6 Effects of Network Connections on Deception and Halo Effects in Linkedin

Abstract: On social networking websites (SNS) there is a general goal to convey desirable self-presentations, which can be achieved in many ways, from lying about qualifications in one’s Linkedin profile to posting flattering Facebook profile photos. In this chapter we use two experiments to explore the pervasive influence that our social relationships have on how we construct our self-presentations and how others form perceptions of our self-presentations in SNS. In the first experiment, participants’ deception was compared across three self-presentational resume settings: a traditional resume, private Linkedin profile, or publicly available Linkedin profile. Findings suggest that the public nature of Linkedin resume claims affected the kinds of deception used, such that public Linkedin resumes were less deceptive about the kinds of information that count most to employers, namely an applicant’s prior work experience and responsibilities, but were more deceptive about interests and hobbies. In a second experiment, we explore how halo effects, defined as global impressions about an individual formed using a single characteristic (e.g., physical attractiveness), can extend beyond the individual and become “extended halo effects” (EHEs). In SNS, EHE predicts that tie strength and status will affect global impression formation of the individual. Participants in a second study evaluated online Linkedin profiles, which manipulated the strength and status of a tie to a recommender. Impressions were positively biased in the presence of strong, high-status ties, despite actual job experience, supporting EHE.

Many of the decisions that we make everyday are driven by the desire to convey positive impressions to others. We carefully consider our wardrobe choices or choose to eat at a trendy restaurant to impress a date. We choose to wear a suit and practice a presentation to appear competent to our supervisor and work colleagues. The desire to convey positive impressions is a major force driving human behavior (Goffman, 1959) and is often referred to as a self-presentational goal. In online contexts, self-presentational goals range as widely as they do face-to-face, from wanting to appear qualified for a job on Linkedin, to wanting to appear romantically desirable on Match.com, and typically involve the desire to elicit a positive impression (Curtis, 1992; Donath, 1999; Roberts & Parks, 1999).

Opportunities for self-presentation online are abundant and understanding impression formation via studies of self-presentation has long been a focus of computer-mediated communication research. In computer-mediated spaces we can share a wide variety of information that reflects who we are to a number of different audiences. In a short period of time personal profiles for SNSs have become common. SNS profiles link individuals’ profiles to the profiles of friends, acquaintances and
colleagues. SNS include friendship-oriented profiles, such as profiles on Facebook, and more professionally-oriented profiles, such as those seen on LinkedIn, in which people upload online versions of their resume and form connections with former and current colleagues, supervisors and friends. SNS link our self-presentations with known and unknown others, providing the opportunity to widely disseminate self-presentations.

While the self-presentations that we craft, both online and face-to-face, are largely our own, the information that we share about ourselves and indeed the way this information is perceived by others is heavily influenced by our social networks. In the chapter that follows, we examine the ways in which our social relationships influence how people construct self-presentations and how others form perceptions of these self-presentations in SNS. We demonstrate these relationships with two experiments. The first explores how social relationships influence deceptive behavior on the professional SNS LinkedIn. The second investigates the influence that information about social network connections (e.g., characteristics of and relationships with ties) has on others’ perceptions of online self-presentations on LinkedIn.

6.1 The Effect of LinkedIn on Deception in Resumes

From a self-presentation management perspective, the fundamental desire to maintain positive impressions suggests that social networks are important to shaping the information that people choose to include in self-presentations. Because SNS profiles are virtual self-presentations and are not physically connected to the self, there is frequently concern that the desire to maintain positive impressions will lead people to engage in deception in order to accomplish self-presentational goals. Indeed self-presentational goals are a common and important motivator for deception (DePaulo et al., 2003). SNS profiles offer novel opportunities for deception not possible face-to-face. Walther (1996, 2007) argues that in computer-mediated settings, users take advantage of the affordances of the medium, such as the reduced cues and the ability to edit, to enhance self-presentations and inflate others’ positive impressions of the self.

Though the online environment may facilitate the use of deception to accomplish self-presentational goals, features of this context also have the potential to constrain deception and foster honesty. SNS profiles make self-presentations publicly available and link individuals to the profile who can verify whether information is deceptive. Researchers both on and offline have long demonstrated the importance of social relationships in fostering honesty between individuals (Resnick & Varian, 1997; Resnick, Kuwabara, Zeckhauser, & Friedman, 2000; Zimmerman & Kurapati, 2002). For example, recommender systems on websites like eBay help to ensure that transactions remain honest by providing users, who may have no previous history with a seller, with valuable information about the seller’s trustworthiness.
Affordances that allow for social links between the virtual representation of self that one encounters online and the face-to-face, offline self can improve the likelihood of honesty in SNS.

In the first experiment we investigate how social connections in the professional SNS LinkedIn influence the way that we use deception in resume profiles (Guillory & Hancock, 2012). We predicted that people would take a profile’s potential audience into consideration when crafting resume profiles so as to avoid being caught in a lie by network members who can verify information as deceptive. More specifically, we predicted that people would lie less about objective information that network members could verify as truthful (or deceptive) (e.g., job experience and responsibilities), but would instead seek to meet self-presentational goals by lying more about subjective information that would be difficult for former employers or colleagues to recognize as lies (e.g., interests, hobbies) while enhancing self-presentations. For example, if applying for a job requiring large amounts of travel a person might lie in their resume about being interested in travel to appear to be a better fit for the position. The opposite should be true for people creating private profiles that their social network cannot access.

LinkedIn provides an ideal context for exploring how the publicness of a SNS profile affects self-presentation and deception. Undergraduate participants came to our lab where they were randomly assigned to create a resume in one of the following three conditions: 1) a traditional resume created in Microsoft Word, 2) a completely private LinkedIn resume profile that only the user and researchers could access, and 3) a completely public LinkedIn resume profile available to anyone online via a web search. Participants were asked to create the resume based on a job description for a consultant position that would be very difficult for a student to attain. Participants were not explicitly encouraged to lie, but were asked to craft their profile to best fit the job description and were offered the added incentive of receiving a $100 gift card if their resume was determined to be the best fit for the position. Once participants completed their resumes, we revealed to students the study’s true purpose of exploring deception in resumes. Participants then identified all lies (i.e., any information intended to create false belief) and described more truthful versions of the deception to provide us with a better idea of the types of lies that participants used in their profiles.

Deceptions identified by participants were coded based on how verifiable information was. Verifiable information included aspects of the self-presentation that could be conceivably confirmed by others online. Lies in this category were related to responsibilities, information describing responsibilities at a job or activity; abilities, information indicating an ability to use software, language, or anything involving expertise; and involvement, information indicating level of participation in an activity or job. Unverifiable information made up a smaller subset of lies and included information typically unknown to colleagues. These lies related to interests,
and indicated an interest, motivation, or concentration in some aspect of life. These lies included information about interests or hobbies.

We found that participants lied about three times on average. The number of lies that people told did not differ between the experimental conditions, suggesting that whether resume information is publicly available does not influence the frequency of deception in resumes. In line with our predictions we found that it was the type of lies that differed between the self-presentational conditions. Participants who created public Linkedin resumes lied less about responsibilities relative to participants who created private Linkedin and traditional resumes. Participants in the public condition instead lied more about interests relative to participants in the two private profile and traditional resume conditions. Comparisons for abilities and involvement deception categories did not differ.

The findings from this study are consistent with claims that self-presentational motivations drive deception (Levine et al., 2010). Participants in the three conditions used deception to accomplish the same self-presentational goal of appearing qualified for a job, but did so using different types of deception. When resumes were private, participants lied about things that were important to helping them get the job, such as the amount of time spent at a job, in order to appear to have more experience. While lies such as these more directly accomplished the self-presentational goal of appearing qualified for the job, using this type of deception when a resume was publicly available online would risk detection by members of the social network. Therefore, people creating public resumes chose to lie about information that would make them appear to be a good fit for the job without the risk of being caught lying. In these cases participants lied more about hobbies or interests, for example being interested in travel and learning new languages because the job requirements included travel and fluency in a second language. Websites such as Linkedin, which make resume information public and link to social networks, can encourage honesty for resume claims that are most important to getting a job, such as claims about experience and responsibility. However, participants considered publicness strategically, adapting lies based on whether information could be verified by others online, suggesting that public availability of information does not guarantee honesty. Instead, the availability of SNS self-presentations to our networks shapes how we use deception to accomplish self-presentational goals.

6.2 Impact of Social Networks on Impression Formation in Linkedin

The first experiment illustrates the importance of our social network in shaping how people construct self-presentations. How might social networks influence the way that others perceive the self-presentations that people share in SNS? People often use multiple sources of information to form impressions of an individual. While the most
important source of information is often what individuals say about themselves, our first experiment and other research suggests that the veracity of self-presentations in SNS is suspect because individuals can craft inflated or deceptive self-presentations (e.g., Guillory & Hancock, 2012, Herring & Martinson, 2004; Walther, 2007). People expect this type of manipulation and rely not only on personally shared information, but also on information learned from other sources in forming impressions in SNS (Ellison, Heino, & Gibbs, 2006).

One such source is what others say about a person. Consider, as an example, the process of forming an impression of someone based on his or her Facebook profile. These profiles contain self- and other-generated comments and content (e.g., links, videos, photographs) provided by friends, family and acquaintances. Other-generated information about the individual (e.g., others’ Facebook wall posts) is more influential for impression formation than personally generated information (Walther, Van Der Heide, Kim, Westerman, & Tong, 2008). As Will Rogers once said: “Get someone else to blow your horn, and the sound will carry twice as far.”

A third source of information that is used in impression formation goes beyond what others say about a target individual, and instead pertains to who the other person is and how they are connected to the individual. Technically, people with whom the individual is connected are referred to as “ties” (Granovetter, 1983). SNS make this third source of information readily available by capturing and making visible relationships with and characteristics of ties (boyd & Ellison, 2007). This third source of information is both external to the individual (i.e., it is information about the individual’s ties) and is not easily subject to manipulation.

Research exploring impression formation on Facebook and other SNS suggests that people use information about our ties’ characteristics (e.g., extroversion, physical attractiveness) to form parallel impressions of our characteristics (Walther et al., 2008; Utz, 2010). Thus social network information (i.e., information pertaining to our network connections and our relationships with these connections) should play a role in impression formation that goes above and beyond information that is shared by the self or by others about the self. That is, to follow the Will Rogers aphorism, who blows the horn should also matter.

Social network ties clearly have effects on how an individual is perceived. For example, having a referral from a current employee leads to more positive perceptions of a job candidate’s resume and a greater likelihood of being offered an interview and employment compared to candidates without referrals (Fernandez & Weinberg, 1997). When supervisors in an organization perceive that an individual has a friendship with a prominent person in the same organization, their performance reputation improves (Kilduff & Krackhardt, 1994). In SNS, people with attractive friends who post on their Facebook profile’s “wall” are rated as more physically and socially attractive (i.e., likeable) than people with less attractive friends who post on their wall (Walther et al., 2008).
These research findings are consistent with the well-established halo effect (Thorndike, 1920; Nisbett & Wilson, 1977). Halo effects occur when global evaluations of an individual are made based on impressions of specific attributes. Thorndike’s (1920) original conception of the halo effect suggests that people are unable to resist the affective impact that global perceptions of an individual (i.e., forming a generally positive or negative impression of an individual based on a given attribute) have in influencing subsequent evaluations of specific, often unrelated, attributes. This biasing process occurs outside of conscious awareness and these effects occur even when there is sufficient information to allow for more accurate assessments (Nisbett & Wilson, 1977).

The halo effect has been applied strictly to how an individual’s characteristics in one dimension affect perceptions of that individual in another dimension. We expand on that original concept and argue that the network cases described above (Fernandez & Weinberg, 1997; Kilduff & Krackhardt, 1994; Walther et al., 2008), in which people were judged based on the characteristics of their ties, are examples of a term we’ve coined called the “extended halo effect” (referred to as EHE from here on). In particular, EHE should occur when the qualities of network ties (rather than qualities of the individual) globally affect impressions formed about the individual. EHE is distinct from the halo effect in that impression formation is influenced by reactions to information that is in some way external to the individual (e.g., information about their relationship with ties in their network, or about the characteristics of their ties), rather than information about their personal characteristics. While the halo effect would predict that a job candidate’s high status should lead an interviewer to judge the candidate’s other qualities (e.g., competence) more positively, EHE predicts that the high status of a job candidate’s tie (e.g., a friend, boss, or family member) should lead the interviewer to judge the candidate more positively. Importantly, these effects should operate regardless of whether the interviewer has more pertinent information to assess a given quality.

While previous studies have demonstrated EHEs in showing that judgments about a tie’s quality, such as extroversion, are used to make parallel judgments of the same quality for the target individual (i.e., extroversion) (Walther et al., 2008; Utz, 2010), research has yet to demonstrate EHEs that affect global impressions by influencing the general valence of impressions of a person’s characteristics. We believe that this is an important extension of EHE, allowing us to predict the impact of tie characteristics on impression formation more broadly.

Two points are crucial to the conceptualization of EHE. First, we don’t conceive of EHE as being the sole influence driving impression formation (i.e., overriding effects of self- and other-generated information), but rather identify it as one of multiple sources of bias that contributes to impression formation. Second, in line with the halo effect, EHE does not suggest a universally positive or negative reaction to information for all people, as certain qualities (e.g., physical attractiveness) can elicit different
affective reactions based on individual differences (e.g., gender) (Försterling, Preikschas, & Agthe, 2007).

Linkedin provides a useful context to explore how EHEs influence impression formation. Understanding impression formation in the context of a resume is particularly important, as specific information about ties in one’s network may have the potential to influence perceptions of the individual as a qualified job candidate. Both the strength and status of ties in a person’s network are important characteristics for studying social networks in organizational settings (Bian, 1997; Granovetter, 1983) and should be important factors driving EHEs.

The status of a tie provides information about the network member’s status in an organization and is defined in relative terms based on the status of the individual being evaluated. Ties can have relatively high status, such as a supervisor or professor, or low status, such as a subordinate or student. Making information about ties visible along with more traditional sources of impression-bearing information (e.g., self- and other-generated information) in online resume profiles (e.g., Linkedin profiles) should impact perceptions of the profile holder. The status of one’s ties can have important implications for an individual across a broad spectrum of personal outcomes. For instance, the status of ties in an individual’s social network can influence career outcomes, including promotions and advancement to senior-level positions (Podolny & Baron, 1997). A tie’s high status also conveys positive information about their success in organizations (Judge, Higgins, Thorensen, & Barrick, 1999), suggesting that they are seen as more qualified for positions than their lower status counterparts. High-status ties should also be seen as more credible or trustworthy than low-status ties, given that the costliness of engaging in untrustworthy behaviors is higher for these individuals (Kidwell, 2004). One reason for this is that high-status members of organizations are often products of a history of trusting relationships with others, which allowed them to achieve their status (Kramer, 1999; Lewicki & Bunker, 1995; Shapiro, Sheppard, & Cheraskin, 1992). We predict that positive perceptions formed of high status ties should positively bias perceptions of an individual’s professional credibility, defined here as the degree to which an individual is seen as trustworthy and qualified for employment.

Social network research also demonstrates the importance of strong ties for personal outcomes. Tie strength refers to the closeness of a person’s relationship with ties. More specifically, strength of ties is defined in terms of emotional intensity, intimacy, reciprocity, and time spent with ties (Granovetter, 1983) irrespective of status. Research on the process of obtaining employment highlights the importance of strong ties. Most people found their first job with substantial support from helpers with whom they held strong ties (Bian, 1997).

Strong ties should also have a positive EHE on impression formation. Strong ties are likely to know a person well and have the ability to validate information in their profile, suggesting that their presence in the network should provide information for impression formation that is higher in value. Although strength of ties does not
provide direct information about an individual’s professional credibility or integrity, we predict that the value that their presence conveys should carry over to affect global impressions of the individual.

In our second experiment, we explored EHE by systematically comparing the impact of tie status and strength on impression formation (Guillory & Hancock, 2011). Fictitious versions of Linkedin profiles were created that varied the strength (strong versus weak) and status (high versus low) of a tie to the profile holder. To understand how EHE operates in conjunction with self-generated information, the level of experience shared in the profile was also manipulated (high versus low experience).

Each participant viewed either low or high-experience versions of four fictitious Linkedin profiles (between-subjects factor). Low-experience profiles included one internship and membership in two groups or associations. High-experience profiles included four internships and participation in four or more groups or associations. Experience in all profiles was comparable in quality (e.g., from the same or similar caliber organizations). Other profile information was held constant across profiles.

Each profile had a recommendation from a tie that varied in status and strength of connection to the profile holder. Strength of tie was manipulated within subjects, with participants viewing two profiles with strong ties and two with weak ties. Tie strength was operationalized within the text of each profile’s recommendation. Strong-tie recommendations indicated a close, professional relationship with the profile holder, suggesting that the recommender knew the profile holder well and that the two interacted frequently (Granovetter, 1983). Weak-tie recommendations indicated infrequent interaction and suggested that the recommender did not know the profile holder well due to circumstances beyond the profile holder’s control (e.g., working in different departments, overseas travel, etc.). The text of recommendations from strong and weak ties was carefully controlled to ensure the only differences were in information about the strength of tie to the profile holder.

Status of ties was also manipulated within subjects with participants seeing two profiles with a low status tie recommendation and two with a high status tie recommendation. Status was operationalized with a high or low-status job title of the recommender for the profile. Low-status ties were operationalized using a low-status job title (e.g., Intern) at an organization where the profile holder interned. High-status ties were operationalized using a high status title at an organization (e.g., Vice President) where the person interned.

After viewing each profile participants completed measures indicating their perceptions of the profile holder’s professional credibility. Professional credibility was assessed using a single scale that included the following: two original items that assessed the person’s quality of job experience and likelihood of being hired for an entry-level job and an established scale of items assessing the person’s overall credibility or trustworthiness (Leathers, 1992).

Upon analysis we found that high-status ties elevated perceptions of professional credibility relative to low-status ties, indicating that the presence of high-status
ties leads to higher ratings of professional credibility. We also found that strong ties elevated perceptions of professional credibility in profiles relative to weak ties, suggesting that the presence of strong ties leads to higher ratings of a person’s professional credibility. These effects emerged regardless of whether the profile holder had a high or low level of job experience. Information provided by the profile holder was important, as high experience profile holders were rated as significantly higher in professional credibility than low experience profile holders, but this factor did not interact with the strength and status of ties. This finding indicates that strength and status of ties influence perceptions of online self-presentations beyond the effects of self-generated profile information. These findings demonstrate EHEs, in which global impressions about professional credibility were biased by specific attributes of the network ties (strength and status of ties).

The findings from this study are consistent with other theoretical frameworks, which explain the impact of others’ characteristics on perceptions of the individual. Heider’s (1958) balance theory, for example, suggests that people strive for cognitive consistency between related objects or entities when imbalance exists in the perceptions of these related objects. Our finding that profile holders with a high-status tie were perceived as more professionally credible is consistent with balance theory. Participants’ motivation to maintain balance in the valence of their cognitions between the perceptions of the tie and the profile holder may have resulted in their evaluation of both entities as similar.

Walther et al. (2008) indicate assimilation as an explanation for their research finding that Facebook profile holders with physically attractive friends are evaluated as more physically and socially attractive. In this case, assimilation suggests that characteristics of network ties are incorporated into evaluations of the individual on the same characteristic via the perception of friendship. Utz (2010) also demonstrated assimilation effects in SNS, with profile holders being judged as more popular when they had friends who appeared to be extraverted in profile photographs. Both balance theory and assimilation suggest that information about related individuals is used to evaluate targets.

While these explanations are consistent with the majority of the findings from the second experiment, they do not explain all of them. For instance, neither of these theories can explain why a strong, low-status tie led to more positive impressions of the target’s professional credibility. According to either balance theory or assimilation, the low-status of the tie should be negatively biasing for judgments about the target. Instead, we found that both tie strength and status made independent contributions to the global assessments of the target, as predicted by EHE.

Importantly, early work on the original halo effect suggests that this process occurs outside of conscious awareness (Nisbett & Wilson, 1977). If EHE indeed biases perceptions unconsciously it makes sense that participants formed positive impressions based on the positive information conveyed by the relationship to the tie (e.g., strong tie), without more carefully considering how strength might be perceived
more negatively in the context of other qualities (e.g., low-status tie). While this study did not test whether bias occurred consciously or unconsciously, we speculate that EHE is likely the outcome of a person perception heuristic. Heuristics are mental shortcuts for perception formation that allow users to make judgments without carefully evaluating all of the available information (Chaiken, 1980). It is possible that the presence of these positive characteristics (e.g., high-status and strong ties) provided users with a heuristic for forming perceptions about an individual’s professional credibility. While this study did not measure whether EHEs were the result of conscious (or unconscious) processing, it will be important for future research to explore whether the processing that produces these effects occurs at a conscious or unconscious level.

6.3 Conclusions

Taken together, these findings from both experiments demonstrate the importance of considering information from multiple sources in understanding judgments of self-presentations in networked contexts. Experiment 1 calls into question the veracity of claims made about the self in LinkedIn profiles, suggesting that other sources of information are also important to impression formation. Experiment 2 highlights network tie information as a source of information that has bearing on impression formation in a professional context. SNS make salient information about our social network ties and our relationships with these individuals. Although this network information has always been available, these sites emphasize and make this information visible. EHEs thus have the potential to dramatically change the dynamics of impression formation in SNS due to the abundance of available information about network members (Tufekci, 2008). Although earlier studies have demonstrated people’s tendency to use network connections as social resources to elicit positive personal outcomes (e.g., Bian, 1997; Podolny & Baron, 1997), this research suggests that the simple presence of these connections in one’s network biases interpersonal impression formation.

We leave you to consider the emergence of additional sources of information influencing impression formation in SNS that go beyond the sources identified in this chapter. As self-presentations become increasingly mediated, new sources of information identified by Tong, Van Der Heide, Langwell and Walther (2008) as system-generated information, also bias impression formation. Researchers have identified the number of friends on SNS as one type of system-generated information that biases impressions of the individual (Tong et al, 2008; Utz, 2010). While the present data clearly indicate that information about the characteristics of network ties is important for impression formation, these emergent sources should also be considered in future work exploring EHEs.
References


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