage on this sociability to keep highly social online pages characterized by networks, connections and mostly, self-disclosure. Thus, empirically exploring how celebrity self-disclosure enhances social presence and social cohesion is profound and opportune. The concept of social cohesion has been of critical interest to the social enhancement paradigm and discussing it within the context of self-disclosure accentuates its relevance. Yamamoto [40] reckons that social cohesion is the degree of connection a person feels towards a larger group, with social bonds as the undercurrents. Accordingly, a central characteristic of members of any socially cohesive group is the feeling of a sense of engagement through these groups (Hollenbaugh & Ferris, 2013).

2.3.2 Celebrities' social media use

Evidence from Sanderson (2011) suggests that social media was inherently designed to catalyze human connection. Due to the fact that linking and communicating with fans on social media does not necessarily require any form of

permission to access, social media have increasingly become a preferred option for celebrities who wish to directly communicate with their fans [7,8,4]. Hitherto, celebrities delivered messages to their fans through conventional media (i.e. television, newspapers, etc.), and indirectly through reporters who might end up filtering the original messages. Nonetheless, social media platforms, as opposed to the traditional means, provide an unfiltered and personalized means of communication. Accordingly, these platforms have succeeded in significantly influencing communication patterns between fans and their celebrities. In effect, most celebrities have ended up creating their own blogs and news channels through their individual social media such as Instagram (Brau, 2013). Most of these celebrities adopt such social media platforms to express dissent or for self-presentation [41,42]. A social media platform like Instagram has been adopted by celebrities to communicate with their fans. To this end, Frederick et al. [10] emphasize that this grants celebrities and fans the opportunity to communicate more interpersonally. This assertion is consistent with [11] who hold a similar position. Following from the foregoing, it can be argued that social media (Instagram in this case) provides celebrities and fans with an opportunity to share comments and opinions about their lives and daily events, and to provoke interactive communication with their fans.

2.3.3 Celebrities' self-disclosure

The social penetration theory (SPT) argues that human relationships develop through an exposé of the self (a process which occurs through self-disclosure). In the spirits of Altman and Taylor [43] as well as [4], self-disclosure is operationalized as the voluntary sharing of personally expedient information such as thoughts, values, feelings, and beliefs with a significant other. The theory holds that a self consists of different layers; from peripheral layers (i.e. basic demographic information) to central layers (personal values, self-concept). Therefore, revealing each layer of the self to others (self-disclosure) is a sine qua non to developing a relationship [4,43]. Some attention has been given in the extant literature towards self-disclosure due to its complex and multidimensional nature-underpinned by a variety of characteristics and features of individuals. Scholars (see for instance [44,45,46,4,43] have highlighted two main dimensions of self-disclosure: breadth and depth. Breadth has been

conceptualized as referring to the variety of topics of self-disclosure, implying that a wide or narrow range of topics may be disclosed. For instance, topics bordering on work or profession may be seen as professional self-disclosure, while those that border on family, friends or personal beliefs may be regarded as personal self-disclosure. Similarly, depth implies the degree to which disclosure in a specific individual's life is made. This implies that depending on how deep someone discloses certain topics about him/herself, the depth of the self-disclosure may vary from a superficial level to an intimate one [44,43,4].

According to Marshall [47] as well as Kim and Song [4], many contemporary celebrities share stories about their lives with fans and the subjects of these stories may appear in different forms. Some celebrities are inclined towards disclosing more of their professional life than other aspects of their life, especially in a situation where their motive is to promote say, a new movie or song. Stever and Lawson [7] suggest that celebrities like Katy Perry, an American singer and songwriter mostly focuses on sharing her work-related information on social media. Consistently, Hambrick et al. [48] disclose that one major theme found in sports celebrities' self-disclosure is related to their work (i.e. providing information and insights about their game or team). Yet, others may be more inclined towards revealing personal life stories on social media (see 47, 7, 8,48]. For instance, Kristen Chenoweth (an American singer and actress) is found to disclose more significant aspects of her personal life on social media. Some politicians and sport celebrities have also been seen to disclose life stories that are not related to politics or sports (like favorite restaurants, favorite hotels, dinner menu as well as movies they want to watch) [49,50,48] Small, 2010 [4]. In Ghana, celebrities like Jackie Appiah, John Dumelo, Nana Aba Anamoah, Asamoah Gyan, Sam Okudjeto Ablakwa, Salma Mumin, Yvonne Nelson, Michael Essien, Andre Dede Ayew, Moesha Budoung, Okyeame Kwame, just to mention a few, fall within the types described in the preceding discussion.

2.3.4 Social presence

One major benefit of social media is the provision of a feel of togetherness and connectedness with celebrities [7]. The implication is that through this mediated form of communication, fans/followers can meet celebrities, monitor and learn about their routine life through either a one-way or two-way communication. This kind of interaction creates a form of virtual reality where the fans practically have a perception or feeling as if the celebrities are physically and socially present in their lives [4]. Short, Williams and Christie [51] operationalize social presence as a state of being aware of the other person in an online environment. Accordingly, social presence is regarded as one of the most important concepts of understanding mediated communication experiences [51,52] Consequently, social presence has been operationalized by many scholars as a perceptual experience of psychological involvement in an interaction with another individual within a mediated environment [53, 54,55,56,57].

3. HYPOTHESIS DEVELOPMENT

3.1 Celebrity Self-Disclosure and Fans' Behavior

The social penetration theory describes the bonding process that elevates a relationship from a superficial state to a more intimate one [43]. The extant literature suggests that social penetration is achieved through self-disclosure- a purposeful and voluntary process of revealing information about oneself [44]. This includes, but not limited to, thoughts, values, feelings, and beliefs [43]. It has been argued that self-disclosure enhances intimacy to a certain degree, in any form of relationship. Social penetration can occur in various settings, including, but not limited to romantic relationships, social groups, friendships, work relationship, as well as computer-mediated environments. In keeping with the foregoing, Carpenter and Greene [58] utilized the "Onion model" to operationalize how the social penetration theory operates. The model states that one needs to peel others' lays of personal information through interpersonal interaction to reach the core-the intimate details of a person, a process which requires time and commitment. The outer layer represents the public image of the person which can be seen by others, while the private self is the innermost layers that can only be revealed to selected individuals through disclosure.

Most celebrities leverage on social media to express themselves and share information with their fans on numerous topics. For example, a celebrity like Britney Spears has created a YouTube channel on which they present themselves as a subscriber-structured identity [47]. While some celebrities are predisposed to

disclosing personal information, others are inclined towards disclosing information regarding their work [59,47]. For instance, Taylor Swift and Selena Gomez's posts on Instagram were mainly focused on their career; in the form of promoting their new album, and then followed by personal posts that include travel, fun interaction, or hanging out with friends. On the other hand, Ariana Grande's posts are primarily based on her personal life, and then later followed by posts about her career [59]. This accentuates the fact that different individuals and celebrities vary in their motives and approaches of self-disclosure. Prior research suggests that Gomez, Swift, and Grande's posts on Instagram about their personal lives garnered more number of likes as opposed to posts about their professional lives [59]. This does not, however, discount the fact that both celebrities' personal and professional self-disclosures engender feelings of social presence and commenting behaviors among their fans [4].

Personal and professional self-disclosure notwithstanding, scholars have also distinguished between factual (descriptive) and emotional (evaluative) self-disclosure when evaluating the effect of disclosing the self on intimate relationships [60,61]. Descriptive self-disclosures refers to those that reveal personal facts and information (e.g. he broke up with me); while emotional self-disclosures take the nature of revealing personal feelings and emotions (e.g. my last breakup hurts me so much). Though both types of disclosures reveal information about one's personal and private life, Reis and Patrick [62] intimate that disclosures involving emotions and feelings lay at the core of one's self-definition. In recent times, people find it easy sharing their emotions on different social networks sites with a wide audience [63]. Extant research reveals that emotional disclosure can engineer interpersonal connectedness. Hence, individuals are motivated to express their emotions to maintain their relatedness to others [64]. The theory of social sharing of emotions suggests that emotional disclosure can stimulate social interaction and improve interpersonal connection [65].

Some types of self-disclosure, particularly those that reveal the core self are more closely linked to the experience of intimacy than others [62,61]. To this end, Laurenceau, Pietromonaco & Barret [65] find support for Reis and Shaver's (1998) model of intimacy by positing that self-disclosure is associated with a feeling of intimacy,

specifically, that, emotional disclosures are more predictive of intimacy than factual self-disclosures. Additionally, followers have the option of commenting under posts, (such as writing their opinions, complementing, criticizing, etc.) or archiving (such as saving a certain post by only tapping an "archive" option). Subsequently, these archived posts can be accessed; saving the time that would have been spent on searching through an entire newsfeed for a specific post. Also, while some fans follow their favorite celebrities on Instagram by only viewing their photos and reading their posts, others go a step further to engage in interacting with these celebrities through commenting. Nonetheless, other segments prefer to archive some of the favorite photos or posts made by favorite celebrities. The more devoted fans may combine both commenting and archiving. We argue based on the foregoing that the self-disclosure of celebrities (emotional or descriptive) engenders fans' commenting and archiving behavior. Consequently, we proffer the following hypotheses:

H1a. Celebrities' emotional self-disclosure has a positive and significant effect on fans' commenting behavior.
H1b. Celebrities descriptive self-disclosure has a positive and significant effect on fans' commenting behavior.
H2a. Celebrities' emotional self-disclosure has a positive and significant effect on fans' archiving behavior.
H2b. Celebrities' descriptive self-disclosure has a positive and significant effect on fans' archiving behavior.

3.2 Celebrity Self-Disclosure and Social Presence

From the perspective of Short, William, and Christie [51], social presence is operationalized as a state of being aware of other people in an online environment. The concept of social presence has drawn some issue in the extant literature. For instance, Rourke et al. [66] have identified perceived self-disclosure as an important social factor that induces a strong social presence in an online learning environment. Using Cristiano Ronaldo, Selena Gomez and Ariana Grande's posts on Instagram as cases in point, we can argue based on facts, that Selena Gomez writes long captions under her photos and mentions her feelings and emotions, whiles sometimes addressing her fans as "fam" and sending love to them, or sharing

happy moments of her life by noting that her life is not always that filtered and that she is not a perfect being. It is evident that in all cases, fans engage actively in interacting with celebrities through commenting or archiving, a situation which makes them feel socially present. In Ronaldo and Grande's case, there are fewer comments, while Gomez's results in thousands of more comments. This is somewhat interesting given the fact that all these celebrities have similar numbers of followers. Based on the foregoing discussions, it can be argued that celebrities' self-disclosure (either emotional or descriptive) engenders feelings of social presence among their teaming fans. Hence we set the following hypothesis:

H3a: Celebrities' emotional self-disclosure on Instagram has a positive and significant effect on fans' feeling of social presence.
H3b: Celebrities' descriptive self-disclosure on Instagram has a positive and significant effect on fans' feeling of social presence.

3.3 Fans' Behavior on Instagram and Social Presence

Ward [59] describes Instagram as an image-driven platform with the capacity to provide a visually-oriented storytelling opportunity. We maintain that if Twitter thrives on status updates, then Instagram's scope is even more diverse, as it allows users to share photos and memories as well as add captions to them. Additionally, followers have the option of commenting under posts, (such as writing their opinions, complementing, criticizing, etc.) or archiving (such as saving a certain post by only tapping a "save" option). Subsequently, these archived posts can be accessed; saving the time that would have been spent on searching through an entire newsfeed for a specific post. More so, while some fans follow their favorite celebrities on Instagram by only viewing their photos and reading their posts, others go further beyond this by actually engaging and interacting with these celebrities through commenting. Nonetheless, other segments prefer to archive some of the favorite photos or posts made by favorite celebrities. The fans who are more devoted may combine both commenting and archiving. The commenting behavior of fans demonstrates their emotional involvement and commitment to the celebrities' Instagram content. The act of engaging and commenting on celebrities' posts increases fans emotional and psychological feeling of social presence [4]. Accordingly, users

tend to experience a strong social presence when they are deeply involved in the activities on Instagram. Based on the foregoing discussions, the following set of hypotheses is proffered;

H4a: The act of commenting on celebrities' posts on Instagram has a positive and significant effect on fans' feeling of social presence.
H4b: The act of archiving celebrities' posts on Instagram has a positive and significant effect on fans' feeling of social presence.

3.4 Social Presence and Social Cohesion

It has been observed in the extant literature that individuals with stronger real-life ties use social media (especially, Instagram) to solidify these ties [67]. Some social media users use it for several social capital reasons, including, but not limited to, companionship, social interaction, sharing expressive information, relaxation and entertainment as well as for professional advancement. Similarly, those who are socially active in real life are more predisposed to leveraging on Instagram to connect with and learn from others [68,67]. In tandem with the foregoing, Hampton et al. [69] note that social media users (on both Instagram and Facebook) have a lot more friends and close ties compared to offline network; a phenomenon that supports the social enhancement perspective. Based on these, we argue that the nature of Instagram makes it easy for users (especially celebrities) to self-disclose. These celebrities have fans and followers who see, watch and engage them based on specific disclosures (these vary from emotional to descriptive self-disclosures). As they keep engaging them (through commenting and archiving), they achieve their social presence motives and consequently, build social cohesion. The theoretical relevance of this assertion is premised on the fact that there seems to be a convergence of behavior (i.e. liking, commenting, sharing, archiving) about the same or similar things disclosed. This gets to the extent that the fans begin to copy and behave similarly as the celebrities and this commonness and similarity of action is what we argue, creates social cohesion. This is consistent with [40] and Rosell et al. (1995) who surmise that social cohesion is the feeling one feels to a larger group, based on social bonds, behavior and a sense of engagement. Consequently, we argue that the social presence of fans or followers of celebrities can have a significant impact on social cohesion. Hence the following hypothesis is theorized:

H5: There is a positive and significant effect of social presence on social cohesion.

3.5 Social Presence and Celebrity Attachment

The Social Presence Theory was originally propounded by Short, Williams, and Christie [51] of the interpersonal relationships. Gunawardena [70] offers a more modern definition by describing it as the degree to which people are perceived as real people in mediated communication. Within this mediated environment, fans meet their celebrities and learn about their daily lives through a one-way or two-way interaction. This interaction grants fans the opportunity to feel as if those celebrities are socially present in their lives [4]. Equally, Stever and Hughes [71] note that fans feel a greater sense of intimacy from having the opportunity to speak and hear the voice of the celebrity on a routine basis. The feeling of social presence enhances fans' parasocial interaction and experiences with celebrities [4]. Social presence fosters a feeling of imagined intimacy, which is also part of parasocial interaction experience (Rubin et al., 1985). In the past celebrities could only interact with their fans through traditional media outlets like TV, radio, newspaper, among a few others. However today, the same interaction can be fostered on different social network sites anytime, and anywhere possible. Given the pervasive and limitless capabilities of the internet, exposure to celebrities is constant, and fans can monitor and observe the lives of their favorite idols. To this end, the literature underscores that during life's hardships, celebrities can assuage any form of sadness through their disclosure and interaction, creating solid emotional bonds and attachment towards the celebrity [72].

Thanks to technology, these feelings of an attachment may grow even stronger due to the numerous options available on Instagram; one of which is "going" or "recording live". Some celebrities may go "live" to connect with fans, communicate with fans, show what they are up to at the moment, where they are traveling to, or basically sharing plans for the day. In such instances, fans can personally see and observe all the activities that their favorite celebrity is engaging in simultaneously, with the ability to comment and ask them any questions and receive responses. These forms of interaction and experiences instill and create in fans a feeling of being socially present with the celebrity; a phenomenon that arouses and sustains their attachment towards celebrities. Based on the foregoing discussions, we suggest that:

H6a: Feeling of social presence enhances fans' attachment to the celebrity.

H6b: Fans' attachment to the celebrity mediates the relationship between social presence and social cohesion.

3.6 Celebrity Attachment and Social Cohesion

Evidence within the attachment theory highlights the fact that fans get attached to celebrities to the extent that they imitate their actions and behavior online (through some forms of disclosure, commenting, etc.). To this end, Stever (2013) acknowledges that people get attached to people with different statuses for various reasons. This attachment generates into common actions and behavior, typical of the celebrities they follow and generates a form of convergence and cohesion among these followers. Additionally, Escalas and Bettman [35] opine that fans having a high need of belonging are more inclined to look up to celebrities for cues about which brands may assist their attempts to meet their needs of affiliation. Therefore, their attachment to celebrities breed actions that satiate those needs of affiliation and provides social gratifications as they relate to, and behave similarly on Instagram, leading to more social cohesion [36]. Based on the above, we propose that:

H7: There is a positive and significant effect of celebrity attachment on social cohesion.

4. EMPIRICAL RESULTS

4.1 Measurement of Variables

To test the hypothesis developed in this study a quantitative survey approach adopting structured questionnaires was deployed on the empirical data to allow actual measures to be calculated for the responses obtained from the respondents. Variables in the questionnaire encompassed measures on celebrity's emotional self-disclosure, descriptive self-disclosure, fans' commenting behavior, fans' archiving behavior, celebrity attachment, social presence, and social cohesion as well as demographic backgrounds of the respondents. Except for the demographic information, all other constructs were assessed via five-pint Likert-type scales anchored by "1=strongly disagree" to "5=strongly agree" with "3=neutral". All directional constructs (dependent
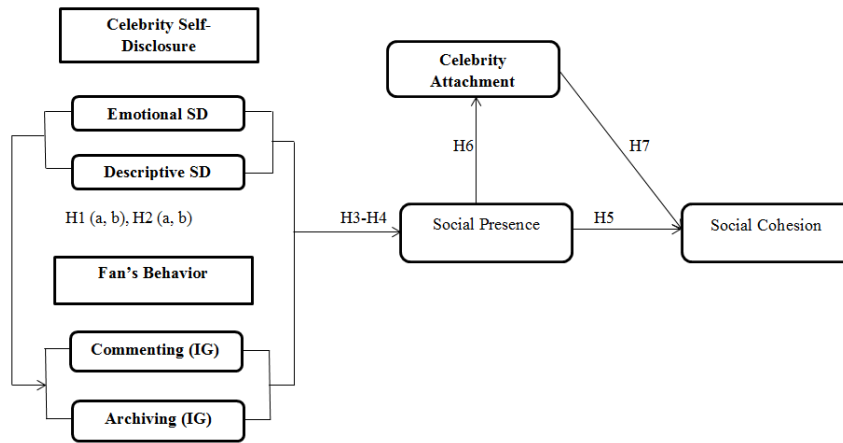
Fig. 1. Conceptual Framework

Table 1. Profile of respondents

Classification		Frequency	Percentage	Classification		Frequency	Percentage
Age	18-25 years	88	28.8	Number of years on Instagram	1-3 years	10	3.3
	26-35 years	171	55.9		3-5 years	133	43.5
	36-45 years	36	11.8		5-7 years	105	34.5
	Above 45 years	11	3.6		8-9 years	58	19.0
Gender	Male	175	57.2	Following a celebrity		306	100
	Female	131	42.8				
Education	High School	41	13.4				
	Bachelors	149	48.7				
	Masters	105	34.3				
	Doctorate	11	3.6				

and independent variables) were conceptualized with reflective measures. Concerning the operationalization of the independent variables, we depended on the study of Han, William, & Lin (2014) for the measures of emotional self-disclosure and descriptive self-disclosure. Measures of fans' commenting behavior and fans' archiving behavior were derived from previous research [4]. Relative to social presence, we adapted the measures from prior research [73]. Items for attachment to celebrities were adapted from Thomson (2006) while items for social cohesion were adapted from [74]. The second ambit of the questionnaire focused on the demographic data of the respondents (gender, age, education, number of years on Instagram, whether following a celebrity or not). The measurement items were all refined through the

adoption of scale generation and purification techniques and procedures recommended by scholars [75,76], predominantly through confirmatory factor analysis. To evaluate the various hypotheses proposed in the current study, we employed the structural equation modeling technique. This technique, according to Bagozzi and Yi [77] is a preferred approach since it affords researchers the latitude to control for measurement error, provides information on the degree of fit of the tested model, as well as the ability to test multiple relationships [78].

4.2 Samples and Data Collection

We accessed data from Instagram users (who followed at least one celebrity) in Ghana. The respondents were purposively selected after they

indicated agreements to partake in the study. A total of three hundred and 350 Instagram users were sampled for the current research. Before the questionnaire administration, we carried out an adequate assessment of the psychometric properties of the measurement items via testing for face and content validity using academic faculty and social media consultants [79]. Out of the 350 questionnaires administered, 311 were returned, from which five had anomalies and had to be discarded. In effect, we made use of 306 valid questionnaires that were fully filled and showed enough adequacies for the anticipated analysis. Consequently, the final usable data represented an 87.4% response rate.

4.3 Profile of Respondents

The outcomes of the distribution of the demographic characteristics of the respondents reveal that the sample had representative adequacy. From the operational data, as shown in Table 1, a profiling of the respondents reveals the majority (57.2%) are males while 42.8% are females. The data also reveals that majority of the respondents (55.9%) are between 26-35 years, 28.8% are between 18- 25 years, 11.8% are between 36-45 years, while 3.6% are at least 45 years old. Furthermore, the data shows that 48.7% of the respondents have a bachelors' degree as their highest level of education, 34.3% had masters' degree, 13.4% had a high school certificate, while 3.6% indicated they have doctorate degrees as their highest level of education. In effect, the data shows that each of the respondents has at least a senior high education (a basic form of education). Relative to the number of years they have been using Instagram, a majority (43.5%) indicated they have been on Instagram for a period between 3-5 years, 34.5% indicated 5-7 years, 19.0% indicated 8-9 years, while 3.3 indicated 1-3 years. This implies that each respondent has been on Instagram for at least one year, which qualifies them to partake in this research. Finally, the data shows that all the respondents sampled follow at least one celebrity on Instagram, a condition that further accentuates their qualification to take part in the current study.

4.4 Reliability and Validity Analysis of Variables

Since the measurement items were adapted from prior research, we adopted a confirmatory factor analysis (CFA) in validating them. With respect to internal consistency, the Cronbach's alpha values for the seven constructs ranged from 0.720 to 0.908. The factor loadings also ranged between 0.500 and 0.973, which satisfy the threshold level requirements. This indicated that the theoretical constructs exhibited acceptable psychometric reliability in the current research (Nunnally et al., 1967). We assessed model fitness through the use of the normed chi-square index (x^2/df), goodness of fit index (GFI) and the comparative fit index (CFI). This was subsequently, followed by the Tucker-Lewis index (TLI), root mean squared residual (RMR), and the root mean square error of approximation index (RMSEA) as underscored by Anderson and Gerbing [80]. Via the adoption of these fit indices, the CFA occasioned the following fit indices: x^2/df=2.083, RMR=.065, GFI=.909, NFI=.893, IFI=.941, TLI=.920, CFI=.940, RMSEA=.060. These results emphasize the unidimensionality of each of the constructs adopted in the current research. Table 2 presents the results of the CFA.

In addition to the foregoing, we established discriminant validity by comparing the shared AVE values between pairs of variables with their squared phi correlations. In all instances, the values of the AVE were greater than the shared squared phi correlations connected with each pair of variables, signifying discriminant validity of the constructs [81]. The correlation coefficients ranged from 0.063 to 0.581 with AVE's also ranging from 0.710 to 0.912. Table 3 presents the results of the discriminant validity (indicating that the constructs are distinct from one another) as it displays the descriptive statistics and inter-construct correlations with the share average variance extracted.

4.5 Model Fit and Hypothesis Test

As Table 4 depicts, the parameter estimates represent the final results which effectually explains the findings of the study in tandem with the hypotheses proffered early on. The model fit indices for the structural model adduces proof of a good model fit (RMSEA=.098, GFI=.976, NFI=.965, CFI=.973, IFI= .073, TLI=.919, RMR=.031, x^2/df= 3.916). The first hypothesis states that celebrities' emotional self-disclosure has a positive and significant effect on fans' commenting behavior. The SEM results highlights that there was a negative but significant relationship between emotional self-disclosure and fans' commenting behavior (β= -.263, t= -4.482, p < 0.05). The second hypothesis states that celebrities' descriptive self-disclosure

has a positive and significant effect on fans' commenting behavior. Concerning this, the SEM results indicated a positive and significant relationship between celebrities' descriptive self-disclosure and fans 'commenting behavior (β= .307, t= 5.224, p < 0.05). The third hypothesis (celebrities' emotional self-disclosure has a positive and significant effect on fans' archiving behavior) was not supported by the SEM results (β= -.086, t= -1.698, p > 0.05).

The fourth hypothesis (celebrities' descriptive self-disclosure has a positive and significant effect on fans' archiving behavior) was supported by the SEM results (β= .602, t= 11.860, p < 0.05). The fifth hypothesis (celebrities' emotional self-disclosure on Instagram has a positive and

significant effect on fans' feeling of social presence) was supported (β= .137, t= 3.458, p < 0.05). Hypothesis six (celebrities' descriptive self-disclosure on Instagram has a positive and significant effect on fans' feeling of social presence) was not supported (β= -.094, t= -2.048, p < 0.05). The seventh hypothesis (the act of commenting on celebrities' posts on Instagram have a positive and significant effect on fans' feeling of social presence) was supported (β= .374, t= 9.153, p < 0.05). Hypothesis eight (the act of archiving celebrities' posts on Instagram has a positive and significant effect on fans' feeling of social presence) was also supported (β= .463, t= 9.699, p < 0.05). The ninth hypothesis (there is a positive and significant effect of social presence on social

Table 2. Reliability and validity analysis of variables

Item	Construct	β Estimate	Std.Err.	t-value	(CR)	P	Cronbach's Alpha
SP2	Social Presence	.813			0.800		0.805
SP3		.783	.083	12.106		***	
SP4		.651	.083	11.089		***	
SP1		.643	.081	10.152		***	
FCB1	Fans' Commenting	.914			0.799		0.803
FCB2	Behavior	.735	.061	14.047		***	
FCB3		.639	.061	11.209		***	
FCB5		.500	.060	8.414		***	
FAB1	Fans' Archiving	.728			0.804		0.799
FAB2	Behavior	.862	.092	13.382		***	
FAB3		.703	.079	11.778		***	
DS3	Descriptive Self-	.902			0.908		0.908
DS2	Disclosure	.922	.061	16.581		***	
SC6	Social Cohesion	.756			0.867		0.816
SC7		.856	.101	10.903		***	
SC5		.865	.095	11.195		***	
AC6	Attachment To	.709			0.722		0.720
AC7	Celebrity	.754	.100	9.776		***	
AC1		.500	.103	7.354		***	
ES2	Emotional Self-	.590			0.805		0.729
ES3	Disclosure	.973	.717	3.615		***	

Table 3. Descriptive statistics and inter-construct correlation

	Mean	St.d.	SOPR	FCBR	FABH	DSD	SOCO	ATC	EMSD
SOPR	3.5181	.71512	0.710						
FCBR	3.2925	1.00845	0.412***	0.714					
FABH	2.9306	.68712	0.433***	0.266***	0.762				
DSD	2.8663	.99174	0.180**	0.198**	0.517***	0.912			
SOCO	3.2641	.76401	0.395***	0.269***	0.490***	0.320***	0.828		
ATC	3.2761	.60358	0.373***	0.292***	0.449***	0.295***	0.581***	0.752	
EMSD	1.9430	.60542	0.064	-0.119†	0.094	0.312**	0.112†	0.063	0.842

Note: FCBR=Fans' Commenting Behavior, EMSD= Emotional Self-Disclosure, FABH= Fans' Archiving Behavior, DSD= Descriptive Self-Disclosure, SOPR= Social Presence, ATC= Attachment to Celebrities, SOCO= Social Cohesion
*Significance of Correlations: † p <0.100, * p <0.050, ** p <0.010, *** p < 0.001*

cohesion) received empirical support (β= .112, t= 2.506, p < 0.05). Hypothesis ten (feeling of social presence enhances fans' attachment to the celebrity) was supported (β= .910, t= 10.318, p < 0.05). Hypothesis eleven, (attachment to celebrities mediates the relationship between social presence and social cohesion received empirical support (as is evidenced by Table 5)

(Estimate = .816, Lower = .616, Higher =1.083, P-value =.001). Finally, the twelfth hypothesis **(**there is a positive and significant effect of celebrity attachment on social cohesion received empirical support (β= .663, t= 14.860, p < 0.05). In effect, all the hypotheses developed for the current research (except for H1, H3, and H6) were supported statistically.

Table 4. Structural model assessment results

Structural relationships	β Estimate	Std.Err.	t-value	P	Decision
FCBR ←EMSD	-.263	.098	-4.482	***	Not Supported
FABH← EMSD	-.086	.058	-1.698	.090	Not supported
FABH← DSD	.602	.035	11.860	***	Supported
FCBR←DSD	.307	.060	5.224	***	Supported
SOPR←DSD	-.094	.033	-2.040	.041	Not supported
SOPR←FABH	.463	.050	9.699	***	Supported
SOPR←FCBR	.374	.029	9.153	***	Supported
SOPR←EMSD	.137	.047	3.458	***	Supported
ATC←SOPR	.910	.074	10.318	***	Supported
SOCO←ATC	.663	.056	14.860	***	Supported
SOCO←SOPR	.112	.048	2.506	.012	Supported

Note: FCBR=Fans' Commenting Behavior, EMSD= Emotional Self-Disclosure, FABH= Fans' Archiving Behavior, DSD= Descriptive Self-Disclosure, SOPR= Social Presence, ATC= Attachment to Celebrities, SOCO= Social Cohesion
*Significance of Correlations: † p <0.100, * p <0.050, ** p <0.010, *** p < 0.001*

Table 5. Mediation analysis

Parameter	Estimate	Lower	Upper	P
SOPR x ATC→ SOCO	.816	.616	1.083	.001

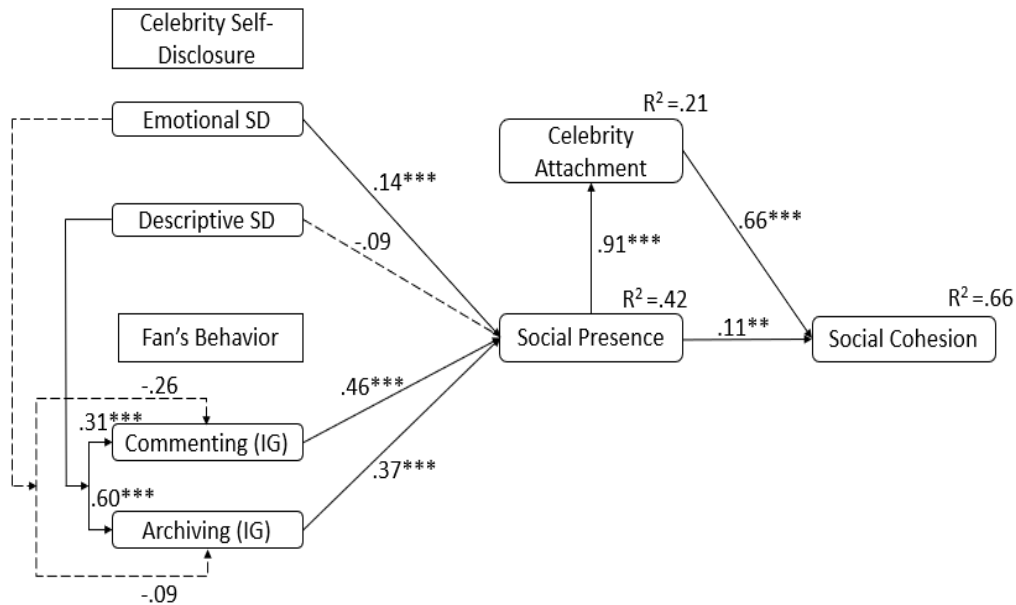*Note: SOPR= Social Presence, ATC= Attachment to Celebrities, SOCO= Social Cohesion*

Fig. 2. Structural model

5. GENERAL DISCUSSIONS

5.1 Summary of Findings and General Discussions

The current study commenced with the principal goal of comprehending social cohesion from a celebrity self-disclosure perspective. The study examined these relationships grounded on the social capital and attachment theories. Generally, the study found that celebrities' descriptive self-disclosure has a positive and significant effect on both fans' archiving and commenting behaviors. These results are consistent with previous research [65] Laurenceau et al., 2009 which found that celebrities' descriptive self-disclosure engineers interpersonal connectedness with their fans who have the option of commenting (such as writing their opinions, complementing, criticizing, etc.) and archiving (such as saving a post by just tapping and archive/save option). These results also lend support to Reis and Shaver (1998) who reckon that descriptive self-disclosure is associated with fans' commenting (actually engaging in interacting with these celebrities through commenting) and archiving behavior (these archived posts are then accessed later saving the time that would have been expended in gleaning through the entire newsfeed for a definite post). Thus in consonance with previous research, the current study reinforces the position that celebrities' descriptive self-disclosure engenders fans' behavior of commenting and archiving.

The results additionally adduced statistical backing for a positive and significant effect of both fans' commenting and archiving behavior on social presence. These outcomes resonate with [4] who aver that the commenting and archiving behavior of fans demonstrates their emotional involvement and commitment to the celebrities' Instagram content and consequently, the act of engaging, commenting on and archiving celebrities' posts increases fans emotional and psychological feeling of social presence. Accordingly, in tandem with prior research, this study validates the notion that fans' commenting, and archiving behaviors are germane to their feelings of social presence. Furthermore, the results found support for a positive and significant relationship between emotional self-disclosure and social presence. This outcome lends credence to Rourke et al. [66] who reckon that self-disclosure is a crucial social factor that induces social presence in an online environment. This is premised on the fact that fans engage

celebrities when they engage in self-disclosure thereby engendering feelings of social presence among the fans.

Additionally, the hypothesis that social presence is positively and significantly related to fans' attachment to celebrities received statistical support in the current study. This outcome corroborates the position of Hughes [30] who notes that fans feel a greater sense of intimacy from having the opportunity to speak and hear the voice of the celebrity on routine basis (social presence) which fosters a feeling of imagined intimacy, which is also part of parasocial interaction experience (Rubin et al., 1985) leading to the creation of solid emotional bonds and attachment towards the celebrity [72]. The current study, in line with prior research, thus solidifies the notion that fans' social presence is a critical antecedent to their attachment towards celebrities. The results further found support for a positive and significant effect of attachment to celebrities and social cohesion. This outcome authenticates the position held by Stever (2013) that people get attached to celebrities and in so doing copy their behavior leading into a certain convergence of behavior. The outcome also resonates with Escalas and Bettman [35] as well as [36] who surmise fans' attachment to celebrities provides social gratification as they relate and behave by the same token (mostly on Instagram), leading to more social cohesion. Accordingly, the current research in consonance with prior research reinforces the position that fans' attachment to celebrities is a sine qua non to social cohesion.

More so, the results found support for a positive and significant relationship between social presence and social cohesion. This outcome lends credence to Yamamoto [40] and Rosell et al. (1995) who contend that fans' feeling of social presence (which is manifested in their engagement and interactions with celebrities and among other fans) is an antecedent of social cohesion which is the feeling one feels to a larger group, based on social bonds, behavior and a sense of engagement which are engineered by the fans' social presence. In effect, this study in line with extant research emphasizes the argument that fans' social presence is germane to social cohesion. One profound outcome of this research as the results demonstrate is the mediating role played by attachment to celebrities in mediating the relationship between social presence and social cohesion. In effect, the current study contributes to extant knowledge in that it has uncovered that the nexus between

social presence and social cohesion is largely due to fans' attachment to celebrities. Specifically, it is crucial to note that attachment to celebrities is found to be a partial mediator since in the presence of the mediator the pathway connecting social presence and social cohesion still remains significant. This outcome underscores the essential role of attachment to celebrities in how fans' feeling of social presence affects social cohesion. It also highlights the fact that when celebrities' self-disclosure successfully enhances fans' attachment to celebrities through feelings of being socially present, it can be instrumental in enhancing social cohesion.

However, the results could not find support for a positive and significant relationship between emotional self-disclosure and fans' commenting behavior, a positive and significant relationship between emotional self-disclosure and fans' archiving behavior, as well as a positive and significant effect of descriptive self-disclosure on social presence. These outcomes are unexpected; however, our research has opened another debate on these respective relationships. For now, the current research has found insignificant relationships and only further empirical inquiries can validate or deny the same.

Overall, this research progresses knowledge and provides empirical and practical illuminations into the question that has remained essentially unaddressed in the current social media and social cohesion literature; what is the role of celebrity self-disclosure in engendering social cohesion? The current study reveals that celebrities' descriptive self-disclosure (but not emotional self-disclosure) influences fans' archiving and commenting behavior. The study similarly reveals that celebrities' emotional self-disclosure (but not descriptive self-disclosure), as well as fans' commenting and archiving behaviors, are instrumental in predicting fans' social presence. Further, the study results reveal that fans' social presence is essential in predicting their attachment to celebrities, while their (fans) attachment to celebrities and social presence are significant antecedents of social cohesion.

5.2 Theoretical Implications

The current study progresses theory by extending the social capital and attachment theories on two flourishing and conceptually relevant phenomena-celebrity self-disclosure and social cohesion. Evidence from prior research on celebrity self-disclosure and social cohesion shows a paucity of research grounded on social capital and attachment theories. Accordingly, this research contributes modestly to that effect, by providing empirical support from a celebrity self-disclosure and social cohesion perspectives for these to essentially acknowledged theories (Bourdieu, 1985; [22,21,17,18,27,31] with a conceptual framework that exhibits good explanatory power and robustness. Secondly, the literature on celebrity self-disclosure reveals less empirical studies that integrate and examines the relationships among the constructs adopted in this study, particularly, on the types of self-disclosures, fans' commenting and archiving behavior, social presence, attachment to celebrities and social cohesion. Previous research either studied the interconnections among these constructs in isolation or in conjunction with different variables [71,10,11] engendering the need for further and more empirical assessment, validation and theory building. Moreover, this study contributes to the literature by presenting outcomes that examines multiple nexuses among the constructs used, as well as utilizing data from Instagram users.

5.3 Managerial Implications

Having diverse insights into how celebrity self-disclosure can be leveraged to enhance social cohesion offers fresh guidelines in dealing with issues such as social cohesion. Empirically significant findings in the current research could be gleaned from eleven main points of view: that celebrities' descriptive self-disclosure (but not emotional self-disclosure) influences fans' archiving and commenting behavior; that celebrities' emotional self-disclosure (but not descriptive self-disclosure) as well as fans' commenting and archiving behaviors are instrumental in predicting fans' social presence; that fans' social presence is essential in predicting their attachment to celebrities, while their (fans) attachment to celebrities and social presence are significant antecedents of social cohesion.

Consequently, to enhance social cohesion in Ghana, social media can be leveraged and targeted strategically. As evidenced in this study, Ghanaian celebrities can be used since their self-disclosures influence fans' (citizens') behavior which affects their perceptions of social presence and consequent attachments to these celebrities. The fans' (citizens') perceived social presence and attachment to celebrities as this research

reveals affect social cohesion. Accordingly, the government of Ghana can enter into agreements and partnerships with well-known celebrities to make a concerted effort in tailoring their activities, behaviors, and self-disclosures in ways that can inure towards and engender unity and social cohesion among the citizens, as their followers end up copying their behavior. This could be achieved through appointing these celebrities as peace ambassadors, involving them in governmental programs that can project them more to the citizens. Celebrities in the frontline media space should be sensitized to promote actions and commentary that enhances unity and portrays oneness. Celebrities in the movie and entertainment industry should also be advised to churn our movies and songs which promote peace, unity and social cohesion.

5.4 Limitations and Recommendations

Akin to any empirical research, the current research brings in its trail, some limitations, providing fresh avenues for further research. First, the current study is limited to Instagram users only. Therefore, the findings are only within this ambit, meaning that scholars and practitioners should be cautious in trying to universally generalize it with other contexts. Additionally, the various hypotheses spawned in the current research were tested using Instagram users in a single country, is cross-sectional and accordingly, may not signal static effects in other contexts. More so, due to context disparities, further research is needed to substantiate and validate the construct relationships and results from the current study. Future research can also increase the sample size to see how that can influence the results. Also, the effects tested are relationships and not causalities. Further, the concepts empirically scrutinized in this research are relevant across different economic contexts. Therefore, these results open up fresh debates on the concept under study, principally, the incongruities that may exist between celebrities' emotional self-disclosure and fans' behavior as well as the mediating role played by attachment to celebrities. Further research that adopts different antecedents of social cohesion is highly welcome.

6. CONCLUSION

This study set out to empirically test the effect of celebrity self-disclosure on social cohesion while accounting for the roles of fans' behavior, social presence and attachment to celebrities. The results show that celebrities' descriptive self-disclosure (but not emotional self-disclosure) influences fans' archiving and commenting behavior. Additionally, celebrities' emotional self-disclosure (but not descriptive self-disclosure) as well as fans' commenting, and archiving behaviors are instrumental in predicting fans' social presence. The study further finds that fans' social presence is essential in predicting their attachment to celebrities, while their (fans') attachment to celebrities and social presence are significant antecedents of social cohesion. Furthermore, attachment to celebrities is found to significantly mediate the relationship between social presence and social cohesion.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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