## Mobile Media Matters: Media Use and Relationship Satisfaction among Geographically Close Dating Couples

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#### ABSTRACT

Much research has investigated the uses and effects of new communication technologies in long-distance romantic relationships. Comparatively, however, the importance of these technologies within geographically close romantic relationships has been overlooked. The present study fills in this gap by examining the prevalence of media use in this context and its association with relational well-being. A survey of heterosexual undergraduates involved in proximal dating relationships (N = 211) shows that they used mobile media (phone calls, texting) to a significant extent to connect with partners on a daily basis, and that they reported high quality of communication when using these media. Further, the quality, but not quantity, of mobile communication was associated with partner idealization which, in turn, was associated with relational satisfaction. The results support and extend the Hyperpersonal model of online communication, and contribute to elucidating user practices and media effects within the critical domain of romantic relationships.

#### **Author Keywords**

Partner idealization; Mobile media; Geographically close romantic relationships; Relationship satisfaction; Hyperpersonal model

## ACM Classification Keywords

J4 Social and behavioral systems: Psychology

#### INTRODUCTION

More Americans than ever are now involved in longdistance romantic relationships [39], a situation which has been facilitated by the availability of interpersonal media, such as the telephone, texting, email, instant messaging (IM), and, more recently, social media [1,7,20]. These media enable partners to engage in frequent, meaningful, and low-cost interaction, and therefore to sustain a sense of mutual presence and intimacy despite physical separation

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[19]. For this reason, a voluminous body of research has investigated the uses and effects of new communication technologies within long-distance romantic relationships (e.g., [7,20,28]).

While the literature's focus on long-distance relationships is understandable given that these relationships depend on media use for their very existence, it is also narrow in that it neglects romantic relationships where partners use mediated communication in conjunction with regular face-to-face contact. In this article, we argue that interpersonal media is likely to be widely used and to play a psychologically meaningful role in geographically close romantic relationships as well. Individuals in these relationships can be expected to maintain interaction via new communication technologies during times of day when they are separated (e.g., by being at work or school), when they need to coordinate tasks, whereabouts, and activities, and when they want to self-present as a couple via social media (see [47]). In turn, the opportunities for connection afforded by these media should play a role in individuals' subjective experience of their romantic relationship.

The present paper first examines, in a descriptive fashion. the use of interpersonal media within geographically close romantic relationships. Which media do these couples use and to what extent? To the best of our knowledge, only one study to date has directly examined this topic [10], which is why replication is important. Then, we investigate the link between this media use and partners' relationship satisfaction. In long-distance relationships, media use has been shown to affect relationship quality through a multitude of routes, such as promoting self-disclosure [51], enabling low-cost relational maintenance [1,48], and inducing partner idealization [19,40]. In this study, we focus on partner idealization because (1) it has been shown to be closely connected to the perceived quality of romantic relationships; and (2) it is particularly apt to stem from communication in reduced-cue environments, such as those afforded by many everyday communication technologies. Is the use of these technologies positively associated with relational satisfaction among geographically close dating partners because it fosters partner idealization?

Our examination is guided by the Hyperpersonal model of online communication [50], a theoretical framework designed to explicate partner perceptions during interactions in reduced-cue technological environments. We focus on dating relationships among college students because dating relationships are much more prone to idealization than marital relationships, and because young adults are especially likely to be reliant on interpersonal media for their social interactions.

**Geographically Close Dating Relationships & Media Use** Despite the proliferation of long-distance relationships, geographically close romantic relationships (sometimes referred to as geographically collocated or proximal relationships) are still the most prevalent type of romantic union [46]. Late adolescence and young adulthood is a time of much experimentation in this domain, with individuals forming and breaking off numerous romantic attachments [45].

A very limited body of research has analyzed the extent to which interpersonal media is used within geographically close romantic relationships. Coyne and colleagues [10] conducted a first descriptive study of media use within these relationships (including marital and pre-marital ones). A survey of over 1,000 participants showed that the most frequently used medium of interaction was the cell phone (i.e., voice calling), followed by texting, email, social networking sites, IM, blogs, and webcams. The last four media in the preceding list were quite infrequently used, with a mean of 1-2 on a scale from 1 (never used) to 5 (often used). Demographic differences also emerged, with younger respondents more likely to use each type of medium to communicate with their romantic partners, with the exception of email, which was more frequently used by older respondents. This study also found that texting had the strongest influence on respondents' relationship satisfaction, although an earlier study [4] found no connection between media used (i.e., Internet or phone) and relationship satisfaction. Another study [30] found that some geographically close romantic couples preferred to use computer-mediated communication when discussing issues on which they and their partners had differing opinions. and that some felt computer-mediated communication was a productive venue for offering clarifications to prior face-to-face discussions or for addressing sensitive topics. This indicates that, at least among a proportion of proximal couples, computermediated communication is used as a strategic supplement to face-to-face interaction.

The present paper also examines how much proximal couples rely on interpersonal media. In light of the existing evidence, we expect mobile media (phone calling, texting) to be widely used. As a way to contribute to the existing literature, our examination differentiates between the quantity and quality of couples' communication in each medium. Indeed, research suggests that quantity and quality of communication are two distinct parameters of social interaction [13]. Quantity of communication straightforwardly refers to the amount of time romantic partners spend in social interaction, while quality of

communication refers to the extent to which the communication is perceived as positive, supportive, agreeable, intimate, and easily controllable [25]. Hence, we ask:

RQ1: How much time do proximal couples spend using each medium of communication? What is their perceived quality of communication within each medium?

## Media Use and Hyperpersonal Idealization

In addition to describing patterns of media use for proximal dating couples, we also seek to understand some of its consequences, using the Hyperpersonal model as a theoretical framework. The Hyperpersonal perspective [50] posits that mediated interaction is different from face-toface interaction in both processes and outcomes. Mediated environments reduce (as is the case with the phone) or completely eliminate nonverbal cues (as is the case with email and texting), and are often editable and asynchronous. This constellation of technological affordances allows communicators more control over their self-presentational claims, enabling them to construct messages that are closely aligned with their self-presentational goals (a process known as selective self-presentation). Receivers of these messages have greater latitude for overattribution, meaning that, lacking information about partners' nonverbal behaviors and physical environments, they mentally fill in the blanks for missing information with information that they believe is consistent with what they already know. Thus, if the initial self-presentation is positive, it is likely to be perceived as even more positive in reduced-cue environments through overattribution. (Negative selfpresentations similarly lead to even more negative impressions through overattribution.) As the interaction progresses, communication partners are likely to treat each other in ways consistent with their initial impressions (either positive or negative), prompting behaviors that reinforce this initial impression. This process is known as behavioral confirmation. All in all, selective selfpresentation, overattribution, and behavioral confirmation work together to engender an *intensification loop*, whereby initial impressions get exaggerated as a result of interaction in reduced-cue environments.

While it is possible for self-presentations and initial impressions to be negative, as in the case of flaming or trolling, the majority of online interactants wish to make positive impressions and to be perceived favorably. This should certainly be the case with romantic couples, who by definition experience attraction towards one another. When self-presentation, overattribution, and behavioral confirmation are positive, the intensification loop is one of idealization. That is, interactants in mediated environments perceive one another in exaggeratedly positive ways, leaving the interaction with inflated perceptions of the merits of their partner and of the quality of the bond they share. In fact, the hallmark of this idealization loop is that it makes online interactants experience greater social and/or

romantic attraction towards their partners than they would have experienced had the interaction taken place face-toface.

Empirical support for these assertions is robust. Strangers communicating with one another over instant messenger rated their partners' personalities in more extreme and positive ways, an indicator of idealization [16]. Members of long-term virtual teams liked each other more when communicating through purely textual means than when they had access to their partners' photographs, presumably because the lack of information about physical appearance offered greater latitude for idealization [50]. Participants interacting with strangers in computer-mediated environments were more likely to interpret their partners' self-disclosures in ideal ways, as indicators of intimacy, which in turn intensified their liking towards these partners [18].

An important theoretical consideration is that the original intent of the Hyperpersonal model was to explicate selfpresentation and impression formation dynamics among unacquainted online interactants - that is, individuals who had no prior relationship and whose communication occurred exclusively online [49]. In the present paper, we argue that the model has utility in predicting relational dynamics even among previously acquainted individuals who have both online and offline contact, such as dating couples. Hyperpersonal dynamics are theorized to occur in reduced-cue environments where partners experience uncertainty about one another. We argue that uncertainty does exist even among romantic couples, at least at the interaction level. That is, partners may know each other well generally, but may not know what each is thinking, feeling, or doing at a given point in time. In these uncertain situations, the use of interpersonal media can produce idealized hyperpersonal projections (i.e., partner perceptions). As previously detailed, mediated spaces, characterized by a reduction in nonverbal cues and sometimes editability and asynchronicity, allow for selective self-presentation and overattribution. Romantic couples can put their best foot forward and also imagine their partners to possess desirable characteristics, such as responsiveness, kindness, or commitment during specific mediated interactions, whether by phone, texting, or email. Individuals may therefore form idealized notions of their romantic partners during instances of mediated interaction. In turn, the accumulation of such satisfying interactions over the media can enhance the overall satisfaction level of the relationship.

A handful of recent studies have already begun to examine the utility of the Hyperpersonal model in pre-existing relationships. Brody [7] found that, in long-distance relationships (both romantic and friendships) a high frequency of mediated communication (phone calls, email, IM, and social media) coupled with sporadic face-to-face contact resulted in greater relational satisfaction and commitment, two markers of hyperpersonal idealization. Similarly, Jiang and Hancock [19] found that, among longdistance romantic partners, communication through media with reduced cues, reduced synchronicity, or increased mobility produced greater perceptions of partner responsiveness, which in turn enhanced intimacy. In fact, long-distance couples exaggerated their partners' responsiveness to a greater extent than geographically close couples, presumably due to their greater reliance on interpersonal media. Notably, neither of these studies measured idealization directly, but rather assumed that higher scores of relational satisfaction and commitment, and partner responsiveness and intimacy, respectively, were indicative of idealization.

## Partner Idealization and Relationship Satisfaction

The Hyperpersonal model specifically links partner idealization with positive relational outcomes, such as increased liking and attraction [49,50]. Additionally, the literature on romantic relationships, independent of media use, posits that partner idealization is a necessary ingredient in producing satisfying relationships. Contrary to what we might expect, perceiving one's partner in distorted, unrealistically positive ways is critical for relationship success [27,37,39,40]. Idealization enhances love and relational satisfaction because it ensures that the partner's flaws, which might give one pause and invite a reconsideration of the relationship, are overlooked, while positive attributes are emphasized.

Similarly to hyperpersonal projections, romantic idealization is theorized to be facilitated by uncertainty – that is, a lack of complete knowledge about the partner. For this reason, romantic idealization tends to occur in the early stages of relationships and to dissipate over time, as couples get to know each other intimately. Idealistic distortion is higher in dating relationships than marriages [6].

In sum, the classic literature on romantic relationships posits that partner idealization generates positive romantic outcomes, such as increased satisfaction. The newer literature on long-distance romantic relationships [7,19] proposes that mediated communication, which blocks certain types of information, such as nonverbal cues, fans the flames of idealization. We extend these arguments by testing them for the first time in the context of geographically close romantic relationships. We hypothesize that interpersonal media use within proximal romantic relationships is positively related with partner idealization, which in turn enhances relational satisfaction.

However, it is important to clarify which aspects of interpersonal media use should be related to relational satisfaction via hyperpersonal idealization. Prior research conducted in face-to-face settings strongly suggests that the mere quantity of interaction does not affect relational satisfaction and intimacy among dating couples; however, it is partners' perceptions of the *quality* of this interaction that does [13]. By the same token, the Hyperpersonal model is

concerned with the *interpretation* of messages in reducedcue communication channels. The model argues that in these environments, messages are likely to be perceived as positively valenced, affirming, and emotionally attuned, and it is these perceptions that lead receivers to engage in sender idealization [50].

Similarly, we predict that it is the quality, not necessarily the quantity, of mediated communication that is associated with hyperpersonal idealization and, in turn, with relational satisfaction. We generally expect that the perceived quality of mediated communication should be high.

#### METHOD

#### **Participants and Procedure**

Participants were undergraduate students at a large Midwestern university who were compensated with extracredit in their Communication classes (N = 211, 79.6% women; M age = 20.31, SD age = 1.97; 79.15% white, 10.43% Asian, 2.37% African-American, 8.05% other). The study was advertised on the department's research participation website as an online survey about media use within romantic relationships. Only students who were currently involved in a geographically close romantic relationship and were heterosexual were invited to participate. Homosexual students were not included in this study because the psychological processes undergirding their romantic relationships are likely to be different [23,34]. However, we provided alternative options for them to earn extra-credit.

The study was set up as an entirely online survey that participants filled out at a time and location of their convenience.

#### Measures

#### Quantity of communication

Participants were asked to indicate all the media they used to communicate with their romantic partners from the following list: 1) phone (i.e., voice) calling<sup>1</sup>; 2) texting, defined as SMS sent through smartphone applications such as IMessage, Whatsapp, and Blackberry message; 3) email; 4) instant messaging (IM), defined as online conversations using applications such as G-Chat, Facebook chat and textonly Skype chat; 5) Facebook posting, excluding private communication (i.e., email, IM); 6) Twitter posting; 7) video chatting (e.g., Facetime, Skype); and 8) video games. Participants were given the option to add any additional media not included in this list (e.g., Snapchat, Instagram).

For each medium selected, participants were asked to indicate how many days a week ("Approximately how many days a week do you use this medium to communicate with your partner?") and how much time a day they utilized the medium ("On the days that you use this medium, how much time do you spend using this medium to communicate with your partner, in minutes?"). Responses on these two questions were multiplied and then divided by seven in order to estimate the average amount of time that participants used each medium every day. This measure represented our operationalization of quantity of communication.

#### Quality of mediated communication

For each medium, participants indicated the quality of communication with their partner using the Iowa Communication Record (ICR) scale [11] (8 items). The ICR is made up of semantic differentials, measured on a seven-point scale (e.g., "relaxed - tense," "personal - impersonal," "satisfying - not satisfying"). The scale achieved good reliability ( $\alpha$ 's were calculated separately for each medium and ranged between .81 and .84). The ICR is widely used in the area of romantic relationships and has been validated across multiple studies (e.g., [13,31, 52]). In order to reduce participant fatigue and ensure valid responses, we asked participants to complete the ICR only for the three most frequently used media for communication with their romantic partner.

#### Idealization

Idealization was measured using the Idealistic Distortion Scale (IDS; [14]). The IDS consists of five items, including "My partner and I understand each other completely" and "My partner completely understands and sympathizes with my every mood." Each item was measured on a seven-point scale (1 – strongly disagree to 7 – strongly agree). The scale achieved good reliability ( $\alpha = .77$ ). This measure is also well-validated in the romantic relationship literature [40,41].

#### Relationship satisfaction

Relationship satisfaction was measured using the Relationship Assessment Scale (RAS; [19]) The RAS is one of the most widely used measures of well-being within romantic relationships [e.g., 35,42] and consists of seven items, including "In general, my partner meets my needs well," "My partner meets my needs for intimacy," and "In general, I am satisfied with our relationship." Each item was measured on a seven-point Likert scale (1 – strongly disagree to 7 – strongly agree). Good reliability was achieved ( $\alpha = .88$ ).

#### Covariates

The following covariates were included in the analyses: 1) age, which has been shown to be negatively related to relationship satisfaction among a similar sample of college students [12]; 2) gender, because women have been shown to be more selective of relationship partners and therefore might be more prone to idealization [27]; 3) the length of the romantic relationship (M = 15.90 months, SD = 16.41), because longer relationships are apt to be more satisfying and less prone to idealistic distortion [43,44].

<sup>&</sup>lt;sup>1</sup> Our questionnaire simply asked participants to think of the phone, without specifying whether this referred to cell phones or landlines. Since recent research shows that 97% of young adults own a cell phone [31], we assume that the majority of our participants reported on their cell phone use.

#### RESULTS

#### Patterns of Media Use: Descriptives

On average, participants reported using 3.34 distinct media (SD = 1.30) to communicate with their romantic partners. The most frequently used medium was texting, followed by phone calling, Facebook, IM'ing, Twitter, email, video chatting, and least of all video games. The percentage of participants using each medium is presented in Figure 1. This pattern is consistent with recent studies, which also show that texting and voice calling are the most frequently used media by college students engaging with one another across social contexts [8,15,26], and suggests that interpersonal media use within proximal romantic relationships follows the same pattern as general interpersonal media use.

Descriptive analyses show that texting was not only the most frequently used, but also the most heavily used medium, with participants spending an average of over two hours texting with their romantic partners on a daily basis. However, this high average was due to the presence of a few outliers, with the median number of minutes spent texting being 60. Participants reported spending a little under half an hour with their romantic partners over the phone on a daily basis. Although video chatting and video games were used only by a small subset of our sample, those who did use these media reported spending a fair amount of time on them (see Table 1).

Participants reported high quality of communication throughout the media (see Table 1). On a scale from 1 (low quality) to 7 (high quality), the media were highly rated, with most means above 5. Facebook was rated as having the lowest quality of communication. Pair-wise comparisons revealed that the quality of communication via texting was equal to that via the phone, t(177) = 1.52, ns. However, the quality of communication via phone and text were significantly higher than that via Facebook; phone-Facebook, t(98) = 7.47, p < .001, text-Facebook,

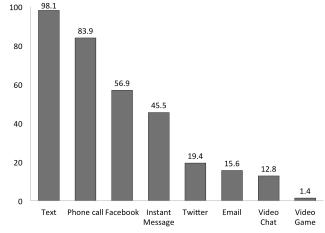


Figure 1. Percentage of participants using each medium for communication with their romantic partners.

t(75) = 9.03, p < 001. We were unable to run pair-wise comparisons among the other media because of insufficient sample size (recall that participants only rated their quality of communication for their top three most used media).

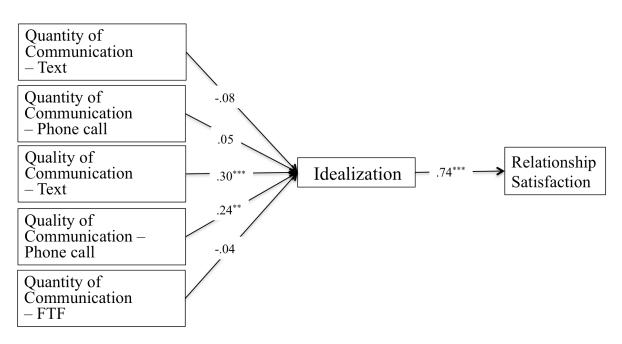
#### Media Use and Relationship Satisfaction

A main goal of this study was to examine whether the quality (but not necessarily the quantity) of media use among geographically close romantic couples is associated with an increase in relationship satisfaction by boosting partner idealization. To test the mediating role of idealistic distortion in the relationship between media use and romantic satisfaction, we employed a path analysis procedure using the Lavaan package in R [36]. Mediation was examined using the test of joint significance, a statistical test that has been shown to be more powerful and less susceptible to Type 1 errors than Baron and Kenny and other mediation procedures [9]. The test of joint significance simultaneously probes the associations between the independent and mediating variable, and the mediating and dependent variable respectively. If both relationships are significant, then mediation can be said to occur. Note that this test, unlike Baron and Kenny [2], does not require a significant predominant relationship between the independent and dependent variables.

	M	SD	Mdn
Quantity of communication (min)			
Face-to-face	171.17	159.24	128.57
Text	129.49	247.10	60.0
Phone call	22.33	35.19	8.6
Facebook	9.03	28.51	2.9
IM	18.36	37.95	6.1
Twitter	9.98	20.37	5.0
Email	4.42	7.39	1.4
Video chat	22.92	27.39	8.6
Video game	92.86	127.59	25.7
Quality of communication (1-7)*			
Text	5.47	.93	
Phone call	5.54	.81	
Facebook	4.79	1.00	
IM	5.07	.95	
Twitter	4.88	.69	
Email	5.35	.75	
Video chat	6.10	.90	
Video game	4.88	1.24	
Idealized distortion (1 – 7)*	4.72	1.15	
Relationship satisfaction (1 – 7)*	5.83	.91	

Note: \*Higher scores indicate higher quality of communication, more idealization, and higher relationship satisfaction.

Table 1. Descriptive statistics for all key variables.



Note: p < .10, p < .05, p < .01, p < .001.

Figure 2. Path model and coefficients for all the hypothesized relationships.

While we intended to probe the association between *all* the media used and relational characteristics, our sample only reported using texting (98.1% of participants) and phone calling (83.9% of participants) on a consistent basis. The remaining media were used by about half of our sample or less. Including these latter media would have produced an untenable reduction in sample size, which is why we removed them from the analysis.

As depicted in Figure 2, we generated a path model with the quantity and quality of communication in texting and phone calling, respectively, and quantity of face-to-face communication as exogenous variables, relationship satisfaction as an endogenous variable, and idealization as a mediator (N = 150). Given the high correlation between some of the variables (see Table 2), we checked whether multicollinearity would be a problem. Results show that it was not, with all VIF's less than 5. Gender, age, and relationship length were entered as covariates.

To ascertain model fit, we used Kline's [22] cutoff criteria, according to which a model demonstrates good fit if it achieves the following parameters:  $X^2 p$ -value > .05; RMSEA < .06; CFI > .95; GFI > .90; SRMR < .08. Based on these criteria, our model showed excellent fit with the data:  $X^2(5) = 4.26$ , p = .51; RMSEA = .00 (90% confidence interval = .00 to .11); CFI = 1.00; GFI = 1.00; SRMR = .01, and explained 33.7% of the variance in the endogenous variable, relationship satisfaction.

Path coefficients show that the quantity of communication through texting, phone calling, and face-to-face was *not* significantly associated with partner idealization. However,

the quality of communication through both texting and phone calling were strongly predictive of partner idealization. Similarly, partner idealization was a strong predictor of relationship satisfaction (see Figure 2 for path coefficients). The test of joint significance confirmed that

Variable	1	2	3	4	5	6
1. Quantity of Communication – Text	-					
<ol> <li>Quantity of Communication         <ul> <li>Phone call</li> </ul> </li> </ol>	.14	-				
<ul><li>3. Quality of</li><li>Communication</li><li>Text</li></ul>	.05	01	-			
4. Quality of Communication – Phone call	04	.23**	.32**	-		
5. Quantity of Communication – Face-to-face	01	.25**	.11	.23**	-	
6. Idealistic Distortion	06	.08	.35**	.33**	.05	
7. Relationship Satisfaction	07	.05	.27**	.34**	.09	.75**

Note: p < .05, p < .01.

# Table 2. Partial correlations for all the variables in the path model, while controlling for the covariates.

partner idealization acted as a mediator between media use and relationship satisfaction.

Notably, the size of the path coefficient for quality of communication through texting (.30, p < .001) was higher than the path coefficient for quality of communication through phone calling (.24, p < .01). Both were higher than the size of the coefficient for quantity of communication through face-to-face (.04), which did not reach statistical significance. Unfortunately, we did not collect data on the quality of communication through have allowed for a more direct comparison. However, the observed pattern indicates that the more nonverbal cues get reduced, the more communication contributes to idealization, consistent with the Hyperpersonal model. None of the covariates was significantly associated with the exogenous and endogenous variables of the model.

## DISUSSION

New communication technologies are widely used and influential in a variety of relational contexts. The present study is one of the first to investigate their frequency of use and association with relationship functioning among young, geographically close dating couples. Results show that mobile media (phone, texting) are pervasively used within this relational context and that they are associated with meaningful psychological processes. Specifically, they support partner idealization, a process whereby individuals perceive their romantic partners in unrealistically positive ways, which in turn amplifies relational satisfaction. Consistent with the Hyperpersonal model, we argue that these media support idealization because they provide users with technological affordances, such as a reduction or elimination of nonverbal cues and editability, that enable them to foster positive, high-quality interactions.

## Mobile Maintenance

Hall and Baym [16] coined the term "mobile maintenance" to refer to young adults' use of mobile devices (phone, texting) to maintain close friendships. We find this to be a useful construct for explaining young adults' reliance on mobile communication within their dating relationships as well. Indeed, results show that participants exhibited strong dependence on mobile media for the management of their dating relationships, despite being geographically close. Texting in particular was extremely widely used, with the median use of texting in our sample registering about one hour per day. This is consistent with broader statistics about the prevalence of texting, which show that American teenagers send around 110 texts every day [29]. The phone was similarly used by a majority of the respondents, and on a consistent basis (almost half an hour daily). These patterns provide credence to Turkle's conceptualization of young adults as being "tethered" to their phones [48].

Both the phone and texting were seen as supporting highquality communication, with participants rating their interactions with their partners over these media as satisfying, rewarding, and positive. However, we did not assess in this study the *content* of what participants discussed with their partners over mobile media. Based on existing research, we can surmise that this media was used for providing a feeling of constant connection [3], enacting relational management behaviors such as openness and assurances [16], and for coordinating everyday activities. Indeed, Ling and Yttri [24] propose that mobile phones allow for "nuanced instrumental coordination," which that individuals in close means interdependent relationships, such as dating, can plan, coordinate, and execute goals effectively, while feeling connected and in synch with each other. We believe that this ability to engage in perpetual contact, reassurance, and mutual coordination led participants in our study to rate their mobile interactions as high in quality, and as leading to partner idealization and relational satisfaction.

## Hyperpersonal Idealization Revisited

Our main theoretical argument, based on the Hyperpersonal model of online communication, is that interpersonal media foster partner idealization due to their reduced-cue and editable nature. In particular, a reduction in cues has been theorized to produce opportunities for idealization by heightening uncertainty and therefore allowing interactants to mentally construct their partners' characteristics, motives, and behavior. Indeed, idealization is only possible when information is scarce and there is room for interpretation and imagination. Our data were consistent with these theoretical arguments: The medium providing no nonverbal cues (i.e., texting) was associated with idealization more than the medium providing partial nonverbal cues (i.e., phone calling), whereas face-to-face communication, which provides access to the full spectrum of nonverbal cues, was not associated with idealization at all. That is, the fewer nonverbal cues were available, the more idealization took place.

As previously discussed, the propositions of the Hyperpersonal model have been tested predominantly in zero-acquaintance contexts, because strangers naturally experience a great deal of uncertainty about one another and therefore have mental space for idealization. By investigating hyperpersonal projections within pre-existing dating relationships, we attempted to expand the Hyperpersonal model to broader relational contexts. Results show that the use of reduced-cue environments, such as the phone and texting, is associated with idealization even in relationships where partners are well acquainted with one another and maintain consistent face-to-face contact. Not only does this strengthen the external validity of the hyperpersonal perspective, but it also highlights its robustness. Specifically, the use of technological affordances is associated with idealization even in situations when uncertainty is not particularly deep. Romantic partners can idealize their partners despite the fact that they know them fairly well. Within this general environment of plentiful information about one's partner provided by face-to-face contact, mobile media appear to

allow for "pockets" of idealization – that is, communication spaces where imagination can still thrive. We may then conclude that hyperpersonal projection in a subset of one's interactions (i.e., those occurring through interpersonal media) is a powerful phenomenon that is not obliterated by unrestricted face-to-face contact.

The fact that phone use was associated with partner idealization in this dataset provides an additional extension to hyperpersonal research. Indeed, extant research has predominantly investigated text-based communication (e.g., email, IM) as purveyor of hyperpersonal projections. The fact that the phone, which merely reduces rather than eliminates nonverbal cues, is associated with partner idealization further strengthens the robustness of the hyperpersonal perspective. The Hyperpersonal model appears to have utility for explaining effects across a range of media, not simply purely textual ones.

One final addition to hyperpersonal research lies in the use of the quality of communication variable to ascertain participants' interpretation of message qualities across media. Previous research has mostly used an experimental paradigm for testing hyperpersonal propositions, where the medium of communication was treated as a categorical variable manipulated by the researchers [17,18,51]. In survey research, such as ours, it is useful to capture people's interpretation of messages through continuous variables as well. The quality of communication variable, which we introduced here, may serve such a purpose in future tests of the hyperpersonal model using survey designs.

#### Practical Implications

Romantic relationships are essential to happiness and wellbeing [34]. The present research, as well as a robust body of prior literature, demonstrates that perceiving one's romantic partner in unrealistically positive ways contributes substantially to the satisfaction individuals derive from these relationships. As an innovation adduced to extant research, the present study shows that this idealistic distortion is related to the use of mobile media. These media may therefore be useful practical tools for contributing to satisfaction in dating relationships. Couples may be able to enhance relational satisfaction through mobile media communication in their everyday lives.

#### Limitations and Future Research

Several important limitations need to be acknowledged. First, this study used a correlational design that forecloses conclusions about causality. While the hyperpersonal perspective predicts that the quality of communication in mediated environments *causes* partner idealization, it is also possible that partner idealization causes communication in mediated environments to be perceived as high in quality and, in turn, high quality of communication leads to relationship satisfaction. We investigated this alternative possibility by constructing a path model with idealistic distortion as the exogenous variable, relationship satisfaction as the endogenous variable, and quality of communication as the mediator. The data did not fit this alternative model well, indicating that it is more likely that the quality of mediated communication predicts partner idealization, rather than the other way around:  $X^2(2) = 122.50$ , p = .00; RMSEA = .59 (90% confidence interval = .50 to .68); CFI = .51; GFI = .88; SRMR = .10. Nonetheless, it will be necessary for future studies to employ experimental designs in order to definitively establish these variables' direction of causality.

Second, this study used a fairly homogenous sample of white, relatively affluent college students from the Midwestern USA. Variables such as ethnicity, cultural background, and socio-economic status have been shown to affect satisfaction in romantic relationships [21,51]. We recommend that future research examine more diverse samples and consider the impact of these variables.

Third and relatedly, the present study focused exclusively on heterosexual young adults involved in dating relationships. We believe it will be important for future studies to apply the present theoretical framework to a broader set of relationships - specifically, same-sex relationships, marriages, and dating relationships among older adults. These additional contexts are characterized by psychological factors that may significantly affect partner idealization, and may moderate the effect of mediated communication on partner idealization. For example, we have already reviewed evidence that idealization tends to naturally decrease in longer-term relationships, such as marriage [6]. Does mediated communication still afford opportunities for idealization in this situation? Similarly, homosexual individuals comprise only around 4% of the population [38] and therefore may have smaller pools of potential partners to choose from. This restricted availability of potential partners may enhance idealization, and may create a situation where mediated communication plays an even stronger role in boosting idealization.

Fourth, we recommend that future research uses more objective measures for tracking participants' frequency of media use, such as system logs. Research shows that, despite being prevalent in the literature, self-report measures of mobile phone use are only moderately correlated with server log data [5].

Finally, our sample included individuals who were fairly satisfied in their relationships. On a scale from 1 (not at all satisfied) to 7 (very satisfied), the mean satisfaction was 5.86 and the median was 6. We recommend that future research uses samples with more variability in relationship satisfaction levels.

## Conclusion

Interpersonal media has become an inextricable part of relational management, whether it be friendships, kin, or romantic relationships. The present study shows that geographically close dating relationships rely on mobile media to a significant extent, and that the use of these media is associated with meaningful psychological experiences.

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