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Second-order Judgment Problems:

The Impacts of Perceived Social Distance on Judgment Making

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Abstract

Judgment making about targets in information-abundant environments involve another level of judgement processes to sort out relevant and trustworthy information about the targets of judgment. We call this *second-order judgment problems*. The present study formulated second-order judgement problems into a theoretical model that focuses on the impacts of perceived social distance between a target and the informant who provides the information about the target on judgement formation processes. A set of hypotheses were developed and tested through a web-administrated experiment, in which participants were asked to make judgments in a hypothetical criminal incidence based on the information provided by multiple sources. The results suggested that perceived distance between targets and information sources had positive effects on trustworthiness of information as well as final judgment. However, the effects were found nonlinear, suggesting the possibility of compounded effects. This paper concluded with discussion of the implications of the current findings.

Keywords: Second-order judgment problems, Perceived social distance, Conflicting information, Judgment formation, Social media

Second-order Judgment Problems:

The Impacts of Social Distance on Judgment Making

To make judgments, people rely upon the information about the targets of judgment. However, the quantity of information available for judgement does not immediately imply the quality of the judgement made based upon it. This is in large part because not all the available information is equally important, relevant, or reliable. Further, it is common that the information of a given target is inconsistent or even conflicting, specifically in online environments, where decentralized individuals can freely create and circulate information often based on their own subjective viewpoints (Dahlberg, 2001). Everyday examples include user-generated reviews on books and products (e.g., Amazon.com), restaurants (e.g., Yelp.com), and drivers (e.g., Uber). It is rare that the user-generated reviews are either all positive or all negative on a target. But instead, it is common, if not always, that positive and negative reviews are well mixed. For this reason, judgment formation processes in information-abundant environments necessarily involves another level of judgement processes to sort out relevant, reliable, and trustworthy information. That is, a judgment should be made to evaluate the utility of available information of a given target *before* utilizing it for making the judgment on the target. We shall call this another level of judgment processes *second-order judgment problems*, even though such processes typically occur prior to the main judgements (see Figure 1).

On which information do people tend (or need) to place more weight to make a better judgement? One of the earliest works to address this question was the signaling theory proposed by Spence (Spence, 1973). Following the logic of cost-benefit analysis in economics, he argued that signals (i.e., information) that are costly to create and send are more credible and reliable than those that are inexpensive. Later, the concept of signaling costs was translated into the

controllability of information and successfully applied to impression formation in online settings (Donath, 2007; Walther & Parks, 2002). Previous research on impression formation on social media has found that the value of the information for judgment is perceived differently depending on the authorship of the information (DeAndrea, 2014; Walther & Parks, 2002; Walther, Van Der Heide, Hamel, & Shulman, 2009). Specifically, the information about a target generated by the target him- or herself (i.e., self-generated information) is unlikely to be perceived as reliable as the information generated by others (i.e., other-generated information). This is because self-generated information tends to be biased in favor of the target and is easily controlled or manipulated by the target (Ellison, Heino, & Gibbs, 2006; Toma, Hancock, & Ellison, 2008; Walther, 1996). Therefore, researchers argue that people tend to rely on other-generated information more than self-generated information, when the two kinds of information are conflicting (Walther & Parks, 2002; Walther et al., 2009).

The dichotomy between self-generated and other-generated information serves as a simple but useful clue for judgment makers to determine whether or not the information is trustworthy. Arguably, however, its utility is expected to highly limited in online settings, because other-generated information is already dominant over self-generated information. For example, on Amazon.com, the number of consumer-generated reviews is 10 times greater than the number of seller-generated product advertisements (McAuley & Leskovec, 2013). For popular posts on social media such as Facebook, YouTube, and Twitter, the number of other-generated comments are 100 to 16,000 times greater than that of self-generated original posts[1]. If

[1] From Social Marketing Report conducted by Socialbakers on 2017, August. https://www.socialbakers.com/resources/reports/united-states/2017/august/

that is the case, judgement makers would need another clue to determine, among all the available information generated by others, which information is more important, relevant, and reliable.

With this perspective in mind, the current study examines the cognitive strategies people adopt to determine the trustworthiness of available information in information-abundant environments, and its consequences on judgment formation. More specifically, it hypothesizes that the perceived social distance between the targets of judgment and information providers serves as a critical factor in determining the trustworthiness of the information provided by others. A set of hypotheses were suggested and tested against data collected from a web-administrated experiment, in which participants were asked to make verdicts for a suspect involved in a fictitious criminal case based on the conflicting testimonies and evidence provided by multiple sources.

This paper is organized as follow: The next section reviews previous literature on social distance in the context of judgment making. It then establishes research hypotheses. The following two sections—Methods and Results—describe the web-administrated experiment including participants, experiment stimuli and procedure, and reports the results of statistical analysis. The final section discusses the theoretical and practical implications of the major findings and also suggests the directions of future research.

Social Distance as a Cue in Judgment Making

Bogardus (Bogardus, 1947) who proposed the social distance scale, defined social distance as "the feeling reactions of persons toward other persons and toward groups of people (p. 306)." Social distance is measured by asking whether respondents would be accepting of different social relationships as their close friends, as neighbors, and as co-workers, etc., capturing the idea that the willingness to sympathize of each social relationship determines social

distance between the respondents and others. Although the social distance scale was originally invented to measure prejudice and discrimination (Wark & Galliher, 2007), the underlying concept was widely applied to the context of judgment making.

Media effects studies have focused social distance as a cue to affect judgment about the undesirable influence of media content. The third-person effect suggests that judgment makers' perception of social distance between others and themselves determines their assumptions about others' susceptibility to media effects (Perloff, 2009). Specifically, judgment makers tend to believe that distant others are more strongly affected by undesirable media content than close others. The underlying mechanism in this cognitive process is addressed by group identification. It postulates that people perceive others who share common social identity as in-group members, whereas the rest of others are categorized as out-group members (Hogg, 2000; Reid & Hogg, 2005). As people derive a part of their self-concept from their in-group, they strive to maintain a positive image of their own group relative to other groups (Hogg, Abrams, Otten, & Hinkle, 2004; Hogg & Reid, 2006). Being influenced is potentially ego threatening (Reid & Hogg, 2005). Hence, people tend to believe that close others are unlikely affected by undesirable media messages as strongly as are distant others exposed to the same messages (Cohen, Mutz, Price, & Gunther, 1988; Reid & Hogg, 2005). The third-person effect demonstrates that judgment makers utilize social distance to determine the amount of media influence to others and, as a result, to protect self-enhancement motivation (Hogg et al., 2004). The third-person effect also emphasizes social distance to address the opposite effects, a reverse third-person effect or first-person effect (Perloff, 2009). When the message is viewed as congenial with one's own group, judgment makers will acknowledge that in-group members will be strongly influenced by the desirable media messages than out-group members (Hogg & Reid, 2006). Theses media effects studies call

attention to the ways that social distance propel people to make judgment about their susceptibility to media effects based upon self-enhancement motivation.

Jurors' judgment making processes in criminal psychology offer a similar view of social distance. Studies suggest that jurors tend to focus on witness' social distance to a defendant to evaluate credibility of testimonies (Hosch, Culhane, Jolly, Chavez, & Shaw, 2011; Marion & Burke, 2017). When a witness does not have any social relationship with a defendant, jurors are likely to assume that the witness has no reason or motivation to fabricate his or her testimony for the defendant. Accordingly, jurors tend to perceive distant others' testimony credible and worth enough to utilize into their judgment making processes (Culhane & Hosch, 2004). On the other hand, when a witness and a defendant are family or close friends, they are assumed to be highly motivated to lie about the defendant or even fabricate evidence to protect the defendant. Thus, jurors are skeptical about close others' testimonies and tend not to weigh much on them (Culhane & Hosch, 2004; Olson & Wells, 2004).

The literature in media effects studies and criminal psychology emphasizes social distance as a cue to determine degrees of information neutrality. People are motivated to protect a positive image of close others and, as a result, information about close others may be biased in favor of them. Thus, the information about the target of judgment would be perceived as having a low degree of neutrality, if it is provided by close others. On the contrary, people do not necessarily have a motive to promote either positive or negative images of distant others. In other words, information about distant others tend not to be biased. Thus, the information provided by distant others would be viewed as having a high degree of neutrality. In the context of judgment making, Bogardus' social distance concept can be further expanded to the relationships between human and technologies. Arguably, technology systems should be perceived to be infinitely

distant from people, and therefore, maximally objective and neutral. This is in line with study findings that system-generated information is considered as objective and neutral (Sundar, 2008; Tong, Van Der Heide, Langwell, & Walther, 2008).

Social distances among users are recognizable in online environments because networked communication platforms allow individuals to communicate with all of their social pairs in one place. For example, on online markets, either a first-time buyer or a loyal customer can be easily identified by checking their interactions with a seller. Identifying system-generated information such as number of reviews or overall ratings does not take more than few seconds. On social media, it is clear whether comments are generated by target's best friends or some others who rarely know the target despite they are all called "friends" or "followers" depending on platforms. Information about number of friends or number of posts is provided by systems without doubts. Thus, in the information-abundant environments, people may utilize social distance cues between information source and the target of judgment to determine which information is more neutral, and therefore, more trustworthy to make better judgments.

Based on the literature, the current study hypothesizes that perceived social distance serves as a critical factor in determining the trustworthiness of the information provided by others. Specifically,

H1. Perceived social distance between the target of judgment and information sources has positive effects on trustworthiness of the information provided by the sources.

Knowing as a confound

The term of "close" others may deliver two meanings at the same time: 1) others who "*like*" the target very much and 2) others who "*know*" about the target very well. For example, a

letter of recommendation provides detailed formation about the target, but it tends to portray a target in a too positive way (Leising et al., 2010). Thus, a letter of recommendation is presumed to display a "pal-serving bias" and is expected to be favorable to the target. Due to this fact, reliability of the information generated by close others could be questioned, as hypothesized above, although close others might have more information about the target.

Previous literature, however, suggests the need to differentiate "*liking*" and "*knowing*" in studying the relationship between information providers and targets (Leising, Erbs, & Fritz, 2010). A letter of recommendation could be less favorable if the recommenders and applicants have a weak cooperative relationship (Colarelli, Hechanova-Alampay, & Canali, 2002). Consequently, when the information provided by close others is not favorable to the target of judgment, only the fact that close others know well about the target would remain, which may increase neutrality and trustworthiness of the information. Thus, this study considers "*knowing*" as a confound that diminishes the effects of perceived social distance on second-order judgment problems when the information provided by close others is unfavorable to the target. It hypothesizes that,

H2. Close others' unfavorable information about a target increases trustworthiness of information.

Methods

Participants

A total of 400 participants were recruited through Amazon's Mechanical Turk (MTurk). Our sample consisted of 50.2% female ($N = 201$) and 49.8% male ($N = 199$). Their ages are ranging from 20 to 75 with the mean of 38.06 ($SD = 11.31$). Social media use was assessed by

the item "how frequently do you use social media (i.e. Twitter, Facebook, Instagram, etc.)." 76.0% of the participants ($N = 304$) reported that they use social media almost every day. 10.0% ($N = 40$) and 6.5% of them ($N = 26$) reported that they use social media 2-3 times a week and once a week, respectively. The rest of the participants use social media once a month or less than once a month (7.4%, $N = 30$).

Procedure

A web-administrated experiment was conducted to test hypotheses. The experiment started with an informed consent form where the participants were briefly introduced to the study. After participants understood that their responses were anonymous, they viewed a mock news article about a robbery suspect. Then they viewed the mock news organization's Twitter page where three follow-up news headlines are posted. The follow-up news was about new evidence provided by three different information sources—the suspect's girlfriend, the clerk at the store, and the CCTV footage. After reading the news about the robbery suspect and the follow-up news, participants were asked to answer the question of how much they believed that the suspect was guilty in terms of probability. Lastly, they reported how much each evidence had affected in their judgment making processes.

Stimuli and design

In the first page, all participants read a mock-up news article about a robbery at a convenience. In the next page, they viewed a mock-up Twitter page that included 4 pieces of information: 1) the suspect's self-claim, 2) information generated by the suspects' girlfriend (close other), 3) information generated by a clerk at the convenience store (distant other), and 4)

information generated by CCTV camera (neutral source). Figure 2 shows a sample Twitter page used in this study.

The suspect's self-claim was consistent across all conditions. The suspect claimed that he was not guilty. The other pieces of information provided by different sources were either favorable or unfavorable to the suspect. For the girlfriend, favorable information was manipulated as "he was with me that night watching TV at his place." Manipulation for her unfavorable information was "he told me he was going to rob a convenience store. I thought it was a joke." For the clerk, favorable information was manipulated as "I don't think the suspect is the robber. I remember the robber was much taller than him," while unfavorable information was "I can tell he is the robber. The suspect is as tall as the robber." With regard to the CCTV camera, manipulation of its favorable information was "The analysis of the CCTV footage suggests the suspect's face does not match the robber's." On the other hand, unfavorable information from the CCTV camera was "The analysis of the CCTV footage suggests that the suspect's face matches the robber's with 99.3% accuracy."

With the consistent self-claim and combinations of favorable or unfavorable information provided by different sources, a total of eight conditions were created. Table 1 shows the eight conditions that were used in this study. Except the control condition (Condition #1 in Table 1), at least one piece of the information conflicted with the suspect's self-claim. For example, while the suspect claimed that he was not the robber, the clerk testified that he was confident that the suspect was the robber (Condition #3,4,7, & 8 in Table 1). More importantly, at least two pieces of the other-generated information were conflicting except two conditions (Condition #1 & 8 in Table 1). For instance, when the suspects' girlfriend testified that the suspect was with her at the

time the robbery occurred, the analysis of the CCTV footage suggested that the suspect was the robber.

Participants were randomly assigned to one of the eight conditions under which they were expected to see different combinations of testimonies and evidence from different sources. Then, participants were asked to make judgements on the probability that the suspect was guilty. They were also asked which information was most influential in making the final judgment.

Measures

Guilt judgment. The dependent variable of guilt judgment was assessed by the item "Based on the evidence you saw, what is the probability that the suspect is guilty?" The participants judged the probability on a percentage scale ranging from 0 % to 100 %.

Trustworthiness of each information. Participants were asked to report how much each information had affected in their judgment on the suspect. Their answers were recorded on a percentage scale ranging from 0% to 100% for each piece of information generated by the girlfriend, the clerk, and the CCTV.

Reliability of information sources. Reliabilities of sources were assessed by two types of items: the possibilities of unintentional misinformation (e.g., due to poor memory) and intentional misinformation (e.g., fabrication). Regarding unintentional misinformation, participants were asked how much did they think the girlfriend's or the clerk's memory were inaccurate. They were also asked how much did they think the CCTV image analysis was inaccurate. With regards to intentional misinformation, participants were asked how much did they think the girlfriend's or the clerk's testimonies were fabricated. They were then asked how much did they think the CCTV footage was modified.

Analysis

In order to test hypotheses, a set of paired-sample *t* test, independent sample *t* test, and a regression analysis were performed using SPSS. Alpha level was set as .05. For an ad hoc testing, a set of independent sample *t* tests were employed.

Results

Hypothesis testing

Hypothesis 1 predicted that perceived social distance between the target and information sources had positive effects on trustworthiness of the information provided by the sources. Specifically, the information provided by distant others was predicted to have a greater trustworthiness than the information provided by close others. Also, the information provided by neural source was predicted to have greater trustworthiness than the information provided by close or distant others.

Table 2 summarizes the results of descriptive statistics and paired-sample *t* tests of the trustworthiness of each information source. Participants reported that the information provided by the CCTV footage (neutral source) had the greatest impact in their judgment making processes ($M = 76.77$, $SD = 24.44$), followed by the information provided by the clerk (distant other) ($M = 49.10$, $SD = 31.80$) and the information provided by the girlfriend (close other) ($M = 40.26$, $SD = 30.66$). A set of paired-sample *t* tests showed that the influence of the information provided by the CCTV footage (neutral source) was significantly greater than that of the information provided by the clerk (distant) ($t(399) = 13.81$, $p < .001$) or by the girlfriend (close) ($t(399) = 18.89$, $p < .001$). It also showed that the information provided by the clerk (distant) had a significantly greater impact than the information provided by the girlfriend (close) in the

participants' judgment making processes ($t(399) = 4.13$, $p < .001$). Thus, Hypothesis 1 about the *second-order judgment* (the evaluation of available information) was supported.

To test whether the second-order judgment affected the final judgment, which we call the *first-order judgment* in this paper, a regression analysis was employed. The final judgment in this study was the judgment on the probability that the suspect was guilty. The regression analysis examined the impacts of each information source in predicting the participants' judgment on the probability of the suspect's guilt. For each information provided by different sources, unfavorable evidence to the suspect was coded as 1 and favorable evidence was coded as 0. Thus, positive coefficients indicate that unfavorable information predicts higher probability of the suspect's guilt compared to favorable information. As seen in Table 3, unfavorable information to the suspect predicted greater probability that the suspect was judged as guilty than favorable information regardless of information sources. Among the three information sources, the unfavorable information provided by the CCTV showed the greatest impact on judging the probability of the suspect's guilt ($\beta = .541$), followed by the unfavorable information provided by the clerk ($\beta = .193$) and those provided by the girlfriend ($\beta = .176$). This result showed that information provided by neutral source, which had the greatest impacts in the second-order judgment, played a pivotal role in predicting the final judgment on the suspect's guilt. This result also showed that the information provided by the distant other, which had greater impact than the information provided by the close other in the second-order judgment, had a greater prediction power than those provided by the close other in terms of the final judgment.

Hypothesis 2 predicted that close other's unfavorable information about the target increased trustworthiness of information. Table 4 shows the results of descriptive statistics and a set of paired *t* tests with regard to the impacts of the information provided by the girlfriend and

the clerk in each condition. Although overall influence of the information provided by the clerk was greater than the information provided by the girlfriend, not all condition showed the significant difference between two sources. Especially, when both the girlfriend and the clerk provided unfavorable information about the suspect, the information provided by the girlfriend had a greater impact than the information provided by the clerk (Condition VII: $t(48) = 1.97$, $p = .054$; Condition VIII: $t(49) = 2.17$, $p = .035$).

Multiple linear regression models were employed to further compare relative impacts between the information generated by close and distant others on the final judgment controlling for the impacts of the information provided by neutral source. For each close and distant condition, the unfavorable information was coded as 1 and the favorable information was coded as 0. The analysis results in Table 5 showed that when the information generated by the CCTV was unfavorable, the information generated by the clerk showed a greater impact in predicting the probability of the suspect's guilt (Clerk's $\beta = .27$) than the information provided by the girlfriend (Girlfriend's $\beta = .20$) as predicted in the hypothesis 1. However, when the information provided by the CCTV was favorable, the information provided by the girlfriend shows greater impacts in predicting the probability of guilt (Girlfriend's $\beta = .24$) than the information provided by the clerk (Clerk's $\beta = .22$). This result supports that close other's unfavorable information about a target increases trustworthiness of information in the presence of favorable information generated by neutral source. Thus, H2 was supported.

Ad hoc testing

A set of independent *t* tests were employed to measure reliabilities of each information source. Regarding the information generated by the close other, the possibility of intentional misinformation was higher when the information was favorable than unfavorable, whereas the

possibility of unintentional misinformation was higher when the information was unfavorable than favorable. Specifically, the probability that the girlfriend fabricated her testimony was 46.90 (*SD* = 25.66) when the information was unfavorable and was 68.63 (*SD* = 26.31) when the information was favorable ($t(398) = -8.36$, $p < .001$). On the other hand, the probability that the girlfriend's memory was inaccurate was 42.31 (*SD* = 25.59) when the information was unfavorable and was 32.82 (*SD* = 23.30) in the favorable information condition ($t(398) = 3.88$, $p < .001$).

Regarding the information generated by the distant other, possibilities of both intentional and unintentional misinformation were greater when the information was unfavorable than favorable. Specifically, the probability that the clerk fabricated his testimony was 29.05 (*SD* = 28.44) when the information was unfavorable and was 13.44 (*SD* = 20.07) when the information was favorable ($t(356) = 6.34$, $p < .001$). The probability that that clerk did not correctly recall the robber was 52.97 (*SD* = 24.48) when the information was unfavorable and the probability was 34.37 (*SD* = 22.23) when the information was favorable ($t(398) = 7.96$, $p < .001$).

Lastly, the possibility of intentional misinformation provided by neutral source did not differ in both favorable and unfavorable conditions. The probabilities that the CCTV footage was modified were 18.18 (*SD* = 22.72) when the information was unfavorable and was 16.50 (*SD* = 21.98) when the information was favorable ($t(398) = .75$, $p = .454$). On the contrary, the possibility of unintentional misinformation did differ between the two conditions. The probability that the CCTV analysis was inaccurate was 27.58 (*SD* = 21.68) in the unfavorable condition and the probability of that was 18.28 (*SD* = 16.22) in the favorable condition ($t(398) = 4.86$, $p < .001$).

Discussion

This study found that judgment makers attributed information provided by distant others about a target person with greater weight than information provided by close others. The findings suggested that participants used the perceived social distance between the target person and the information provider as meta-information to judge the trustworthiness of the information.

This study also found that judgment makers valued close others' unfavorable information about the target. This suggests that "*knowing*" is a compound that affects the effects of social distance in judgment making processes. When judgment makers believe that close others have low motivation to lie about the target of judgment, such as unfavorable testimony in this study, judgment makers can rely more heavily on the information provided by close others because the information could be more accurate. Thus, if judgment makers have to make other kinds of judgment about a target, which emphasizes "*knowing*" than "*liking*" such as a target's personality, the effects of distance others' information can be decreased.

The current study extends previous the concept of 'social distance' by incorporating human-computer relationships into the model. Consideration of social distance between human and technologies provides a useful approach to understand cognitive strategies that people adopt during judgment making processes in online environments, where "others" do not always involve human beings. For example, people form impressions about a target on social media based upon friends-generated comments about the target as well as system-generated information about the targets' number of social media friends. Literature on system-generated information suggests that people tend to trust such information because they are presumed to be objective (Sundar, 2008). Although system-related cues are not salient, perceiving that the information is provided by technology system affects the perceived credibility of the information generated by

that source. In the information-abundant environments where system-generated information largely contributes to, this study defines "others" more broadly, and as a result, include information sources that have a certain degree of neutrality in the information about the target of judgment. This way should make it possible to examine the impact of the information generated by rating or recommendation systems on its informational value in judgment making processes.

Conclusions

The abundance of information does not immediately result in the accurate judgment or evaluation. Instead, it may require additional efforts to judge the informational value of the available information. If it is the case, as the volume of available information increases, the amount of effort required will increase accordingly. This, in turn, implies that information systems that merely contain huge amounts of information may not be useful at all, no matter how much information they have. Rather, information systems should be designed to solve the *second-order judgment problems*. In an online market, such system designs are well established to help consumers' judgment-making processes. For example, Netflix recommends videos that might be relevant to a specific customer's interest rather than displays all the videos that are available. In the case of Amazon, if a user values customer ratings, the search result page shows the list in order of highly reviewed products. The recommendation systems in Netflix and Amazon not only save customers' time and effort but encourage informed decisions by providing valuable information specific to each customer.

In the era of the deluge of social media, with the availability of too much information, it is getting more difficult to accurately judge a target. As online space is used more and more in everyday life ranging from online dating to online shopping, there is increasing friction between

other-generated information. In this sense, online platform interface designs (e.g., whether or not the information about the available information are provided) can help users effectively seek and process information which will be enable them to eventually make informed judgments and decisions.

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Table 1. Experiment Conditions According to Perceived Social Distance

Conditions	*N*	Self (Suspect)	Perceived Social Distance		
			Close (Girlfriend)	Distant (Clerk)	Neutral (CCTV)
I	50				
II	50				X
III	50			X	
IV	50			X	X
V	50		X		
VI	51		X		X
VII	49		X	X	
VIII	50		X	X	X

Note. X: Unfavorable information to the suspect

Table 2.

Different Impacts of Each Information Source in Judgment Making Processes

Information source	*M* (*SD*)	Differences	*df*	*t*
Close other (Girlfriend)	40.26 (30.66)			
Distant other (Clerk)	49.10 (31.80)			
Neutral source (CCTV)	76.77 (24.44)			
Distance – Close		8.85	399	4.13***
Neutral – Distance		27.67	399	13.81***
Neutral – Close		36.52	399	18.89***

Note. *** $p < .001$.

Table 3.

Impacts of Each Information Source in Predicting the Judgment on the Probability of Guilt

	B (SE)	*β*	95% CI
Close other (Girlfriend)	10.53 (2.40)	.176***	[5.81, 15.24]
Distant other (Clerk)	11.55 (2.40)	.193***	[6.84, 16.26]
Neutral other (CCTV)	32.33 (2.40)	.541***	[27.61, 37.04]

Note. $N = 400$. *** $p < .001$.

Table 4.

Impacts of Unfavorable Information Provided by Close Others on the Judgment Making Processes

Conditions	Close other (Girlfriend)	Distant other (Clerk)	Neutral source (CCTV)	Impacts of the Girlfriend's testimony *M* (*SD*)	Impacts of the Clerk's testimony *M* (*SD*)	*df*	*t*
I				38.88 (32.59)	73.86 (24.84)	49	-7.79***
II			X	34.64 (28.02)	60.62 (29.41)	49	-5.94***
III		X		45.24 (29.24)	34.64 (29.44)	49	1.54
IV		X	X	32.82 (27.63)	30.34 (26.25)	49	.526
V	X			30.02 (30.00)	72.78 (25.21)	49	-7.15***
VI	X		X	50.02 (31.26)	47.92 (28.99)	50	.307
VII	X	X		**37.84 (24.88)**	**30.78 (24.73)**	**48**	**1.97**†
VIII	X	X	X	**52.34 (34.74)**	**41.52 (28.29)**	**49**	**2.17***

Note. X: Unfavorable information to the suspect. *** $p < .001$. † $p < .10$.

Table 5.

Multiple Linear Regression Models Predicting Judgments on the Probability of Guilt

	Model 1			Model 2		
	B (SE)	*β*	95% CI	*B (SE)*	*β*	95% CI
Neutral (CCTV): Favorable						
Close other (Girlfriend)	10.87 (3.56)	.21**	[3.85, 17.89]	12.64 (5.03)	.24*	[2.72, 22.57]
Distant other (Clerk)	9.85 (3.56)	.19**	[2.83, 16.87]	11.62 (5.03)	.22*	[1.70, 21.55]
Close X Distant				-3.56 (7.14)	-.06	[-17.63, 10.51]
Neutral (CCTV): Unfavorable						
Close other (Girlfriend)	10.19 (3.23)	.21**	[3.82, 16.55]	9.76 (4.57)	.20*	[.76, 18.76]
Distant other (Clerk)	13.23 (3.23)	.27***	[6.87, 19.60]	12.80 (4.56)	.27**	[3.75, 21.85]
Close X Distant				.86 (6.47)	.15	[-11.91, 13.63]

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. Dummy coding: Favorable (0), Unfavorable (1)

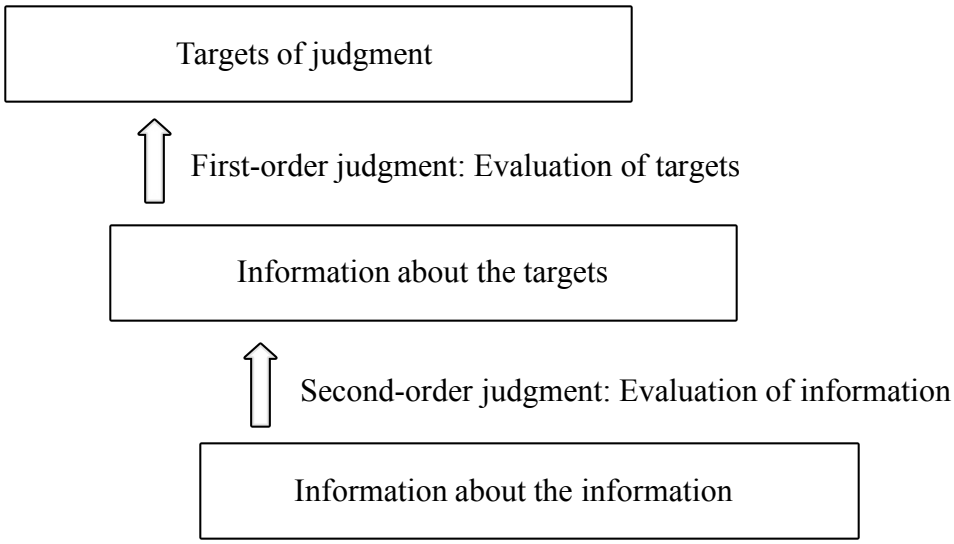

Figure 1. Second-order judgment problems: Evaluating the utility of information about targets

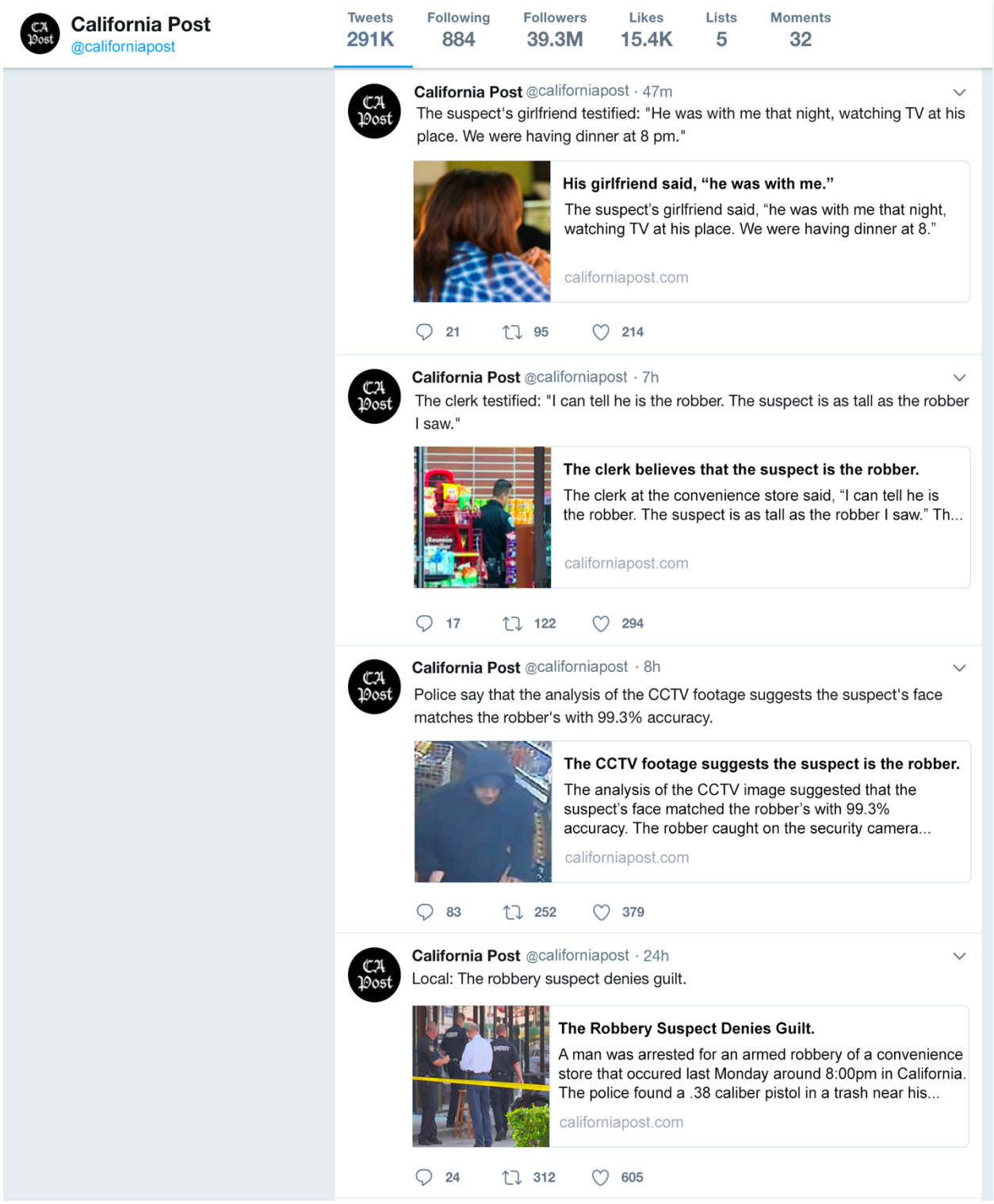

Figure 2. A mock-up Twitter page that contains conflicting information