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# Retrieval-Induced Forgetting via Social Media: The Mnemonic Consequences of Posting Pictures on Instagram

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Retrieval-Induced Forgetting via Social Media: The Mnemonic Consequences of Posting  
Pictures on *Instagram*

A Thesis Presented in Partial Fulfillment of the Requirements for the  
Masters of Arts in Forensic Psychology  
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### **Abstract**

Social media has become a common tool for individuals to selectively offload personal memories to the internet. Such selectivity may reinforce the posted “memory” but induce forgetting for related “memories” (Anderson, Bjork, & Bjork, 1994). To explore this possibility, the present study adopted the retrieval-induced forgetting paradigm to the context of social media. Participants were required to write a diary and take pictures relevant to the diary events and then selectively post pictures to the *Instagram*. The participants then came back to the lab and commenced a final cued recall and recognition test. The results indicated that posting personal pictures online induced forgetting of related memories but not pictures, and posting pictures online enhanced the recall of posted memories compared to offline memories. However, the results indicated that social endorsement (i.e., the number of likes and comments) had no mnemonic effect. The present study is the first to extend the retrieval-induced forgetting paradigm to the context of social media.

**Keywords:** Retrieval-induced forgetting; social media; personal memory

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Social media has become one of the most powerful and ubiquitous means by which individuals curate and share their lives with their friends, family and the world at large. Indeed, 90% of the adolescents are active social media users, as well as 65% of adults (Perrin, 2015). The prevalence of social media users has also grown rapidly in the last few years. For example, in 2016, there were 600 million of *Instagram* users compared to 90 million users in 2013. Clearly, the use of social media has become a common tool through which individuals share their personal (and other) information with others. Despite the ubiquity of users posting on social media, there is limited research examining the mnemonic consequences of posting personal stories online. For example, a recent study demonstrated that posting personal information via social media can lead to better recall of posted material (Wang, Lee, & Hou, 2016). However, other research suggests that once the information is externalized and available online, individuals are less likely to rely upon their biological resources to store the information and, thus, in turn, have more difficulty recalling the information (Sparrow, Liu & Wegner, 2011).

Regardless, a salient feature of such postings is that they are selective. For example, individuals may tweet some news articles while not tweeting others or they may post some pictures of their trip to Australia on *Instagram* or *Facebook*, but not others. Critically, this selectivity may have important implications for how individuals remember, not just what they posted but also the information related to what they posted online. For example, such selectivity may reinforce the posted “memory” but induce forgetting for related “memories” (Anderson, Bjork, & Bjork, 1994). However, to date, this possibility has yet to be explored. The present study examines this possibility by adapting the retrieval-induced forgetting paradigm to the

context of social media, in particular, *Instagram*. In what follows, the nascent research examining the mnemonic consequences of posting via social media will be described followed by the retrieval-induced forgetting paradigm before moving on to the present study.

### **Social Media and Selective Remembering**

In reviewing the existing research examining the mnemonic consequences associated with posting information via social media, two possibilities<sup>1</sup> become apparent: posting information via social media may diminish recall (e.g., Sparrow et al., 2011) or it may enhance recall of the posted information (e.g., Mickes et al., 2013; Wang et al., 2016).

**Diminished recall.** Philosophical work on the extended mind hypothesis (Clark & Chalmers, 1998) suggests that there may be legitimate instances in which the external environment becomes part of an individual's mind. A detailed discussion of this philosophical hypothesis is beyond the scope of this thesis. However, to put in layman's terms as it is relevant to the present study, the extended mind hypothesis suggests that individuals may actively use their environment to enhance their "memory." In such instances, though, the enhancement comes in the form of externalized "memory" but at the expense of biological memory. For example, there are probably very few individuals with a smartphone that can recall some of their closest friends' phone numbers (see Barnier, 2010). According to the extended mind hypothesis, the smartphone has replaced biological memory by storing the "memory" of the phone numbers on the physical phone. Thus, it is a shift from biological to externalized resources (see also transactive memory systems, Wegner, Giuliano, & Hertel, 1985). Does this offloading of

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<sup>1</sup> Clearly false information is spread via social media (see, e.g., Zubiaga, Liakata, Procter, Hoi, & Tolmie, 2016); however, much of this research focuses on the receiver of this false information (not the sender) and whether and when it leads to false memories (but see Fenn, Griffin, Uitvlugt, & Ravizza, 2014). Regardless, here, the focus is on how posting via social media shapes the way the poster recalls their personal past. Therefore, the present discussion is limited to research examining such instances.

“memory” to the environment lead to biological memory failures? Early results suggest that this may be the case. Sparrow et al. (2011) conducted a series of experiments in which individuals were either informed that the to-be-remembered information would be available online at a later time or that it would not be available. Their results indicated that when individuals believed the information would be available at a later point, they had worse recall of said information. The results suggested that participants did not use their biological memory to store the information. Rather, they used the environment (i.e., the internet) to help them recall the information at a later point. Thus, while these results suggest that posting information online may lead to worse recall, it is not clear whether these results extend to posting personal information via social media. Indeed, research suggests that the latter may increase recall of the posted information.

**Enhanced recall.** Given the meaningful nature of our personal lives, curating our lives via social media may lead to enhanced recall of the posted information. For example, Wang et al. (2016) examined the mnemonic consequences of posting autobiographical events on social media (*Facebook, Twitter, etc.*). In their study, participants were asked to record their life events in a diary, and the events were coded as posted online or not posted online. The memory test results suggested that 98% of the posted events were rated more important and highly emotional than un-posted events. More importantly, participants recalled more memories that are posted online than un-posted memories. Sharing personal stories online enhanced memory retention. Wang et al. (2016) suggested that the Internet/social media provided a platform for individuals to rehearse memories and to denote meanings to the constructs of the externalized memories. However, it is worth noting that a significant limitation of the Wang et al. (2016) study is that participants were able to self-select the pictures they posted online. Thus, the posted pictures may have been “inherently” memorable and not memorable because they were posted online.

Despite this limitation, though, work by Mickes et al. (2013) found similar results: when information was framed as a Facebook post, individuals had better recall of this information than human faces or when the information was framed as coming from a book. Thus, when posting personal information on social media, the relevant research suggests that it may, in fact, lead to better recall of the posted information. However, a salient feature of such postings is that individuals do not post everything they possibly can about a particular event(s). Posting via social media is selective, and this selective posting or retrieval may induce individuals to forget related aspects of their personal past.

### **Retrieval-Induced Forgetting**

In examining the mnemonic consequences of selective retrieval, Anderson and his colleagues developed the retrieval practice paradigm (Anderson et al., 1994). This paradigm consisted of three sequential phases: (1) study phase, (2) retrieval-practice phase, and (3) final recall phase. In the study phase, participants were presented with a series of category-exemplar paired associates (e.g., *fruits-apple*, *fruits-banana*, *professions-police*, *professions-nurse*). The participants were instructed to study the associated pairs. During the retrieval-practice phase, participants selectively retrieved half of the exemplars from half of the categories. To control which items the participants retrieved, they were provided the category with the first two letters of the exemplar. (e.g., *fruits-ap*). The participants then retrieved the exemplar (i.e., *apple*). After a brief delay or a distraction task, the participants then completed a final recall whereby they were presented with all the categories and had to retrieve all the related exemplars from the study phase.

The selective nature of this retrieval paradigm created three types of memories: Rp+, practiced items from a practiced category (e.g., *fruits-apple*); Rp-, unpracticed items from a

practiced category (e.g., *fruits-banana*); and Nrp, unpracticed items from an unpracticed category (e.g., *professions-police, professions-nurse*). At final recall, not surprisingly, participants recalled more Rp+ items relative to Nrp items (i.e.,  $Rp+ > Nrp$ ). However, more surprisingly, participants recalled fewer Rp- items relative to Nrp items (i.e.,  $Nrp > Rp-$ ). This latter result is known as the retrieval-induced forgetting effect. That is, by selectively retrieving an item (e.g., *apple*), it induced forgetting of related items (e.g., *banana*) relative to unrelated items (*all the professions*).

While the theoretical mechanisms driving this effect are debated, most research suggests that the forgetting associated with RIF results from inhibition (Murayama, Miyatsu, Buchli, & Storm, 2014). Inhibition theorists have argued that the competition between retrieval items leads to inhibition of the related, non-practiced items (i.e., Rp-) (Anderson, 2003). In other words, the accessibility of the practiced items (Rp+) during the retrieval-practice items is heightened, while the accessibility of unpracticed items (Rp-) sharing the same retrieval cue are impaired. For example, recalling apple (Rp+ item) inhibits recalling banana (Rp- item), consequently inducing forgetting in recalling banana. However, a detailed delineation of the mechanisms driving RIF is beyond the scope of this paper (for a review, see Storm & Levy, 2012).

More importantly, the RIF effect has been extended to more ecologically valid material and context, including eyewitness memory (Shaw, Bjork, & Handal, 1995) and pictures (Ford, Keating, & Patel, 2004). More critically for the present study, the RIF paradigm has also been extended to personal, autobiographical memories (Barnier, Hung, & Conway, 2004; Harris, Sharman, Barnier, & Moulds, 2010; Hauer & Wessel, 2006; Jobe 2012; Stone, Luminet, & Hirst, 2013).

For example, Barnier et al. (2004) examined whether the selective retrieval of emotional, autobiographical memories may induce individuals to forget related autobiographical memories. To examine this possibility, Barnier et al. (2004) adapted the Anderson et al. (1994) RIF paradigm to autobiographical memories as the stimuli. Nine category cue words were used to elicit positive, negative and neutral memories. During the retrieval practice stage, participants elaborated half of the autobiographical memories from half of the categories. Participants were presented with the nine cues at the final recall stage and were asked to recall all the memories associated with the category cues. As they hypothesized, they found the standard RIF effect (i.e.  $R_{p+} > N_{rp} > R_{p-}$ ). The results suggested that positive, negative and neutral memories are susceptible to forgetting as a result of selective retrieval. Hauer and Wessel (2006) extended the results of Barnier et al. (2004) using a broad range of category cues, such as "positive" and "negative," to elicit memories instead of the nine specific cue words. More importantly, both studies provided evidence indicating that the RIF paradigm can be applied to personally relevant information, albeit the magnitude of RIF effect might be diminished as a result of a lack of experimental control (Hauer & Wessel, 2006). These results have also been extended to the social setting of a conversation (see Stone et al., 2010). However, it remains unclear whether such induced forgetting as a result of selective retrieval of personal events/memories extends to the context of selective posts on social media. The present study addresses this gap in the literature by using the social media app, *Instagram*.

### **Goal of this study**

The overarching goals of the present study are as follows: 1) To examine whether posting pictures on *Instagram* may induce individuals to forget related pictures; 2) to examine whether posting pictures on *Instagram* may induce individuals to forget details of related events; 3) to

examine whether recalling the posted pictures provides support for either the diminishing or enhancing function of posting information on the internet; and 4) to examine whether the number of “likes” and comments associated with each post exacerbates the induced forgetting effect and/or enhances the recall of the posted picture/event.

## Method

### Participants and Design

Sixty-seven participants were recruited from an urban, northeastern college via the SONA system, Psychology Research Experience Program. Of these participants, 40 dropped out due to personal reasons, and 12 violated the experiment protocol and were, thus, excluded from final analysis. In the end, the present analyses consisted of 15 participants (14 females, 1 male,  $M$  age = 19), an issue would be discussed in the discussion. All participants were compensated with course credit for their participation. The experimental design consisted of a within-individual factor (retrieval: Rp+, Rp- & Nrp). A correlation analysis was also used to examine the mnemonic impact of the number of “likes” and comments.

### Procedures and Materials

The present study consisted of four phases over the course of 15 days: (1) Information phase began on day 1; (2) Diary phase began on day 1; (3) *Instagram* phase began on day 8; and (4) Recall/Recognition phase began on day 15. The information phase and the recall phase were conducted in the laboratory, whereas the participants completed the diary phase and *Instagram* phase at their residences.

**Information phase (Day 1).** Upon arriving at the lab, participants were greeted by the experimenter and asked to read and sign the informed consent. After the participants had signed the informed consent, the experimenter informed the participant of the purpose of this study. In

particular, the experimenter informed the participants that they were participating in a study that comprised of four phases over the course of 15 days. The participants were then provided both verbal and written instructions (see Appendix A) for how to complete the diary phase. In the lab, they were verbally informed that they would complete a diary over the course of the next seven days where they would provide two sentences summarizing 16 different events across the following four categories (4 events per category): happy, funny, exciting and entertaining. For each event, they were instructed to take a picture that was associated with each event. Notably, they were instructed not to take selfies. At the end of day seven, the participants were instructed to email their diaries and pictures to the experimenter. The experimenter answered any and all questions the participants had and collected their *Instagram* handles (i.e. username). Before leaving the lab, the experimenter informed the participants that they would be contacted in eight days for additional instructions.

**Diary phase (Day 1 to Day 7).** During the diary phase the participants documented 16 events and 16 pictures associated with each event. Specifically, four events and four pictures were needed for each of the categories. The participants completed the diary at their own pace. At the end of Day 7, the diaries were collected via email. The experimenter instructed participants to provide no more than two sentences describing each event.

***Instagram* phase (Day 8 to Day 14).** On day eight, the experimenter contacted all the participants. During this phase, the experimenter instructed participants to post half of the pictures from half of the categories. This led to four pictures in total posted on *Instagram* by each participant. This selective posting was controlled such that participants were instructed to post either the 1<sup>st</sup> and 3<sup>rd</sup> picture or the 2<sup>nd</sup> and 4<sup>th</sup> picture from two categories (i.e., four pictures in total). These orders were counterbalanced across participants. Participants were randomly

assigned to one of the six practice conditions: (1) happy-funny; (2) happy-exciting; (3) happy-entertaining; (4) funny-exciting; (5) funny-entertaining; and (6) exciting-entertaining. Thus, if the participant was in condition 1, they may have been instructed to post the 1<sup>st</sup> and 3<sup>rd</sup> picture they took for the categories happy and funny. From this phase on, the experimenter instructed participants to not use *Instagram* for any other purpose. They were also provided the experimental hashtag (e.g., category name) which was to be included on all their posts so that the experimenter could keep track of the participants' postings. The experimenter instructed participants that they could only use two additional hashtags with each of their posts. After posting these four pictures, the experimenter instructed participants to use their *Instagram* as they normally would (i.e., view the picture again if someone "liked" it or commented on it). Through the use of the experimental hashtag, the total number of "likes" and comments for each picture were recorded. The participants were also informed to return to the lab in one week (Day 15) for the final phase of the experiment.

**Recall/Recognition phase (Day 15).** This phase was conducted in the lab with a computer. The recall/recognition phase consisted of a cued recall section and a recognition section; the order of these tests was counterbalanced. For the cued recall section, the experimenter provided each participant, one at a time, each of the category cues (i.e., happy, funny, entertaining, exciting). The experimenter instructed the participants to recall as many events/memories they could recall, as well as all as many details associated with each event/memory associated with the cue during the diary phase. The order in which the participants viewed the four category cues was randomized. Participants were allowed as much time as they needed to try and recall as many event/memories and details as they could for each category cue. The cued recall test ended when participants stated that they could not remember any additional

aspects associated with each of the cues. The recognition test also took place on the computer immediately after the cued recall test. The participants were randomly presented 32 pictures. Half of the pictures were ones the participants took; the other half were false lures. To make the false pictures, the experimenter defined a theme for each picture and used it as a keyword to search similar pictures on *Instagram*. For example, the search #Brooklynbridge when searching pictures related to Brooklyn Bridge. Each picture was presented one at a time. When a picture was on screen, the participants were asked whether this was one of the pictures they took during the diary phase (yes/no). If yes, participants checked the "yes" box. If no, participants checked the "no" box. The participants' responses were coded regarding accuracy (number of correctly recognized pictures) and their response time using Qualtrics. After the completion of the experiment, the experimenter answered any and all questions the participant may have before debriefing them and thanking them for their participation.

### **Results**

In what follows, first, how the participants' responses were coded. Second, an analysis examining RIF for the cued recall test will be conducted followed by an analysis examining RIF for the recognition test. Last, an examination of whether the social endorsement influenced the magnitude of RIF will be presented.

### **Coding**

For the free recall test, the collected data were coded regarding the number of correctly recalled memories. The recalled responses were categorized into action and subject words. For example, the memory "I went to Brooklyn Bridge last weekend" would be coded regarding the action "went" and the subject "Brooklyn Bridg." To score one point in the correctly recalled items, participants had to provide both the action and subject word at the final recall. No extra

points were rewarded if extra details were provided. Failure to provide either the correct action or subject word resulted in a score of zero. Half points were not given if the participants provided the correct action word and the wrong subject word, and vice versa.

For both the cued recall and recognition tests, the  $Rp+$  proportional accuracy is the number of accurate responses divided by the total number of possible responses (i.e., four responses); the  $Rp-$  proportional accuracy is the number of accurate responses divided by the total number of possible responses (i.e., four responses); and the  $Nrp$  proportional accuracy is the number of accurate responses divided by the total number of possible responses (i.e., eight responses).

### **Cued Recall Test**

To examine whether the RIF is observed in the free recall test, a repeated measures ANOVA with one within-subject factor (retrieval:  $Rp+$ ,  $Rp-$ , and  $Nrp$ ) and the proportion of correctly recalled items as the dependent variable revealed a significant main effect for retrieval,  $F(1, 14) = 10.22, p > .05, \eta^2 = .42$ . Post hoc tests using the Bonferroni correction revealed that participants recalled significantly more  $Rp+$  items relative to  $Rp-$  and  $Nrp$  items ( $p < .05$ ). Mean and standard deviation of the proportion of correctly recalled items for all the retrieval condition are displayed in figure 1. More importantly, participants also recalled significantly more  $Nrp$  items relative to  $Rp-$  items ( $p < .05$ ).

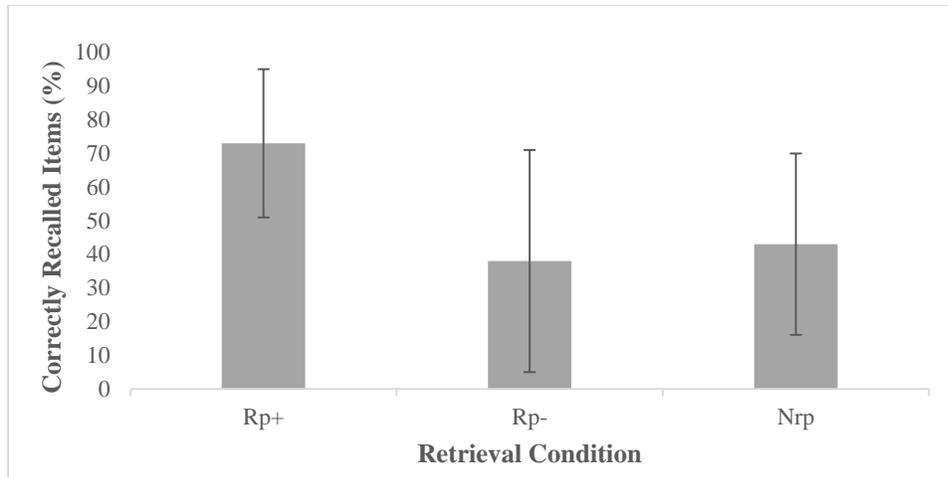
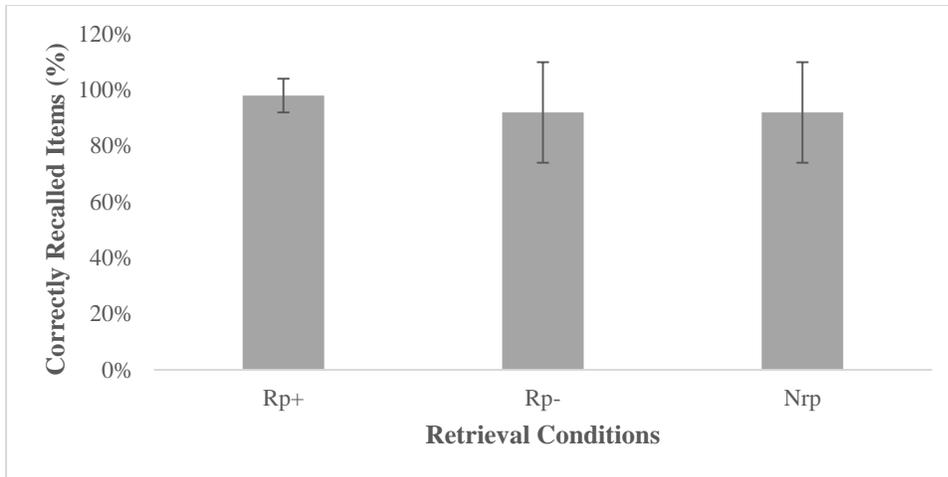


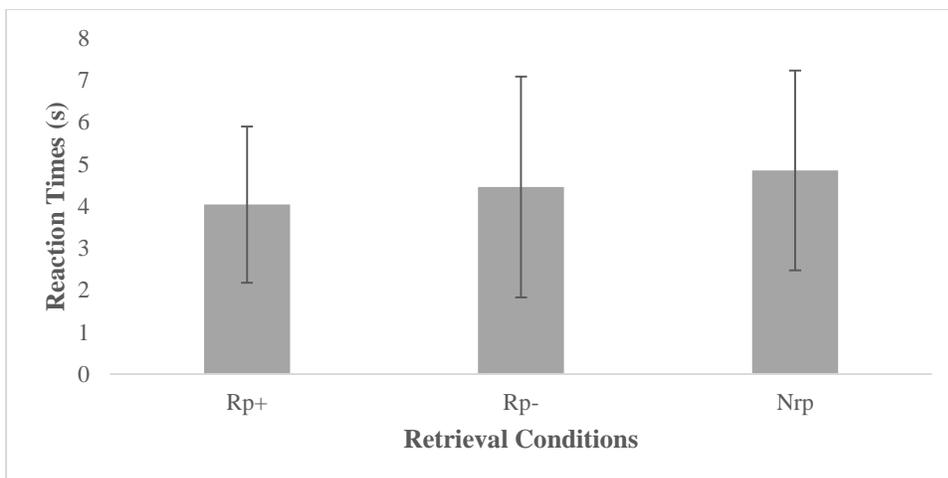
Figure 1. Mean proportion of correctly recalled items for all the retrieval conditions (Rp+, Rp-, Nrp). Error bars denote one standard error around the mean.

### Recognition Test

For these analyses, there were two dependent variables: the proportion of correctly recognized items and reaction time. To examine whether RIF occurred when recognizing the pictures, a repeated measure ANOVA with one within-subject factor (retrieval: Rp+, Rp- and Nrp) and the proportion of correctly recognized items as the dependent variable was run. There was no significant main effect,  $F(1, 14) = .79, p = .39$ . Mean and standard deviation of the proportion of correctly recognized items for all the retrieval conditions are displayed in figure 2. To examine whether RIF occurred regarding reaction times (regarding faster reaction times) a repeated measures ANOVA with one within-subject factor (retrieval: Rp+, Rp- and Nrp) and the reaction time as the dependent variable was run. There was no significant main effect,  $F(1, 14) = .002, p = .97$ . Mean and standard deviation of the reaction times for all the retrieval conditions are displayed in figure 3.



*Figure 2.* Mean proportion of correctly recalled items for all the retrieval conditions (Rp+, Rp-, Nrp). Error bars denote one standard error around the mean.



*Figure 3.* Mean reaction times for all the retrieval conditions (Rp+, Rp-, Nrp). Error bars denote one standard error around the mean.

### **Social Endorsement**

To examine whether social endorsement (number of "likes" and comments; see Table 1) was associated with greater recall/faster response of the posted picture/event and/or lead to greater levels of RIF, a correlational analysis was run. To this end, the absolute and relative impairment associated with RIF were calculated for the free recall test and the recognition test

(see Table 2 for mean and standard deviation). To calculate the absolute impairment, the  $R_p-$  values was subtracted from the  $N_{rp}$  values (i.e.,  $N_{rp} - R_p-$ ); to calculate the relative impairment, the  $R_p-$  values were subtracted from the  $N_{rp}$  values and then divided by the  $N_{rp}$  values (i.e.,  $N_{rp} - R_p-/N_{rp}$ ). A correlation analysis between the "likes" as the independent variables and a list of dependent variables, including the proportion of  $R_{p+}$  corrected recalled items, the absolute and relative impairment in both tests, yielded no significant associations. Similarly, a correlation analysis between the comments as the independent variables and a list of dependent variables (including the proportion of  $R_{p+}$  corrected recalled items, the absolute and relative impairment in both tests) yielded no significant associations.

Table 1

*The mean and standard deviation of the number of "likes" and comments.*

Variables	M	SD
Likes	37.55	22.41
Comments	3.38	5.32

Table 2

*The mean and standard deviation of the absolute and relative impairment variables in free recall task and the recognition task.*

Test	Absolute		Relative	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Free Recall (Accuracy)	.18	.18	.47	.41
Recognition (Accuracy)	.07	.13	.09	.15
Recognition (Latency)	1.2	1.07	.26	.21

### Discussion

The primary goal of this study was to examine whether posting personal pictures on social media, in this case, *Instagram*, may induce individuals to forget related pictures and/or related memories. To this end, the RIF paradigm was adapted to social media and found that posting pictures on *Instagram* can induce forgetting of related memories. However, there was no such forgetting associated with related pictures and/or reaction times. The results of the present research are the first to extend the RIF literature to social media.

These findings extend the results of Barnier et al. (1994), Hauer and Wessel (2006), and Stone et al. (2013) to social media. These previous studies found that selectively retrieving autobiographical memories, either individually or in the course of social interaction could induce forgetting of related memories. The present study shows that this may be the case when individuals post pictures of their personal lives on *Instagram*. Notably, though, there was no forgetting of the related pictures. Rather, posting pictures on *Instagram* induced forgetting of the details of related events.

As for the mnemonic consequences of the posted information, the pattern of these results is consistent with the Wang et al. (2016) findings in which posting memories online facilitates memory retention. That is, overall, posting pictures on social media leads to better recall of the associated memory and the picture itself. Also, online memories induced forgetting in the offline memories that share the same cue ( $N_{rp} > R_{p-}$ ).

Given the absence of the RIF effect in the recognition test, it might indicate that personal pictures, as a retrieval cue, are resistant to the detrimental effect of the RIF phenomenon. One possible explanation is that pictures are highly recognizable, in which individuals have the ability to retain visual stimuli over time (Standing, Conezio, & Haber, 1970). More importantly,

pictures may have helped the individuals to reinstate the similar context in which they encoded/took the picture and, thus, in turn, lead to better recall of all the pictures (Tulving, 1973).

This study found that social endorsement had no mnemonic effects. That is, although *Instagram* allowed the participants to socially interact with others, the number of likes and comments did not facilitate memory encoding/retrieval as the results suggested no relationship between the social endorsement and the proportion of correctly recalled Rp+ items or exacerbate the RIF effect. These results run counter to those of Sherman et al. (2016) where they found that such quantifiable social endorsement indicates the importance of peer influence in our reward system which, in turn, increases memory retention. The lack of any association in the present study may have been due to the low statistical power of having a limited number of participants (more on this below).

### **Limitations and Future Research**

While this was the first study to demonstrate RIF via social media, a few issues remain. First, the small sample size limited the statistical power and, thus, in turn, any interpretations must be read with caution. Second, pictures of friends are not prohibited to be included in the diary which is highly recognizable to the participants. Thus, the results of the recognition test may have been biased in instances when the participants' pictures included their friends.

Future research should examine whether the present results extend to negative and neutral memories posted on social media. The present study did not examine negative memories due to the sensitive nature of negative memories and posting them on social media. Additionally, research should examine whether the present results extend to other forms of social media (e.g., *Facebook, Twitter*, etc.). Such research will provide greater insights into how social media shapes the way individuals remember their personal past. Future research should also examine

whether such forgetting occurs when they merely see what others have posted about an event they shared together in person (Stone et al., 2010).

### **Conclusion**

While additional research is needed, these results suggest that posting personal memories online may lead to enhanced recall of the posted image and memory (Wang et al., 2016), but also comes with a cost: induced forgetting of related memories. This research provides greater insights into the various ways social media may shape the way individuals remember their personal past.

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## Appendix A

### Guidelines

You are invited to complete a 2 weeks experiment. There are 4 phases in this experiment. Please be aware that you will be excluded from the experiment if you do not follow the guidelines. Should you have any questions, please do not hesitate to contact me (igmemorystudy@gmail.com)

#### **Phase 1**

You have received a consent form. The researcher will give you a full outline of the experiment. This document contains the necessary information you needed to complete the experiment.

#### **Phase 2 -Write 16 Diaries, Take 16 Pictures**

Categories: Happy, Entertaining, Exciting, Funny

Write 16 events, 4 events per each category (i.e., 4 happy; 4 entertaining; 4 exciting;4 funny)

Describe the events with no more than 2 sentences.

Take 16 pictures, 4 pictures per each category (i.e., 4 happy; 4 entertaining; 4 exciting;4 funny)

The pictures must be relevant to your events.

At the end of this phase, please send back all the materials.

Reminder: Do not post any experiment materials on your *Instagram*

No selfies, screenshots, or pictures that you can find online

Here is an example outline of the diary:

(Date)
(Category name)
(Text events here)
(Pictures)

**Phase 3 - Post pictures on *Instagram***

Pick 4 pictures from your Diary, and post them on your *Instagram*

Choose the 1st and 3rd pictures from the first category, 2nd and 4th pictures from the second category

Put relevant and brief captions, and 2 hashtags when posting your pictures.

Acknowledge the likes and reply to your comments when you get notifications

Reminder: Do not post more than 4 pictures within this week

Do not post your personal pictures

Do not delete your post until you are told to do so

**Phase 4**

In order to proceed to this stage and earn the 4 credits, you must follow the guidelines carefully.

The last phase contains 2 memory tests. After that, you will be debriefed.