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An Expectancy Violations Theory and Social Identity Approach to Understanding

Normative Deviance in Online Communities

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by

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ABSTRACT

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Deviance from normative behavior is not only prevalent in offline interactions, but those that take place online as well. Several theories have sought to address the notion of deviant behavior, but have done so with a focus on either individual or group-level behavior. In online contexts identities can easily switch (i.e., be made salient at either an individual level or a group level), and existing theorizing on deviant behavior does not take into account this identity salience as a factor in responding to deviance. The current study explores deviance from the lens of expectancy violations theory (an individual-level theory) and social identity approaches (a group-level perspective) simultaneously. A key notion in expectancy violation theory is also how individuals respond to ambiguous deviance through assessing the reward value of the deviant, which has not been explored with a social identity approach. To determine the effect of identity salience, type of deviance, and reward on perceptions of deviant behavior a 2 (primed identity: group, personal) x 2 (type of deviance: ambiguous, negative) x 2 (reward value: high, low) between-subjects factorial design experiment was used.

The study found no significant effects of group identity on perceptions of deviance for either type of deviance, nor significant effects of reward value (due to an unsuccessful manipulation). The reward value manipulation, while unsuccessful, created an opportunity to further explore the evaluation of reward in online contexts. Open-ended questions to assess

how individuals evaluate reward revealed a confound with the deviance manipulation, as well as the role that trust, online platform/community, and amount of information plays in evaluation of rewardingness online. Future research directions for these two theoretical perspectives are discussed with regard to identity, deviance, and reward.

An Expectancy Violations Theory and Social Identity Approach to Understanding

Normative Deviance in Online Communities

In recent years, online communities and virtual groups have received a vast amount of scholarly attention. Online groups have been shown to function similarly to offline groups in their ability to create and maintain social norms (Mikal, Rice, Kent, & Uchino, 2014) as well as foster and promote interpersonal relationships (Walther, 1992). Online groups and communities have also been shown to regulate deviant or counter-normative behavior that may threaten the group or other group members (Mikal et al., 2014). Given these two forces (group norms and individual relationships), what most powerfully influences how online group members respond to deviant behavior: group norms or individual expectations?

Norms and expectations are highly related concepts, with expectations often being based on norms. This is especially true in group settings, where the formation of group-specific norms sets a precedent for behavior that is expected and tolerated in the group itself. If one violates a norm, they have violated an expectation that group members must adhere to the rules of the group, be them explicit or implicit. However, expectations and norms can be independent when considering specific individuals within a group. For instance, if a group member consistently violates norms of behavior within a group, the expectation for that group member would most likely be that he will violate future norms. So, while normatively he behavior would be considered deviant, his prior actions would cause expectancies to form based upon his idiosyncratic behavior. This distinction between group norms and individual expectations is theoretically important, as often theories favor one perspective over the other; especially in the online context.

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Group norms help promote distinctiveness, and influence how members who identify with the group engage in certain behaviors. Normative behavior online has been shown to influence a variety of factors: for example, thoughtfulness of responses to news articles (Sukumaron & Vizech, 2011) and perceptions of anti-marijuana PSAs (Walther, DeAndrea, Kim, & Anthony, 2010). Aside from normative group effects, online communication has also been shown to be effective at interpersonal relationship formation and maintenance (Walther, 1992), and occasionally even *more* effective than face-to-face scenarios (Walther, 1996). While online communities often function as groups and rely on members' group identities, members have also been shown to establish interpersonal relationships and ties with other members, which may supersede group related goals (Sassenberg, 2002).

Of interest in the present study is how deviance from normative behavior is assessed online in light of the potential for both group and personal identity salience. Deviant or counter-normative behavior, while not always negative (Jetten & Hornsey, 2011), serves as an interesting lens for assessing two theories that both analyze deviant behavior, but do so from the perspective of the group (social identity approach, or SIA) or the individual (expectancy violations theory, or EVT). Some common examples of deviant behavior online include flaming (see Reicher, Spears, & Postmes, 1995), and deception (Joinson, Birchmeier, & Dietz-Uhler, 2005). The current study analyzes deviance from both a SIA and EVT perspective simultaneously in a simulated online context in order to show the complementarity and utility of taking into consideration both individual and group-level factors when researching deviance.

Specific to the online context, many aspects of CMC serve to change the way people respond to deviant behavior. The potential for anonymous online interactions would suggest

that personal identities may not be as salient in mediated contexts, as a deindividuation effect would be present in many cases. However, certain features online (such as photographs) have shown to increase salience of personal identity (Reicher et al., 1995) and may allow for responses based on individual actions as opposed to more group related factors. Given this fluidity in identity salience online, analyzing deviance from either group or individual perspectives does not present the most complete picture of interactions online. By using both an interpersonal theory (EVT) and a group perspective (SIA) complementarily, perceptions of deviance online may be better understood.

SIA emphasizes group related factors such as fit, group identity, and prototypicality as the primary factors in responding to deviance. However, typically, the theory limits its scope to situations only when group identity is salient. This is not to say that SIA does not discuss personal identity salience, but rather that the theorists using this approach tend to focus on how *social* behavior can be explained, as opposed to idiosyncratic behavior. This focus on social behavior is important online, as the interactions between users of online communities may be anonymous or unknown outside of that specific site. This would render individual identity difficult or impossible to determine, and thus users would be reliant on the social norms of the communities, as opposed to personal characteristics of the other users. This may not provide a complete picture, however, as many online communities are designed with the intention to have repeated interaction with the users of the site and encourage interpersonal relationship formation.

EVT, conversely, emphasizes interpersonal factors related to perceiving expected behavior violations, such as the potential for rewarding individual outcomes, which is important when looking at interpersonal interaction in online communities. However it does

not explicate in a substantive way how group level factors may affect perceptions of violations. This theory may be useful when online interactions are not anonymous, or when the members of a group attempt to form more interpersonal bonds.

Taken together, these two theories may provide a fuller understanding of deviant behavior in online contexts. EVT suggests an avenue of deviance perception when group identity is not as salient and SIA has limited predictive power, such as in the case of interpersonally rewarding individuals. Similarly, SIA enhances group related factors that may be lost when utilizing only an EVT approach to deviance, such as anonymous online interactions. While there have been some contrary results that suggest interpersonal factors are more readily salient than group factors in an online context (e.g., Wang, Walther, & Hancock, 2009), SIA argues that group related effects often take precedence over interpersonal goals (De Cramer & Van Vugt, 1999; Zdanuk & Levine, 2001), which is especially true given the anonymity of many online groups. Thus, interpersonal factors related to EVT should only appear when group identity is not salient.

The following section explains in greater detail social identity related approaches to studying deviance, with consideration of CMC research in particular. Next, expectancy violations approaches to dealing with deviant and unexpected behavior are explained. The third section addresses four potential factors unique to CMC that may affect the response to deviance in online groups and communities. Finally, an experiment is conducted to assess the combination of both SIA and EVT in an online mobile application.

It is important to note that the following sections are a general overview of both theories, intended to identify specify commonalities and differences between SIA and EVT, and how they matter in an online context. While there are a multitude of concepts discussed

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for each section that affect responses to deviance, the study itself will only manipulate and empirically test three factors: group identification (from SIA), rewardingness of the violator (from EVT), and the type of deviance (both SIA and EVT).

These three factors were chosen for several reasons. First, any social identity effects that would result from SIA processes are contingent upon the individual first recognizing and being attached to the group-in-question. Thus, all other moderators of deviance perception discussed below rest upon the in-group identification of the individual, and hold little influence outside of that group. Second, rewardingness of the violator (from EVT) is an area which is noticeably absent from SIA predictions, as theorists using SIA are more focused on group-level factors, and less on individual characteristics. This provides a useful point of contention between the two theoretical approaches, which will be useful in the current study. Finally, the rewardingness evaluation from EVT only becomes a salient factor if the violation is ambiguous in nature (see Burgoon & Hale, 1988). Since the current study is to determine how deviance is evaluated based upon these two theories, it is important to provide conditions where both theories can function as they were intended. As such, to evaluate the effects of the deviant's rewardingness the current study manipulates situations where this rewardingness would be theoretically justified by EVT.

Future research in this vein should test the additional predictions and factors in each section explicated below that affect responses to deviance, however to do so would be beyond the scope of the current study.

Social Identity Approach

The social identity approach (SIA, also called social identity perspective), is an amalgamation of multiple theories, most notably Social Identity Theory (SIT; Tajfel &

Turner, 1979) and self-categorization theory (SCT; Turner, Hogg, Oakes, Reicher, &

Wetherell, 1987) that both attempt to explain behavior from a group perspective. Its key

tenet, according to Hogg and Reid (2006), is that "people derive a part of their self-concept

from the social groups and categories they belong to—their social identity" (p. 9). With SIA,

one's behavior, thoughts, and responses are filtered through their group and/or category to

which they belong. When assessing identification with a group, SIA proposes that people use

easily accessible categories as references, and search for a group categorization which has the

best "fit" for their perceived identity. These two factors, accessibility and fit, are analyzed in

relation to each other to determine if the identity is salient in a given context (see Hogg &

Reid, 2006). If one identity does not fit, people "rotate" to the next accessible identity until

they find one that fits with the context they are observing. This may be a personal identity, or

some other group identity that is made salient. While people attempt to "fit" identities on

their own, group identity salience is quite easy to prime with simple manipulations such as

birthdays (e.g., Wang et al., 2009), or university affiliation (e.g., Frings, Hurst, Cleveland,

Blascovich, & Abrams, 2012; Pinto, Marquez, Levine, & Abrams, 2010). A "minimal group

paradigm" where participants were arbitrarily placed into groups (Tajfel, 1978) is also often

used successfully to produce group behavior. Explicated below are two aspects of the group

and its members that SIA proposes are factors considered when responding to or interacting

with other group members, as well as those who are not a part of the group itself: group

identification and prototypicality. The next section addresses perceptions and moderators of

the perception of deviant behavior. The final part of the review considers how online

contexts may play a role in SIA behaviors.

Group Identification

In order for any behavior to be affected by SIA, a person must first believe that they are a part of the group in question. The extent to which an individual is identified with the group predicates behavior to defend to the group that has been threatened and to sanction others for their deviant behavior, in an attempt to maintain a positive social identity (Marquez & Paez, 1994). Group identification is, in part, based on how much people in the group believe they are similar (or dissimilar) to the prototypes for the group (discussed later). Those who are more similar to the perceived group prototype generally are "more identified" with the group, and those who are less similar are "less identified." While group tenure and level of identification are correlated, Jetten and colleagues (2010) provide evidence that they are independent concepts.

SIA does speak to personal identity (similar to EVT), but focuses more on the categorization of that personal identity into general descriptors. As an example, if asked to describe someone people might say "Well, they are female, a banker, enjoys rock climbing, etc." all of which are categories of their personal identity. This is somewhat less interesting to most SIA researchers, however, who instead prefer to focus on the social groups to which one belongs and their effects, as opposed to personal identity. Thus, while interpersonal factors may influence group formation (cf. Hogg & Turner, 1985), SIA makes a distinction between personal and social identity, such that only one identity can be more or less salient at any given time (i.e., functional antagonism: when salience of one identity increases salience of other identities by necessity decreases). Recent research has somewhat challenged this point, suggesting multiple identities and perceptions of both in-group and out-group members can be more or less salient (e.g., Baray, Postmes, & Jetten, 2009), especially when the strength of social cues is introduced as a moderating factor (Carr, Vitak, & McLaughlin,

2011). This has lead to the formation of "identity fusion" research (e.g., Swann, Jetten, Gomez, Whitehouse, & Bastian, 2012) which posits that some social identities become so strong that boundaries between personal and social self are easily permeable. However, identity fusion necessitates a strong feeling of "visceral oneness" with the group, which may not necessarily be the case for some types of online communities (discussed below). Thus, while identity fusion online is an attractive avenue for future research (especially with immersive activities like MMORPGs), the functional antagonist perspective will be utilized for the purposes of this study. It follows from this principle that if one's social identity is salient, then the person will react in accordance with group norms and goals and, consequently, depersonalize from their personal identity. If social identity is not as salient, then people will react on the basis of other factors not related to the group, such as personal identity.

This effect has been found to persist even across conditions where group goals are at odds with personal goals. De Cramer and Van Vugt (1999) found that "increasing the group salience encourages people who are normally only focused upon the personal outcomes to make efforts in obtaining good outcomes for the group even when it runs against their direct self-interest" (p. 887). They suggest that this is a result of a transformation of motivation, in which group identity salience shifts pro-self goals to a pro-group goal. It is important to note, however, that this study used a public good (a pool of money) as a stimulus, but the amount was not very high (around 300 pence, or a bit more than $4). It may well be that the reward for the pro-self outcome was not enough to encourage outcomes that were against group goals, and if the reward were higher the results may have been different. Further, the study used a group decision making task to determine how much would be given to group

members, with the possibility of a group bonus for contribution, which may have encouraged participants to give more to the group as opposed to keep it for themselves. Nevertheless, this study shows the ability of group goals to override personal goals, and suggests that a negative interpretation and subsequent response to deviant behavior (a group goal) may be more important than a personal reward.

Additionally, SIA argues those who are not identified with the group (out-group members) are treated differently than those who are identified (in-group members). In particular, deviance is perceived as more threatening from in-group members than from out-group members. A long line of research into the black-sheep effect (Marques & Yzerbyt, 1988) supports this claim, also noting that deviant in-group members are judged more harshly as a result. Further research into the black sheep effect has also shown that members who are faced with a deviant in-group member lower their identification with a group (Eidelman & Biernat, 2003).

Group identification also has an effect not just on perceptions of other group members, but on conformity to group norms as well. Those who are not as identified to the group are less likely to conform to group norms of behavior (e.g., Rimal & Real, 2005), but those who identify strongly are likely to conform to norms even when the conformity is at odds with their own personal interests (Zdanuk & Levine, 2001), which gives additional support for the results from De Cramer and Van Vugt (1999), and again reflects functional antagonism. This suggests, then, that deviant behavior is, first and foremost, an issue of how strongly one identifies with the group, as those who report less identification are less likely to learn and conform to group norms (Spears, Doosje, & Ellemers, 1997). If one identifies with the group, a violation of normative behavior is seen as threatening to the group and action is

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taken by the individual who notices the deviant act (with various considerations discussed later) to reduce the group threat.

Thus, when examining normative violations within groups from SIA, it is paramount that the group identification of both the violator as well as the potential respondent are well established in order to see any meaningful effects. In the present study, the salience of group membership will be manipulated to analyze reactions to deviance from both a group (SIA) and a personal (EVT) perspective.

Group Prototypicality

Group prototypes are a "fuzzy set, not checklists, of attributes that define one group and distinguish it from other groups" (Hogg & Reid, 2006, p. 10). Explicit in this definition is that these prototypes serve the purpose of providing differentiation of the relevant in-group to an out-group. These prototypes are the building blocks of group identity and norms, as what is considered as normative behavior is based on a shared conceptualization of a group prototype. Additionally, prototypes serve as a reference point for group members when analyzing the behavior of both themselves as well as others in both in-group and out-group situations. Members who are more prototypical are seen as more desirable and liked in the eyes of the other group members. Those members who are regarded as more prototypical are given more status in the group and, somewhat paradoxically, are able to commit minor deviations more freely than are less prototypical members (Hornsey & Imani, 2004 as cited in Hogg & Reid, 2006), but are also judged more harshly if the deviant act was found to be threatening to the group.

Prototypical group members also have an impact on the behavior of those group members who are newer, as new members are likely to respond to a deviant act only if they

are aware that higher status members are watching them (Jetten et al., 2010). This is likely to solidify their place in the group and "prove" to the more senior members that they are aware of and understand how the group functions, the correct response for deviant behavior, and standards of conduct. Though presence of differing status members plays a role in responding to deviance, this will not be manipulated in the present study. It stands to reason, then, that the more prototypical a group member is perceived, the more that they are assigned a greater value to the group, but the more they are also judged harshly when committing a deviant act that threatens group identity if the action is highly negative. However, since prototypical group members are seen as the standard, they are able to get away with minor infractions more than less prototypical members. With regard to the current study, this means that the action must be highly negative for individuals to respond to a deviant act from a prototypical member.

While level of group identification and prototypicality are typically highly correlated and certainly similar concepts, they are distinct. Level of group identification is something that is (relatively) under the control of the individual. Prototypicality, conversely, is determined as how well the individual "fits" with the group and its relevant prototypes (Ellemers & Jetten, 2013) and is therefore something that is determined by other group members. As the current study is focused on perceptions of deviance from the perspective of someone who may identify with—but may not necessarily be prototypical of—a group, prototypicality of the deviant will not be manipulated. That said, it cannot be overlooked that prototypicality plays a large role in this process of analyzing deviance, and will need to be taken into consideration with the design of the current study by ensuring that the deviant action is highly negative for the group.

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Deviance

        Deviance, or the violation of group norms, is tied to the content of the norm that is salient as well as the context in which the deviant behavior is enacted (Jetten & Hornsey, 2014). Deviant behavior is not always perceived as negative (Hutchinson et al., 2011), and can in fact play a role in confirming norms, affirming group values, and allowing for fluidity and change within group structure. For instance, if "tolerance" is a professed value of a group, then in such a group counter-normative positions—that is, positions that go against what the group beliefs or professes—should be perceived as positively deviant, because in that group a norm/value is the open expression of all viewpoints. However, deviant behavior is often seen as threatening to the group identity, and must be addressed in order to mitigate the threat.

        The existence of both positive and negative deviance leads to questions about how group members perceive behavior that would be deviant but ambiguous in nature. Certainly when deviance is enacted that threatens group distinctiveness or positivity, that deviation will be perceived as negative. Additionally, when behavior is seen as enhancing the reputation of the group, or if members attribute success to the group, this will be perceived as positive (see Jetten & Hornsey, 2014). However, behavior that is clearly deviant but not seen as hurting or helping the group may promote different reactions. In regards to political groups, Morton, Postmes, and Jetten (2007) found that competing normative behaviors solicited different perceptions of deviance that, from one perspective or another, would be clearly positive or negative. This ambiguity arose, they argue, from the "strategic communication" that politicians (the focus of their study) employ when positioning themselves both within a political party as well as within a broader context of public opinion on issues. Similarly,

group variability (the extent to which groups are tolerant of other viewpoints) was found to have an effect on perceptions of deviance, with heterogeneous groups having more positive evaluations of "deviant" viewpoints than homogeneous groups (Hutchinson et al., 2011). As the cues for deviance from a group perspective would be difficult to determine, this lack of information may promote one to look to other cues in the environment outside of group factors, such as interpersonal factors discussed later in the section on expectancy violations theory.

A recent review of deviance in groups by Jetten and Hornsey (2014) reveals several reasons for enacting deviant behavior, and factors that affect the response to said behavior by other members. Some of the reasons for the behavior include enhancing and changing the image of the group (e.g., loyalty and concern for the group), while others are more idiosyncratic in nature (e.g., moral rebellion, tangible rewards for deviance, personality). These motivations are important in understanding why members commit deviant acts in the first place, but are less important for recognizing how people respond and react to deviant behavior from a group perspective, as members presumably wouldn't know others' underlying motivations for enacting deviant behavior.

Five factors are identified by Jetten and Hornsey as reasons for responding to deviance: helping to restore threatened group positivity, cohesion, distinctiveness, locomotion, and threatened self-image. With the exception of threatened self-image, all of these rationales are related to restoring threatened aspects of the group, and by extension downplay the role of individual motivations for responding to deviance. Thus, from a SIA perspective, the reactions to deviant behavior are based largely on a desire and motivation to restore threatened group identity, from the perspective of a member of the group. This would,

by necessity, minimize the relevance of any interpersonal reward for choosing to respond (or not) to deviant behavior, as the most important feature from a SIA perspective is the group itself.

As discussed above, when analyzing behavior in groups, people look to the identification with the group (both their own and the other members'), as well as the prototypicality of the member in determining how to respond (if at all). When assessing deviant behavior, specifically, previous research has shown a number of other factors that can have an effect on how deviance is perceived (see Table 1 below for specific predictions).

For instance, new or marginal members of the group who commit deviant acts are judged less harshly, presumably as they pose less of a threat or are not expected as much to know and adhere to the norms (Pinto et al., 2010); in these situations, responses are seen not as sanctioning of behavior but a form of "socialization" into the group (Dino, Reysen, & Branscombe, 2008). For instance, both newer group members and established members, if they do something that would be positively deviant, would be evaluated positively for their actions. If they commit a negative infraction (be it mild or severe), individuals who are newer to the group will receive less admonishment by other members, who choose instead to teach the newcomer how to behave within the group. This does not hold for established members, however, who are treated based on the severity of their deviant action as they should already be aware of the rules. Further, deviance by long-standing group members, who may thus be more prototypical, poses more of a threat to group identity than deviance from marginal or new group members (Pinto et al, 2010).

Additionally, Gollwitzer and Keller (2010) also show that repeat offenders who are members of the in-group are judged more harshly than those who have only committed

deviant behavior occasionally, as greater frequency increases the threat to the group identity. If an individual continues to commit negative actions (especially the same negative action), they appear to the other group members that they are not committed to upholding the standards and rules for the group, and will be judged more harshly for the action than if they had never transgressed previously.

Providing some final factors to consider when responding to deviance, Frings et al. (2012) found that members will only confront in-group deviants when they feel able to do so (i.e., they have sufficient knowledge and resources to address the deviance). Because responding to group members who transgress may be seen as aggressive or confrontational, members who are unsure they are able to successfully confront the deviant may choose instead to remain silent. The efficacy of their responding correctly is a product of their resources (e.g., rulebook, supporting evidence, corroboration with other members) that are available to ensure their response is accurate and will not also be seen as deviant or damaging to the group.

Table 1

Predictions of Evaluations of Deviance from SIA

		Type of Deviance			
		Positive deviance	**Ambiguous deviance**	**Negative deviance**	**Highly negative deviance**
Group identification	Salient	*positive*		*negative*	*highly negative*
	Not salient	*neutral*	*neutral*	*neutral*	*neutral*
Proto-typicality	High	*positive*		*neutral*	*highly negative*
	Low	*positive*		*negative*	*negative*
Tenure in group	Established	*positive*		*negative*	*highly negative*
	Newcomer	*positive*		*neutral*	*neutral*
Repeat offender	Yes			*highly negative*	*highly negative*

	No			*negative*	*highly negative*
Efficacy	High	*response*	*response*	*response*	*response*
	Low	*no response*	*no response*	*no response*	*no response*

While an experimental test manipulating all of these factors individually is beyond the scope of the present study, to not acknowledge potential mediating factors would reduce the likelihood of finding meaningful effects, especially when comparing to a different theory such as EVT. Perception of deviance is the main dependent variable for this study, as it parallels nicely the "violation valence" component of EVT and provides an interesting point at which to compare the two theories.

SIA Online: SIDE

Much of the focus of SIA has been on in-person groups who interact face to face. However, some factors more specific to mediated communication (e.g., anonymity) may alter the way that groups behave and interact. Scholars have found that online communities can function similarly to offline groups in producing group identification (Howard & Magee, 2013) and communication of normative standards (Mikal et al., 2014). One application of SIA specific to online contexts is the social identity model of deindividuation effects (SIDE; Postmes, Spears, & Lea, 2000; Reicher et al., 1995). The model was developed in response to research that was concerned with the anonymous nature of the internet, and its supposed tendency to produce interactions that were uncivil in nature (e.g., flaming in online messaging boards). Contrary to those findings, SIDE suggests that since individuating information is less available online, those who engage in online discussions are actually *more* prone to follow specific group norms (Lea & Spears, 1991) and increase group identity if group norms are salient, and thus less likely to engage in unregulated or uncivil behavior.

Importantly, SIDE is primarily concerned with visual anonymity in groups, suggesting that a lack of individuating information (such as photos) will prompt an enhanced group identity. When this deindividuation occurs, users are more likely to behave in regards to their group identity as opposed to their now less-salient personal identity. Thus, people behave much as they would in traditional SIA, seeing members in relation to the group prototype as opposed to idiosyncratic identities. However, SIDE notes that if the group identity is not salient in this context, people will behave in ways that are consistent with their personal identities (or even less constrained than their personal identities, due to anonymity). Some studies have refuted this claim, however, finding evidence that personal identities take precedence when dealing with unlikable group members (e.g., Wang et al., 2009) even when group identity is salient. Wang and colleagues found that the personal traits of group members are relatively more important than their group membership, which is in opposition to SIDE claims.

Summary

In summary, there are many factors in SIA that affect reactions to deviance. As mentioned above, prototypicality of the deviant, tenure of the deviant in the group, whether the deviant is a repeat offender, and efficacy of the group member in responding to and correcting the deviant all affect how individuals respond and react to deviance (see table 1 above). However, these effects are all predicated upon a salient in-group identity for the individual who sees the deviant action. If group identity is not salient (or does not fit), these moderating factors associated with perceptions of in-group deviance should not affect results, as the deviation would not be perceived as threatening to one who is not a member of the group. This effect is even more pronounced when interacting in a visually anonymous online

environment, as SIDE would predict the resultant deindividuation produces stronger group identification effects, as the in-group category is one of the limited cues to base one's evaluation.

Expectancy Violations Theory

While a model focused on group identity is useful in determining how people respond to and perceive deviance, it may be that a meaningful group identity is not as salient for some users of online forums. Indeed, self categorization theory suggests that people "rotate" through various identities to determine which identity has the best "fit" for the given situation (Turner et al., 1987). It may well be that a group identity is not the best fit for certain interactions, nor will it likely explain behavior when identification with the group is low. For example, social networking sites such as Facebook, or forums where images of the users are present may prove to produce a more individualized evaluation of the deviant action than anonymous environments. Supporting this notion, SIDE also mentions deindividuation effects are only increased when group identity is salient, and that personal identities may also be made salient through pictures and images of the users. While both SIA models acknowledge that personal identity can be salient, they choose instead to focus on the group behavior, leaving personal identity as a separate issue that is mostly unaddressed. Within the realm of deviant or unexpected behavior, EVT can provide additional insight into the evaluative processes of deviations which the social identity approach does not address in detail: when personal identity is the most salient and accessible (i.e., when group identity is not salient).

Expectancy Violations Theory (EVT; Burgoon, 1978; Burgoon, 1993; Burgoon & Hale, 1988) was developed initially to explain reactions to nonverbal proxemic distance

violations (i.e., standing too close or far away to another person). Further research using this theory has expanded its utility to include other behaviors such as nonverbal immediacy behaviors (Burgoon & Walther, 1990), emotional communication (Burgoon, 1993), relational communication (Afifi & Metts, 1998), modality switching between online and offline contexts (Ramirez & Wang, 2008), self-presentation on social networking sites (SNS; van der Hyde, D'Angelo, & Shumaker, 2012), privacy settings on Facebook (Strutzman & Kramer-Duffield, 2010), and deceptive messages on Twitter (Beck, 2011).

Expectancies

Central to EVT is how people form expectancies about interactions. Expectancies are formed on the basis of social norms and anticipated behavior and may be general in nature (i.e., applicable to all behavior) or idiosyncratic (i.e., related to a particular behavior or person). Specifically, communication expectations (or expectancies), have been summarized by Burgoon and Walther (1990) as "cognitions about the anticipated communicative behavior of specific others, as embedded within and shaped by the social norms for the contemporaneous roles, relationships, and contexts" (p. 236).

Three main factors (Burgoon, 1993) influence these expectations: the communicator, the relationship, and the context in which the interaction occurs. Communicator characteristics are the features of the interactants that are salient during the conversation, such as physical appearance, personality, demographics, and others. Relationship factors focus on characteristics which highlight the relationship itself and not the individual actors, such as degree of familiarity, liking, attraction, or status. Finally, context characteristics incorporate any environmental cues (e.g., privacy, formality) that influence certain

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interaction behaviors. These factors combine to produce two types of expectancies that occur in any given encounter: predictive (often called descriptive), and prescriptive expectancies.

Predictive expectancies are what people anticipate to occur, whereas prescriptive expectancies are the outcome that is desired or preferred (i.e., what people expect *will* occur as opposed to what *should* occur). Put another way, there may be some desired outcome for the interaction that one may have (prescriptive expectancy), but past knowledge of the other interactant may dictate that those desired expectancies may not occur (predictive expectancies). While in many cases the two expectancies are synonymous, they can diverge if there is prior knowledge, context, or a prior relationship between the interactants. Interestingly, while this notion of predictive and prescriptive expectancies would appear to have an effect on perceptions of violation valence, there is little in the way of direct empirical tests of such effects. Nevertheless, it can be extrapolated from the model that relationship factors should play a key role in determining anticipatory behavior. If there is some sort of previous relationship, past interactions would play a larger role in determining the expectations and, subsequently, violations of that interaction, leading to the use of predictive expectancies. However, if there is no past relationship (such as strangers interacting in a lab), the expectancies would be derived from social norms; thus prescriptive expectancies would be more prevalent. This conclusion, however, is tentative and requires further study.

In studying violations online from an EVT perspective, the previous interaction or knowledge with online personas may certainly have an effect on the type of expectation which is salient. An interesting avenue for future studies in this vein is whether the ability to see a fellow group member's former posts through a log of their responses impacts preinteractional (predictive) expectancies of the person. However, as many online forums

and communities are anonymous in nature, there is less of a chance people will have preinteractional interpersonal expectations with group members which differ from the online site's social and group norms. This is not to say that all members are always anonymous. Within a so-called "anonymous" group where real identities are hidden, members may still develop preinteractional expectations of certain users through pseudonyms and recurring online identities. This distinction should certainly be explored, though for the present study violations and the resulting interpretations will be from prescriptive (as opposed to predictive) expectations, to more closely relate to SIA.

Violations and Violation Valence

Once these expectations are formed, the theory then beings to explain what happens when a violation of these expectancies occurs. A violation is "any recognizable deviation" from an expectation in an interaction (Burgoon, 1978, p. 130). While this definition has not changed with different iterations of the theory, the nature of the violation has been expanded, as noted above, from proxemic violations (i.e., too close or far away during an interaction) to a myriad of other violations that are more relational in nature (Afifi & Metts, 1999). Further research using these relational violations has expanded to include online behavior as well, such as being "unfriended" on Facebook as an expectancy violation that is moderated by the relationship with the person who initiated the termination (Bevan, Ang, & Fearns, 2014). Central to how one responds to violations is the violation valence: whether the violation is perceived as more or less positive or negative. Drawing on the three expectancy characteristics above (communicator, relationship, context), as well as the predictive or prescriptive nature of the expectancy that has been violated, the nature of the violation is assessed and placed on a continuum of violation valence by the observer of the violation.

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For the purposes of this study, the valence of the violation as perceived by the respondent is the main point of interest as a dependent variable. Whether the violation is deemed more positive or negative does indeed affect how the person responding to the violation behaviorally reacts to the instigator, though empirical tests of this behavioral response have generated mixed results which occasionally refute the theory's predictions (discussed below).

Applying EVT, the respondent's assessment of the violation valence is a function of first the inherent valence assigned to an action and, if the violation is deemed to have an ambiguous inherent meaning, the reward value of the violator (Burgoon & Hale, 1988). While some violations can carry a clear meaning and can be easily interpreted as positive (e.g., an unexpected gift by a coworker) or negative (e.g., a rude hand gesture in traffic), violations that are more ambiguous in nature (e.g., email response latency, proxemic distance), require an additional "interpretation and evaluation" process through communicator reward value to determine meaning (Burgoon, 1993).

Reward Value

A communicator's reward value (or, interchangeably, communicator reward valence), is the perceived ability of the violator in an interaction to make the interaction rewarding or pleasurable. Initially, this concept was derived solely from the characteristics of the communicator, as the initial studies focused on proxemic distance (e.g., Burgoon, 1978). In these studies, reward valence was positive when the violator was perceived to be more attractive or likable, and negative when less attractive or likable. More recently, however, the concept has expanded to include relational reward value (such as a boss being able to give a promotion), and potentially contextual reward value (a boss may have reward value at work,

but not if you see him/her at the grocery store), as well as other factors such as

socioeconomic status, task competence, and tangible rewards (see Burgoon & Hale, 1988).

This reward value is what an interactant uses to determine the valence of an ambiguous

violation, as it is this punishment/reward characteristic of the violator that is the most salient

aspect of the violation in question.

In summary, EVT states that people have expectations (both prescriptive and

descriptive) about an interaction, and when those expectations are violated, and the violation

is ambiguous or unclear in meaning, reward value moderates the relationship between

expectancy violation and positive/negative interpretation of the violation, and thus

subsequent responses to that violation (see table 2).

Table 2

Predictions of Perceptions of Violations in EVT

		Inherent violation valence		
		Positive violation	Ambiguous violation	Negative violation
Reward value	High	*positive*	*positive*	*negative*
	Low	*positive*	*negative*	*negative*

Interactional Responses to Violations

Aside from analyzing the respondent's perceived valence of a violation itself, which

is the focal point of the current study, EVT predicts two types of responses: reciprocal

behavior and compensatory behavior. Reciprocal behavior would match cues by the violator,

such as increasing immediacy behaviors (Hale & Burgoon, 1984), rate of speech,

conversational involvement (Coker & Burgoon, 1987), etc., largely due to social norms

(Burgoon, Stern, & Dillman, 1993). Compensatory behaviors, conversely, try and make up

for a (lack of) behavior, such as increasing conversational involvement when another is

decreasing (Coker & Burgoon, 1987) or stepping away when someone gets too close. As Burgoon et al. (1993) suggest, EVT's use of both inherent valence of violations as well as reward value provides some interesting effects (see table 3) that occasionally refute the theory's behavioral predictions. As an example: a violation that is positively valenced committed by a low reward value individual can produce either reciprocity or compensation, depending on if the violation or the violator is more salient in the given situation. In this scenario, if the violation is more salient it would produce a reciprocity interactional response, however if the violator is more salient it would produce a compensatory interactional response.

Table 3

Behavioral Outcomes Predicted by EVT

Inherent violation valence	Reward valence of violator	Interaction outcome
positive	high	*reciprocation*
negative	high	*compensation*
negative	low	*reciprocation*
positive	low	*reciprocation/ compensation (depends on salience of behavior or reward valence)*

While this area certainly deserves further study in online contexts, as the present study does not consider behavioral implications of violation salience perceptions, it also does not consider the distinction of reciprocity/compensatory responses.

EVT Online

Applications of EVT in online contexts are relatively sparse, as it was developed initially to test proxemics distance violations which are not as readily applicable in most online contexts (though exceptions may be found in online virtual communities with avatars such as Second Life, see Yee, Bailenson, Urbanek, Chang, & Merget, 2007). One study

found that the reward value of a hypothetical job candidate moderated the effect of email response latency on applicant evaluation, credibility, and attractiveness such that job candidates who were shown as more impressive (high reward value) who took longer to respond were evaluated more negatively than less impressive job candidates (Kalman & Rafaeli, 2010), which seems to contradict EVT predictions. This result, however, may be an artifact of the stimulus used (the evaluation of an applicant from a hiring perspective, and not from a job-search perspective) and not a refutation of the theory. An applicant who was desirable may not have been rewarding enough to overcome professional expectations of response latency, as this could have been perceived as an inherently negative violation. Given the applicant's expectation of promptness, this negative violation appears to have been compounded with the reward value and had a magnifying effect, consistent with Burgoon and Hale (1988). This study may also have an interesting, but not explicated, tie with group identity, as a hiring decision would be not only an interpersonal task, but also possibly a group decision as well. This study, while contradictory to EVT predictions, is useful in that it highlights the necessity of ambiguous violations allowing for a moderating effect of reward value, and provide support for a magnifying effect based on reward value (see Burgoon & Hale, 1988).

An additional exploratory study by McLaughlin and Vitak (2011) utilized focus groups to determine how people react to violations on Facebook. Interestingly, this is one study that draws a distinction between norm violations (SIA) and expectancy violations (EVT), saying that norm violations are more general and expectancy violations are based on the previous interactions; a thought which echoes (though not explicitly) the prescriptive and predictive expectancies perpetuated in the original expectancy violations theory. They found that the

reward value of the communicator is primarily a function of the type of relationship with the "friend", such as a weak tie (low reward value) or close personal acquaintance (high reward value). They also suggest that when the violation is not directly affecting behaviors on Facebook (e.g., finding out group members were out partying instead of working), positively valenced friends tended to be met with more confrontation on Facebook, presumably due to relational closeness. Additionally, "responses to a violation may be a product of the context and the goals that are threatened by such a violation" (p. 312), illustrating that, interestingly, work-related acquaintances (in this case, students who work together on a class project) who commit a violation were met with compensation for their behavior as opposed to the behavior predicted by EVT: reciprocation. The conclusions drawn from the authors provide mixed results in the capability of determining actual behavior in a Facebook context. However, supporting the current study, the authors do note the evaluation of the violation behavior-in-question is in line with EVT predictions that reward value is a moderating factor.

Summary

As EVT is, at its core, a theory of dyadic interpersonal violations, it stands to reason that the responses to the violations in relation to the anticipated outcomes of the interaction are idiosyncratic, or relational, in nature. One looks to the reward value of the individual who has committed the violation to determine how to respond, and will respond in a way that will maximize the positive and minimize negative outcomes for the respondent. Additionally, perceptions of the violation valence will be altered based on how the violation affects the individual. While social norms may play a role in determining the inherent valence of the violation itself (Burgoon, 1978), if the violation is ambiguous the response to the violation will be grounded in the relationship and potential other reward factors from the person who

committed the violation. This has also shown to be true in online contexts.

Thus, according to EVT, people will respond based primarily on individual attributions within relational contexts. When the violation is ambiguous, if there is a perception of high reward value associated with the violator and, consequently, an opportunity for a positive idiosyncratic outcome, then the violation will be perceived as more positive than if the communicator has a low reward value.

Online Contexts

While SIA and EVT are useful theoretical frameworks when assessing behavior and responses to deviations from behavior offline, it is important to more carefully consider the effects an online context may have in regards to communication expectancies, and what sorts of characteristics unique to this mediated context would affect responses to deviance. The following sections describe four relevant characteristics of many online communities: lack of nonverbal cues, anonymity, warranting, and a log of responses. Finally, different types of online communities and groups which may alter perceptions of deviant behavior are discussed.

Lack of Nonverbal Cues

Early CMC research was built upon the idea that mediated (specifically text-based) information was inherently impersonal, cold, lacking in richness, and generally inferior than face-to-face (FtF) communication. Walther's (1992) social information processing theory (SIPT) proposed an alternative view that, while online contexts certainly lack physical nonverbal cues, users of online media compensate for the deficiency through various electronic paralinguistic means. Thus, while some aspects of FtF communication appear to have been lost with the mediated nature of CMC, people are still able to develop

relationships and express themselves with the full richness of FtF communication, although the process of relational development will take longer. Other studies that have attempted to assess both group and interpersonal relations have used SIPT as their interpersonal framework to explain attraction (Wang et al., 2009).

Anonymity

One large aspect of online communication that has been explicated with regard to SIA in SIDE (Reicher et al., 1995) is the effect of anonymity. With online environments, early CMC researchers proposed that the anonymous nature of the internet may lead to a disinhibiting effect on the users of such communities in regards to polite and/or prosocial behavior. The example of "flaming" online was frequently used as an edifying point for this theory. However, SIDE refuted this claim, providing evidence that anonymity actually fosters *more* conformity to group and socially normative behavior, not less, when group norms and membership are salient.

Anonymity may still play a role when interpreting more interpersonal factors, such as reward value in EVT. Though EVT has shown to be robust regarding various levels of relational attachment—the original study (Burgoon, 1978), for example, used strangers as confederates—studies in CMC research utilizing the EVT framework have typically operationalized reward value as the strength of a tie in a social networking context (Bevan et al., 2014; McLaughlin & Vitak, 2011). Thus, the impact of anonymity with regards to other forms of reward value in an online context has yet to be been explored.

Warranting

As CMC, especially anonymous, contexts provide the ability to easily manipulate identifying information, one potential area that may support nicely the concept of reward

value online is warranting theory (Walther & Parks, 2002). The theory suggests that people look to information that is more difficult to change to authenticate or legitimize self-presentation (DeAndrea, 2014). The less the information is perceived to be controllable by the person it represents, the more weight it will carry in shaping impressions about that person. Warranting theory has also shown non-anonymity decreases the production of misleading self-presentations (Walther & Parks, 2002), which may have an implication for the present study in that participants may be wary of misleading information due to the anonymous nature of the stimulus. However, other factors may allow people to authenticate or legitimize information as well. Instead of looking to self-published information, for example, other information that may constrain the ability to mislead, such as audience knowledge of the individual, information aggregated by computers (e.g., tenure on site, number of posts, credibility ratings over multiple transactions or contributions, etc.), anticipation of future interaction, and others are weighted more heavily in the evaluation (DeAndrea, 2014). As a result, the perceived warranting value of an individual may have a pronounced impact on perceptions of reward value in EVT, as well as prototypicality in SIA.

Log of Responses

Generally, norms (both injunctive and descriptive) are learned through direct communication with and observation of group members (Kincaid, 2004; Lapinski & Rimal, 2005). This communicative action serves to specify and explicate appropriate behavior for groups, as well as warn what will happen if people deviate from the group norms. However, an online context is unique in that it provides a written record of normative behavior, specifically in comments on forum or video posts (Mikal et al., 2014; Walther et al., 2010). This record of comments, as well as the ability to "lurk"—consume content without

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contributing to the production of that content—anonymously (Lampe et al., 2010; Nonnecke & Preece, 2000), suggests there may be an ability of non-users of the site to become aware of and familiar with normative behaviors, despite not identifying with, or at least actively participating in, the group itself. There is evidence, also, that once users feel comfortable and familiar with the online community, they eventually will actively participate and contribute to the site (Rafaeli et al., 2004). Thus, in an online context the ability to access a log of normative behaviors and comments may impact perceptions of deviance while not necessarily increasing identification with a group and/or contribution behaviors.

Type of Community

It would be inappropriate to assume that each online community functions the same way and has the same goals as all other online communities. SIA is, indeed, founded on the idea that people belong to one social group over another, and compare themselves to both in-group as well as relevant out-group members and prototypes. This is also true in online contexts, though there are other factors related to the mediated nature of the group that play a role in how those comparisons are made. Echoing previous offline SIA research Sassenberg (2002), for example, draws a distinction between "common-bond" and "common-identity" groups online. Common-bond groups are predominately groups that are formed via attachment to other people within the group, whereas common-identity groups are formed as an attachment to the group itself (e.g., because of the group's topic or resources) and less to the individual members. Using this dichotomization, the author found that people conformed to norms more in common-identity than in common-bond groups, likely as a result of the decreased level of interpersonal attachment between members in the common-identity context and thus increased group identity. Since common-bond groups necessitate an

interpersonal connection, it would appear that anonymous groups are more likely to be common-identity groups and thus facilitate SIDE predictions of increased group behavior.

More recently, Howard (2014) analyzed a typology of groups online, categorized by their primary function. He found that these four groups (stigma, support, avocation, and organization) behave quite differently in regards to a large number of variables, particularly group identity, perceived social support, and self disclosure. As an example: support (based on rare illness) and stigma (based on potentially dangerous characteristics such as homosexuality, fringe political beliefs, etc.) groups elicited a stronger group identity than avocation groups, which are primarily based on some sort of hobby or activity (see Howard, 2014, p. 130 for further findings). When assessing perceptions of deviance in online contexts, then, there may be an effect of group type on the reaction solicited by both interpersonal and group factors. As an example, it would not be surprising if, when faced with deviant behavior, members of stigmatized online groups elicited a stronger group reaction to deviance than did avocation groups due to the increased identification with the group (as proposed by SIA).

Summary

These five factors play a role in how deviant behavior is perceived and responded to. In the present study, for instance, warranting theory may have an adverse effect on the perceived reward value of the user. Similarly, anonymity will function to increase group behaviors when group identity is made salient. These factors would be interesting to manipulate in future studies; however, for the current study they will not be altered. The factors may, however, provide theoretical backing and insight into specific reasons deviant

behavior is perceived and responded to for this study, especially in regards to warranting and anonymity.

Interpersonal and Group Factors Online

These five factors to consider in online contexts have been studied separately from either an interpersonal or a group perspective. Some constructs, such as warranting, were designed from an interpersonal perspective looking at dyadic communication online. Others, such as anonymity, have typically been studied in the context of online group communication and message boards. While the factors above certainly apply in both group and interpersonal situations, few studies have examined the interplay between group and interpersonal identities in CMC (see Walther, 1997).

One study that has examined both group and personal contexts simultaneously online (Wang et al., 2009) utilized SIDE and SIPT to assess how intergroup and interpersonal deviations affected perceptions of attractiveness. The authors first randomly assigned participants to four person groups and instructed them to interact in an online discussion task, while having two in-group and two out-group subgroup members in each four person discussion group (the subgroups ostensibly based on their birthday, but actually randomly assigned). They then instructed one of the group members randomly selected as a confederate to act in either a likable or dislikable fashion. Once they had completed the task, the participants were given a questionnaire and asked to assess all group members on prototypicality and attraction. Manipulation checks found group identity to have been altered successfully in the study; though results, interestingly, found that interpersonal factors were relatively more important in determining attractiveness of the deviant than intergroup factors.

This well-designed study raises some interesting questions about the relative effects of group membership in relation to interpersonal attraction. However, this study does not address how deviant acts from group members are responded to within the broader context of EVT's reward value, as opposed to SIP theory's interpersonal attraction where confederates have limited personal reward value and are instructed to behave in (dis)likable ways. It may well be that interpersonal attractiveness from a likeable/dislikable standpoint (as conceptualized by Wang et al., 2009) functions differently than potential rewards for interaction that have less to do with how the person is behaving in the interaction itself. This study also generates debate in regards to the two SIA studies mentioned earlier (De Cramer & Van Vugt, 1999; Zdanuk & Levine, 2001) that suggest that group identity goals (necessarily) supplant personal goals. This distinction has not been explored online in regards to EVT; thus the following research question is posed:

RQ: What is the effect of reward value on perceptions of deviant profiles when group identity is primed?

Summary

It appears that the two theories discussed function complementarily to explain deviance online. When group identities are salient, people will judge the deviant action based on group factors from SIA such as group identification of the deviant, prototypicality and others mentioned above. However, when group identity is not salient EVT will predict how the deviant act is perceived. If the deviation is inherently positive or negative it will be seen as such; however, if the deviation is ambiguous, the reward value will moderate the perceptions of the deviation (see Figure 1).

Figure 1.

Proposed Model of SIA and EVT on YikYak
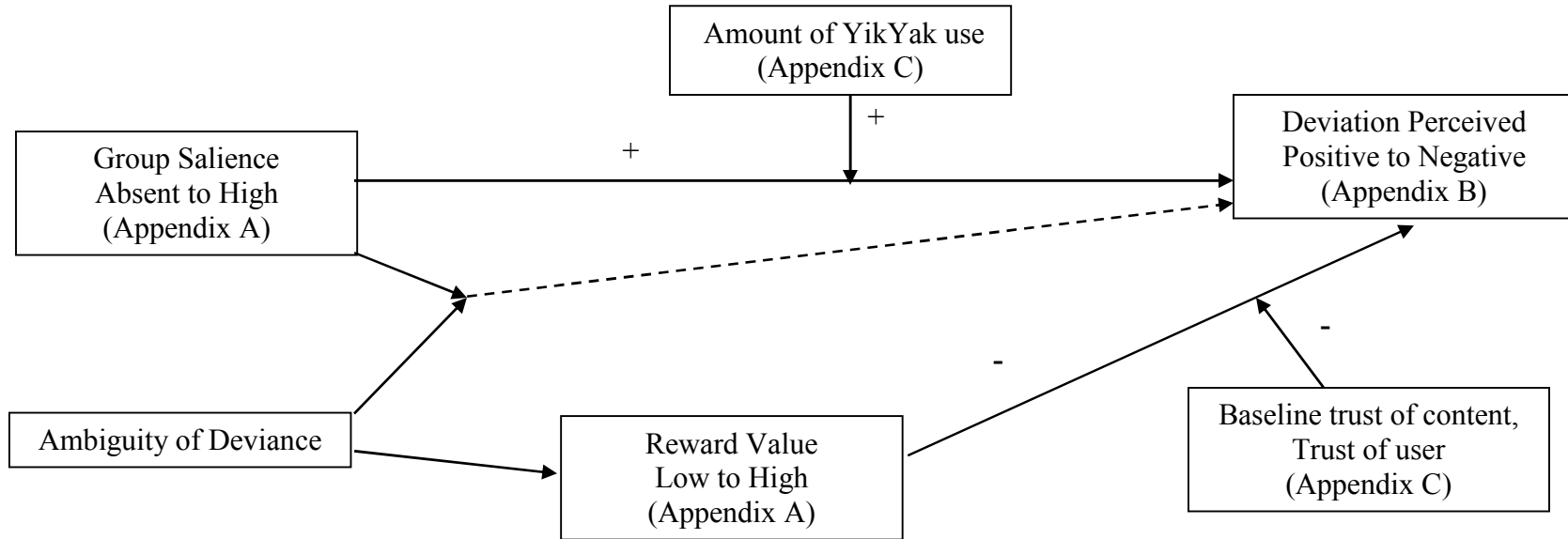
Note: Ambiguity of deviance does not activate reward value; however, reward value will only show effects if the violation is ambiguous in nature, according to EVT. Other variables mentioned above that moderate the relationship to violation perception include group identification of deviant, prototypicality of deviant, tenure of deviant, presence of high status members, strength of cues, efficacy of response success, and whether the deviant is a repeat offender. These moderators will be held constant for the current study.

To test this model, many of the factors that affect SIA predictions of deviance (e.g., anonymity, level of group identification for the deviant, prototypicality of the deviant, tenure on site) were held constant. That way, when group identity for the participants is primed, they should respond negatively when asked about their perception of the ambiguously deviant act. However, when group identity for the participants is not primed, they should look to the reward value (manipulated to be low or high) to determine valence of the deviation.

H1: The negatively deviant profile will be rated more negatively than the ambiguous profile.

H2: When group identity is primed, participants will rate the ambiguously deviant profile more negatively than when personal identity is primed.

H3: When personal identity is primed, higher reward value of the deviant user will produce a more positive evaluation of the ambiguously deviant profile.

H3a: When personal identity is primed, the evaluation of the ambiguously deviant profile for high reward violators will be more positive than when group identity is primed.

Method

Sample

Participants ($n = 161$; 20 cases per each of 8 conditions) were recruited from a research pool of lower division Communication students at the University of California, Santa Barbara (UCSB). They received a nominal amount of course credit for their participation in the study.

Research Design

To test the hypotheses and research questions, a 2 (primed identity: group, personal) x 2 (type of deviance: ambiguous, negative) x 2 (reward value: high, low) between-subjects factorial design was used. Group salience was used to test SIA predictions with regards to perceptions of deviant behavior, and both type of deviance and reward value were used to test EVT predictions of reward value moderating perceptions of ambiguous deviance.

The stimuli shown were profiles from the popular anonymous mobile social networking site "YikYak", which allowed for a believable manipulation of the independent variables. YikYak is an anonymous app/SNS that allows for content to be authored and rated anonymously. This content is based around a certain location, such as UCSB, and allows for only users within a certain radius (typically 1.5 miles) to post in that location's feed, creating a "localized social forum" (Parkinson, 2014). Users of the app can then reply or vote on the different posts or "Yaks" that are available in a certain area (for an example stimulus, see Figure 2). The local nature of the app served as a viable platform for a group identity manipulation using UCSB, which has shown significant intergroup effects in other studies (e.g., Frings et al., 2012). Similarly, the ability to only post within a certain radius allowed for a plausible manipulation of reward value (that is, something plausibly and physically available to them) for the sample population.
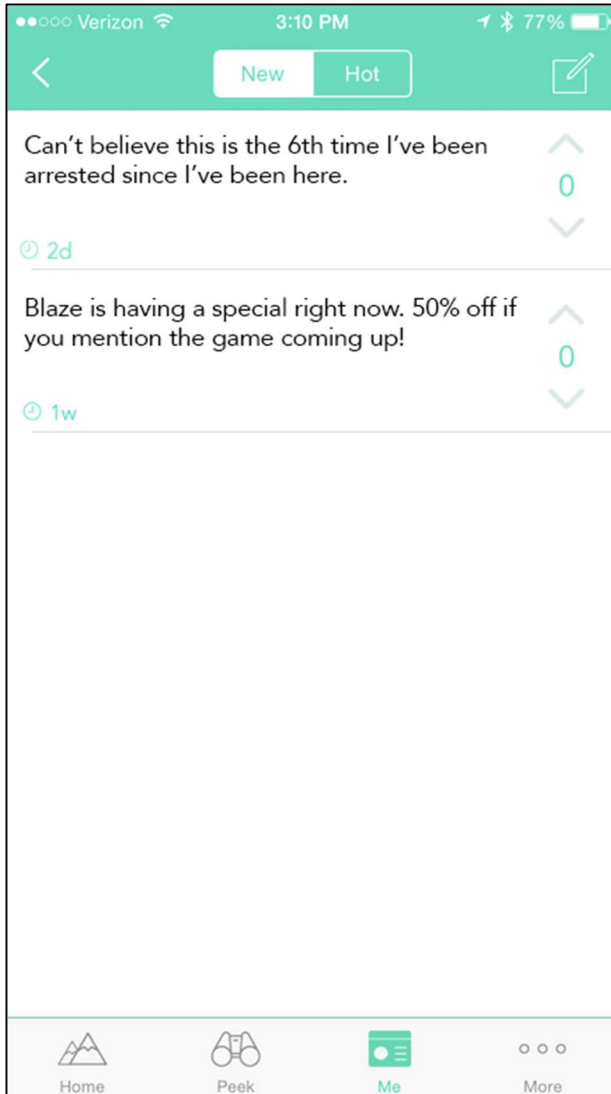
Figure 2. *Example of negative deviance x high reward YikYak stimulus materials.*

Procedure

       Participants were randomly assigned to one of the 8 conditions. They were then told

this study relates to how students use the popular mobile social networking site "YikYak".

Participants were then told they are going to view YikYak profiles that were taken from a

randomly selected sample of students in a previous study, and asked to provide their thoughts

on the posts and users they see. They were also told that their responses would be kept

anonymous from the posters, to further enhance believability of the stimuli. Depending on the identity salience condition they were assigned (group or personal), they completed a priming task consisting of an essay and a set of instructions. They were then randomly assigned to view either a negative deviance/high reward, negative deviance/low reward, ambiguous deviance/high reward, or ambiguous deviance/low reward profile. After viewing the profile, they completed questionnaire items comprised of dependent measures (Appendix B), manipulation checks (Appendix A), and covariates (Appendix C). Once they completed this task, they were debriefed and thanked for their participation. In advance of the study, a pilot test with a different sample was conducted to ensure the manipulations were successful and posts were considered deviant within the context of a UCSB student group.

Pilot Test

In order to ensure successful manipulation of all variables, a pilot test was conducted using a separate sample ($n = 35$). Participants were instructed to rate 18 statements developed by the researcher which were to be used for manipulation of the deviant post (see table 4) as well as three statements designed for the reward value manipulation (see table 5). Participants were instructed to rate each statement for valence and expectedness (or rewardingness, respectively), using the same scales as the current study (see section on measures below, as well as appendices A and B).

Table 4

Deviance Statements Evaluated During Pilot Test

Candidate deviant statements
1   I just got all As this semester, and I was taking 21 units!
2   Just got an interview for my dream job this summer right out of college, can't believe this is happening to me!
3   I've lived here for three years and still have never been to the beach.
4   I'm a junior and I'm still living in the dorms. I love it!

5	I really hate this school. I can't believe I still go here.
6	Can't believe this is the 6th time I've been arrested since I've been here.
7	I am a student at UCSB.
8	I haven't ever been to Freebirds.
9	I was actually excited that UCSB lost the basketball game.
10	I'm worried about passing my midterm today.
11	I really hate the beach.
12	I can't ride a bike.
13	I've never skipped a class.
14	I enjoy going to class in the rain.
15	I commute every day from Santa Maria.
16	I don't own a laptop. Instead, I only use the computers at the library.
17	I prefer Friday classes.
18	I only go downtown around once every two quarters or so.

Table 5

Reward Value Statements Evaluated During Pilot Test

	Reward value statements
Hi	Blaze is having a special right now! 50% off if you mention the game coming up!
Low	Blaze is having a special right now! 10% off if you mention the game coming up!
None	Blaze is so good, all of you should go there and get some pizza before the game!

For the rewarding statements, a repeated-measures ANOVA with Greenhouse-Geisser correction revealed significant differences between the high, low, and absent statements in regard to rewardingess, $F(1.51, 48.38) = 30.97$, $p < .001$. Post-hoc tests confirmed that the statements were significantly different between the high-low, $t(32) = 3.12$, $p = .004$, high-absent, $t(32) = 6.76$, $p < .001$, and low-absent, $t(32) = 4.87$, $p < .001$, conditions. Thus, this test verified that the three levels of reward were perceived as distinct. While an absence of reward was measured, as EVT discusses scenarios of high and low reward violators—not those without reward—the high and low statements were used in the experiment to manipulate reward value. These significant difference in reward value may be

due to an order effect, however, as all participants were shown the same high/low/no reward statements in order.

For the deviant statements, the negative and ambiguous manipulations were chosen based upon the mean valence of the statements (for all measures, see appendix B). The negatively deviant statement "I can't believe this is the 6th time I've been arrested since I've been here." was chosen because it was among the highest in negative valence ($M = 5.65$, $SD = 1.13$) and unexpectedness ($M = 4.94$, $SD = 1.14$). While there were two other statements that were rated as more negative, those two statements made explicit reference to UCSB, which presented the possibility of confounding the group identity manipulation. Thus, the arrest statement was chosen as the negative deviance manipulation. The ambiguous statement "I've never been to Freebirds" was chosen based upon the closeness of the item to the midpoint of the scale in valence ($M = 3.83$, $SD = 1.06$) and high unexpectedness ($M = 5.31$, $SD = 1.17$). To further ensure a successful manipulation for deviant post, a paired samples t-test was conducted to compare the negative statement to the ambiguous statement. The "arrest" statement was significantly more negatively valenced than the "Freebirds" statement, $t(32) = 6.36$, $p < .001$. While both statements were rated as highly unexpected, the arrest statement and the Freebirds statement did not significantly differ in expectedness, $t(31) = 1.49$, $p = .15$.

Manipulations

Deviant behavior. Depending on the condition to which participants were assigned, they saw two different posts. If the participant was assigned to the negative deviance condition, they saw a post that says "I can't believe this is the 6th time I've been arrested since I've been here". If the participant was assigned to the ambiguous deviance condition,

they saw a post that says "I've never been to Freebirds"—a popular local restaurant.

Group salience. Group salience was manipulated by priming either a salient personal identity or a salient group/UCSB identity. In the salient personal identity condition, participants were asked to write an essay with the following prompt: "In the following section, think about the group of friends that you are around the most. Now, think about yourself within that group of friends, and what makes you unique among that group. Please write a few (2 or more) paragraphs on what unique attributes and qualities you possess that is different from your group of friends."

Participants were then directed to a separate screen with the following instructions: "The following are personal YikYak profiles contributed by individuals in a previous study. For each individual, please carefully review each personal profile, and answer the following questions. These questions will ask you to review and provide your personal impressions about each individual profile. Please be as honest as you can in your evaluations of these individual profiles. Remember, your responses will be kept anonymous so that these individuals will not know your evaluations of their profiles."

Initially, the instructions were the only priming task for the study. However, the first iteration of the study found that this was not a strong enough manipulation to yield the desired outcome. This study ($n = 61$) was the first test of the model and hypotheses proposed above. The instructions alone did not yield a successful manipulation of group identity and, as the group identity manipulation was not pilot tested with the deviance and reward statements, this sample served as a test of that manipulation. Thus, the essay priming task was added in concert with the instructions to strengthen the priming effect for personal identity salience with a different sample.

In the salient group identity condition, participants were asked to write an essay with the following prompt: "In the following section, think about being a UCSB student. Now, think about how you feel about being a UCSB student, and how you are similar to other UCSB students. Please write a few (2 or more) paragraphs on how you feel about being a UCSB student, and what makes you similar to other students." Participants were then directed to a separate screen and given the following instructions: "The following are YikYak profiles contributed from fellow UCSB students like yourself in a previous study. For each profile submitted, please carefully review their profile and answer the following questions, keeping in mind that these are your fellow classmates and Gauchos. These questions will ask you to review and provide your impressions about each of your fellow UCSB students' profiles. Please be as honest as you can in your evaluations of these profiles. Your responses will be kept anonymous so that your UCSB classmates will not know your evaluations of their profiles."

The essay task was also added to the salient group identity condition for the same reason as described above. With an essay prime as well as instructions that reinforced the essay task, the manipulations were intended to alter the salience of either a personal identity or a group identity.

Reward value. Reward value of the user was manipulated with the use of a discount at a popular pizzeria near campus: Blaze pizza. Participants in the high reward value condition saw a post that said: "Blaze is having a special right now. 50% off if you mention the game coming up!" Participants in the low reward condition will saw a post that said: "Blaze is having a special right now. 10% off if you mention the game coming up!".

Measures

Manipulation checks. Measures for group identification were taken from Hogg,

Hains, and Mason (1998), which formed a reliable scale of group identification ($\alpha = .94$).

Eight items (e.g., "I am glad to be a member of this group" and "This group is important to

me") were measured on a 7 point Likert-type scale, with answer choices ranging from (1)

strongly disagree to (7) *strongly agree.* Higher scores indicate a greater feeling of group

identification.

Reward value of the deviant was measured with three items: "This user is someone

who could be helpful to me in the future", "This user is someone who can be beneficial to me

in the future" and "This user is someone who could be rewarding to me in the future." These

items were measured on a seven point Likert-type scale, with answer choices ranging from

(1) *strongly disagree* to (7) *strongly agree* ($\alpha = .95$). Higher scores indicate a greater

perception of reward value of the deviant. See Appendix A for all measures.

After roughly half of the data had been collected, preliminary data analysis revealed

that the reward value manipulation was unsuccessful (i.e., there was no significant difference

in the mean reward value between high and low reward conditions). To determine the cause

of this unsuccessful manipulation, the remaining participants ($n = 87$) were asked to complete

an open-ended response question regarding reward value. After completing the Likert-type

items above, participants were given the following prompt: "Thinking about the previous

three questions you just answered, on what basis did you assess how rewarding the user

seems to be? Please write at least a paragraph, and include details about how you came to the

decision, and what stood out to you most in the profile that helped you evaluate the reward

potential of the profile."

Perceptions of deviant behavior. All items were measured on a seven point

semantic differential or Likert-type scales. These items were grouped under two categories: expectedness (e.g., Within the YikYak community shown, the content of the user's posts were completely expected/ not at all expected), and evaluation (e.g., Within the YikYak community shown, the content of the user's posts were very positive/very negative). The expectedness of the behavior was assessed using three items adapted from a scale by Afifi and Metts (1998), and had good reliability ($\alpha = .88$). Two further items assessed how "normal" the post was for the community (e.g., the content of the user's posts is normal/abnormal), measured on a seven point semantic differential scale. For all measures, higher scores indicate a more negative evaluation of the deviance, or more unexpected, except where reverse coded (see Appendix B).

Evaluation of the deviant behavior was assessed by three items adapted from Hornsey and Jetten (2003) to measure negative affect about the posts (e.g., this post made me feel annoyed) and two items from Afifi and Metts (1998) to measure violation valence (e.g., these posts were very negative). One additional item adapted from Jetten, Postmes, and McAuliffe (2002) was also used to determine comfort ("This post made me uncomfortable"). This six-item scale, derived from several different measures, had good reliability ($\alpha = .87$).

Covariates

Because newcomers to a group are less likely to respond to deviance unless higher status members are watching (Jetten et al., 2010), two items were used to control for "newcomers" as well as level of prior exposure to the app: "How often do you use YikYak?", using a seven point Likert-type scale where (1) *Never* and (7) *Several times during the day* and "How familiar are you with YikYak?", using a seven point Likert-type scale where (1) *Not familiar at all* and (7) *Very familiar*, ($\alpha = .68$).

Given a potential for distrust of anonymous information in an online context (Walther & Parks, 2002), baseline trust of content was measured with four items: e.g., "Information on YikYak is usually as believable as information from other sources.", using a seven point Likert-type scale where (1) *strongly disagree* and (7) *strongly agree* ($\alpha = .83$).

Similarly, as measures of reward value in online applications of EVT have primarily focused on relational tie strength (e.g., McLaughlin & Vitak, 2011), studies utilizing EVT have not assessed how other more tangible rewards in an online context are affected by anonymity. While not assessing reward value, Rains (2007) showed that anonymity in online contexts had a deleterious effect on perceptions of user trustworthiness in group decision making tasks. While EVT does not speak directly about the role that trustworthiness plays in evaluation of deviant behavior, given the online context and Rains' results, as well as the anonymous nature of the app, it is probable that trust is a factor in evaluation of online rewardingness. Thus, the perceived trustworthiness of the user who possesses the reward will affect their reward value and, according to EVT, the evaluation process for deviance when group identity is not salient. Therefore, six items from McCroskey and Tevan (1999) specifically assessed trustworthiness of the user for the ambiguous profile (e.g., This user is honest/dishonest), as opposed to the general trust of information received on the app (described in the prior paragraph). This trustworthiness scale has been shown to be reliable ($\alpha = .92$), and was measured on a seven point semantic differential scale. Similar to the original study, this scale had good reliability in the present study ($\alpha = .91$).

Finally, as the stimulus was fabricated for the purposes of the proposed study, it was not taken directly from actual YikYak profiles. While care was taken to make the stimulus as realistic as possible, this may have produced a stimulus that is not believable enough to elicit

strong reactions regardless of manipulation. Thus, two items were used to assess the

believability of the stimulus: "I felt that the YikYak profiles shown were believable" and "I

felt that the YikYak profiles shown were realistic". Similarly, as an additional safeguard one

item was used to assess the similarity of the stimulus to general content on the app: "I felt

like the YikYak profile I was shown was representative of other users in the area". All three

items were measured using a seven point Likert-type scale where (1) *strongly disagree* and

(7) *strongly agree* (α = .85). See Appendix C for all covariate measures.

Results

Prior to analyses, the dependent variable (valence) was screened for normality. While

the distribution was slightly negatively skewed, transformation did not help to achieve

normality. Thus, the non-transformed variable was used in analysis. No univariate outliers

were found for the dependent variable and there were no missing data for the dependent

variable, though one participant did not complete some of the covariate measures due to a

malfunction of the data collection software. Thus, all participants were retained for analysis.

Manipulation Checks

All manipulation checks were performed using a 2 (primed identity: group, personal)

x 2 (type of deviance: ambiguous, negative) x 2 (reward value: high, low) between-subjects

univariate GLM controlling for YikYak use, trust of information, user trust, and believability

of the stimulus with valence, group identity, and rewardingness (respective to each condition)

as the dependent variable.

Deviant behavior. There was a significant difference in valence of deviance for the

ambiguous deviance condition (M = 2.40, SD = 0.82) and the negative deviance condition (M

= 3.47, SD = 1.10), $F(1, 148)$ = 10.092, p = .002. Since the negative deviance condition was

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perceived as significantly more negatively valenced than the ambiguous deviance condition, the manipulation was successful. Interestingly, there was also a difference in expectedness for the two statements. There was also a significant difference in expectedness for the ambiguous deviance condition ($M = 2.61$, $SD = 1.20$) and the negative deviance condition ($M = 3.52$ $SD = 1.45$), $F(1, 148) = 7.07$, $p = .009$. As higher numbers on the scale indicate more unexpected behavior, the negative deviance condition was perceived as significantly more unexpected than the ambiguous deviance condition.

Group salience. There was a significant difference in group identification for salient personal identity ($M = 5.39$, $SD = 1.16$) and salient group identity ($M = 5.96$, $SD = 0.94$), $F(1, 148) = 10.78$, $p = .001$. Since the salient group identity condition was significantly higher than the salient personal identity condition on measures of group identification, the manipulation was successful.

Reward value. There was not a significant difference in rewardingness for the low reward ($M = 3.20$, $SD = 1.46$) and high reward ($M = 3.23$, $SD = 1.51$) conditions, $F(1, 148) = 0.729$, $p = .40$. As there was not a significant difference in rewardingness for the two conditions, the manipulation was not successful. Unfortunately, this renders some of the hypotheses and following analyses moot.

Hypothesis Testing and Research Questions

As the reward value manipulation was not successful, it is difficult to draw meaningful conclusions for several of the hypotheses and research questions. Thus, the results reported below should be interpreted with caution. The hypotheses were tested using a 2 (primed identity: group, personal) x 2 (type of deviance: ambiguous, negative) x 2 (reward value: high, low) between-subjects univariate GLM controlling for YikYak use, trust of

information, user trust, and believability of the stimulus with valence as the dependent variable.

Omnibus tests reveal significant effects for two of the covariates: user trust, $F(1, 148) = 34.95, p < .001, \eta^2 = .17$; and stimulus believability, $F(1, 148) = 7.46, p = .007, \eta^2 = .04$, on valence of the two statements. The other two covariates: YikYak use, $F(1, 148) = 2.10, p = .15$; and information trust, $F(1, 148) = 0.204, p = .65$, were not significant. There was also a small but significant main effect for type of deviance, $F(1, 148) = 10.092, p = .002, \eta^2 = .049$; the negative deviance condition ($M = 3.47, SD = 1.10$) was more negatively valenced than the ambiguous deviance condition ($M = 2.39, SD = 0.83$). The main effects of group identity, $F(1, 148) = 0.028, p = .87$; and reward value, $F(1, 148) = .006, p = .94$, were not significant. There were also no significant three-way interaction effects, $F(1, 148) = 0.278, p = .60$, which were used to test H3 and H3a.

A regression was used to further examine the user trust covariate's effect on perceptions of valence. User trust significantly predicted valence, $F(1, 159) = 114.17, p < .001$ with an R^2 of .42, $\beta = -0.56$. User trust, then, is negatively related to valence such that the more a participant trusts the user, the more positively they evaluate the deviance (see Figure 3).
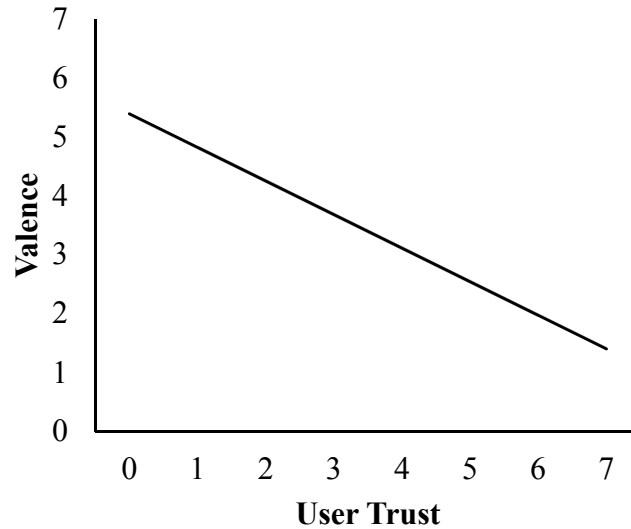
Figure 3. *Valence by user trust relationship.*

RQ. The research question assessed the effect of reward value on perceptions of deviant profiles when group identity is primed. There was no significant difference between low reward ($M = 2.78$, $SD = 1.24$) and high reward ($M = 2.97$, $SD = 0.99$) conditions upon perceptions of deviant profiles when group identity was primed, $F(1, 148) = .006$, $p = .94$, In other words, rewardingness appears to have no significant effect on perceptions of deviant profiles amongst participants in the group identity condition. This result should be interpreted with caution as the reward value manipulation was not successful. However, this result does makes sense given the unsuccessful manipulation: if there is no perceived distinction in levels of rewardingness, then that is unlikely to be different across other conditions.

H1. The first hypothesis stated that the negatively deviant profile will be rated more negatively (on valence) than the ambiguous profile. There was a significant difference in valence for the ambiguous deviance condition ($M = 2.40$, $SD = 0.82$) and the negative deviance condition ($M = 3.47$, $SD = 1.10$), $F(1, 148) = 10.092$, $p = .002$, $\eta^2 = .049$ (see Figure 4). As the negative deviance condition was rated as significantly more negatively

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valenced than the ambiguous deviance condition, the hypothesis is supported.
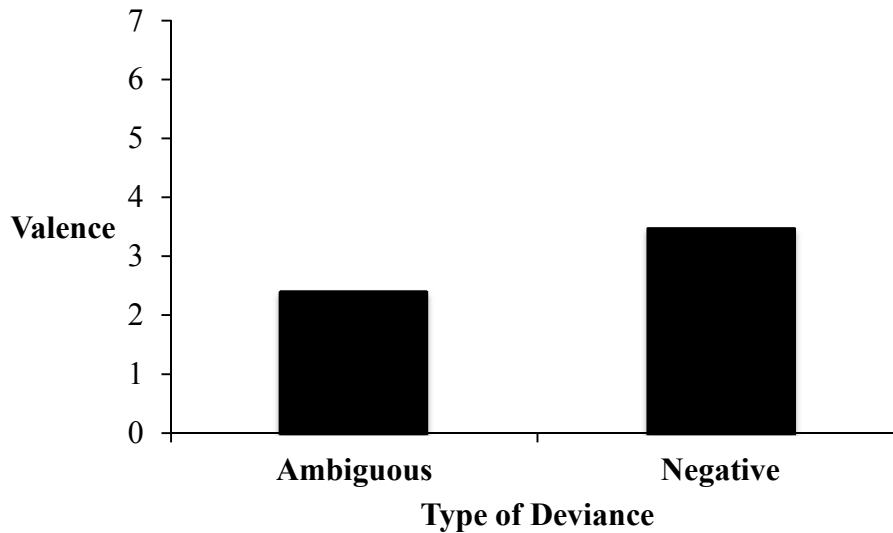
Figure 4. *Valence of types of deviance.*

H2. The second hypothesis stated that there will be an interaction effect between group identity and type of deviance such that when group identity is primed, participants will rate the ambiguously deviant profile more negatively than when personal identity is primed. There was no significant interaction between group identity and type of deviance, $F(1, 148) = 1.20$, $p = .28$. Interestingly the results were also in the opposite direction predicted, with group identity ($M = 2.24$, $SD = 0.72$) more (but not significantly so) positively valenced than individual identity ($M = 2.54$, $SD = 0.91$) for the ambiguous condition. Thus, H2 was not supported.

H3. The third hypothesis stated that when personal identity is primed, higher reward value of the deviant user will produce a less negative evaluation of the ambiguously deviant profile. A three-way ANCOVA was used to test the hypothesis. There was no significant interaction between group identity, reward value, and type of deviance, $F(1, 148) = 0.278$, $p = .60$. Additionally, the relationship between rewardingness and valence was opposite the

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proposed direction, with high reward ($M = 2.63$, $SD = 0.90$) being more negatively valenced than low reward ($M = 2.49$, $SD = 0.93$) conditions. Thus, H3 was not supported. Remember, however, that the rewardingness manipulation was unsuccessful so this test may not be accurate.

H3a. A sub-hypothesis of H3 stated that when personal identity is primed, the evaluation of the ambiguously deviant profile for high reward violators will be more positive than when group identity is primed. A three-way ANCOVA was used to test the hypothesis. There was no significant interaction between group identity, reward value, and type of deviance, $F(1, 148) = 0.278$, $p = .60$. Additionally, the relationship between identity salience and valence was opposite the proposed direction, with the individual identity condition ($M = 2.63$, $SD = 0.90$) being more negatively (but not significantly so) valenced than group identity condition ($M = 2.41$, $SD = 0.80$). Thus, H3a was not supported. Remember, however, that the rewardingness manipulation was unsuccessful so this test may not be accurate.

Quantitative Results Summary

Overall, many of the hypotheses were not supported. This was, in part, due to the unsuccessful manipulation of reward value in the experiment. However, other successful manipulations (identity salience and valence) also failed to support the proposed hypotheses. Table 6 presents a summary of the quantitative results found by the current study.

Table 6

Summary of Quantitative Results

	Description	Result
Deviant behavior manipulation	Negatively deviant comment (arrest) or ambiguously deviant comment (Freebirds)	Successful manipulation
Group salience manipulation	Group identity salience (UCSB) or personal identity salience	Successful manipulation

Reward value manipulation	High reward post (50% coupon) or low reward post (10% coupon)	Unsuccessful manipulation
RQ	Effect of reward when group identity is primed	No significant effect
H1	Negatively deviant profile rated more negatively than ambiguously deviant profile	Supported
H2	Ambiguously deviant profile rated more negatively with group identity prime than personal identity	Not supported
H3	Higher reward will produce more positive evaluation of ambiguous profile when personal identity is primed	Not supported
H3a	Ambiguously deviant profile will be more positively evaluated than negatively deviant profile when group identity is primed in high reward condition	Not supported

Open-Ended Responses to Reward Evaluation

As mentioned above, a subset of the sample ($n = 87$) provided open-ended comments for their evaluation of rewardingness of the user. This was included because, after a brief analysis of early responses, there seemed to be no significant differences in reward value, which was key to many of the hypotheses and the research question being tested. In order to find out why this was the case given the successful manipulation of reward value in the pilot test, the open-ended response item was added to the questionnaire. This "process evaluation" provided an explanation of why the reward value manipulation was unsuccessful, and allowed for a distinction to be made between theory failure versus program failure—that is, whether the hypotheses were unsuccessful based upon incorrect theorizing or as a result of the conduct of the experiment itself.

Analysis of open-ended responses to the reward value evaluation was conducted using a emergent coding technique allowing for multiple codes that was revised and verified by two coders. Emergent coding of the comments revealed 10 categories that participants took into consideration when assessing rewardingness of the user providing the post about the pizza discount offer (see Table 7).

Table 7

Operationalization of Codes from Qualitative Responses to Rewardingness

	Initial coding rules	Revised coding rules
Confound with arrest	Participant mentions arrest as motivating factor for reward evaluation in addition to (or in place of) Blaze pizza post.	Participant mentions arrest as motivating factor for reward evaluation in addition to (or in place of) Blaze pizza post. [has to be explicit motivation]
Confound with Freebirds	Participant looks at rewardingness of Freebirds post in addition to (or in place of) Blaze pizza post.	Participant looks at rewardingness of Freebirds post as motivating factor for reward evaluation in addition to (or in place of) Blaze pizza post. If explicit distinction between the two places in the reward evaluation, but mention both places, not a confound.
Question veracity of the information	Participant doubts truthfulness/honesty of information given	Participant doubts truthfulness/honesty of information given [distinguish from veracity of person/user] [code even if raised issue of doubt in relation to information] [doesn't have to actually question if mention actually is untruthful or dishonest, just reference to the veracity; or mention unreliability of source; ind. of veracity of user]
Question veracity of the user	Participant doubts truthfulness/honesty of user	Participant doubts truthfulness/honesty of user [distinguish from veracity of info; not same as whether rewarding or not]
Not enough information about the user	Participant says there isn't enough information to make a judgment on the rewardingness of the user	Participant says there isn't enough information to make a judgment on the rewardingness of the user [Don't code if they speculate about usefulness even if not a clear statement about the information based for the evaluation; don't code if there is even one piece of information referred to as a basis]
Not interested in Blaze or pizza	Participant is not interested in Blaze or pizza	Participant is not interested in Blaze or Pizza [must mention Blaze or Pizza]
Not rewarding enough	Participant doesn't think Blaze coupon is rewarding or worth the effort to go	Participant doesn't think Blaze coupon is rewarding or worth the effort to go [must mention Blaze, not just about the post] [doesn't have to explicitly state it's not rewarding or worth enough; can say it might or could or would]

Negative evaluation due to motivations of YikYak posting	Participant doesn't trust YikYak in general as a source, and that influenced his/her evaluation.	Participant doesn't trust YikYak in general as a source, and that influenced his/her evaluation. [must mention YikYak; many questionable motivations for posting to Yik-Yak]
Misunderstood stimuli	e.g., Participant thinks posts are two separate users, Participant thinks it is a post and a comment on the post	e.g., Participant thinks posts are two separate users, Participant thinks it is a post and a comment on the post
Thinks post is beneficial or rewarding	Participant mentions that the post IS rewarding	Participant mentions that the post IS rewarding -the post itself must be explicitly rewarding - must be stated as beneficial or rewarding; can't be general - must be positive - can be independent of negatives, or other post - doesn't have to be rewarding to the specific person - if engage in calculus, what is net evaluation - don't infer concerning benefits of user vs post; about post only

After discussion of the categories, operationalizations of the 10 categories were outlined and the comments separately coded by the two coders using those definitions. Initial reliabilities between the two coders for these 10 categories were all fairly high, though there were some exceptions (see Table 8). Reliabilities were calculated using Krippendorff's alpha—though this is a conservative estimate for agreement with nominal coding—and the reliability index (I_r)—which is more appropriate for binary coding as it relies less upon chance agreement but rather the percent agreement between coders (Perreault & Leigh, 1989). Further, when using binary coding (absent or present), small disagreements among infrequently occurring codes greatly exaggerate the unreliability value from Krippendorff's alpha as it ignores all the pairs of 0. An alternative way to explain this is that if there are 100 comments, and one code has only 10 instances, with 4 disagreements, Krippendorff's alpha

computes reliability based on 4 disagreements among 10 choices. However, overall there are

only 4 disagreements among 100 choices, representing a very high level of agreement.

Table 8

Reliabilities for Codes from Qualitative Responses to Rewardingness

Code	Initial Reliabilities			Revised Reliabilities		
	Percent Agreement	Krippendorff's Alpha	Reliability Index	Percent Agreement	Krippendorff's Alpha	Reliability Index
Confound with arrest	.97	.93	.97	.92	.93	.92
Confound with Freebirds	.91	.73	.86	.91	.73	.90
Question veracity of the information	.89	.11	.33	.96	.11	.95
Question veracity of the user	.90	.47	.69	.91	.47	.90
Not enough information about the user	.91	.66	.81	.94	.66	.94
Not interested in Blaze or pizza	.98	.74	.86	1.00	.74	1.00
Not rewarding enough	.95	.48	.69	.97	.48	.97
Negative evaluation due to motivations of YikYak posting	.93	.63	.79	.98	.63	.98
Misunderstood stimuli	.97	.71	.84	1.00	.71	1.00
Thinks post is beneficial or rewarding	.84	.68	.82	.88	.68	.87

Each disagreement in coding and its respective comment was identified, and jointly discussed by the two coders. Operationalization of the categories were then refined by the coders to clarify distinctions and contexts, and the comments re-coded (for operationalizations, see Table 7). Reassessed reliabilities were higher for each category, though some categories had a more pronounced increase than others (see Table 8). The coders then discussed any remaining variables for which there was still disagreement, and agreed by consensus for each remaining variable, resulting in complete agreement across the 10 categories. Many of the comments were agreed upon initially by the coders and did not require recoding. For example, one participant wrote:

"I feel that the importance of the arrests post outweighed the pizza post… there would be no reason for the user to be arrested so many times if it weren't because they did illegal things repeatedly. This means that they did not learn their lesson, yet they are still questioning why they got arrested. This further indicates future arrests down the road. Therefore, I believe this user cannot be rewarding in the long run with their lack of reflection and desire to improve/change."

This is clearly a confound of reward with arrest and no other categories were present, so there was initial agreement and the comment did not need to be re-coded.

However, some categories were less clear and required discussion. For instance, one comment that required consensus coding (that is, was coded differently by both coders in both rounds of reliability assessment) was from a participant who said:

"The user does not seem rewarding to me in any way because of the inconsistency of his posts. Both posts are potential lies that are used to get other people to upvote them. Blaze Pizza would probably not have a deal like

that but instead would market something that would bring customers into their

restaurant. On the other hand, being arrest and craving attention like that

shows signs of a bad character. It is not cool to get arrested for the '6th time

since he got here'. I don't think this guy is trustworthy, lying on the internet

for internet points."

In this case, the disagreement that was resolved by consensus was regarding the "questioning

veracity of information" category. The phrase "both posts are potential lies" seems to

indicate some thought about the truthfulness of the information; however, the writer does not

explicitly say that the posts *are* lies—just that they are doubting the information. Ultimately,

it was decided that because the user was doubting the truthfulness of the statement this did

fall into the information veracity category, but only after agreement by consensus.

These comments reveal many areas which help explain why the reward value

manipulation was unsuccessful in the current study.

Confound with negative deviance (arrest) condition. For participants in the

negative deviance (arrest) condition, 84.1% of those providing open-ended comments

reported that the arrest post was a motivating factor in their evaluation of the rewardingness

of the individual. One participant, for instance, said "I don't think that someone who got

arrested multiple times could be beneficial to me in the future. When I read that I felt scared

of that person… I probably do not want to associate with those kind of people anyway; bad

influence." Yet another said "Nothing about them really attracts me, I prefer not to associate

myself with people who get in trouble."

What is clear throughout these responses is that the arrest post (negative deviance)

greatly overshadows the Blaze post (reward); that is, they are confounded, even though they

were supposed to be independent. From these data it appears that a majority of individuals take into account the entire profile when assessing rewardingness online, especially when the profile is negatively valenced, instead of looking at each post as a separate evaluation. Therefore, when creating stimuli with multiple manipulations it is important to take into consideration that—especially in the case of negative deviance—participants may make an overall "value judgment" as opposed to looking at each manipulation individually. Additionally, highly negative (or potentially positive) actions can have a "halo effect" that overshadows other, less polarizing behavior. This is consistent with extant EVT work, where clearly positive or negative violations do not need the additional evaluation through reward value of the violator.

Confound with ambiguous deviance (Freebirds) condition. There is a similar, though less pronounced, trend for the Freebirds manipulation as well: 34.1% of commenting participants in the ambiguous deviance indicated the Freebirds post as a motivating factor in their evaluation of rewardingess. However, only the Blaze post was intended to provide rewarding information, and should have been referenced exclusively concerning reward evaluation. Of the comments that required consensus coding, the main disagreement was whether the mention of Freebirds was enough to consider it a confound. It was decided that if there was an explicit differentiation between evaluation of the Freebirds post and evaluation of the Blaze post, it was not a confound and was not coded. Two themes emerged from the comments as potential contributors to the confound: order of posts and implicit group norms.

Many of the participants assessed both the Blaze and Freebirds posts in order of appearance, weighing the pros and cons of both. One participant noted "It did seem a little bit like they were promoting Blaze more than Freebirds because noting [sic] the coupon directly

after the Freebirds post, but it would be helpful in the future". Another said "I assessed how rewarding the user seems to be by the context of their post. It is pretty irrelevant to post about Freebirds… The post below it [the Freebirds post] is semi rewarding as a Blaze pizza is never a bad idea and college students are crazy about discounts when it comes to anything, due to our budget." This trend suggests that the simple sequencing and/or layout of the posts in the stimulus contributed somewhat to the confound of Freebirds with the reward manipulation, which may be of interest in future studies examining online logs of information.

A second trend with this confound seems to be an unintentional priming of group identity. As one participant said, "This person seems to be credible enough that they know about a deal going on at Blaze, that [sic] it seems a little off to me that they are claiming they have never been to Freebirds." This comment suggests that Freebirds is not actually a neutral norm, but is actually a group norm for UCSB. This is supported by an additional participant, who said "I am surprised that they have never been to freebirds because as an avid customer, I think freebirds is a UCSB staple" and another who stated, plainly, "If you go to UCSB and don't eat at Freebirds, did you really go to UCSB?"

These comments about Freebirds as a group norm appeared to play a role for some participants in the evaluation of reward, which makes sense given the local nature of the YikYak app itself. Commenting participants saw Freebirds as rewarding; thus when the profile mentioned that the user had never been there, they saw the user overall as less rewarding. When designing future manipulations for reward value, then, one should be aware of unintentional priming of other elements—such as group identity—in the stimuli, especially when those elements can be perceived as rewarding. Especially as location-based

apps become more common, this unintentional priming is an interesting avenue to explore further in social identity research.

Questioning veracity of the information. Overall, 9.1% of commenting participants reported that they questioned the veracity of the information contained in the posts. For instance, one participant said "First of all, the information are [sic] untrustworthy; they are [sic] rumors on the app." Another said "… I do not think that they would believe or trust the 'discount post' on account of the fact that the person got in trouble with the law fairly often." Lingering coding disagreements that were resolved by consensus coding mainly concerned the distinction between veracity judgments and dishonesty—that is, one coder thought that commenting participants had to mention veracity of the post itself (in any form) and the other thought that the participants had to explicitly discuss dishonesty. It was decided that if the participants mentioned veracity or unreliability of the information, regardless of whether they thought it was actually untrustworthy, the code was present in the comment.

This questioning of information veracity is not surprising, as warranting theory would suggest that individuals are inherently more skeptical when viewing information online. From a experimental design standpoint, this is a feature of online interaction that is difficult to overcome. Especially with the anonymous nature of the YikYak app itself, information is less likely to be trusted, which may cause a decrease in the reward potential of the user who disseminated that information. Thus, despite the success of the manipulation in pilot testing, because the participants were viewing the post through an anonymous app they may not have seen any post as particularly rewarding, negating any variance observed between high and low reward conditions. Future studies could assess whether or not information is more or less rewarding from anonymous sources or individuals known to the participants. Theoretically,

EVT suggests that the expectancies themselves are based on communicator, relationship, and context, and that may be a useful framework with which to also evaluate reward online.

Questioning veracity of the user. Aside from the trustworthiness of the information itself, 14.8% of the commenters doubted the truthfulness or trustworthiness of the user. Lingering coding disagreements for user trust were primarily regarding if the participant has to specifically mention dishonesty of the user or mention trust in general. It was decided that if the participant mentioned trust of the user—whether or not the participant thought the user was trustworthy or untrustworthy—this was sufficient to code as present. This code often occurred along with the presence of other coding categories, such as confounding with the arrest manipulation. For instance, one user said "Someone who is arrested is not someone I can trust and therefore I wouldn't look further in on their profile." Another said "the negative post outweighs the impact of the positive post so much, I can see people having a hard time believing him or her. Would you want to believe what someone said if they had been arrested 6 times?" This is consistent with the above comments about arrest being a motivating factor when looking at reward, and also suggests that negatively deviant behavior online serves as a heuristic to motivate individuals to engage in deeper processing about the trustworthiness of the individual providing information.

Sometimes, however, the participant distrusted the user for reasons other than arrest record. One participant said "… if he or she was making it all up, than he or she is either a liar, or has nothing better to do with his or her time. Both these scenarios would lead me to conclude that the user is not a rewarding person to be around." Another noted that "I don't think that this guy is trustworthy, lying on the internet for internet points." These posts are occasionally also due to the anonymity of the medium itself. As one participant noted "…

because I didn't know the person's actual personality or character, I could not fully trust or benefit from the user."

These responses indicate that, as predicted, user trust is a factor in evaluation of reward potential online. Similar to the explanation with trust of information (above), the reward manipulation may have failed to show significant differences between high and low reward because participants were skeptical of the content itself—regardless of the difference in discount. Future studies, then, should take into account user trust when assessing reward and other evaluations in an online context. Especially in situations where membership requires not identifying information, reward may first be based on an evaluation of the user's trustworthiness initially. EVT, in its current form, does not account for this additional step, which should be empirically tested in future EVT research online.

Not enough information about the user. Overall, 14.8% of commenting participants responded that there was not enough information about the user in the posts, which contributed toward their difficulty in evaluating the rewardingness of the user based upon the Blaze pizza coupon. For instance, one participant said "I would need to know more about them as a person to even begin to think about whether or not they'd be potentially helpful for me in the future." Another suggested that "I [chose to remain neutral] because off [sic] of two insignificant posts that hardly told anything about the persons personality, I can not really say how rewarding they are." One participant summed it up by saying "You can't really tell much about his/her personality from these two yaks or what type of person he is." Interestingly, however, none of the participants who said there was not enough information were in the negative deviance (arrest) condition.

The insufficient amount of information presented in the stimuli for some commenting participants suggests several things. First, there may be a social desirability effect on evaluating rewardingness. Perhaps some commenting participants do not want to appear negatively judgmental in front of researchers, though it would appear that the majority (the remaining 85%) do not share this view. Second, it suggests that participants were sensitive to the availability of information intended to manipulate rewardingness. Especially in online contexts, this information may be scrutinized more carefully, and because there wasn't "enough" in some participants' views they were reluctant to provide an evaluation. This may have caused them to choose answers that were more neutral than the high or low reward conditions had intended. Future research in this vein should examine how much information is required to alleviate this concern and provide confidence in participant assessment.

Not interested in Blaze pizza. Three people (3.4%) indicated that they were not interested in Blaze pizza and that the reward was not relevant to them. One participant simply said "The user knew about a 'deal' at a local restaurant I normally don't eat at so the information isn't beneficial to me." Perhaps a different manipulation that does not rely on food preferences would have served as a more effective variable. This represents a very small proportion of commenting participants, however, so it is unlikely that the content of the coupon itself was of much importance for the majority of participants in the study. The implication for future research designs is that manipulations must be perceived as sufficiently rewarding for the sample population specifically to elicit a desired response. This is probably less important when operationalizing reward as a trait (e.g., attractiveness, likeability, etc.), and more important when operationalized as a tangible good.

Not rewarding enough. Three commenters (3.4%) also indicated that the coupon offer was not rewarding *enough* for them, which influenced their evaluation. Coding disagreements were primarily regarding the evaluation of words that represented risk. For instance, "it would be too risky to go" was coded as present because it implies that if the coupon were more rewarding in some way it may be worth the risk. Two of the three participants mentioned that the discount would bring too many people to the restaurant, and that decreased the rewardingness of the coupon itself. In the current study's design, this was an unanticipated finding. While uncommon, it nevertheless suggests that the operationalization of reward as a pizza coupon with a temporal aspect (i.e., "…the game *tonight*") may have affected the reward evaluation. Perhaps reward manipulations that do not constrain its recipients, such as a two-for-one coupon, may have been a more effective operationalization. This need for more reward does provide some interesting considerations for future research. One implication of this finding for future studies using EVT online is that reward must not be constrained by other potential users. This is simple when discussing intangible operationalizations (e.g., attractiveness) but becomes more complex when assessing tangible goods or goods with a time limit.

Negative evaluation due to motivations of YikYak posting. Some of the commenting participants (10.2%) felt that YikYak was not a reliable source for information, or that the motivations for using YikYak were occasionally dubious and influenced their evaluation of rewardingness. One participant suggested that "YikYak is not a source I would use to rate people on their usefulness for me in the future due to the nature of the app." Another mentioned that "I know it's written on YikYak so there's always a chance it might not be true." Coding disagreements resolved by consensus were primarily regarding whether

to code other motives for posting as distrust. For instance, one participant that required consensus coding suggested that many users of the app post not to relay accurate and rewarding information, but to "Raise their personal Yakarma"—a measure of popularity on the app. This was coded as present, because the app itself (and various motivations for posting) created skepticism independent from the user or information.

These data suggest that the YikYak app itself, then, was a reason for the unsuccessful reward manipulation. It appears that participants who were sampled occasionally did not trust the app as credible and, therefore, did not trust the reward manipulation either. One interesting implication from this finding is that rewardingness online appears to function, in part, as a factor of both the user being assessed as well as the platform through which he/she is participating. Future studies should look at a multitude of different online platforms and their effect on rewardingness, especially within the framework of EVT.

Misunderstood stimuli. Six of the participants in the commenting sample (6.8%) misunderstood the stimuli in the same way. These participants all thought that the stimulus was not one person posting two different things, but two different users posting on the app. For example, one participant said "Both *users* therefore could not be helpful or rewarding to me in the future". Another said "I slightly disagree with the fact that the *users* who posted those Yaks…" A small percentage of the sample made the same mistake, thinking it was not the same user.

This issue, while not very prevalent, suggests either a lack of motivation on the part of the commenting participants to read the directions or a familiarity of the participants with the app itself such that they assumed multiple users. The YikYak app is designed so that posts appear chronologically from separate users, which may have been a heuristic for

participants in the study. However, given the small number of commenting participants who indicated that this was a motivating factor when evaluating reward, it is likely that the former explanation is correct. Care should be taken in future designs to incorporate attention checks with instructions, so as to effectively control for unmotivated participants. Alternatively, stimuli could be designed by the researchers to avoid familiarity with the platform; however, this could potentially have an impact on the believability of the fabricated stimulus.

Thought the post was rewarding. Nearly half of the commenting participants (44.3%) did actually mention in their response that the post was rewarding. However, this often was combined with other factors mentioned above that influenced, or were confounded with, their evaluation. For instance, one participant said that "They seem to know about deals going on around campus, and I'm always down for free stuff!", but the same participant followed up the statement by saying "I know it's written on YikYak so there's always a chance it may not be true…", which seems to imply distrust even though they agree that the statement is rewarding. Another participant stated that "Although the second YikYak was helpful by notifying students about a discount they could receive, after seeing the first one it makes all of them seem unreliable knowing that the persona has gotten arrested 6 times in such as mall amount of time… Obviously they have not learned their lesson so it makes it hard for someone to believe that they would be able to be a good influence or help someone out in the future." Most of these responses suggest that even when users thought the post was rewarding they still take other factors into consideration.

Qualitative Results Summary

The qualitative responses from these participants suggest that the reward manipulation was unsuccessful for several reasons. Primarily, the manipulation was

unsuccessful due to a confound of the rewarding post with the deviant stimuli—especially

the negative (arrest) condition. Other factors, however, played a role in the evaluation as

well. Notably, trust (be it information trust, user trust, or trust in the YikYak app itself) is a

motivating factor when assessing rewardingness in an online context. Table 9 summarizes

the results of the qualitative findings, with implications for the existing study design, future

operationalization of variables, and theory (where applicable).

Table 9

Summary of Qualitative Implications

	Design implications for existing study	Reward operationalization implications	Theoretical implications
Confound with arrest	Participants make a holistic value judgment of users based on multiple posts	N/A	Consistent with EVT
Confound with Freebirds	Sequencing/layout of posts is important, unintentional priming of group norms contribute to reward evaluation	Avoid reward operationalization that primes group norms, note sequence of posts as a possible moderator	Reward value evaluations may be made of the basis of group norms
Question veracity of the information	Anonymity and distrust of information negates effects of high/low reward	Reward operationalization may not be perceived as trustworthy/credible online	Should look at communicator, relationship, context to evaluate reward online
Question veracity of the user	Anonymity and distrust of user negates effects of high/low reward	Reward first based on evaluation of user trust online	Reward online may require intermediate step of trust evaluation before engaging in valence evaluation
Not enough information about	Lack of enough info. may cause	Available info on user reward scrutinized	N/A

the user	participants to answer more neutrally	more carefully because of online context	
Not interested in Blaze or Pizza	Reward manipulation may not have been effective for some participants because of food preferences	Manipulations must be rewarding for sample population, more important for tangible good rather than a rewarding trait	N/A
Not rewarding enough	Temporal aspect of manipulation may have affected evaluation	Reward operationalization should not be constraied by others	Is constraint on reward a moderating factor for EVT?
Negative evaluation due to motivations of YikYak posting	YikYak app may have caused reward manipulation to lose credibility	Reward online may function as a factor of user as well as platform	What are effects of different platforms on rewardingness in EVT?
Misunderstood stimuli	Lack of motivation from participants, or familiarity with app, affected reward evaluation	N/A	N/A
Thinks post is beneficial or rewarding	Manipulation functioned successfully, but generally with additional consideration using above factors	N/A	N/A

Discussion

As participation in online communities thrives, the ways in which identities shape and prescribe behavior in this context is important to understanding how individuals interact in these virtual communities. While this area has received attention in the literature, many scholars approach this question from the perspective of group behavior (such as social identity scholars) or interpersonal relationships (such as expectancy violation theorists), but rarely combine the two approaches. Similarly, the notion of deviant behavior online is a

useful way to assess reactions to underlying psychological processes of identity in an online

context. By using expectancy violations theory and social identity theory simultaneously to

help explain behaviors in an online context, this study provides greater understanding of how

identity influences perceptions of online deviant behavior, and how rewardingness can affect

those perceptions.

Deviance Online

Both SIA as well as EVT discuss deviance in light of the threat and interpretation that

it places upon the individual observing the action. In the social identity tradition, deviance

from in-group members often results in threatened group positivity, as well as derogation

from other in-group members trying to restore that threatened positivity. Similarly, from an

EVT perspective deviant behavior elicits an evaluation of that behavior that stems from the

social acceptability of the behavior as well as factors (such as reward value) of the individual

committing the deviant action. Both of these approaches note that deviant actions are

potentially threatening to the individual's identity (either social or interpersonal) and require

interpretation. However, some studies using SIA have also found that deviance that is

beneficial to the group can be perceived as positive (see Jetten & Hornsey, 2014). Similarly,

EVT notes that unexpected actions can be unclear in meaning (i.e., ambiguous) or positive

(e.g., a coworker bringing coffee). A clear finding from the current study as shown in the first

hypothesis is that the type of deviance individuals commit online matters a great deal in how

other people perceive them. Clearly negative deviations from normative standards invoke a

reaction that is also negative, while deviations that are up for interpretation do not elicit such

harsh responses.

Interestingly, however, in the current study these reactions were not as negative as anticipated. The pilot test showed much more negative valence for both the negative ($M = 5.65$, $SD = 1.13$) as well as ambiguous ($M = 3.83$, $SD = 1.06$) statements as compared to the negative ($M = 3.47$, $SD = 1.10$) and ambiguous ($M = 2.40$, $SD = 0.82$) statements from the experiment itself. While the statements were the same for both the pilot and the experiment, the pilot test did not put those statement in the context of YikYak posts, but instead instructed participants to rate statements without this context. This raises a couple of questions.

First, does the medium or community itself play a role in how negatively valenced deviance is online? As discussed above, online communities have their own norms, standards of conduct, and expectations for members of the community; and that those norms differ from other communities. The existence, explicitness, and distinctiveness of these norms are dependent on the community being studied; with some online communities having only a few identifiable norms policed by informal relations among group members, while other communities have explicit norms and rules that are codified and made available to all new and continuing users. YikYak is a community that does have formal rules, but is primarily policed through user input (upvotes or downvotes, as well as comments). Perhaps a norm for YikYak is behavior that would be considered more negative in other contexts but is relatively normal and benign in this context. Some of the qualitative responses seem to support this claim, such as one participant who said "Yik Yak is normally used as a place for snarky remarks or funny jokes…" However, the two questions intended to control for use and familiarity with YikYak were not significant influences in the overall model. Since there is not a significant relationship between how familiar the participants were with YikYak—

which would suggest the participants are familiar with the norms of the community—and valence of the deviant behavior, it is plausible that the knowledge of community norms does not necessarily imply a negative reaction to deviant behavior. Alternatively, it may be that YikYak is well known in the popular press for having a strong norm to post negative content, and participants in the study did not want to answer truthfully because doing so would implicate them as potentially more negative or judgmental.

Second, as participants saw both a deviance post and a reward post within the same experimental stimulus (for an example, see Figure 2) but not together in the pilot, is the reward post contributing to the more positive evaluations of deviance in the study? As the reward manipulation was not successful in the current study, there is no way of knowing if this is true from the data collected. However, some of the participants in the open-ended comments on reward conflate the deviance manipulation and the reward manipulation— especially when the deviance was negative. Perhaps the presence of something that is rewarding, no matter how rewarding it is perceived to be, causes individuals to change their perceptions of deviant behavior to be more positive. Consistent with EVT, this would imply some sort of "mental calculus" of deviant behavior that is based on past behavior of the user, which is discussed more below.

Group Identity

Given the potential for both individual and group identities online, identity salience is an area that deserves more attention from scholars studying online communities. While many studies emphasize either the group-level or individual-level effects, few studies have examined the interplay of these two identities together, despite calls to do so (e.g., Walther, 1997). The current study used two theories that predict reactions to deviance: one (SIA)

focused on group responses and the other (EVT) focused on individual responses. Interestingly, however, the salience of either a group or individual identity, even though significantly different on group identification measures, did not significantly affect the evaluations of deviance, as tested by the second hypothesis. In fact, regardless of the type of deviance, the identity manipulation did not have significant effects on the evaluation of the deviant behavior at all.

This finding would suggest, then, that identity salience may not be as important in some online contexts when assessing deviance. SIA argues that a group member who has a salient group identity would derogate members of the group who perform negatively deviant actions due to the threat to in-group positivity. This effect has been well documented in the literature on the black-sheep effect. It would be safe to assume, then, that a salient personal identity (as opposed to a salient group identity) would cause less negative evaluations of deviants, as the deviant is not seen as a member of the in-group. However, this is not supported in the current study, which puts some SIA principles in question within this specific context.

There may be an alternative explanation: namely, the nature of the YikYak application itself. As mentioned above, YikYak is an anonymous network that is constrained within a certain geographic distance from the user's phone. In fact, two items that assessed the perception of the user's group membership—"This user behind this profile most likely goes to my school" ($M = 5.48$, $SD = 1.48$) and "This profile comes from somewhere near my school" ($M = 5.87$, $SD = 1.37$) were both quite high. These two items indicate that, on average, participants saw the user as someone who goes to their school, which may account for the null findings of group identification on perceptions of deviance. In other words, it

appears that most of the participants thought that the deviant user was a member of their in-group (UCSB students) due to the localized nature of the application being used as the stimulus. This unintentional priming of group identity has also been supported in the qualitative comments—specifically in the "confound with Freebirds" category. As implied above, being aware of and going to Freebirds may function as a group norm which, when combined with the local nature of the app itself, strengthened the group identity of all participants.

Thus, despite the lack of a group salience effect on perceptions of deviance, social identity principles still play a role in determining how deviance is assessed online. While the identity salience manipulation check showed that there was a significant difference in group identification, in both conditions the respondents may have been assessing the user on the basis that they were a UCSB student, and responded to both the ambiguous and negative deviance from the perspective of an in-group member. This would support the black sheep effect literature (Marques & Yzerbyt, 1988)—a highly negative in-group deviant was derogated (i.e., rated negatively in quantitative comments and sanctioned in the qualitative comments), while an ambiguously negative in-group deviant did not receive such harsh evaluations.

The current study would have been well-served by manipulating not only the type of deviance and group identity salience, but the platform (local versus non-local) and deviant manipulations (Freebirds versus a separate norm that was unrelated to group identity) as well. However, especially with the decreased level of trust given to information on the Internet, care needs to be taken to select an alternative platform that it is believable by the participants, or researchers are unlikely to find effects.

Rewardingness

One of the most interesting aspects of EVT is the notion of rewardingness affecting perceptions of deviant behavior when the behavior is ambiguous or unclear. This notion of reward in the current study adds to the study by Wang and colleagues (2009), who assessed deviance in light of interpersonal SIPT and the group-level SIDE model. While SIPT operationalizes reward as attractiveness of the interactant, EVT looks at a much broader concept of rewardingness that has been operationalized in a myriad of ways (e.g., SES, status, credibility, job performance, etc.). The majority of the current study's hypotheses as well as its one research question assessed the effect of reward value on perceptions of deviance in different contexts within an online community. The reward value manipulation was not successful, however, so the conclusions drawn from the results that include the reward manipulation cannot be interpreted in a meaningful way. Despite this setback, it is interesting that the reward manipulation in the full study was unsuccessful even though it showed a significant difference in the pilot test. It is possible that the manipulation failed in the experiment due to an order-effect in the pilot—participants in the pilot were all given three reward manipulations in descending order (high, low, none). This order would have provided clear contrasts between the high, low, and absent conditions that each participant would have seen, which may have led the participants to rate them in the order they were presented.

To further examine why this manipulation failed, the qualitative data in the full study revealed many interesting explanations (discussed in detail in the results section above). First, there were confounds with the deviance manipulation. This was especially true in the negative deviance condition, with over three quarters of the commenting participants using

the arrest post to evaluate rewardingness of the user along with (or in place of) the Blaze

pizza post. It appears that the extreme negativity of the arrest caused a "halo effect" where

the rewardingness of the Blaze post was negated or severely diminished. This was not

entirely unexpected, as it is in line with results from Burgoon and Hale (1988) who found

that "violations must have be sufficiently ambiguous to allow assigning positive meanings to

the violations when they are committed by a high reward violator" (p. 75). What was

unexpected, however, was that over a third of commenting participants in the ambiguous

deviance condition also confounded the deviance manipulation (Freebirds), which should not

have affected the results of the reward value manipulation. As mentioned above, this implies

a form of mental calculus when assessing reward value that is in line with the social

exchange theory roots of EVT.

Additionally, norms of the online community (discussed in the previous section on

group identity) and the order of posts may have an effect on rewardingness in online

contexts. This unintentional priming of group identity as a moderator for reward is something

which is not addressed by EVT, as it focuses primarily on dyadic communication.

Additionally, a second unique moderator of EVT online that emerged from this study is the

notion of an order effect within online communities. Perhaps reward is evaluated holistically,

but different weight is given depending on the order in which posts appear.

Thus, despite the unsuccessful manipulation of reward value in the current study, the

open ended responses to evaluation do appear to indicate that, at least some of the time,

participants look to reward as an additional explanatory variable when there is a violation

that does not carry clear meaning. This supports EVT's usefulness in assessing deviance

online, and provides evidence that it is a theory that is well-suited to further use in an online context.

It also appears that trust plays a large role in determining the rewardingness of information online. Many of the participants expressed doubt about both the veracity of the information itself, as well as the user posting the information. This follows from predictions about warranting value put forth by Walther and Parks (2002): information that is online can be seen as less trustworthy due to the ease of disingenuous portrayals. This is also supported with the quantitative data: one of the covariates that was significant in the model was trust of the user. In other words, the more a participant trusted the user the more positive the evaluation of deviance. This is an aspect of reward that has not been explored, as many EVT studies do not take into account whether or not the reward is genuine. Especially in online contexts, many of the reward value manipulations are operationalized as tie strength (e.g., Bevan et al., 2014; McLaughlin & Vitak, 2012). The results of this study seem to indicate, however, that when reward is more tangible or the deviant is unknown (as with anonymous online contexts), there is an additional filter of user trust that influences the reward potential of the user. Future studies should consider this factor when assessing deviance online.

Some of the participants stated that there was not enough information to make an accurate evaluation of rewardingness for the user. This may be a result of a social desirability bias—as discussed above, some of the commenting participants may not have wanted to appear judgmental in front of researchers, though the presence of this code was relatively rare in the open-ended data. Care was also taken when managing the participants to ensure that they answered questions as honestly as possible by assuring them the responses would be anonymous. An alternative explanation, then, may be that participants take into account the

"whole picture" when assessing rewardingness online, and more information about the user (e.g., more posts) would allow participants to make a better assessment of reward potential. This is not too feasible in an experimental context; however, in a real online community there is a much greater wealth of information from users to assess, depending on how active they are in the online community. This also informs SIA's notions of prototypicality online—it may be the case that members who are more active are seen as more prototypical or, at least, other users are better able to assess their prototypicality because they have more information for other users to see their posts. Future studies, then, should look to see if amount of information available influences perceptions of users online.

A few of the participants were simply not interested in the pizza coupon, didn't think it was rewarding enough, distrusted motivations for posting on YikYak, and/or misinterpreted the stimuli. This is an artifact of the stimuli used and provides a couple of options to consider when designing additional studies looking at reward and deviance online. First, the rewarding claim must be at the individual-level and not affected by others consuming the reward. For instance, trait-level reward that is generally operationalized in EVT (e.g., attractiveness, likability, etc.) is a reward that is not consumable and, thus, everyone can experience the same level of reward. Tangible goods, especially with a temporal aspect (such as a coupon that is only available for one night), may be considered less rewarding because others are competing for the same reward.

A final option to consider: perhaps with different online communities there would be different responses to rewardingness online. This is similar to the discussion above with regard to deviance and norms being different across various communities and platforms. The platform/community in which the reward is offered likely affects the evaluation of the reward

potential through trust. If an individual thinks something has potential to be rewarding, but is doubtful of the motivations behind why the user posted it (which can be due to the expectations from the platform/community itself), they may be less inclined to incorporate—or give less weight to—that rewarding claim in their evaluation of deviance. This is an interesting avenue for future EVT research online, as the existing theoretical framework does not incorporate trust, in any form, into the evaluation of expectancy violations or reward value. Thus, this study extends incorporates the notion of warranting theory into EVT when evaluating behaviors that takes place online.

Implications Summary

Despite the lack of significant results in the model, and the unsuccessful manipulation of one of the key factors in the study, there are several implications to be drawn from this study. Notably, the online community itself may prime a group identity, as can manipulations that are location based (such as the second food place, Freebirds). Trust is a key factor in rewardingness evaluations online, and the amount of information about users may have an effect on perceptions of prototypicality. For a summary of implications from the results, see Table 10.

Table 10

Implications Summary

Implication drawn from study	Supporting results	Theoretical implications	Improvement suggestions
YikYak as an online community may have unintentional norm for negative deviance	Difference between pilot test evaluation of deviant statements and experimental evaluation, qualitative responses support a norm about YikYak use	N/A	Alternative platforms may have different norms for deviance evaluation
YikYak may unintentionally pime group identity	No difference between group and personal ID on evaluation	SIA research should be careful about priming identity with platform/community	Different deviance manipulations that do not invoke group identity, alternative platforms not based on location
Negative deviance confounds with rewardingness	Qualitative comments	Consistent with EVT	N/A
Unintentional group prime and order of posts may have effect on reward evaluation	Confound with Freebirds in the Qualitative comments, Several participants mention order of posts	Reward may be altered by group identification in EVT	Evaluate order effect of posts in different contexts online
Trust is a motivating factor in reward determination online	Significant effect of trust in model, Doubt of veracity of information and user in qualitative comments	Incorporate trust into EVT online	Examine trust as a moderating factor in future EVT studies
Amount of information available influences reward potential online	Qualitative comments suggest this is a motivating factor for reward evaluation	Prototypicality in SIA may be influenced by amount of information present	N/A
Reward must be an individual-level claim, cannot be affected by others consuming reward	Several participants thought coupon wasn't rewarding in qualitative comments	Differentiation between types of reward in EVT	Differentiate between tangible (rival) goods, especially with a temporal component, and intangible traits

Platform/community where reward appears may have an influence through trust of reward	Distrust of YikYak in qualitative comments	Extends warranting theory into EVT	Incorporate platform/community into future EVT studies online

Limitations and Future Directions

This study, as with all others, has several limitations. First and foremost is the failure of the reward value manipulation, which rendered many of the hypotheses untestable in any meaningful way. As discussed above, there may be several reasons for this failure. Some, such as order effects in the pilot tests, misinterpretation of the stimuli, and disinterest in the reward, are no doubt more related to the methodological decisions made throughout the current study. Future studies in this area would be wise to ensure successful manipulations through more rigorous pilot testing (see Table 9). Some reasons for the manipulation failure, however, have to do with the nature of online communication and provide interesting pathways for future research. For instance, it appears that trust plays a role in how deviance is perceived—especially in anonymous interactions. Furthermore, many of the participants' comments indicated that the deviant manipulations confounded the reward value manipulation, which implies that individuals take into account the user as a whole before making decisions about rewardingness. This has interesting implications for the "logs of behavior" that exist in online communities, as there is now potential for individuals who see a member and want to evaluate them more rigorously than a single post can examine all past behavior of the user to make their assessment. Alternatively, it may be that even if additional information is available, most people assess others based on what is most recent, or easily visible. These possibilities are two avenues that warrant further study: first, whether more information online is evaluated rigorously (or not) and second, what the mechanisms behind that evaluation are in different contexts.

A second limitation of the study is the choice of online community used as a stimulus. While YikYak was a generally believable stimulus for the purposes of this study, the

location-based nature of the application had an effect on the manipulation for group salience such that many of the participants were thinking of the user as an in-group member. This provides a possible explanation for the null findings regarding group or individual identity salience. However, with the proliferation of mobile phone use and the increasing reliance on geolocation services, this may be a relevant question in the future of online communities: are communities based solely online with no geographic ties different than communities that are based on geography but interacting through an electronic medium?

Finally, an issue associated with many studies conducted in the communication discipline: a convenience sample of undergraduates may not be generalizable to the broader population, thus limiting the ability to extend these results to all users of online media.

Conclusion

The notion of online community and behavior continues to be an important and theoretically interesting question for scholarly attention. Of particular interest in the current study was how individuals react to deviance within online communities from two different theoretical paradigms. This study provided evidence that perceptions of online users is a complex and multi-faceted phenomenon that deserves careful attention. The nature of the medium or community itself seems to play a role in how individuals interpret behavior online, both from a social identity as well as an expectancy violations theory perspective. Furthermore, individuals evaluate rewardingness online in a holistic way—taking into account the entire user to make their assessment. Additionally, the relative weights of information in that assessment may influence the perceptions of the user in ways that require further exploration.

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Appendix A: Group Identification and Reward Value Manipulation Checks

Please indicate your agreement with the following statements.

Thinking about the group to which these profiles belong

1. I am glad to be a member of this group.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

2. I am committed to this group.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

3. This group is important to me

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

4. I see myself as similar to other members of the group in terms of general attitudes and opinions

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

5. I like the other members of this group as a whole.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

6. I feel like I fit into this group.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

7. I identify with other members in this group.

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

8. I see myself as belonging to this group

Strongly   Strongly
disagree   agree
   1   2   3   4   5   6   7

9. This user is someone who could be beneficial to me in the future.

Strongly   Strongly
disagree   agree
   1   2   3   4   5   6   7

10. This user is someone who could not be helpful to me in the future.

Strongly   Strongly
disagree   agree
   1   2   3   4   5   6   7

11. This profile comes from someone near my school

Strongly   Strongly
disagree   agree
   1   2   3   4   5   6   7

12. The user behind this profile most likely goes to my school

Strongly   Strongly
disagree   agree
   1   2   3   4   5   6   7

Appendix B: Expectancy Violation Valence and Perceptions Of Deviant Behavior

Thinking about the YikYak profile shown in the example please indicate your thoughts about the content in this user's posts.

1. How expected were these posts?

Completely expected	1	2	3	4	5	6	7	Not at all expected

2. These posts:

Surprised me only slightly	1	2	3	4	5	6	7	Surprised me a great deal

3. These posts: (Reverse coded)

Were very negative	1	2	3	4	5	6	7	Were very positive

4. These were posts that I:

Extremely disliked	1	2	3	4	5	6	7	Extremely liked

5. These posts made me feel annoyed.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree

6. These posts made me feel irritated.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree

7. These posts made me feel offended.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree

8. These posts made me uncomfortable.

Strongly disagree	1	2	3	4	5	6	7	Strongly agree

9. These posts:

Were very normal	1	2	3	4	5	6	7	Were very abnormal

10. These posts:

Were very ordinary	1	2	3	4	5	6	7	Were very unusual

11. These posts:

Were very typical	1	2	3	4	5	6	7	Were very atypical

Appendix C: Control Measures (YikYak use, baseline trust of content, believability of

stimulus, trust of user)

In this section, please answer the following questions about your perceptions of YikYak.

1. How often do you use YikYak?

Never	Once a month	Several times a month	Once a week	Several times a week	Daily	Several times during the day
1	2	3	4	5	6	7

2. How familiar are you with YikYak?

Not at all Familiar						Very Familiar
1	2	3	4	5	6	7

3. Information on YikYak is usually as believable as information from other sources

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

4. I tend to distrust information that is presented to me on YikYak (Reverse coded)

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

5. People on YikYak are usually honest and truthful

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

6. I don't believe that information on YikYak is reliable (reverse coded)

Strongly disagree						Strongly agree
1	2	3	4	5	6	7

In the following section, please indicate your level of agreement with the following
statements:

7. I felt like the YikYak profiles I was shown were realistic.

Strongly
disagree
                                        Strongly
agree

1	2	3	4	5	6	7

8. I felt that the YikYak profiles I was shown were believable.

Strongly   Strongly
disagree   agree

1	2	3	4	5	6	7

9. I felt that the YikYak profiles I was shown was representative of other users in that area.

Strongly   Strongly
disagree   agree

1	2	3	4	5	6	7

In the following section, please indicate your impression of the user in the example by selecting the appropriate number between the pairs of adjectives below. The closer the number is to an adjective, the more certain you are of your evaluation.

9-14. (Reverse coded: 9, 11, 12)

Honest	1	2	3	4	5	6	7	Dishonest
Untrustworthy	1	2	3	4	5	6	7	Trustworthy
Honorable	1	2	3	4	5	6	7	Dishonorable
Moral	1	2	3	4	5	6	7	Immoral
Unethical	1	2	3	4	5	6	7	Ethical
Phony	1	2	3	4	5	6	7	Genuine