ASSOCIATION FOR CONSUMER RESEARCH

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Fomo: How the Fear of Missing Out Leads to Missing Out

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We examine how enjoyment of an ongoing experience can be negatively affected by "Fear of Missing Out" (FOMO). FOMO occurs when one views photos of a missed social event on social media, which leads to both diminished enjoyment of one's current experience and greater expected enjoyment of the missed experience

Experiences in the Moment

Chair: Francesca Valsesia, University of Southern California, USA

Paper #1: Based on True Events: The Effects of Veracity on the Consumption Experience

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Paper #2: The Revision Bias: Preferences for Revised Experiences Absent Objective Improvement

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Paper #3: FOMO: How the Fear of Missing Out Leads to Missing Out

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Paper #4: My Phone is My Diary: Using Mobile Diaries for TV Viewing Measurement

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SESSION OVERVIEW

"Every Moment is an Experience"– J. Roberts

Experiences tend to provide more enduring satisfaction than material possessions (Van Boven and Gilovich, 2003; Nicolao, Irwin, and Goodman, 2009) and come to constitute a fundamental part of the self (Carter and Gilovich 2012). However, very little is known about what influences how events are experienced in the moment. While some research has measured experiences in the moment (e.g. Wirtz et al. 2003), such research did so to explain the experience as a whole. The papers in this session specifically focus on how experiences in the moment are affected by information that consumers have *prior* to an event, as well as information that they receive *during* the event. Further, the four papers employ an array of methodologies that allow a deeper understanding of how experiences unfold over time.

The first two papers, in particular, examine how experiences are shaped by information consumers receive prior to the experience. **Valsesia, Diehl, and Nunes** explore how the veracity of a narrative, the belief that a story did or did not happen in reality, affects consumer experiences. They find that knowing a movie plot is based on true events alters viewers' moment-to-moment reactions to the movie. Further, using secondary data, they show that such beliefs also lead to more positive review ratings. **John and Norton** show that consumers' knowledge that they are experiencing a "revised" (as opposed to an "original") version of an experience influences how the experience is evaluated. They find that consumers have a "revision bias" – modified experiences are perceived as being of higher tastiness and higher quality than versions they were told were "originals." **Rifkin, Chan and Kahn** show that information that consumers receive *during* the experience also influences the experience itself. They find that enjoyment of an ongoing experience can be negatively affected when one becomes aware of concurrent social events (e.g. via social media) due to what they call "Fear of Missing Out". Finally, the work by **Lovett and Peres** complements these papers by examining mobile diaries as valid tools to measure experiences in the moment. The authors study mobile diaries in the context of TV viewing which allows them to compare self-reported diary with metered (PeopleMeter) viewing records. The authors observe a high correspondence between diary and metered records for longer metered TV viewing experiences (e.g., >30 minutes). .

Taken together, these working papers shed light on how events are experienced in the moment. They do so using an array of methodological approaches (ranging from moment-to-moment ratings and mobile diaries, to retrospective evaluations and secondary review data).

Given the primacy of experiences in consumers' lives, we expect this session to generate interest among researchers studying experiential purchases, social judgment, consumer decision-making, entertainment and cultural goods, as well as measurement tools. In the spirit of the conference theme "Advancing Connections," we believe that the diverse background of the authors as well as the varied methodological approaches will provoke a discussion at ACR that is both fruitful and engaging.

Based on True Events: The Effects of Veracity on the Consumption Experience

EXTENDED ABSTRACT

Movies, books and even songs are often marketed as being "inspired by" or "based on true events." While this familiar disclaimer is a frequent and long-established practice for dramatic movies, today, even horror movies (e.g. "The Possession") and sitcoms (e.g. "Fresh off the Boat") use the tagline "inspired by a true story." Marketers apparently believe that promoting a story in this way will be beneficial to their success. Indeed, prior research suggests that, *a priori,* consumers expect stories described as reality-based to be more emotionally intense (Ebert and Meyvis 2014). However *following* the experience, the effect does not manifest for people's recollections of the emotional intensity (Ebert and Meyvis 2014) or reported enjoyment (Argo et al 2008).

In this work, we propose that the apparent contradiction between marketers' beliefs and academic evidence is driven by the fact that not every narrative benefits from being labeled as reality-based. We suggest that only those stories that lack verisimilitude - defined as a low likelihood the events actually may have happened (Leary et al 2014) - benefit from a veracity claim such as "based on a true story". Verisimilitude is known to increase positive feelings if the story is one people can imagine (Busselle and Bilandzic 2008). We propose that veracity claims have a positive effect on an experience only when there is a lack of verisimilitude.

We first examine secondary movie data for evidence of a positive effect of being labeled as reality-based on both critics' and consumers' evaluations. We then examine experimentally the extent to which consumers' reactions to reality-based stories depend on the story's verisimilitude. Across these different methodological approaches we find that veracity claims lead to more positive reviews, but the effect is limited to narratives that lack verisimilitude and would otherwise be deemed implausible by consumers.

We begin by examining the role of veracity claims on review ratings in the real world. Consumer ratings are widely publicized and are an important driver of consumer choice, particularly in the movie industry (Liu 2006). In study 1, we utilize a unique, real-world data set to understand whether reality-based (as opposed to fictional) movies receive different ratings by consumers as well as critics. The data include information about the 1,000 movies that entered the Top

100 Box Office ranking from 2003 through 2012. Each movie was dummy-coded based on whether or not it was promoted as being based on true events. Our main dependent variables are the average rating each movie received from both consumers and critics. Consumer ratings were obtained from the IMDB website and ranged from zero to ten stars. Critic ratings were taken from metacritic.com and ranged from 0 to 100. We find that being based on a true story has a positive effect on consumers ($\beta = 0.49$, $t = 3.37$ $p < .01$) and critics ($\beta = 10.18$, $t = 4.21$, $p < .01$) while controlling for genre, budget, star power, MPAA ratings, and year. Further, we find that reality-based movies are also more likely to garner industry recognition in the form of winning Academy Awards for Best Picture ($\beta = 1.54$, *Wald* = 13.89, $p < .01$).

This data suggests that veracity claims do affect the way movies are evaluated by lay consumers as well as experts. However, we argue that this effect is driven by movies low in verisimilitude actually receiving and benefitting from such a label. Hence in Study 2, we test for the moderating role of verisimilitude. One hundred and fifty-one participants read a short story based on the film *Compliance*. Details of the story were changed in order to vary verisimilitude ($M_{High} = 6.03$, $M_{Low} = 4.76$, $F(1,148) = 8.78$, $p < .01$). We manipulated the veracity claim along with verisimilitude. We find that, in line with our expectations, knowing a movie is reality-based increased consumers' attitudes towards the story in the low-verisimilitude version ($M_{True} = 5.78$ vs $M_{Fictional} = 4.61$, $t(1,148) = 2.64$, $p < .01$), but not in the high-verisimilitude version ($M_{True} = 5.63$, $M_{Fictional} = 5.56$, $t(1,148) = -.18$, $p = .86$).

Study 3 overcomes a potential limitation of study 2, namely that we modified some details of the narrative to vary its plausibility. In study 3 all 442 participants watched the same short movie, Giving. Once again, we manipulated the veracity claim associated with the video. We expected that characteristics of the respondent (i.e. ethnicity) would affect perceived verisimilitude and hence moderate the effect of veracity claims on attitudes. The movie was set in Asia and featured Asian protagonists. We a priori expected that Asian respondents would find the story more plausible to start with and hence that non-Asian (but not Asians) would be affected by learning that a story is reality-based. Indeed, non-Asians found the narrative to be less plausible compared to Asians ($M_{Non-Asian} = 5.20$, $M_{Asian} = 5.66$, $F(1,440) = 3.72$, $p = .05$). More importantly, ethnicity moderated the effect of veracity claims ($F(1, 438) = 4.86$, $p = .03$). As predicted, knowing the movie is reality-based increased attitudes for non-Asian respondents ($M_{Truw} = 7.56$ vs $M_{Fictional} = 7.17$, $t(1,438) = 2.20$, $p = .03$) who deemed the story on its own less plausible. However veracity claims did not affect attitudes of Asian respondents ($M_{True} = 7.41$, $M_{Fictional} = 7.79$, $t(1,438) = -1.25$, $p = .21$) to whom the story was more plausible to start with. Additionally, part of the respondents also rated their moment-to-moment (MTM) enjoyment while watching the video. We observe the same pattern of effects on this measure; enjoyment was greater when the video was described as reality-based, but only for Non-Asians ($M_{Truw} = 63.52$ vs $M_{Fictional} = 57.19$, $t(1, 182) = 2.22$, $p = .03$) and not for Asians ($M_{True} = 57.50$, $M_{Fictional} = 58.95$, t (1, 182) = -.30, $p = .77$)

Using a multi-method approach, this research contributes to our understanding of when and how information about the veracity of a narrative influences consumer attitudes. Further our research contributes to research emphasizing the importance of understanding how consumers experience events in the moment.

The Revision Bias: Preferences for Revised Experiences Absent Objective Improvement

EXTENDED ABSTRACT

Many authors (academic and otherwise) have felt that although critics and reviewers preferred revised versions of their work, the original version was the better product – that reviewers preferred the revision simply because it was revised, rather than improved. In three experiments, we offer empirical evidence of this "revision bias": people prefer experiences and products that have been revised over time, regardless of whether newer versions are objectively better than their predecessors. Moreover, we show that the revision bias is independent of the input bias (Chinander and Schweitzer 2003), which refers to the confounding of effort with quality – people, often sensibly, think that the more effort that is put into producing something the higher the quality (see also Buell and Norton 2011; Kruger, Wirtz, Van Boven, and Altermatt 2004).

In Study 1, we document the revision bias in an experiential context in which participants ($N = 239$) consumed two gummy candies. The study was a within-subjects design in which participants were told that one of the candies used a refined recipe and were given no such information about the other candy. Specifically, participants were given a candy and told that it was the "final, market-ready version of the recipe" but that "before the recipe was finalized, the company had tried several different recipes before finalizing the current formulation" (*revision condition*). Participants then ate the candy and rated its quality and tastiness. They were given another candy and simply ate it and rated its quality and tastiness (*control condition*). As control factors, between-subjects, we randomized the order of candy version and the ascription of candy to version; these factors had no effect on ratings, and so we collapse across them. As predicted, participants deemed the revised version to be better tasting and of higher quality than the control version, $t(238)=2.41$, $p=.017$. These results held even when we controlled for participants' perceptions of the effort that the candy manufacturer put into making the candy.

In Study 2, we extend the revision bias to a new context: writing. Participants ($N = 199$) were shown two versions of a person's resume – a "first draft" and a "revision" – and rated the overall appeal of each. Critically, the only difference between the two drafts was trivial, the font: one of the resumes appeared in Times New Roman while the other resume appeared in Arial. We manipulated the ascription of font to draft: for some participants, the "first draft" was in Arial whereas the "revision" was in Times New Roman, while the reverse was true for other participants (we collapse across this factor in our analyses). As predicted, participants rated the revised version as significantly more appealing relative to the first draft, $t(198) = 4.02$, $p < .0005$. We find this effect particularly surprising given that the triviality of the revision was fully transparent: the two versions were presented side-by-side on the same page of the survey. Therefore, participants could plainly see that the resumes were not substantively different but nonetheless rated the revision to be better.

In Study 3, we differentiate revision bias from input bias (Chinander and Schweitzer, 2003). The preference for the revised resume in Study 2 could arise because the total effort put into it is necessarily greater than that put into the first draft (since the revised draft represents the sum of all effort put into the first draft, *plus* that put into the revision). Study 3 addresses this alterative explanation by pitting effort (operationalized by the total amount of time the candidate has spent on the resume drafts) against revision status. As in Study 1, participants ($N = 210$) rated the appeal of a resume. Between-subjects, we manipulated the total amount of time spent on the drafts (*10 minutes* versus *30 minutes*) and revision status (*first draft* versus

revision). As in Study 2, the two versions differed only in font. As predicted, we found only a main effect of revision status, $F(1, 206) = 4.52$, $p = .035$. Regardless of effort, participants found the revised resume more appealing. Indeed, participants rated a revised resume on which a person had ostensibly spent a total of 10 minutes as more appealing than a first draft on which a person had spent a total of 30 minutes.

Taken together, these experiments suggest that authors' feeling that reviewers prefer revisions simply because they are revisions may – at least in some cases – be warranted. Controlling for the actual quality of both foods and resumes, people rated revisions as being of higher tastiness and higher quality than versions they were told were "originals." While in these experiments we did not ask participants themselves to give feedback on originals and then sample products revised in response to their concerns, we suspect that people are likely to rate revisions on which they have provided input as particularly stellar – again, independent of any actual improvement.

FOMO: How the Fear of
Missing Out Leads to Missing Out

EXTENDED ABSTRACT

Fear of Missing Out (FOMO) is defined as "a pervasive apprehension that others might be having rewarding experiences from which one is absent" (Przybylski et al., 2013). This research explores FOMO's antecedents and consequences, and how it is driven by social belonging uncertainty. We establish that seeing social media photos of a missed social-group event triggers a two-pronged "FOMO effect": a decrease in enjoyment of one's current experience, and an increase in expected enjoyment of the missed experience.

In Study 1, we asked 198 participants, "What does FOMO mean to you?" and coded their responses. We found that 75% of participants mentioned their social group or friends. Of the participants who mentioned when they experienced FOMO, the majority (54%) reported experiencing FOMO during a missed event, compared to before (22%) or after (30%) an event. Finally, subsequent questions revealed that more active social media users experience FOMO more frequently ($r = .23$, $p = .001$), and that FOMO occurs most often in social situations with friends (84.4%), compared to with family members (48.3%) or coworkers (53.7%).

In Study 2, we examined how social media photos affect experience enjoyment by experimentally manipulating whether one saw Facebook photos of a missed event and whether one posted photos of one's concurrent event. Ninety-one participants imagined they faced a social dilemma: attend a "once-in-a-lifetime" concert with a friend, or a regularly-scheduled party with their social group. All participants were told that they chose the concert (confirmed by pre-test to be the most realistic choice). Participants rated their pre-event expected enjoyment of both the concert and party, and then were randomly assigned to one of four conditions: While at the concert, they saw [did not see] photos of the party on Facebook, and they posted [did not post] their own concert photos. Following the photo manipulations, participants rated their enjoyment of the current event (concert) and their expected enjoyment of the missed event (party); participants also rated their post-event retrospective enjoyment. We analyzed enjoyment ratings in a 2 between (Viewed Photos: see, do not see party photos) × 2 between (Concert Photos: post, do not post) × 2 within (Event: concert, party) × 2 within (Time: before-to-during, during-to-after) mixed ANOVA. Results revealed a significant interaction of Viewed Photos, Event, and Time, $F = 24.90$, $p < .0001$. Seeing (vs. not seeing) party photos produced the two-pronged "FOMO effect": decreased current event enjoyment ($M_{concert,}$

$_{party\_photos} = -0.40$ vs. $M_{concert, no\_party\_photos} = -0.06$), $F = 4.09$, $p < .04$, and increased missed event expected enjoyment ($M_{party, party\_photos} = 0.31$ vs. $M_{party, no\_party\_photos} = -0.41$), $F = 18.02$, $p < .0001$. Notably, the FOMO effect was observed even though participants perceived the concert as more enjoyable than the party ($M_{concert} = 6.47$ vs. $M_{party} = 5.25$, $t = 7.32$, $p < .0001$). Finally, we found that posting one's own concert photos did not mitigate FOMO, suggesting that FOMO is not driven by the desire to "keep up" with others' social media activity.

Study 3 used the concert-versus-party scenario from Study 2, but also included an additional "Viewed Photos" condition (a friend posting conference photos) to rule out the alternative explanation that FOMO is caused by distraction. Submitting participants' ($N = 179$) over-time enjoyment ratings of the current and missed events to a mixed ANOVA, we replicated the FOMO effect (Viewed Photos × Event interaction, $F = 6.59$, $p < .002$): Seeing (vs. not seeing) party photos decreased participants' current event enjoyment ($M_{concert, party\_photos} = -0.49$ vs. $M_{concert, no\_party\_photos} = -0.12$), $F = 6.96$, $p < .009$, and increased their missed event expected enjoyment ($M_{party, party\_photos} = 0.12$ vs. $M_{party, no\_party\_photos} = -0.24$), $F = 6.47$, $p < .02$. Further, as predicted, seeing conference photos did not elicit FOMO (changes in concert and party enjoyment ps > .2), indicating that distraction is not sufficient to elicit FOMO. We also measured participants' proclivity to worry about missed events using a trait FOMO scale (Przybylski et al., 2013). A Viewed Photos × trait FOMO mixed ANOVA predicting concert enjoyment revealed a signification interaction, $t = 2.34$, $p < .03$, with those higher in trait FOMO experiencing sharper declines in current event enjoyment after viewing photos of the missed social event.

Study 4 tested our theory that FOMO is driven by uncertainty about social belonging. Participants ($N=147$) first listed the name of a social group they belonged to, then reported how uncertain they felt about their group belonging (measured as feeling the need to protect their status as a group member). Next, participants read the concert-versus-party scenario from Study 2, and imagined they saw [vs. did not see] party photos. Participants rated their enjoyment and expected enjoyment both before and during the events. Replicating the FOMO effect (Viewed Photos x Event interaction, $F = 31.35$, $p < .001$), we found that seeing (vs. not seeing) party photos decreased current event enjoyment ($M_{concert, party\_photos} = -0.47$ vs. $M_{concert, no\_party\_photos} = -0.07$), $F = 12.6$, $p = .001$) and increased missed event expected enjoyment ($M_{party, party\_photos} = 0.26$ vs. $M_{party, no\_party\_photos} = -0.36$), $F = 18.00$, $p < .001$). We also found a significant Viewed Photos × Social Belonging Uncertainty interaction on current event enjoyment, $t = 2.76$, $p = .007$: Among those who saw party photos, higher social belonging uncertainty was associated with lower current event enjoyment.

These studies demonstrate that seeing social media photos of a missed social-group event produces "FOMO": decreased enjoyment of the current event, and increased expected enjoyment of the missed event. FOMO was triggered even when the current event was considered more enjoyable and experienced with a friend (Studies 2-3), and it was exacerbated by social belonging uncertainty (Study 4). FOMO was not triggered when social media photos were unrelated to the social group (Study 3), nor attenuated by posting one's own photos to social media (Study 2). This research thus shows how exposure to social media photos can negatively affect one's experiences and reveals the underlying role of social belonging uncertainty.

My Phone is My Diary: Using Mobile Diaries for TV Viewing Measurement

EXTENDED ABSTRACT

Consumer diaries have been a popular tool for capturing behaviors, habits, communication, and consumption over time. The ubiquity of mobile phone makes them a natural platform for diary studies. Such studies are increasingly used in medical and communication research (e.g., Bolger, Davis, and Rafaeli 2003; Broderick 2008; Shiffman, Stone, and Hubbard 2008), and mobile panels have been gaining increased popularity among marketing practitioners. However, their use in academic marketing research is still relatively scarce.

We study mobile diaries in the context of TV viewing measurement with two goals. First, we investigate the level and nature of the accuracy of self-report mobile diaries compared to observable PeopleMeter data. This goal leads us to provide insight into how to best apply and analyze long diaries lasting multiple weeks. Second, we provide substantive results about how these mobile diaries can complement PeopleMeter data to better understand television viewing. Although PeopleMeter measurement has undergone considerable validation (e.g., Danaher and Beed 1993), it continues to face controversy as technology and viewing changes (Carter and Steel 2014).

Our data include a mobile diary for a representative sample of 1702 respondents who reported viewing and communications about prime time TV for 3-6 weeks during the fall season of 2013. The respondents were given random alarms twice during the day and three times during prime-time hours and they were allowed to self-initiate entries at any time. Response to alarms was 47% on average and self-initiated reports accounted for 33% of all reports. The patterns of reporting suggest that daytime and prime-time participation reasonably matches the frequency of alarms, but that weekends have lower participation. Interesting, during less frequently alarmed daytime period self-initiation consisted of 48% of entries, and during prime-time with more frequent alarms, self-initiation was 26% of entries.

For a subsample of 146 respondents, we also have their Nielsen PeopleMeter (NPM) records. We examine each direction of the match between NPM records and mobile diary entries.

For the link from NPM records to the mobile diary entries, only a subset of the entries/records are relevant. First, the instructions for the diary suggest a limited time window (prime time with incentives for only 3 weeks of diary). Second, PeopleMeter captures viewing minute by minute, whereas diary entries are reported only when a viewing is long enough to warrant it. We find that viewings less than 3 minutes long had very low reporting rates, but that as the viewing length increased so did the reporting rate. Third, our data indicate a response pattern in which individuals were either active or inactive in their viewing reports on particular days. By focusing on the active days, reporting completeness increases by over 15%. Finally, respondents on occasion reported that they watched multiple episodes (5% of diary entries) in a single record. We accumulate viewings of the same program to control for this "binge-viewing" concern and find that reporting completeness increases another 8% on average. As a result, for shows on prime time viewed more than 30 minutes during the first 3 weeks of the diary and reported on active days, over 70% of PeopleMeter records have corresponding diary entries.

Considering how the completeness varies, we found little correlation with demographics or reporting activity, but day of the week has a distinct and significant pattern (e.g., Saturday is lowest). Interestingly, the reporting completeness rate is quite stable for the first 4 weeks of diary tenure (and only the first 3 weeks are incentivized). This suggests even longer mobile diary studies are possible and that incentives need not be as large.

We now start from the mobile diary entries and examining whether matching NPM records exist. We find that 67% of mobile diary viewing entries have a matching NPM viewing and another 7% were diary viewing reported as not on TV (i.e., no NPM match is expected). Hence, 74% match well with expectations. However, despite instructions to complete entries during or after viewing, 6% of the matching entries were completed before the viewing and 60% during the airing.

The unmatched cases include two categories--diary viewing on TV that has no matching NPM record (14%) and diary viewing that has an NPM record at the same time, but for a different program (12%). In both cases two possible explanations exist. First, the entries or records could be incorrect. For example, diary entries could be made in error or NPM records could incorrectly identify the household member who is watching. Second, the unmatched cases could reflect viewing not captured by the NPM on unmetered devices (TVs out of the home or unmetered in the home).

These unmatched entries are relatively concentrated with 17% of respondents accounting for 50% of the unmatched cases. These cases are more likely to come from younger people, during non-prime time hours, and from self-initiated reports. All three relationships are consistent with accurate, but non-metered viewing (e.g., viewing away from home during daytime). Further, intuitively, the self-initiated diary entries would on the surface seem most likely to be accurate.

These findings have implications for the use of mobile diaries and their ability to complement PeopleMeter viewing measurement. First, we suggest not only that mobile diaries are reasonably complete and accurate, but that even lengthy mobile diaries can achieve these completeness rates if properly accounting for activity levels and the exact instructions for the diary. While the completeness rates may not be high enough for some purposes, for other purposes there is no other way to obtain the data. Second, we argue that mobile diaries are able to identify both viewing that is not metered (on other devices or out-of-home) and viewing that could be inaccurate (e.g., household ID's not accurately entered). At the same time, mobile diaries can track other useful information about communications that shape viewing behaviors, yet PeopleMeter is unable to track. We do not suggest mobile diaries as a replacement to PeopleMeter, but they could augment the existing viewing measurement system.

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