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To Identify or Not to Identify: A Theoretical Model of Receiver Responses to Anonymous Communication

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Although anonymity has been studied for well over a century, scholarship on anonymous communication has been fragmented and the role of message receivers, in particular, warrants greater attention. A theoretical model is developed here explaining receiver responses to anonymous communication. The context of the communication, degree to which the source is perceived to be anonymous, receiver's desire to identify the source, and potential ability to determine the source's identity are posited to influence receiver attempts at identifying (or further anonymizing) the source as well as perceptions of the source, message, and medium. The study concludes by identifying instances where anonymity may be particularly beneficial or problematic for message receivers and offering directions for future research.

Anonymous communication has a rich history in American politics and the broader public sphere. Thomas Paine's famous pamphlet, *Common Sense*, which helped spark the American Revolution, was originally published under the pseudonym "An Englishman." The authors of *The Federalist Papers* relied on the pseudonym "Publius" to veil their identity and rally support for the adoption of the Constitution. "Publius," which roughly translates into "friend of the people," was used to "imply a positive, lofty intention" behind the series of articles (Furtwangler, 1984, p. 51). More recently, anonymous communication has received attention in light of post-9/11 concerns with identifiably and accountability (Johnston, 2001; Shenon & Stolberg, 2001), budding legal issues involving reporting organizational wrongdoing (McDowell, 2004; Scott & Rains, 2005) and free-speech rights (Bowman, 2001; Bronco, 2004), and concerns about the identity of news sources (Bagdikian, 2005; Lorne, 2005; Smolkin, 2005). Revelations about the identity of "Deep Throat" and recent efforts to identify the source of a White

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House leak about a Central Intelligence Agency operative's name are additional evidence of how such issues can capture widespread interest.

Despite long-standing disagreement over its merits and limitations (see Froomkin, 1999; Hopkins, 1889, 1890), anonymity is particularly relevant to communication scholars. As noted by Marx (1999), anonymity is a "fundamentally social" construct that "requires an audience of at least one person" (p. 100). Bronco (2004) argues that anonymous communication fits several notions of the ideal speech state by allowing all individuals to speak without fear of retribution. Additionally, the explosive diffusion of new communication technologies made available by the Internet has made it easier than ever to communicate anonymously (Anonymous, 1998; Wayner, 1999). Remailers, chat tools, certain blogs, group decision support systems, tip lines, caller identification blocking, and many Web-based discussion boards are just some of the technologies making it possible to send and receive—not to mention log and detect—anonymous messages.

Although anonymity has been studied for over a century (Hopkins 1889, 1890; LeBon, 1896), research on the topic is largely fragmented. Anonymity is typically examined in a specific context such as group decision making (e.g., Pinsonneault & Heppel, 1997), journalism (e.g., Wulfemeyer, 1985), presidential rhetoric (e.g., Erickson & Fleuriet, 1991), or whistle-blowing (e.g., Near & Miceli, 1995). With the exception of two noteworthy theoretical pieces (Anonymous, 1998; Marx, 1999), few extensive attempts have been made to identify the central features of anonymous communication. Further, a majority of the research on anonymity has been conducted from the sender's perspective. Though there are some exceptions (e.g., Antonioni, 1994; Hayne, Pollard, & Rice, 2003; Hayne & Rice, 1997; Postmes & Spears, 1998; Postmes, Spears, & Lea, 1998; Rains, in press), most research examines a sender's motivation to communicate anonymously or the influence of anonymity on a sender's behavior. This is problematic in that the effects of anonymity on message receivers are not fully understood. Although anonymity may make a sender more comfortable communicating sensitive information, the inability to identify the sender may lead receivers to question the sender's credibility and undermine his or her message (Rains, 2005).

Given the long-standing social import of anonymity, research and theory-building efforts are essential to better understand how individuals respond to anonymous communicators and their messages. As one scholar notes, the need remains for "a greater understanding of what anonymous communication entails, when and why it is used, and *how it is accepted and rejected by receivers of anonymous messages*" (Anonymous, 1998, p. 382, emphasis added). Examining receiver responses could help unify the disparate bodies of research on anonymity. By identifying the key features that impact receiver perceptions of anonymous sources and messages, it may be possible to better explain the effects of anonymity across communication contexts. This information could also inform debates concerning policies for using anonymity in organizations, anonymous sources and editorials in journalism, and even recent legal battles over anonymous free speech. Understanding the process that

message receivers go through when encountering an anonymous source would make it possible to identity those situations where anonymity is particularly problematic or beneficial for receivers.

In this essay, a model explaining the effects of anonymous communication on message receivers is presented (Figure 1). Building from previous theorizing about anonymity (Anonymous, 1998; Marx, 1999), the model focuses specifically on message receivers and explicates the effects of anonymity on receiver perceptions and behaviors. The perceived anonymity of the source, desire to make a source's identity known, and potential ability to identify the source are proposed to explain a receiver's behavioral attempt to identify (or further anonymize) an anonymous source as well as receiver perceptions of the source, message, and communication medium. In the
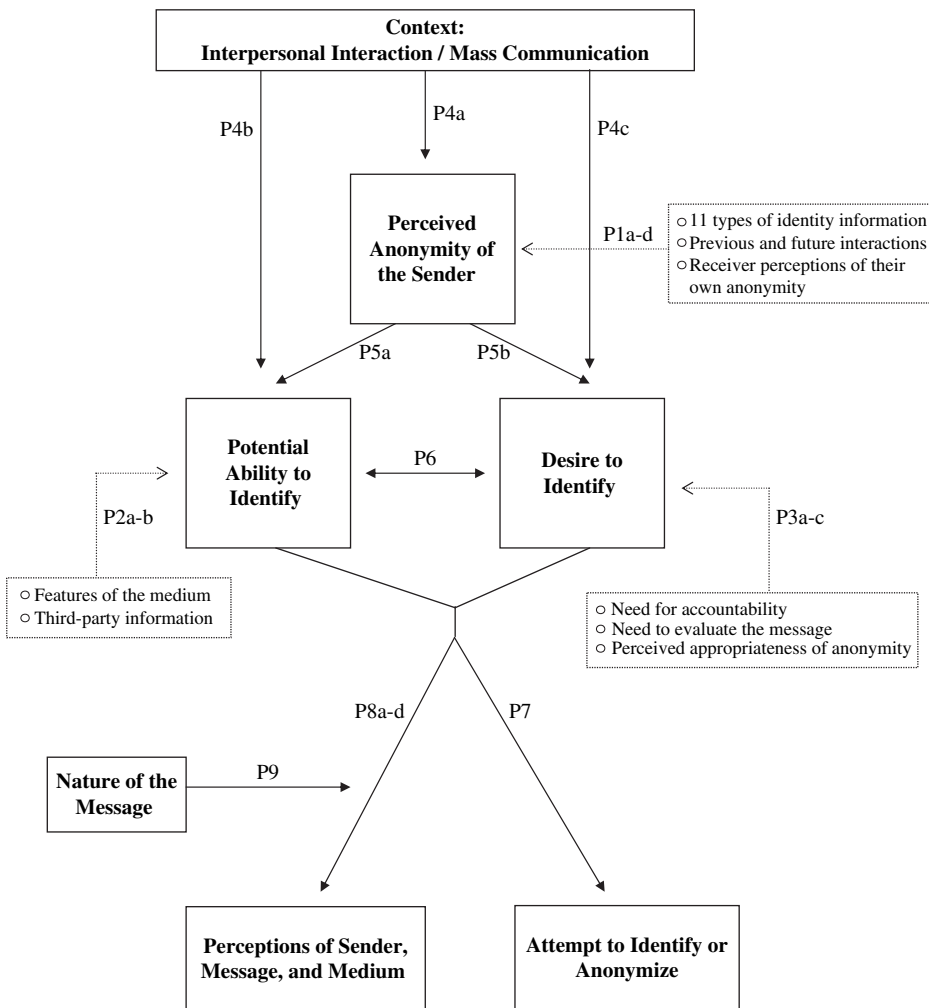

Figure 1 Responses to anonymous communication with corresponding model propositions.

following section, anonymity is defined and research on anonymous communication is reviewed. Then, the model is explained, and specific propositions are developed. The essay concludes by considering the implications of the model and offering some directions for future research on anonymous communication.

Background on anonymous communication

Defining anonymity

Anonymity is the "degree to which a communicator perceives the message source as unknown or unspecified" (Anonymous, 1998, p. 387). This definition is important because it conceptualizes anonymity as a continuous construct. That is, message senders are not simply completely anonymous or fully identified; it is possible to be partially anonymous. In addition to withholding one's name, a degree of anonymity can be achieved through the use of a pseudonym. A pseudonym is an "alternative identity" that may be perceived as factual or fictitious (Anonymous, p. 384). Fictitious pseudonyms, such as those found in most online chat rooms, are perceived by the audience to be untrue. Factual pseudonyms, such as those used as an alias, leave the message receivers unable to detect that the apparent source is not the actual source. Some degree of anonymity may also be perceived by the ultimate message receiver under conditions of confidentiality, where source identity is known to some (e.g., a journalist who knows the source) but kept hidden from most.

In defining this construct, it is also important to consider the unique communicative situation in which source anonymity places message receivers. Message receivers are left with the information that someone is attempting to communicate with them but, for whatever reason, does not want to or cannot reveal his or her identity.[1] The only information one may have about the communicator is that his or her identity is concealed. This circumstance creates both challenges and opportunities for message receivers attempting to reduce uncertainty about the source's identity. Receivers are not constrained by many of the cues, such as status markers or indicators of competence, that typically impact perceptions of others. At the same time, receivers cannot rely on these cues when engaging in interaction or interpreting the message. Receivers are left with the words that comprise the respective message and the fact that the other person's identity, or at least much of it, is concealed.

Anonymity represents a special type of uncertainty facing message receivers, concerning information about the source's identity. It should be noted that identity information is not simply limited to one's name but may consist of knowledge of one's routine behaviors, "backstage" self, physical appearance, and other types of information (Table 1). Given the important role that uncertainty appears to play in anonymous communication, key ideas from uncertainty reduction theory (URT) (Berger, 1987; Berger & Calabrese, 1975) are integrated to inform the model developed in this study. Although URT is originally based on the assumption of face-to-face interaction with others, it has been recently applied to explain interaction

Table 1 Eleven Types of Information Through Which an Anonymous Source May Be Identified and Common Questions Asked to Elicit the Information (Based Largely on Marx, 2004)

Information Type	Question
Individual identification	The "who" question
Shared identification (i.e., demographics)	The typification question
Geographic location	The "where" or "how to reach" question
Temporal	The "when" question
Networks and relationships	The "who else" question
Objects	The "whose is it" question
Behavioral	The "what happened" question
Beliefs, attitudes, and emotion	The backstage or "real" person question
Measurement characterizations	The "kind of person" question
Photos and images	The "what does he/she look like" question
Trace information	The "what nonverbal cues make him/her unique" question

in mediated contexts (Ramirez, Walther, Burgoon, & Sunnafrank, 2002; Tidwell & Walther, 2002).

URT is rooted in the fundamental assumption that uncertainty can be unpleasant and, as a result, individuals may seek to reduce it. URT assumes that individuals want to reduce uncertainty to make predictions about the behavior of others. This key assumption is particularly relevant to those instances when the source is anonymous. When the other is anonymous, receivers are placed in a fundamental state of uncertainty about the source's identity. It seems likely that, upon receiving a message from an anonymous source, a receiver would first want to know who the source is, though as with URT (Kellerman & Reynolds, 1990), there may be exceptions. Indeed, knowing the identity of the anonymous source would be advantageous to receivers in offering additional information to aid message interpretation and make more effective predictions about the source's behavior. In URT, three primary strategies may be used to reduce uncertainty: passive, active, and interactive. Passive strategies include unobtrusively observing another individual, while active strategies involve asking a third party or manipulating the environment to see how an individual reacts. Interactive strategies include directly asking the individual information to reduce uncertainty. Receivers encountering an anonymous source may use the various communication media to execute the strategies outlined here to reduce uncertainty about an anonymous communicator.

Research on anonymity and anonymous communication in contemporary culture
Scholarly research on anonymity is most commonly traced back to early studies of crowd behavior and deindividuation (LeBon, 1896) as well as the implications of anonymity in newspaper editorials (Hopkins, 1889, 1890). With the arrival of computer-mediated communication, scholars such as Hiltz and Turoff (1978) discussed

the use of anonymity and pen names in early computer conferencing systems. Although they noted that anonymity might influence others in an interacting group, most of their attention focuses on how a sender uses anonymity "to avoid embarrassment" (p. 94). More recently, anonymity has been studied in diverse contexts ranging from graffiti (Rodriquez & Clair, 1999) to charitable donations (Stewart & McBride-Chang, 2000) to the workplace (Scott & Rains, 2005). Such work represents both a strong focus on the sender and a lack of direct theoretical attention to anonymity itself; however, there are relevant theoretical works in this body of scholarship.

Anonymous's (1998) model of anonymous communication and Marx's (1999, 2004) essays on anonymity offer the most comprehensive analyses of this construct. Anonymous presents a model delineating the process through which anonymous communication occurs. The model considers the reasons a source may identify or anonymize himself or herself as well as the responses available to message receivers. Receivers may accept a source's decision to be anonymous, attempt to learn the source's identity, or further anonymize the source. Features of communication media are posited to play a central role in a receiver's ability to identify a source. Marx (1999, 2004) explores the sociology of anonymity and considers the specific types of identity information that would lead one to be more or less anonymous. He also considers the reasons one may have for electing to communicate anonymously as well as those reasons one may choose to remain identified.[2]

Anonymity has also played a key role in two theoretical models of group decision making. First, Postmes, Spears, and Lea's (Postmes et al., 1998; Postmes, Spears, & Lea, 2000; Spears, Postmes, Lea, & Wolbert, 2002) social identity model of de-individuation effects (SIDE) was designed to explain behavior in anonymous, computer-mediated groups. Central to the model is the notion that anonymity induces a shift in focus from one's individual identity to one's social identity as a member of a group. Individuals who are communicating anonymously and whose group identity is salient are more likely to behave in a manner that is consistent with group norms and to feel greater attraction to the group (Lea, Spears, & de Groot, 2001; Sassenberg & Boos, 2003; Tanis & Postmes, in press). Second, the equalization phenomenon (DeSanctis & Gallupe, 1987; Dubrovsky, Kiesler, & Sethna, 1991; Siegel, Dubrovsky, Kiesler, & McGuire, 1986) is a consequence of the reduction in social cues associated with computer-mediated communication. As a central component of many communication technologies, anonymity serves to reduce social cues (i.e., the identity of group members) and thus to facilitate the equalization hypothesis. In particular, anonymity purportedly mitigates status differences between group members and encourages equal participation from all members of the group (Rains, in press; Scott, 1999). Anonymity allows members to focus on the content of a discussion as opposed to the identity of an individual contributor.

Interest in anonymity is not that surprising when considering the import of anonymous communication—as illustrated in recent social and legal events. In organizations, mechanisms for reporting wrongdoing (Gundlach, Douglass, & Martinko,

2003) and for providing feedback (Antonioni, 1994) anonymously have raised concerns about the perceived credibility of claims and the abilities of the accused to take action. In journalism, long-standing debates over the merits and limitations of anonymous sources and the credibility afforded to them by readers (see Froomkin, 1999; Hopkins 1889, 1890) have recently led many newspapers to adopt more rigorous guidelines for using unnamed sources (Bagdikian, 2005; Lorne, 2005; Smolkin, 2005). Legal battles over anonymous free speech have sparked deliberation in the courts (O'Brien, 2002; Stein, 2003; Steinmeyer, 2001) as well as in the academy (Froomkin; Scott, 2005; Teich, Frankel, Kling, & Lee, 1999) about the effects of anonymity on others. A critical issue transcending these areas has been weighing the utility of anonymity to shield sources from potential retribution (and thus to facilitate the flow of critical or sensitive information) against the difficulties faced by receivers in judging the merit of the source (and message) and holding others accountable for their statements. Although receiver responses are at the center of this debate, little scholarship has focused explicitly on detailing the impacts of anonymity on receivers. Accordingly, we need to know more about how receivers respond to anonymous sources and their messages in order to make informed judgments regarding the use of anonymity. We must better understand if, when, and how message receivers attempt to reduce the uncertainty associated with source anonymity. In the following paragraphs, a model of receiver responses to anonymous communication is presented.

Receiver responses to anonymous communication: a theoretical model

Assumptions and parameters of the model

Before explaining the model, it is first important to articulate some key assumptions in which the model is rooted. First, as illustrated in the previous section, the identity of a message sender plays a key role in communication. Thus, it is vital to understand instances where this information is withheld from message receivers. Exploring message receivers' responses to anonymous communication provides an opportunity to gain insights into fundamental aspects of human interaction by shedding light on individuals' assumptions, cognitions, and responses when information about the identity of another is withheld. Second, similar to Anonymous's (1998) and Marx's (1999) theorizing about anonymity, it is assumed that anonymity is subjective and rooted in the perceptions of the communicators involved. Perceptions of anonymity are what guide receiver reactions. A third assumption of the model is that anonymity is morally neutral. Its *use*, however, may be perceived to be good or bad, or positive or negative by receivers. Understanding how those perceptions factor into receiver responses is, therefore, crucial. Fourth, anonymity represents a type of uncertainty that message receivers may or may not wish to reduce. As noted previously, by withholding information about his or her identity, an anonymous source introduces uncertainty into the communication event. Fifth, receivers play an active role in anonymous communication—by accepting or rejecting sender anonymity.

In addition to influencing the immediate response, a receiver's actions may have important long-term consequences for sender use of and receiver reactions to such messages. A sixth assumption is that anonymity is both constrained and enabled by new communication technologies. Further, the growth in mediated communication tools also makes anonymity an increasingly relevant communication concern. A final assumption grounding the model is the notion that a receiver's efforts to identify an anonymous source and the related outcomes of doing so are affected by several key factors. These factors include idiosyncratic, contextual, and normative variables that can be described in specific terms and dimensions.

With those assumptions in place, the following parameters of the proposed model should be noted. First, the model focuses specifically on message receivers.[3] As such, the sender's reason(s) or motivation(s) for communication is important only to the extent that it is inferred by message receivers. That is, the sender's actual reason or motivation for communicating anonymously is less important than the receiver's perception of the sender's motivation or reason. Second, the model is intended to be sufficiently general to explain responses to anonymity across communication contexts. Because previous research on anonymity is fragmented, it is important that the model is broad enough to identify the central features of anonymity in situations ranging from performance evaluations in organizations to network news.

Model overview

The model, illustrated in Figure 1, focuses on the potential responses a receiver may have upon encountering an anonymous source. The model distinguishes between two broad classes of situations in which anonymity is encountered. Receivers may encounter an anonymous source in an interpersonal situation or in a mass communication context. These two contexts may exert a systematic impact on the three key components of the model: the degree to which the source is perceived as anonymous, the degree to which the receiver desires to know the identity of the source, and the receiver's potential to identify the source. These three factors both directly and indirectly influence a receiver's behavioral efforts to try to identify (or further anonymize) the source as well as the receiver's perception of the source, message, and communication medium. In the following sections, we first explain the key components of the model. Then, the proposed relationships among the components of the model are described.

Perceived anonymity

A central component of the receiver-focused model is the degree to which the source is perceived as anonymous. Perceived anonymity is based on the notion that anonymity is a continuous construct rooted in the perceptions of the communicators involved (Anonymous, 1998; Hayne & Rice, 1997; Marx, 1999; Pinsonneault & Heppel, 1997). As such, perceptions of anonymity can range from fully anonymous to fully identified. In addition to those sources who explicitly use the label *anonymous*, sources who use a pseudonym or no identifying marks at all also may be

perceived as anonymous. Even use of partial names or full names from strangers may be perceived as at least somewhat anonymous. Three factors may influence a receiver's perception of source anonymity.

First, there are 11 types of identity information that should influence the degree to which a source is perceived as anonymous (Table 1). Nine of the types of information are based on Marx's typology (2004) and arranged by key questions that one may pose about the identity of others. A message sender is anonymous or identified to the degree that each type of identity information is known by message receivers. Although Marx does not explicitly rank the importance of different types of information, it seems likely that information regarding one's individual identification (i.e., one's name) and location are two of the most important categories. Marx argues that these two types of information answer the fundamental questions: "Who are you?" and "Where are you?" These two factors, which are related to discursive and physical anonymity, have also been central to research on anonymity in computer-mediated groups. The absence of one's name and the physical separation of individuals are critical for fostering perceptions of anonymity (Pinsonneault & Heppel, 1997; Scott, 1999). In addition to Marx's (2004) identity types, the use of photographs or other images of a person, or even the mere physical visibility of another, is tied to identifiability. Walther, Slovacek, and Tidwell (2001), for example, examined the use of pictures as a way of providing additional information about a source. Additionally, much of the work on the SIDE model has manipulated visual cues to achieve anonymity (see Postmes et al., 1998, 2000; Reicher, Spears, & Postmes, 1995; Spears & Lea, 1994). Finally, trace information about a source is also an important type of identify information to consider (Marx, 2006). Trace information includes nonverbal information about a source that distinguishes him or her, such as his or her voice, scent, or gait.

In addition to these types of identity information, one's previous interactions with the source and potential for future interaction likely affect perceptions of source anonymity. Previous interactions with the source are likely to leave the receiver with some information about the source's identity (Anonymous, 1998). Through repeated interaction, receivers may begin to accumulate one or more of the 11 types of identity information noted previously. The accumulated information about the sender from an extended interaction or throughout the course of a relationship may make him or her appear less anonymous. Research on anonymity in computer-mediated group communication provides some evidence consistent with this claim. Scott, Sage, Timmerman, and Quinn (1997), for example, conducted a longitudinal study of perceptions of anonymity over the course of three group meetings and reported a significant decrease in perceived anonymity. Repeated interaction led participants in their study to perceive others in the group to be less anonymous.

Additionally, the potential for future interactions also may make sources seem less anonymous. Knowledge that one may engage the source again in the future may lead receivers to feel that they are at the beginning of a relationship. As such, receivers may have more motivation to recognize cues related to the source's identity and

perceive the source to be less anonymous. Walther's (1994, 2002) research on antici-
pated future interaction in computer-mediated and face-to-face groups highlights
the importance of this factor. Anticipated future interaction was critical in leading to
the development of relationship intimacy among group members. Although his
work does not examine anonymity specifically, it does suggest the potential impor-
tance that anticipating future interaction may play in one's perceptions of others.

Finally, perceptions of source anonymity may be affected by a receiver's percep-
tion of his or her own degree of anonymity. Receiver's self-perception of anonymity
may take two potentially overlapping forms. Both forms are related to Kiesler, Siegel,
and McGuire's (1984) notion of depersonalization, as it has been applied to com-
puter-mediated communication, in that an individual's sense of anonymity is
associated with a lack of awareness of one's self as a unique individual. First, self-
perception of anonymity may be a direct result of interacting in a context where all or
some interactants are anonymous or pseudonymous. For example, in groups using
electronic meeting systems, it is common for all members to be anonymous.
Similarly, in online chat rooms and discussion boards, an individual may use a
pseudonym instead of his or her real name when interacting with others who are
anonymous or pseudonymous. In these situations, perceptions of self-anonymity
are directly tied to specific features of the interaction (e.g., withholding one's own
name or being physically separated from other interactants).

Self-perception of anonymity may take a second form as an enduring perspective
of message receivers. For some time, sociologists have examined anonymity in asso-
ciation with urbanization and the size of urban environments (e.g., Simmel, 1903/
1971; Wirth, 1938). In this work, anonymity is considered a key characteristic of
urbanization and is associated with weakened social bonds and increased feelings of
alienation (Title, 1989; Title & Stafford, 1992). Anonymity, from this perspective, is an
individual's feeling that he or she is unknown by others or is not likely to be noticed as
a unique individual. Williams (1988) describes this type of anonymity as "an experi-
ence which is usually expressed as the popular notation that 'one is a number and not
a person'" (p. 756). This form of self-perception of anonymity is likely to be a relatively
stable perspective of one's linkages to others in the world. Together, these two forms of
self-anonymity may impact a receiver's perception of the degree to which a source is
anonymous. Individuals who perceive themselves as anonymous or part of the mass in
society may be more likely to perceive others as anonymous also.

Knowledge of the 11 types of identity information, previous interactions and the
potential for future interaction, and a receiver's perception of his or her own degree
of anonymity may each impact a message receiver's perceptions of source anonym-
ity. Each of these three factors may shape receiver perceptions of the degree to which
a source is anonymous. Accordingly, we posit the following propositions to illumi-
nate these relationships:

Proposition 1a: Increased knowledge of each of the 11 types of identity information will
   result in decreased perceptions of source anonymity.

Proposition 1b: Previous interactions with an anonymous source will result in decreased perceptions of source anonymity.

Proposition 1c: The potential for future interactions with an anonymous source will result in decreased perceptions of source anonymity.

Proposition 1d: Increased perceptions of self-anonymity will result in greater perceptions of source anonymity.

Potential ability to identify an anonymous source

A second key component of the model is a receiver's potential ability to identify an anonymous source. The potential ability to identify an anonymous source may vary depending on the situation and on the receiver's circumstances. Receivers may be more or less able to identify a source depending on the features of the communication medium used by the anonymous source and the availability of a third party.

The nature of the communication medium used likely plays an important role in a receiver's potential ability to identify an anonymous source (as it does in the sender's decision to anonymize or make his or her identity known, Anonymous, 1998). Although the larger societal benefits of the use of communication technology in regard to privacy and anonymity is subject for debate (see Zuboff, 1988), the role of new technologies in constraining and enabling identity information is more clear. Anonymous (1998) contends, "If the [communication] channel can provide clues (e.g., handwriting analysis, electronic mail records, phone traces) to the source's identity, then that will increase the likelihood that a receiver will engage in identification efforts" (p. 396). One useful approach to systematically assess the utility of media to facilitate the identification of sources is to examine those features that distinguish media (Lievrouw & Finn, 1990). The temporality (same–different time), space (same–different place), capacity (text, audio, or video), and the sender's control over message construction may exert an orderly impact on a receiver's ability to identify an anonymous source. In particular, these features may restrict the transmission of identifying information and the ability of a receiver to use a particular type of uncertainty-reducing strategy (Berger, 1987; Tidwell & Walther, 2002). Those tools that require the sender and receiver to be in the same time and place, that have greater capacity, and that offer senders less control over message construction should give receivers a better chance to identify an anonymous source. Tools like these are more likely to allow receivers to engage in passive, active, and interactive strategies for reducing uncertainty and should better facilitate the transmission of cues and information about the source's identity. E-mail sent through a remailer, for example, is text based, allows senders and receivers to be in a different time and place, and offers the sender control over message construction. As such, the receiver's ability to identify the source of an anonymous remailer message would be low. One could engage in an interactive uncertainty-reducing strategy and reply to the message, inquiring about the source's identity; yet, it would be difficult to engage in passive

or active strategies for information seeking, and the only clues available would have to be gleaned largely from the informational content of the typed message. The key features of some commonly used information and communication technologies are listed in Table 2 along with a rating of each medium's potential for conveying information that might help identify an anonymous source as well as the type of uncertainty-reducing strategy available to receivers.

In addition to features of the communication medium, third parties may also make it possible for receivers to identify an anonymous source. An ombudsperson (Harrison & Morrill, 2004), for example, may know the identity of an anonymous complainant or whistle-blower. Many conditions involving source confidentiality essentially involve a third party who knows the source's identity. As another example, Strategic Lawsuits Against Public Participation involve suing an anonymous individual or subpoenaing an Internet service provider's records with the purpose of learning the individual's identity (Bischof, 2001; Bronco, 2004). These types of suites are typically made in an attempt to counter an individual voicing his or her opinion or making claims about an organization.

Both the features of the medium used by the anonymous communicator and the availability of a third party likely impact a receiver's potential ability to learn the identity of a source.[4] The following propositions address this issue:

> Proposition 2a: Media that require the sender and receiver to be in the same time and place, have greater capacity, and/or offer senders reduced control over message construction should increase a receiver's potential ability to identify an anonymous source.

> Proposition 2b: The presence of a third party who has information about an anonymous source's identity will increase a receiver's potential ability to identify this source.

Desire to identify the source

The third key component of the model is the receiver's desire to learn the identity of the anonymous source. A desire to identify an anonymous source is an indicator of the receiver's intention and refers to the degree to which a receiver wants to make the identity of an anonymous source known. Receivers may vary in their tolerance for anonymity. Following the underlying premise of URT, it seems likely that some receivers may desperately want to reduce uncertainty and to learn who the source is (Berger, 1987; Berger & Calabrese, 1975). Others may be more tolerant of uncertainty or unmotivated to learn a source's identity (Kellerman & Reynolds, 1990). In some instances, such as in scholarly peer review, receivers may even want the source to be more anonymous. Three factors may shape a receiver's desire to know an anonymous source's identity.

First, the degree to which receivers want to hold the source accountable for his or her message is likely to impact their desire to identify the source. Accountability is a consistent concern registered throughout research involving anonymity. Although there are a number of factors that may lead to a need for accountability, there are two

Table 2 The Potential of Commonly Used Media to Reveal Identity Information and to Facilitate Uncertainty Reduction Strategies

Medium	Temporality	Space	Capacity	Control	Identification Potential	Uncertainty-Reducing Strategy
Face-to-face	Same time	Same place	Visual/audio	Low	High	Passive, active, interactive
Telephone	Same time	Different place	Audio	Moderate	High	Active, interactive
E-mail	Different time	Different place	Text	High	Moderate	Active, interactive
Instant messaging	Same time	Different place	Text	Moderate	Moderate	Active, interactive
Television	Same/different time	Different place	Audio/video	High	Low	Passive
Newspaper	Different time	Different place	Text	High	Low	Passive
Radio	Same/different time	Different place	Audio	Moderate	Low	Passive

Note. Control refers to the message sender's control over message construction. The identification potential of each of the media refers to the potential for the medium to facilitate cues about the source's identity. The identification potential label for each medium is intended to be general enough to encompass a range of contexts. As such, there may be variance in the identification potential of some of the media depending on the specific situation. Each of the three uncertainty-reducing strategies was derived from Berger's (1987) strategies for reducing uncertainty.

that have been particularly important in previous research. One reason is a desire to exact retribution from the source. Indeed, many whistle-blowers elect to remain anonymous solely so that they may avoid personal or legal retribution for their actions (Gundlach, et al., 2003; Miceli, Roach, & Near, 1988; Near & Miceli, 1995; Price, 1998). A second reason receivers may want to hold a source accountable is because they feel threatened. Antonioni's (1994, 1996) research on anonymous performance feedback, for example, indicates that those managers being evaluated were particularly concerned about others using the cover of anonymity to exercise a grudge or advance a personal agenda. Receivers may want to hold the source accountable because they feel threatened by his or her message and actions.

A second factor that may influence a receiver's desire to identify an anonymous source is the receiver's need to understand or evaluate a message. Receivers want to identify a source so that they may determine the source's credibility and, as a result, better assess the merit of a message. Research on journalism (Wulfemeyer, 1985; Wulfemeyer & McFadden, 1986), information seeking on the Web (Cline & Haynes, 2001; Sundar, 1998; Sundar & Nass, 2001), and even computer-mediated groups (Dennis, 1996; Dennis, Hilmer, & Taylor, 1998; El-Shinnawy & Vinze, 1997) demonstrates the importance of knowing a source's identity to evaluate his or her competence. Understanding a source's qualifications and trustworthiness are central to evaluating his or her message.

A third factor that may influence a receiver's desire to identify an anonymous source is the appropriateness of anonymity. Anonymity may be viewed as more or less appropriate across different communication contexts. Scott and Rains (2005) examined the appropriateness of anonymity in organizations and identified a variety of situations when anonymity was (in)appropriate. They report a great deal of variance in the relative appropriateness of anonymity across the situations, noting that those uses of anonymity that were formally sanctioned by a given organization were typically viewed as more appropriate than uses that were not formally sanctioned. Additionally, perceptions of appropriateness were correlated with the quality of relationships with others in the organization. Those with weaker relationships typically viewed anonymity as appropriate in a range of situations, while those with good relationships viewed anonymity as relatively inappropriate across the same situations. The results of Scott and Rains's study suggest that the appropriateness of anonymity may also impact the degree to which a receiver desires to know the identity of an anonymous source. In those situations where anonymity is deemed appropriate, receivers should be less likely to want to know the source's identity; on the other hand, if anonymity is deemed inappropriate, receivers are more likely to want to know the source's identity.

One important factor influencing the appropriateness of anonymity is the degree to which receivers accept the use of anonymity in a particular situation. According to adaptive structuration theory (AST) (DeSanctis & Poole, 1994; Poole & DeSanctis, 1990), a receiver's perceptions of appropriateness may be rooted in his or her acceptance of the spirit (i.e., intended use) of the technology or procedure. Anonymity

may be formally integrated as part of a procedure (e.g., 360-feedback) or technology (e.g., group support systems) to help achieve a broader goal (e.g., more effective performance evaluations or group decisions). In these situations, AST predicts that anonymity may be appropriated faithfully in a manner that is consistent with the intended function of the technology or appropriated ironically in a manner that violates the tool's intended use (Scott, Quinn, Timmerman, & Garrett, 1999). If appropriated faithfully, receivers should feel that anonymity is appropriate and thus be relatively unconcerned with knowing the identity of the source; however, an ironic appropriation should lead receivers to feel anonymity is inappropriate and want to identify the source.

A desire to hold the source accountable, a need to evaluate a message, and his or her perceptions of the appropriateness of anonymity may all impact a receiver's desire to identify an anonymous source. The following propositions are posited to detail these relationships:

> Proposition 3a: A receiver's increased need to hold the source accountable will lead to a greater desire to identify an anonymous source.

> Proposition 3b: A receiver's increased need to evaluate a message will lead to an increased desire to identify an anonymous source.

> Proposition 3c: A receiver's decreased perceptions of anonymity appropriateness will lead to a greater desire to identify an anonymous source.

Model predictions and functions

Now that the three key components of the model have been described, it is possible to explain the core predictions and functions of the model (summarized in Figure 1). In the following paragraphs, the model is articulated with special attention to the ways in which the three key components (a) are influenced by two broad contexts in which anonymous sources may be encountered and (b) impact two outcomes: behavioral attempts to identify or anonymize the source and perceptions of the source, message, and communication medium.

Context for anonymous communication

Although contemporary research on anonymous communication is largely fragmented, there is some consistency in the contexts in which anonymity is commonly used and studied. Anonymous communication occurs in interpersonal settings and in more public contexts involving mass communication (Table 3).[5] These contexts are differentiated by three central features that are especially relevant to anonymous communication: the opportunity for interaction, the interdependence of the sender and receiver, and the degree to which anonymity is normative. First, in interpersonal settings such as dyadic computer-mediated communication via a chat or a discussion board, message receivers have the ability to interact with an anonymous communicator.[6] Receivers can, and often do, engage the anonymous communicator in a discussion. In mass communication contexts where anonymous sources are encountered,

Table 3 Instances and Exemplars in Which Anonymous or Pseudonymous Sources May Be Encountered

Mass Communication Context ⟷ Interpersonal Communication Context	
Journalism: author anonymity (Zuzel, 1998)	Electronic meeting system (Postmes & Lea, 2000)
Journalism: source anonymity (Wulfemeyer, 1985)	Online chat forums (Joinson, 2001)
Presidential rhetoric (Erickson & Fleuriet, 1991)	Online discussion boards (Myers, 1987)
Informational Web sites: for example, health information, legal information (Cline & Haynes, 2001)	Telephone conversation: via caller identification blocking (Dutton, 1992)
Cybersmearing and "suck" Web sites (Bronco, 2004)	E-mail message: via anonymous remailer (Mostyn, 2000)
Whistle-blowing (Miceli, et al., 1988)	Evaluation/assessment: for example, 360-feedback, peer review (Antonioni, 1994)
Graffiti (Rodriquez & Clair, 1999)	Helpline/hotline (Roffman, Picciano, Wickizer, Bolan, & Ryan, 1998)
Donations or recommendations: for example, monetary donation, suggestion box (Stewart & McBride-Chang, 2000)	Rituals/games: for example, masquerade ball, Halloween (Diener, Fraser, Beaman, & Kelem, 1976)

Note. Online chat forums and discussion boards involving anonymity may address a wide range of topics from social support to fandom.

such as in a testimonial on a health Web site or an anonymous letter to an editor, there is almost no opportunity for interaction. Senders construct their message and make them available to an audience. Receivers are passive in that they have little opportunity to engage the sender as one might do in a conversation.

Second, in interpersonal contexts, the sender and receiver are more likely to be interdependent. The receiver's behavior and the outcome of the interaction are closely linked to the sender and his or her actions. In computer-mediated groups, for example, the sender and receiver(s) must work together to achieve consensus or to reach a decision. As such, the outcome of the interaction is contingent upon the sender, and specific acts by the sender (such as posing a question) mandate a responsive action by the receiver. In mass communication contexts such as the use of anonymous sources in journalism, the sender and receiver are likely to be more independent. The source's actions are not likely to require a specific response from receivers, and the outcome of receiving information from an anonymous source is not likely to be shared by the sender and receiver.

Third, the two contexts differ in the degree to which anonymity may be considered normative. In mass communication contexts, receivers are somewhat regularly exposed to anonymous communication (see Wulfemeyer, 1985; Wulfemeyer & McFadden, 1986). Anonymous editorials and sources are a long-standing tradition—

and a source of debate (see Froomkin, 1999; Hopkins, 1889, 1890)—in journalism. Yet, in more interpersonal contexts, source anonymity may be considerably less normative. Indeed, Scott and Rains (2005) report that relatively few individuals in their study of anonymity in organizations had ever used an anonymous e-mail or remailer, made an anonymous phone call, or sent an anonymous fax. Anonymity in interpersonal contexts is less prevalent, and thus less normative, as we live in a culture where "the majority of interactions of any significance or duration tilt toward identification of at least some form" (Marx, 1999, p. 105).

These three features differentiating mass and interpersonal communication contexts for anonymous communication likely exert a systematic impact on the three key components of the model. They may foster different levels of perceived anonymity, desire to identify the source, and potential ability for identification. In interpersonal contexts, sources may be perceived as less anonymous and receivers may have more desire and potential ability to identify a source. In mass communication situations where receivers are more passive, they may perceive the source to be more anonymous and may have less motivation and potential to know the identity of the message sender. Receivers in interpersonal contexts are likely to be able to glean more information about the source's identity than in mass communication situations. Consider, for example, the case of an individual reading a health-related testimonial on the Web signed by "Anonymous." Because anonymity is reasonably common in this context, especially in regard to stigmatized conditions (McKenna & Bargh, 1998), the receiver may have little reason to question the source's use of anonymity. Further, in mass communication situations, information is typically general in nature and not directed at a specific individual, thus the receiver is not as reliant upon the message sender as he or she may be in an interpersonal interaction. These two factors may result in very little motivation for the receiver to attempt to identify the author of the testimonial. Additionally, the receiver is unlikely to have the ability to probe the source for further information and is restricted primarily to the information in the message to try to identify the source. Accordingly, the source may appear fairly anonymous and receivers may feel that they have little potential ability to learn the identity of the source.

In summary, it seems likely that the nature of the communication context influences the degree to which a source is perceived as anonymous, the degree to which a receiver desires to know the identity of the source, and the degree to which a receiver is potentially able to identify the source. The features that differentiate these two contexts—the potential for interactivity, the interdependence of the sender and receiver, and the degree to which anonymity is normative—should have a systematic impact on receiver responses to anonymous sources. Thus, the following propositions are offered to specify the influence of the communication context on the three components of the model:

> Proposition 4a: Anonymous sources encountered in an interpersonal communication context will be perceived to be less anonymous than those anonymous sources encountered in mass communication contexts.

Proposition 4b: Receivers encountering an anonymous source in an interpersonal communication context will have a greater desire to identify the source than those anonymous sources encountered in mass communication contexts.

Proposition 4c: Receivers encountering an anonymous source in an interpersonal communication context will have a greater potential ability to identify the source than those anonymous sources encountered in mass communication contexts.

Relationship between perceived anonymity, desire to identify, and potential identification ability

It is also proposed that three key components of the model influence one another. In particular, perceptions of source anonymity may drive a receiver's desire and potential ability to identify an anonymous source (Anonymous, 1998). Indeed, in order to desire to know a source's identity or to feel that one *can* know a source's identity, a receiver first must perceive the source to be at least somewhat anonymous before they can be motivated to act. Those individuals who perceive a source to be fully anonymous will likely have less desire and potential ability to identify the source. Because little is known about the identity of the source, receivers may perceive learning the source's identity to be a substantial challenge for which they have scarce resources to achieve. In other words, a high level of perceived anonymity may frustrate a receiver's desire to identify the source. Similarly, receivers may perceive few opportunities to learn the identity of the source. Conversely, if the source is not perceived to be very anonymous, receivers may be more motivated to try to identify the source and may feel better able to learn the source's identity. Partial information available about the source may serve to motivate receivers and to increase their feelings of efficacy in learning the source's identity. As will be discussed in the following section, a receiver's intention to learn an anonymous source's identity coupled with his or her perceived ability to do so should influence the receiver's behavioral attempts at identifying or further anonymizing the source.

It also seems likely that a receiver's potential ability to identify a source may influence his or her desire to do so, and vice versa. Receivers who feel that they have little possibility of actually identifying a source may also feel little desire to make an attempt at identification. This lack of efficacy felt by receivers in their ability to identify a source may undermine their motivation. Similarly, those receivers who feel that they can identify an anonymous source may be more motivated to do so. It also seems possible that the desire to identify a source may influence a receiver's perceived potential ability to learn the source's identity. Receivers who are motivated to learn the source's identity may perceive that they have a greater potential ability to do so. Motivated receivers may pay greater attention to information that might possibly lend insights into the source's identity. The following propositions are made to elucidate the potential relationship between the three key components of the model:

Proposition 5a: Increased perceived anonymity will result in decreased desire by receivers to determine the identity of a source.

Proposition 5b: Increased perceived anonymity will result in decreased potential ability of receivers to determine the identity of a source.

Proposition 6: A reciprocal relationship will exist between a receiver's potential ability to identify an anonymous source and his or her desire to learn the source's identity. A receiver's potential ability to identify an anonymous source and his or her desire to learn a source's identity will be positively related to one another.

Attempts to identify or anonymize
A receiver's desire and potential ability to identify an anonymous source may have a systematic impact on his or her actual behavioral attempts to learn the source's identity, to further anonymize the source, or to take no action at all.[7] At a minimum, receivers must have both a sufficient desire and ability to identify or to further anonymize a source for any behavior to take place. For example, a receiver whose desire to know the identity of the source is high and who has a high potential ability to identify the source would likely attempt to determine the identity of the source. In 360-feedback in contemporary organizations, a supervisor with only a few subordinates may have a relatively easy time identifying the source of each particular performance evaluation by examining the nature of the comments made by each rater. Similarly, receivers may desire not to know a source's identity yet may feel their potential ability to learn the source's identity is high. In this instance, receivers may attempt to make the source more anonymous. Here, the receiver does not want to know the identity of the source and thus will make an active effort to conceal the source's identity. If receivers do not possess both the requisite motivation and potential ability to identify the source, they are likely to take no action. One may have the potential ability, but without sufficient motivation to uncover the source's identity, nothing will happen. Even in instances where a receiver's desire to know the source's identity is high, the lack of potential ability to learn the source's identity may lead the receiver to forgo any attempts at identification. To explicate the relationship between a receiver's desire and potential ability on attempts to identify or anonymize a source, the following proposition is made:

Proposition 7: Desire and potential ability must be sufficiently present for receivers to attempt to identify or further anonymize an anonymous source.

Perceptions of senders, messages, and media
A receiver's potential ability and desire to identify an anonymous source may ultimately impact his or her perceptions of the sender and as a result the message and the communication medium. There are four possible receiver responses ranging from extremely positive to extremely negative. Anonymity may have the greatest impact in those situations where the valence of the message itself is not perceived to be strongly positive or negative.

When a receiver's desire and potential ability to know the source's identity are low, he or she may respond more positively to an anonymous source than would be

the case if these factors were not present. In this situation, receivers do not want to know and cannot determine the identity of the source. Myers (1987) describes one such instance in his study of an electronic bulletin-board community, explaining that "anonymity is part of the magic" (p. 259). Not knowing the true identity of others in the community was a source of intrigue that some participants did not want to have interrupted. In popular culture, Klein's (1996) decision to publish his best-selling novel *Primary Colors* anonymously left some readers with a similar response. Klein's decision to publish his book as authored by "Anonymous" afforded the readers the extra "pleasure … derived from being kept in the dark" (McGrath, 1996, p. 35). In these situations, the receiver's lack of desire and potential ability to identify the source resulted in their having positive perceptions of the source and the novel. Positive perceptions of the source may extend to the message and communication medium used as well.

There are two situations when anonymity may result in less favorable outcomes. The first involves those instances when receivers desire to know the source's identity but cannot. Receivers are motivated—but not able—to learn the source's identity. Receivers may feel thwarted or frustrated by their inability to identify the source and thus may respond more negatively than if this combination of factors were not present. Receivers may derogate the source as well as the message or communication medium. In groups using anonymous electronic meeting system, Dennis (1996) notes that the inability to identify a source may make member contributions "suspect because it [is] difficult to verify the source's credibility" (p. 450). A second problematic situation occurs when receivers do not desire to know the source's identity, but their potential ability to learn it is high. Although the academic peer-review process typically requires authors to remove their name and other identifying information from a manuscript, it often is not completely anonymous (Bornstein, 1993; Cho, Justice, & Winker, 1998; Justice, Cho, & Winker, 1998; Starkey, 1995). Various types of information may provide unwanted clues to the author's identity, thus frustrating some reviewers. In Wright and Orbe's (2003) content analysis of facework in anonymous reviews, they include an example from one reviewer that succinctly sums up this response to anonymity:

> It is difficult to review this article … in light of the fact that the author has made little attempt to disguise his identity—works ''in progress'' or ''in press'' are a dead giveaway. I have no idea whether or not this is a strategic move on the author's part; however, I do come away with the impression that as a reader I am expected to overlook the many holes in this manuscript simply because the theory is explained in much greater depth and to other reviewers' satisfaction elsewhere. (p. 6)

In this instance, information about the source's identity was undesired and resulted in negative perceptions of the author and message. As in this situation, receivers may blame the source because he or she cannot effectively conceal his or her identity.

There is a final situation that receivers may encounter that can result in either a neutral or a negative response: Receivers are motivated and able to learn the source's identity. When a receiver desires to know a source's identity and his or her potential to learn the source's identity is high, he or she may have a neutral response or may respond more negatively than if these factors were not present. In this instance, receivers may feel that the sender is unsuccessfully trying to hide or pull the wool over their eyes and may respond negatively. Their ability to identify the source may also lead receivers feel a sense of efficacy. Because they want to and can know the source's identity, they may simply take the source, and thus the message and medium, at face value. Receivers may have no response or a neutral response in this situation. For example, a team member in an anonymous electronic group meeting may have both the motivation and ability to identify the source of a particular message. Other comments made by the individual during the meeting, the types of issues he or she addressed, and even the syntax used by the anonymous group member could provide potentially identifying information about him or her. In this case, the receiver may feel that the other group member is unwilling to be accountable for his or her ideas and may respond negatively, or the receiver may simply take the other member's input at face value.

As has been illustrated, a receiver's motivation and ability to identify a source may have varying impacts on his or her perceptions of the anonymous communicator. By the same argument, this impact may extend to perceptions of the message and the communication medium. To clarify the nature of these relationships, the following propositions are posited:

Proposition 8a: Receivers who do not desire to know the identity of an anonymous source and do not have the potential ability to learn the source's identity will be more likely to respond positively to the source, message, and communication medium than would be the case if these factors were not present.

Proposition 8b: Receivers who desire to know the identity of an anonymous source but do not have the potential ability to learn the source's identity will be more likely to respond negatively to the source, message, and communication medium than would be the case if these factors were not present.

Proposition 8c: Receivers who do not desire to know the identity of an anonymous source but have the potential ability to learn the source's identity will be more likely to respond negatively to the source, message, and communication medium than would be the case if these factors were not present.

Proposition 8d: Receivers who desire to know an anonymous source's identity and have the potential ability to learn the source's identity will be more likely to respond negatively or to have a neutral response to the source, message, and communication medium than would be the case if these factors were not present.

Message content

In some instances, the influence of anonymity on receiver perceptions may be moderated by the content of the message from a sender. In situations where the content of a message is perceived to be strongly positive or negative, the message itself may affect the influence of anonymity. A message perceived by receivers to be exceptionally positive may outweigh any ill effects associated with anonymity. Lavish praise for one's pet idea would most likely be met with a positive response, regardless of one's disapproval of anonymity. At the same time, a vigorous critique or flaming of one's pet idea may motivate a negative response from even a receiver who greatly values anonymity. As such, the content of a message may, under certain circumstances, reverse the general trends specified in Propositions 8a–d. To account for the influence of the message communicated by the source, the following proposition is offered:

> Proposition 9: The influence of source anonymity on receiver responses to a
>   communicator, message, and medium are moderated by the nature of
>   the message content.

Model summary

To summarize, the model proposed in this study attempts to explicate receiver responses to source anonymity across two broad communication contexts. Figure 1 illustrates the model and its accompanying propositions. There are three key components to the model: perceived anonymity of the source, the receiver's desire to learn the source's identity, and the receiver's potential ability to identify the source. The degree to which a receiver perceives the source to be anonymous is proposed to impact his or her motivation and potential ability to identify the source. The receiver's potential ability to identify the source and his or her motivation to do so are proposed to mutually influence one another. Together, a receiver's motivation and potential ability to identify the source influence his or her efforts to identify or anonymize the source and, ultimately, his or her perceptions of the source, message, and communication medium. It is important to note that the three key components of the model are predicted to vary based on the communication context. Mass communication contexts and interpersonal contexts in which anonymous sources may be encountered may shape the three key components of the model. Finally, the nature of the message itself is proposed as a moderator for the influence of anonymity on receiver perceptions of the source, message, and medium.

Implications of the model and directions for future research

The purpose of this essay has been to describe a model of receiver responses to anonymous communication. Given the long-standing social import of anonymity and the variety of contexts in which it is used, this model offers a theoretical perspective to better explain and predict anonymous communication from the perspective of message receivers. In this section, we review the implications of the model and offer some directions for future research.

One important implication of the model is identifying the central features of receiver responses to source anonymity. These include the degree to which a source is perceived to be anonymous, the receiver's potential ability to identify the source, and the receivers desire to know the source's identity. These three features pervade many instances in which anonymity is used and influence receiver responses. They can be applied across situations, ranging from anonymous sources in news stories to academic peer review, to help better understand receiver responses. As such, the model provides a useful framework to explain and predict receiver responses to anonymous sources across communication contexts.

A second key implication is that the model makes it possible to identify those situations in which anonymity is likely to be problematic or beneficial by isolating the criteria that might make source anonymity a detriment or an asset for receivers. Anonymity may be particularly problematic when receivers desire to know the identity of the source but are not able to identify him or her. Receivers may want to know the source's identity to hold him or her accountable, to evaluate his or her message, or because anonymity is inappropriate for the situation. Despite this desire, the information available may be inadequate, and no third party may be available to identify the source. For example, consider whistle-blowing. Although whistle-blowing can be considered a prosocial act (Gundlach et al., 2003), some receivers may nonetheless desire to know the anonymous whistle-blower's identity in order to hold him or her accountable. The identity of the source could be of integral importance to assessing the veracity of his or her claims. Yet, an anonymous memo or a call to a tip line provides little information about the source's identity. There is typically no way to contact an anonymous whistle-blower, and little can be gleaned about his or her identity other than from the nature of his or her claim (Near & Miceli, 1995). This situation, where receivers are motivated but unable to identify an anonymous source, may explain not only the relative ineffectiveness of anonymous whistle-blowing proposed and reported in research on the topic (Gundlach et al., 2003; Miceli et al., 1988; Near & Miceli; Price, 1998) but also the negative reactions among message receivers.

Anonymity is also likely to be problematic in those instances when receivers do not want to know the source's identity but are able to identify the source. In these situations, receivers may accept the intended purpose of anonymity as part of a technology or procedure. Anonymity is accepted as a means to achieve a greater end, such as more effective decision making in computer-mediated groups. Although receivers may not want to know the identity of the source(s), that information may be available. Receivers may pick up on cues about the identity of the source. Because they do not want know the source's identity, but are able to determine it, receivers may respond negatively.

There are also situations when anonymity may be beneficial to both senders and message receivers. When receivers desire a source to be anonymous and cannot identify him or her, receivers may respond positively. In these instances, receives may have little need for accountability and few cues to identify the source. Myers's (1987) study

of a virtual community perhaps best exemplifies this response to anonymity. Anonymity was part of the intrigue of participating in the community and was thus positively received by community members. Additionally, all of the interactions in the community took place through text-based, asynchronous posts to a discussion board, leaving receivers with little information about the source's identity.

A final implication is that the model makes it possible to establish some receiver-friendly guidelines for using anonymity. First, receiver perceptions and responses should be a key consideration in the use of anonymity. Although anonymity provides a number of benefits to message senders, its impacts on receivers should be considered before it is used. A second guideline involves recognizing the importance of perceived anonymity. Although a source may adopt or be assigned the label "anonymous," he or she may not be perceived to be completely anonymous by message receivers. Accordingly, it is important to assess the degree to which receivers actually perceive a source to be anonymous in implementing or evaluating anonymity. Third, receivers may vary in their desire and potential ability to know the identity of an anonymous source. It is important to take this into consideration when using anonymity as responses may not be uniform and are subject to situational contingencies. A final guideline pertains specifically to those instances where anonymity is integrated as a formal feature of a procedure (e.g., academic peer review) or technology (e.g., group support systems). In these instances, it is critical to make sure that receivers (a) accept and buy in to the use of anonymity and (b) actually perceive others to be anonymous. It is important that receivers recognize and support the intended purpose of anonymity and that procedures are in place to ensure that others are actually perceived to be anonymous.

The model presented in this study also provides a foundation for future research. One direction to pursue is to formally test the propositions made in the model. Tests could be completed through experimental, survey questionnaire, or interview studies. It is also important to continue work on assessing responses to anonymity within distinct communication contexts. Additional research is needed to better understand receiver responses to anonymous sources in a variety of situations, including whistle-blowing, journalism, and information on the Web. Research could also be conducted exploring situations where both the sender and receiver, or different combinations of the sender–receiver, are anonymous. Although the model focuses largely on receiver responses to source anonymity, it would be useful to explore those instances where different combinations of the sender and receiver are completely or fully anonymous. Finally, it is important to continue to examine the socially constructed nature of anonymity. Beyond assessing the impact of anonymity on a single message sender or receiver, it is important to pursue the influence that others have on one's perceptions of anonymity and anonymous sources. Approaches such as the actor–partner interdependence model or social relations model (Kashy & Kenny, 2000; for a review of these approaches, see Kenny, Mannetti, Pierro, Livi, & Kashy, 2002) should be used to help better understand the dynamic nature of perceptions of and responses to source anonymity by message receivers.

Finally, it is important to consider potential limitations of the model that has been described in the preceding pages. Building any theory or model is an act of balancing out complexity with simplicity while trying to retain accuracy. In constructing this model, we have elected to develop a model that is broad enough to explain receiver responses to anonymous communication across a range of mass communication and interpersonal contexts. In doing so, we recognize that there may be some exceptions to the propositions and that there may be some contextual factors omitted from specific situations in which anonymity is used. There will always be exceptions to any rule, but we believe that the ideas here can account for the majority of situations and for the aspects of situations that may result in alternate findings.

Conclusion

In this essay, we propose a model of receiver responses to anonymous communication. The model is intended to be sufficiently general to explain responses to source anonymity across communication contexts and to identify the central features of those situations when anonymity is particularly problematic and beneficial to message receivers. We hope that this model advances research and theory-building efforts to better understand the implications of what we feel is an increasingly important issue for communication scholars, especially as new media emerge that can make anonymity, and its detection, possible.

Acknowledgments

Notes

1 Further, with an anonymous source, one cannot even be sure the communicator is a single human being. The source could be an institution or other collective voice, or it could be an intelligent machine producing human-like language.
2 Because there are so many forms of identity, our legal name is only one of the ways we might be "known" (see Marx, 2006). This raises the possibility that a receiver's efforts to identify a sender may not exclusively involve "naming" that person but might instead involve identifying the person's credentials, location, or other characteristics. Although we implicitly focus on the identification of one's name in this work, the model would also allow for consideration of other forms of identity.
3 Receivers in this context include any possible message receiver, accidental or intended. This would also include the ultimate receivers of anonymous or confidential messages passed through some intermediary.
4 It should be noted that the utility of these features are ultimately rooted in the receiver's perceptions. Although characteristics of media and the availability of a third party could

be considered objective features, their use in practice depends on the subjective per-
ceptions of message receivers.

5   These are two typical ways to think of broad communication contexts; however, we do
    recognize various other points along a continuum, ranging from interpersonal to public
    or mass (e.g., organizational) and the possibility of hybrid or masspersonal views
    (O'Sullivan, 1999).

6   Interaction is included as part of the context, and not as a feature of the medium,
    because it is consistent within each of the two distinct contexts. The opportunity for (or
    lack of) interaction is a defining feature of the communication context, and not simply
    relegated to a feature of a single medium.

7   Whether or not the receiver is accurate in identifying the source is unimportant in the
    context of this model. The model is simply concerned with the receiver's *attempts* at
    identifying or further anonymizing the source.

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