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Psychological Motivations in Rumor Spread

Prashant Bordia and Nicholas DiFonzo

PSYCHOLOGICAL MOTIVATIONS IN RUMOR SPREAD

Psychological research on rumors was spurred by the need to manage information and public morale during the Second World War (Allport and Lepkin 1945; Allport and Postman 1947). While there had been useful contributions to the literature before this (Jung 1922; Prasad 1935), rumor was introduced to mainstream psychology by Gordon Allport and Leo Postman in their seminal text, *The Psychology of Rumor* (1947). In the decades since, psychological research has identified several conditions that have been linked to rumors (Rosnow 1991): uncertainty, anxiety, outcomerelevant involvement, and credulity. In short, rumors arise and spread when people are uncertain and anxious about a topic of personal relevance to them and when the rumor appears credible given the sensibilities of the people involved in the spread.

In this chapter, we approach the study of rumor spread from a motivational standpoint. That is, we wanted to understand the psychological goals that motivate people to seek, evaluate, and transmit rumors. A motivation-based approach is likely to be fruitful for several reasons. First, although rumor is undoubtedly a social phenomenon, individual-level psychological motivations are an important piece of the rumor puzzle. Second, a motivational approach will help integrate previous literature into a coherent framework and will help connect rumor research with wider social psychological literature on social influence and social cognition. Finally, it will spawn new insights into the psychological mechanisms at work in rumor spread. The dominant psychological approach to rumor has been to highlight the uncertainty reduction function of rumor, but we highlight additional goals such as building social relationships and boosting self-esteem. By highlighting the role of these motivations in rumor

spread, we hope to improve the understanding and prediction of human behavior in relation to rumors.

Social interchange serves three broad goals: acting effectively, building and maintaining relationships, and managing favorable self-impressions (Cialdini and Trost 1998; Wood 1999, 2000). The goal of acting effectively motivates the search and evaluation of socially acquired information with the aim of arriving at accurate judgments. This goal is served by seeking validity checks for beliefs and attitudes by carefully evaluating information, judging its accuracy, and forming or revising attitudes and beliefs accordingly. It helps in acquiring a socially validated sense of reality and enables effective response to, and coping with, the environment. The second goal, building and maintaining relationships, is vital for continued survival of humans as social animals. This goal motivates social behavior, which helps forge social connections (e.g., impression management) and sustain them (e.g., compliance to requests and social norms). Third, a more self-serving goal and one that may lead to several biases in information processing, is the goal of self-enhancement. That is, people seek to affirm their sense of the self and use the social context in various ways to boost their self-esteem.

Based on the social psychological literature on motivations in social behavior, we identify three psychological motivations underlying rumor spread: fact-finding, relationship-building, and self-enhancement. The fact-finding motivation derives from the goal of acting effectively. A person motivated by the fact-finding goals aims to arrive at a valid and accurate understanding of the environment and engages in rumor as a collective problem-solving process. The relationship-building motive draws upon the goal of building and maintaining relationships and motivates people to consider the affective (e.g., light-hearted vs. somber) and relationship (casual acquaintance vs. close friend) context of the interpersonal encounter in choosing to share a particular rumor. Finally, the selfenhancement motivation serves the goal of self-affirmation and the need to maintain a positive self-image and affects the cognitive processing of the rumor. A person motivated by the self-enhancement motive furthers his or her ends in a conscious or unconscious process of selecting, believing, and transmitting rumors favorable to the self.

In the following sections, we review the literature on rumors under the framework of these three motivations. In each section, we first introduce the social goal that drives the motivation and then review the rumor literature relevant to this motivation. Finally, we discuss the antecedents and consequences of these motivations in rumor spread.

Fact-Finding Motivation and Rumor Spread

The Goal of Acting Effectively. The goal of acting effectively refers to the need to respond and cope with the environment in a competent and adap-

tive manner. Accurate knowis vital for responding effective social structures are imported for effective functions and gather information from tions) and covertly (by obsideliefs, attitudes, and behaviors).

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ting effectively refers to the tin a competent and adap-

tive manner. Accurate knowledge of our physical and social environment is vital for responding effectively to the environment. Other people and social structures are important sources of information and validation required for effective functioning (Fiske, Lin, and Neuberg 1999). We seek and gather information from those around us, overtly (by asking questions) and covertly (by observing them). This information influences our beliefs, attitudes, and behavior.

The goal of acting effectively motivates various forms of social behaviors, such as obedience to social norms, group conformity, and compliance to interpersonal persuasion attempts. For example, we follow descriptive norms because they provide us with a roadmap on how to behave, enabling effective functioning (Cialdini and Trost 1998). When motivated by this goal, people critically evaluate information and are persuaded by the merits of the arguments. They are motivated to arrive at accurate judgments and engage with the social world to obtain information and validity checks for attitudes and beliefs. In other words, this goal motivates fact-finding. Next, we review the role of this fact-finding motivation in rumor spread.

Rumors and Fact-Finding. Much of the psychological literature on rumors has emphasized the fact-finding motivation by highlighting the role of uncertainty (Rosnow and Fine 1976), ambiguity (Allport and Postman 1947), or cognitive unclarity (Festinger et al. 1948) in rumor spread. Thus, rumors thrive in conditions of uncertainty (defined as the psychological state of doubt about what current events mean or what future events are likely to occur; DiFonzo and Bordia 1998). Uncertainty undermines a person's ability to deal effectively with the environment, leads to feelings of lack of control and anxiety, and motivates actions to reduce uncertainty (for example, information-seeking). In the absence of information from (or lack of trust in) formal channels, people turn to each other. Rumors are a product of this informal collective problem-solving process (Bordia and DiFonzo 2004; Rosnow 1991; Shibutani 1966). Rumors inform, educate, or forewarn the uncertain public about current or future occurrences (riots in the neighboring village, earthquakes in the near future, mergers between corporations, and so forth) and thereby satiate the need in people for understanding and predictability of their circumstances (Bordia and DiFonzo 2002).

Uncertainty has played a central role in all major psychological explanations for rumor activity (Allport and Postman 1947; Prasad 1935; Rosnow and Fine 1976; Shibutani 1966). Schachter and Burdick (1955) provided an experimental demonstration of the effects of uncertainty on rumor spread. They planted a rumor and compared rumor spread in conditions of uncertainty (created via a staged event) versus no uncertainty (no staged event). Rumor spread was nearly twice as great in the

uncertainty condition compared to the no-uncertainty condition. The rumor provided a ready-made explanation for the uncertain event and was widely shared.

To be sure, rumors do not always reduce uncertainty and may even create it (such as when we do not observe an uncertain event but hear rumors about it from other people). However, even in these circumstances, rumors lead to a problem-solving process aimed at uncertainty reduction. Bordia and DiFonzo (2004) analyzed the content of rumor-related discussions on the Internet and found that nearly 60 percent of the discussion was devoted to seeking, sharing, and evaluating information related to the rumor. For example, one rumor discussed on a bulletin board devoted to technical support alleged that Prodigy, an Internet service provider, was tapping the computer hard-drives of its subscribers. The ensuing discussion involved a great deal of arguing about whether this was plausible ("not all that far fetched at all") or not ("the whole report strikes me as a stale April Fool's gag"). Group members shared rumor-related information including personal experiences (some people found old deleted files in the hard disk space taken over by Prodigy) and media reports and evaluated this information in the process of judging the veracity of the rumor.

Rumors tend to be about issues of personal significance or importance to the people involved in them. Most rumors in the workplace tend to be about job-related concerns, such as job security and working conditions (DiFonzo and Bordia 2000; DiFonzo, Bordia, and Rosnow 1994). In the aftermath of a murder on a university campus, the spread of rumors was nearly twice as great on the campus on which the murder occurred compared to another university campus in the same city (Rosnow, Esposito, and Gibney 1988). Similarly, Kimmel and Keefer (1991) found that the personal importance of the topic was strongly correlated with belief, anxiety, and transmission of AIDS-related rumors.

Uncertainty about a topic of importance leads to feelings of anxiety (defined as "an affective state-acute or chronic-that is produced by, or associated with, apprehension about an impending, potentially disappointing outcome;" Rosnow 1991:487). Anxiety further incites rumor spread (DiFonzo and Bordia 2002a; Jaeger, Anthony, and Rosnow 1980; Prasad 1935; Rosnow et al. 1988; Rosnow and Fine 1976; Walker and Beckerle 1987). Walker and Beckerle (1987) found that under conditions of high situational anxiety, less prompting was needed to elicit rumors from study participants. Presumably, transmitting the rumor helps vent anxiety.

The variables reviewed above (uncertainty, importance, and anxiety) demonstrate the fact-finding goal in rumor activity. Uncertainty about issues of personal significance threatens our capacity to act effectively. This threat is even more intense in times of personal or collective danger, such as natural disasters or ethnic riots (the threat is "simultaneously enor-

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Given the need for ef cumstances, the fact-find accurate interpretation o selection of a credible ex important role. The vario process are evaluated in explanations that have a cas more credible and like (Allport and Lepkin 1945;

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mous and invisible;" Horowitz 2001:85), exacerbating the need to acquire an understanding or knowledge of current or future events. Rumors predict future events and act as collective warnings (more earthquakes to follow, layoffs in your organization, or marauding crowds in the neighboring village) so as to enable people to take effective and timely action (flee from the earthquake zone, look for other jobs, or prepare to defend the village from attacking mobs; Walker and Blaine 1991).

Given the need for effective action when faced with threatening circumstances, the fact-finding goal should lead to a search for valid and accurate interpretation of the uncertain situation. In the search for and selection of a credible explanation, existing cognitive structures play an important role. The various interpretations emerging out of the collective process are evaluated in light of these prior attitudes and schemas. The explanations that have a close fit with preexisting attitudes are perceived as more credible and likely to emerge and spread as the credible rumor (Allport and Lepkin 1945; Rosnow 1991).

However, the rumor process is often not a very efficient tool in the search for accurate explanations. At least two psychological barriers interfere with rational problem-solving when people are faced with uncertain events: the need to self-enhance and—paradoxically—anxiety. Below, we discuss biases produced by self-enhancement; here we discuss anxiety.

Even though anxiety motivates fact-finding, excessive anxiety also inhibits people's ability to engage in a rational assessment of the situation confronting them. Even ambiguous stimuli are perceived as threatening by anxious individuals (MacLeod and Cohen 1993) as anxiety directs cognitive resources to the search and identification of threatening stimuli (Calvo and Castillo 1997). This leads to a heightened susceptibility to a threatening interpretation of ambiguous events, as these interpretations are more salient. In a recent incident, military aircraft circling downtown Sydney, Australia, alarmed residents who interpreted this ambiguous event in light of the September 11 attacks in New York. In reality, the planes happened to be engaged in a photo-shoot (Owen-Brown 2002). During tensions between rival ethnic groups, a minor altercation between two individuals gets interpreted as an act of indiscriminate premeditated violence by the rival group. Criminal acts by a few miscreants become a conspiracy to annihilate a community and justify an equally large-scale response (Horowitz 2001). The anxious individual latches on to a rumor to define the situation. The rumor, in turn, focuses attention on the impending threat, and helps rally the group members to take preemptive or retaliatory action. The explanatory role of rumors in making certain events and interpretations more salient than others has been demonstrated by DiFonzo and Bordia (1997, 2002b) in a series of experiments using simulated stock market trading. They found that causal explanations embedded in rumors led the trader to expect share price movement congruent to the rumor.

Relationship-Building Motivation and Rumor Spread

Building and Maintaining Relationships. The goal of building and maintaining relationships is central to the survival and functioning of humans as social animals. This goal motivates several social behaviors, including compliance with norms and requests in order to please others (Cialdini and Trost 1998), impression management and self-presentation tactics such as ingratiation (Leary 1995), and even outright deception (DePaulo and Kashy 1998). It manifests itself in different ways, depending upon the nature of the interpersonal encounter. In short-term relationships, people are keen to make a favorable impression and are willing to conform to expectations in order to please others. However, in long-term relationships, where more is at stake, people are motivated to form accurate impressions of each other, and thus greater value is placed upon accurate information sharing (Stevens and Fiske 1995). For example, in permanent groups (such as work groups), a group member can be accountable for the information he or she brings to the group. This should motivate accuracy and critical evaluation of the information before sharing it with the group. In short, the goal of building and maintaining social relationships motivates relationship-building behavior.

Rumors and Relationship-Building. Relationship-building plays a role in rumors because they are transmitted in a social encounter and sometimes include a larger audience. People are conscious of the impressions they create in other people and actively strive to manage these impressions (Leary 1995). Sugiyama (1996) noted that the content of stories is malleable, strategically used to further the relationship-building goals of the narrator. These goals may include grabbing the attention of the listener, appearing "in the know," maintaining the status differences, and manipulating the inclusion versus exclusion in the group by making the narrative understandable only to some people in the audience.

The decision to transmit a rumor is influenced by consequences of transmission on interpersonal relations. For example, we are less likely to transmit a negative rumor compared to a positive rumor. This phenomenon is explained by the minimize-unpleasant-messages (MUM) effect (Tesser and Rosen 1975). According to the MUM effect, people refrain from passing on bad news because they worry that, as bearers of bad news, they will be judged adversely. Indeed, Kamins, Folkes, and Perner (1997) found evidence to support this idea, by presenting MBA students with hypothetical rumors that predicted a rise or fall in the rank of their own busi-

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This is not to imply that people *never* transmit negative information. Indeed, there are times that the nature and best interest of the relationship require conveying bad news. For example, Weenig, Groenenboom, and Wilke (2001) found that negative information is more likely to be conveyed when the target is a close friend (as opposed to a casual acquaintance) and the information can help the friend avert harmful consequences. Similarly, a negative rumor may also be transmitted when it matches the affective tone of the conversation. If the topic is one of tragic events or impending disaster, negative and mood-congruent rumors are shared (Heath 1996). Thus, even transmitting negative information may enhance interpersonal relationships.

The relationship maintenance motivation also explains the finding that people are more likely to transmit a rumor they believe to be true (Jaeger et al. 1980; Rosnow 1991; Rosnow, Yost, and Esposito 1986). People want to maintain their credibility in other's eyes and to be known as a source of accurate information so that they can remain a valued and trustworthy member of the communication network (Stevens and Fiske 1995).

Finally, rumor interaction, like other interpersonal relationships, is governed by the rules of social exchange (Rosnow 2002). Information, of which rumor is a form, is the currency of power and influence. Those who know valuable information, and know it before others do, acquire status and prestige. For example, Allport and Postman (1947) describe the case of some Italian-Americans who unwittingly spread Axis propaganda during the Second World War because they were the privileged owners of transistor radios and were the first to hear the broadcast. They eagerly disseminated what they heard to enhance their position among their peers.

Self-Enhancement Motivation and Rumor Spread

Maintaining Positive Self-Image. The goal of maintaining positive self-image refers to the need in people to feel positive about themselves (Steele 1988). This goal motivates cognition and behavior that enhances self-esteem (Kunda 1999). For example, *most* people think they are *better than average* on a range of skills and abilities (such as leadership ability, driving

skills, and academic skills). They engage in defensive reasoning, attributing success to their personal qualities while attributing failure to external causes, enhance the self by comparing themselves to others who are worse off or poorer performers (downward comparison; Wills 1981), and engage in behaviors that boost self-worth (such as helping behavior; Schwartz 1977). While we seek to fulfill the motivational needs, we cannot do so if faced with evidence contradicting the self-enhancing conclusion. Instead, we attune our cognitive mechanism in ways that bias the judgment process. Far from being a rational evaluation of information, reasoning serves motivational goals such as self-enhancement (Kunda 1990, 1999). We are more likely to believe information favorable to the self and use heuristics that lead to favorable judgments. We define desirable constructs (such as leadership) in ways that allow them to be applied to us. For example, when people are asked to describe what constitutes good leadership, people who think of themselves as task-oriented pick task-oriented traits (e.g., persistence) while those who are people-oriented pick peopleoriented traits (e.g., friendliness; Kunda 1999).

An important part of our identity derives from social categories or groups to which we belong, such as demographic groups (sex, ethnicity, nationality), professional groups (doctors, law-enforcement officers), or social groups (country clubs, fan clubs). According to social identity theory (Hogg and Abrams 1988; Tajfel and Turner 1986), we affiliate with social groups to derive meaning and guidance regarding personal existence and social conduct. Given a variety of groups with which to identify, we chose the ones that are high in status and prestige as we derive esteem from belonging to these groups. The self-enhancing tendency is extended to this in-group and leads to in-group bias. Negative information about the in-group is evaluated more critically than positive information (Dietz-Uhler 1999). In fact, negative information may be overlooked in favor of positive information, even if the evidentiary basis for the positive information fails the criteria we use to reject the negative information (Doosje, Spears, and Koomen 1995). Success of out-groups is interpreted as an exception, while failure is attributed to their internal, stable features (Beal, Ruscher, and Schnake 2001; Pettigrew 1979) and negative information about in-groups is more easily forgotten than negative information about out-groups (Howard and Rothbart 1980).

The need to self-enhance underlies prejudicial attitudes towards outgroups (the other sex, religious or ethnic group; Fiske et al. 1999; Kunda and Sinclair 1999). For example, stereotypic and prejudicial evaluations of others intensify when people feel a threat to their self-esteem (Brown and Gallagher 1992) and derogation of others is a way people reclaim their self-esteem (Fein and Spencer 1997). In-group bias (and out-group derogation) is more likely when there is a threat (real or imaginary) to the group's status, physical, or economic security (Pettigrew 1998).

Rumors and Self-Enhance also operate in the cogniti and selection of rumors for rumor, people do not engag evaluate the rumor in light that the rumor resonates w (Allport and Lepkin 1945).] to the process of "justifica process of rationalizing and tency in their beliefs, peopl with their prior attitudes. I consistent rather than stere mitted communication (Kas that rumor "firms pre-exist (p.182). Prasad (1935, 1950). ally derived shared attitude beliefs threaten our view of t of rumors that reinforce exis cate and highly contrived. It repugnant and guilt-inducin groups; Allport and Postmar terization of the out-group jus Postman (1947) maintained tl izing blacks as threateningly crimination, an otherwise di prejudice but justifies it, or in "Rumor rationalizes while it

As noted earlier, the motiv cognitive biases, including se self-affirming hypotheses an out-groups. Thus, it is not sur wedge-driving rumors (rumo groups) but rarely see rumors the in-group. Knapp (1944) for ing the time of World War II w ing the draft, the bureaucracy endure rationing, and so forth motivated reasoning is the way gets transposed, depending on now 2002). While the rest of the perpetrated by the regime of Sa **prior** to the American attack c women in Korea and Kosovo women upon the American inva

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dicial attitudes towards outbup; Fiske et al. 1999; Kunda and prejudicial evaluations of their self-esteem (Brown and way people reclaim their selfas (and out-group derogation) imaginary) to the group's staw 1998).

Rumors and Self-Enhancement. The self-enhancement motivation will also operate in the cognitive processing of rumors and thereby belief in and selection of rumors for transmission. In judging the accuracy of a rumor, people do not engage in a rational hypothesis testing. Instead, they evaluate the rumor in light of their existing worldviews, and to the extent that the rumor resonates with these worldviews, it is likely to be believed (Allport and Lepkin 1945). In other words, rumor serves as a handmaiden to the process of "justification construction" (Kunda 1990:483) or the process of rationalizing and justifying existing beliefs. To maintain consistency in their beliefs, people are more likely to believe rumors that agree with their prior attitudes. Indeed, people tend to reproduce stereotypeconsistent rather than stereotype-inconsistent messages in serially transmitted communication (Kashima 2000). Allport and Postman (1947) noted that rumor "firms pre-existing attitudes rather than forming new ones" (p.182). Prasad (1935, 1950) argued that rumor content reflects the culturally derived shared attitude. Rumors that are contrary to our cherished beliefs threaten our view of the world and will tend to be rejected in favor of rumors that reinforce existing biases. Indeed, this process can be intricate and highly contrived. It can help rationalize beliefs that are otherwise repugnant and guilt-inducing (such as prejudice or hatred of other racial groups; Allport and Postman 1947). A rumor sketching a negative characterization of the out-group justifies the prejudice. For example, Allport and Postman (1947) maintained that many whites endorsed rumors characterizing blacks as threateningly aggressive because it helped them justify discrimination, an otherwise distasteful notion. Rumor not only vents the prejudice but justifies it, or in the words of Allport and Postman (1947:37), "Rumor rationalizes while it relieves."

As noted earlier, the motivation for self-esteem results in a variety of cognitive biases, including selective retrieval of information supporting self-affirming hypotheses and activation of stereotypes derogating the out-groups. Thus, it is not surprising that we encounter a large number of wedge-driving rumors (rumors that are hateful or hostile toward outgroups) but rarely see rumors in circulation that are negative or critical of the in-group. Knapp (1944) found that over 60 percent of the rumors during the time of World War II were wedge-driving rumors (Jews are evading the draft, the bureaucracy is wasting food while the public is forced to endure rationing, and so forth). Indeed, the most dramatic illustration of motivated reasoning is the way the race of the perpetrator of a violent act gets transposed, depending on the race of the narrator of the rumor (Rosnow 2002). While the rest of the world has been hearing about atrocities perpetrated by the regime of Saddam Hussein, the rumors in Baghdad just prior to the American attack claimed that American soldiers had raped women in Korea and Kosovo and that the same would happen to Iraqi women upon the American invasion (Taylor 2003). Thus, rumors are likely

to be consistent with existing attitudes, self-serving and derogating of the out-group. At best, they reinforce and justify these attitudes, and at worst instigate hostile reactions toward the out-group. Rumors are particularly ruinous during ethnic riots (Horowitz 2001; Kakar 1996). These rumors justify and incite violent acts against the rival group. The rumor that the rival ethnic group had butchered women and children in the neighboring village agrees with the stereotypic belief about the vicious and barbaric nature of the out-group, and is therefore likely to be believed, and will provide justification for retaliatory or preemptive attack on the members of this out-group in the vicinity.

Antecedents and Consequences of the Motivations in Rumor Spread

In any given situation, all three motivations are operating. However, characteristics of the situation will make one or the other more dominant. While a detailed examination of the antecedents to these motivations is beyond the scope of this chapter, we highlight some common social contexts that may induce one or the other motivation. For example, under conditions of physical threat, such as natural disasters, the need for effective functioning may instigate fact-finding. People will seek information that helps them cope with the threatening circumstances, and selfenhancement will likely take a back seat. Moderate levels of anxiety and personal relevance are also conducive psychological states for fact-finding. The fact-finding motivation energizes individual and group efforts at uncovering the truth. When a group shares the fact-finding motivation, it adopts a critical set in evaluating incoming information (Buckner 1965). Given subject-matter knowledge of the people involved, rumors motivated by the fact-finding motivation are likely to be accurate. Indeed, many rumors in the context of the workplace are highly accurate (DiFonzo and Bordia 2002a).

At other times, the relationship-building motivation may be salient and the social context will affect which rumors are shared. For example, at a party, entertaining rumors may be shared with the aim of grabbing the attention or interest of others. The veracity of the rumor may not be of paramount concern in this context, only its value in building a social connection. On the other hand, when people feel they are accountable for the information they bring to a group (such as in stable networks; DiFonzo and Bordia 2002a), they are more likely to carefully evaluate the accuracy of the information before sharing it with others. Thus, the relationship-building motivation can lead to accurate or inaccurate rumors, depending upon the demands of the interpersonal encounter.

In most cases, given the choice between two rumors of equal credibility, people will prefer a rumor that enhances their sense of the self rather than

one that diminishes it. This agree with their worldview a of their in-group. Situations high salience of the out-group more easily to self-enhancing enhancing motivation is also have to justify or defend thei tant supporting evidence is could be innocuous or even tional goals. For example, a gang-initiation rite as part o versity campus (flyers sprea across the United States). Th tration of the point the spea perhaps did not care abou rumors can also serve a demands evidence (Kunda who see a Jewish conspiracy Trade Center cite a rumor th on the fateful day as eviden routinely used to stir up pas ethnic groups during ethnic lic support, the motivated sp self-enhancement goal in p the least conducive to the sp

It is important to note that is relevant. At times two antecedents. For example, a fear of harm from rival grounderogate the out-group (self-bond among the in-group motivations may work in taken one may be in conflict with

In Allport and Postman's assiposive, serving important eliterature suggests that rubroad motivational ends, enhancing. To the extent a rispread. Indeed, the most s

erving and derogating of the these attitudes, and at worst oup. Rumors are particularly Kakar 1996). These rumors al group. The rumor that the dididren in the neighboring out the vicious and barbaric y to be believed, and will prove attack on the members of

ivations in Rumor Spread

ions are operating. However, e or the other more dominant. dents to these motivations is ght some common social contivation. For example, under al disasters, the need for effec-People will seek information ing circumstances, and self-Moderate levels of anxiety and chological states for fact-findindividual and group efforts at the fact-finding motivation, it g information (Buckner 1965). eople involved, rumors motilikely to be accurate. Indeed, ce are highly accurate (DiFonzo

motivation may be salient and s are shared. For example, at a l with the aim of grabbing the ty of the rumor may not be of s value in building a social confeel they are accountable for the as in stable networks; DiFonzo carefully evaluate the accuracy others. Thus, the relationshipr inaccurate rumors, depending

two rumors of equal credibility, their sense of the self rather than one that diminishes it. This may mean latching on to interpretations that agree with their worldview and help maintain or create a favorable image of their in-group. Situations marked by a threat to the group status, the high salience of the out-groups, or intergroup conflict will lend themselves more easily to self-enhancing and out-group derogating rumors. Selfenhancing motivation is also likely to operate in situations where people have to justify or defend their subjective opinions. Rumors become important supporting evidence in defense of one's persuasive agenda. This could be innocuous or even well-meaning and may partly serve informational goals. For example, a security officer narrated a rumor of a violent gang-initiation rite as part of a presentation on personal safety on a university campus (flyers spreading this hoax had been circulating via faxes across the United States). The rumor served a useful and supportive illustration of the point the speaker was making and he was oblivious to (or perhaps did not care about) the false nature of the rumor. However, rumors can also serve a more grim ideological purpose. Prejudice demands evidence (Kunda and Sinclair 1999) and rumors oblige. Those who see a Jewish conspiracy behind the September 11 attacks on the World Trade Center cite a rumor that Jews had stayed away from the buildings on the fateful day as evidence of this conspiracy (Hari 2002). Rumors are routinely used to stir up passions and garner support for attacks on rival ethnic groups during ethnic riots (Horowitz 2001). As rumors require public support, the motivated spreader will seek and find fertile ground in the self-enhancement goal in people. Thus, self-enhancement motivation is the least conducive to the spread of accurate rumors.

It is important to note that in most instances more than one motivation is relevant. At times two motivations may have common emotional antecedents. For example, as noted by Kakar (Chapter 3 in this volume), fear of harm from rival groups during ethnic conflict inspires rumors that derogate the out-group (self-enhancing) and aid in the development of a bond among the in-group members (relationship-building). At times these motivations may work in tandem, while at other times the fulfillment of one may be in conflict with the needs of the other.

CONCLUSION

In Allport and Postman's astute observation, rumors "are profoundly purposive, serving important emotional ends" (1947:vii). Our review of the literature suggests that rumors are indeed purposive and fulfill three broad motivational ends, fact-finding, relationship-building, and self-enhancing. To the extent a rumor satisfies one or more motivations, it will spread. Indeed, the most stubborn rumors will be the ones that satisfy

more than one motivation. That is, they help make sense of personally relevant but uncertain circumstances, build social bonds, and do it in a way that satisfies the ego.

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REFERENCES

- Allport, Floyd H. and Milton Lepkin. 1945. "Wartime Rumors of Waste and Special Privilege: Why Some People Believe Them." Journal of Abnormal and Social Psychology 40:3-36.
- Allport, Gordon W. and Leo J. Postman. 1947. The Psychology of Rumor. New York: Holt, Rinehart and Winston.
- Beal, Daniel J., Janet B. Ruscher, and Sherry B. Schnake. 2001. "No Benefit of the Doubt: Intergroup Bias in Understanding Causal Explanation." British Journal of Social Psychology 40:531-43.
- Bordia, Prashant and Nicholas DiFonzo. 2002. "When Social Psychology Became Less Social: Prasad and the History of Rumor Research." Asian Journal of Social Psychology 5:49-61.
- Bordia, Prashant and Nicholas DiFonzo. 2004. Problem Solving in Social Interactions on the Internet: Rumor as Social Cognition." Social Psychology Quarterly
- Brown, Jonathon D., and Frances M. Gallagher. 1992. "Coming to Terms with Failure: Private Self-Enhancement and Public Self-Effacement." Journal of Experimental Social Psychology 28:3-22.
- Buckner, H. Taylor. 1965. "A Theory of Rumor Transmission." Public Opinion Quarterly 29:54-70.
- Calvo, Manuel G. and M. Dolores Castillo. 1997. "Mood-Congruent Bias in Interpretation of Ambiguity: Strategic Process and Temporary Activation." Quarterly Journal of Experimental Psychology 50(1):163-82.
- Cialdini, Robert B. and Melanie R. Trost. 1998. "Social Influence: Social Norms, Conformity, and Compliance." Pp. 151-92 in The Handbook of Social Psychology, 4th ed., edited by D. T. Gilbert, S. T. Fiske, and G. Lindzey. Boston, MA: McGraw-Hill.
- DePaulo, Bella M. and Deborah A. Kashy. 1998. "Everyday Lies in Close and Casual Relationships." Journal of Personality and Social Psychology 74(1):63-79.
- Dietz-Uhler, Beth. 1999. "Defensive Reactions to Group-Relevant Information." Group Processes and Intergroup Relations 2(1):17–29.
- DiFonzo, Nicholas and Prashant Bordia. 1997. "Rumor and Prediction: Making Sense (But Losing Dollars) on the Stock Market." Organizational Behavior and Human Decision Processes 71(3):329-53.

- DiFonzo, Nicholas and Pra aging Uncertainty Dui ment 37(3-4):295-303.
- DiFonzo, Nicholas and Pra-Hearsay: Corporate Ru Public Relations Review
- DiFonzo, Nicholas and Pras and Accuracy." Public
- DiFonzo, Nicholas and Pra bution in Prediction as sion Processes 88:785-80
- DiFonzo, Nicholas, Prasha Rumors." Organization
- Doosje, Bertjan, Russell Spi Bad: Strategic Use of S ing." Journal of Personal
- Fein, Steven and Steven J. Affirming the Self throu Psychology 73(1):31-44.
- Festinger, Leon, Dorwin C Gottsdanker, Annette K Its Origin and Spread."
- Fiske, Susan T., Monica Lin, Ten Years Later." Pp. 23 by S. Chaiken and Y. Tn
- Hari, Johann. 2002. "Well, Financial Review, Decem
- Heath, Chip. 1996. "Do Peol and Relevance of News tional Behavior and Humi
- Hogg, Michael and Dominic of Intergroup Relations an
- Horowitz, Donald. L. 2001. 7 nia Press.
- Howard, John. W. and Myro for In-Group and Out-C chology 38(2):301-10.
- Jaeger, Marianne E., Susan A from Whom and with V Psychology Bulletin 6:473
- Jung, Carl G. 1922. "A Conpapers on Analytic Psycho
- Kakar, Sudhir. 1996. The Colo Chicago: University of C
- Kamins, Michael A., Valeri Responses to Rumors: Go 6(2):165–87.

e sense of personally relonds, and do it in a way

Hornsey, Yoshi Kashima, Winer drafts of this chapter and to

umors of Waste and Special I of Abnormal and Social Psy-

thology of Rumor. New York:

ke. 2001. "No Benefit of the Explanation." British Journal

Social Psychology Became arch." Asian Journal of Social

m Solving in Social Interac-"Social Psychology Quarterly

Coming to Terms with Failfacement." Journal of Experi-

ssion." Public Opinion Quar-

od-Congruent Bias in Intermporary Activation." Quar-

al Influence: Social Norms, Handbook of Social Psychology, d G. Lindzey. Boston, MA:

veryday Lies in Close and ocial Psychology 74(1):63–79. pup-Relevant Information."

nor and Prediction: Making "Organizational Behavior and DiFonzo, Nicholas and Prashant Bordia. 1998. "A Tale of Two Corporations: Managing Uncertainty During Organizational Change." *Human Resource Management* 37(3–4):295–303.

DiFonzo, Nicholas and Prashant Bordia. 2000. "How Top PR Professionals Handle Hearsay: Corporate Rumors, Their Effects, and Strategies to Manage Them." *Public Relations Review* 26(2):173–90.

DiFonzo, Nicholas and Prashant Bordia. 2002a. "Corporate Rumor Activity, Belief, and Accuracy." *Public Relations Review* 150:1–19.

DiFonzo, Nicholas and Prashant Bordia. 2002b. "Rumor and Stable-Cause Attribution in Prediction and Behavior." Organizational Behavior and Human Decision Processes 88:785–800.

DiFonzo, Nicholas, Prashant Bordia, and Ralph L. Rosnow. 1994. "Reining in Rumors." *Organizational Dynamics* 23(1):47–62.

Doosje, Bertjan, Russell Spears, and Willem Koomen. 1995. "When Bad Isn't All Bad: Strategic Use of Sample Information in Generalization and Stereotyping." *Journal of Personality and Social Psychology* 69(4):642–55.

Fein, Steven and Steven J. Spencer. 1997. "Prejudice as Self-Image Maintenance: Affirming the Self through Derogating Others." *Journal of Personality and Social Psychology* 73(1):31–44.

Festinger, Leon, Dorwin Cartwright, Kathleen Barber, Juliet Fleischl, Josephine Gottsdanker, Annette Keysen, and Gloria Leavitt. 1948. "A Study of a Rumor: Its Origin and Spread." *Human Relations* 1:464–85.

Fiske, Susan T., Monica Lin, and Steven L. Neuberg. 1999. "The Continuum Model: Ten Years Later." Pp. 231–54 in *Dual Process Theories in Social Psychology*, edited by S. Chaiken and Y. Trope. New York: Guilford.

Hari, Johann. 2002. "Well, They Would Say That, Wouldn't They?" Australian Financial Review, December 31, p. 42.

Heath, Chip. 1996. "Do People Prefer to Pass Along Good or Bad News? Valence and Relevance of News as Predictors of Transmission Propensity." *Organizational Behavior and Human Decision Processes* 68(2):79–94.

Hogg, Michael and Dominic Abrams. 1988. Social Identifications: A Social Psychology of Intergroup Relations and Group Processes. London: Routledge.

Horowitz, Donald. L. 2001. *The Deadly Ethnic Riot*. Berkeley: University of California Press.

Howard, John. W. and Myron Rothbart. 1980. "Social Categorization and Memory for In-Group and Out-Group Behavior." Journal of Personality and Social Psychology 38(2):301–10.

Jaeger, Marianne E., Susan Anthony, and Ralph Rosnow. 1980. "Who Hears What from Whom and with What Effect: A Study of Rumor." *Personality and Social Psychology Bulletin* 6:473–78.

Jung, Carl G. 1922. "A Contribution to the Psychology of Rumor." In *Collected papers on Analytic Psychology*. 2nd ed. London: Barlliere, Tindall & Cox.

Kakar, Sudhir. 1996. The Colors of Violence. Cultural Identities, Religion and Conflict. Chicago: University of Chicago Press.

Kamins, Michael A., Valerie S. Folkes, and Lars Perner. 1997. "Consumer Responses to Rumors: Good News, Bad News." *Journal of Consumer Psychology* 6(2):165–87.

- Kashima, Yoshihisa. 2000. "Maintaining Cultural Stereotypes in the Serial Reproduction of Narratives." *Personality and Social Psychology Bulletin* 26:594–604.
- Kimmel, Allan J. and Robert Keefer. 1991. "Psychological Correlates of the Transmission and Acceptance of Rumors about AIDS." *Journal of Applied Social Psychology* 21:1608–28.
- Knapp, Robert H. 1944. "A Psychology of Rumor." Public Opinion Quarterly 8:22–27.
 Kunda, Ziva. 1990. "The Case for Motivated Reasoning." Psychological Bulletin 108(3):480–98.
- Kunda, Ziva. 1999. Social Cognition: Making Sense of People. Cambridge, MA: MIT Press.
- Kunda, Ziva and Lisa Sinclair. 1999. "Motivated Reasoning with Stereotypes: Activation, Application, and Inhibition." *Psychological Inquiry* 10(1):12–22.
- Leary, Mark R. 1995. Self-Presentation: Impression Management and Interpersonal Behavior. Boulder, CO: Westview.
- MacLeod, Colin and Ilan L. Cohen. 1993. "Anxiety and the Interpretation of Ambiguity: A Text Comprehension Study." *Journal of Abnormal Psychology* 102(2): 238–47.
- Owen-Brown, Michael. 2002. "The Photo-Shoot that Caused Panic." Advertiser, May 17, p. 9.
- Pettigrew, Thomas F. 1979. "The Ultimate Attribution Error: Extending Allport's Cognitive Analysis of Prejudice." *Personality and Social Psychology Bulletin* 5:461–76.
- Pettigrew, Thomas F. 1998. "Reactions towards the New Minorities of Western Europe." *Annual Review of Sociology* 24:77–103.
- Prasad, Jamuna. 1935. "The Psychology of Rumour: A Study Relating to the Great Indian Earthquake of 1934." *British Journal of Psychology* 26:1–15.
- Prasad, Jamuna. 1950. "A Comparative Study of Rumours and Reports in Earthquakes." *British Journal of Psychology* 41:129–44.
- Rosnow, Ralph L. 1991. "Inside Rumor: A Personal Journey." *American Psychologist* 46:484–96.
- Rosnow, Ralph L. 2002. "Rumor and Gossip in Interpersonal Interaction and Beyond: A Social Exchange Perspective." Pp. 203–32 in *Behaving Badly: Aversive Behaviors in Interpersonal Relationships*, edited by R. M. Kowalski. Washington, DC: American Psychological Association.
- Rosnow, Ralph L., John L. Esposito, and Leo Gibney 1988. "Factors Influencing Rumor Spreading: Replication and Extension." *Language and Communication* 8:29–42.
- Rosnow, Ralph L. and Gary A. Fine. 1976. Rumor and Gossip: The Social Psychology of Hearsay. New York: Elsevier.
- Rosnow, Ralph L., John H. Yost, and John L. Esposito. 1986. "Belief in Rumor and Likelihood of Rumor Transmission." *Language and Communication* 6(3):189–94.
- Schachter, Stanley and Harvey Burdick. 1955. "A Field Experiment on Rumor Transmission and Distortion." *Journal of Abnormal and Social Psychology* 50: 363–71.
- Schwartz, Shalom H. 1977. "Normative Influence on Altruism." Pp. 221–79 in *Advances in Experimental Social Psychology*, Volume 10, edited by L. Berkowitz. New York: Academic Press.

- Shibutani, Tamotsu 1966. Im anapolis, IN: Bobbs-Meri
- Steele, Claude M. 1988. "The Integrity of the Self." Pp.: Volume 21, edited by L. E
- Stevens, Laura E. and Susan Life: A Social Survival Pe
- Sugiyama, Michelle S. 1996. "(ness-Enhancing Strategy.' Tajfel, Henri and John C. Turn
- Tajfel, Henri and John C. Turn Behaviour." Pp. 7–24 in P by S. G. Worchel and W. A
- Taylor, Scott. 2003. "Rumours Locals." Toronto Sun, Marc
- Tesser, Abraham and Sidney Ro Pp. 193–232 in *Advances in* L. Berkowitz. New York: A
- Walker, Charles J. and Carol A Transmission." Journal of S.
- Walker, Charles J. and Bruce Bla Experiment." Language and
- Weenig, Mieneke W. H., Ariene 2001. "Bad News Transmis quences and the Relationsh of Personality and Social Psyc
- Wills, Thomas. 1981. "Downwa Psychological Bulletin 90:245
- Wood, Wendy. 1999. "Motives a Groups." Pp. 547–70 in *Dua* Chaiken and Y. Trope. New
- Wood, Wendy. 2000. "Attitude (Review of Psychology 51:539–

ereotypes in the Serial Reproychology Bulletin 26:594–604. ogical Correlates of the Trans-." Journal of Applied Social Psy-

iblic Opinion Quarterly 8:22–27. oning." Psychological Bulletin

People. Cambridge, MA: MIT

soning with Stereotypes: Actical Inquiry 10(1):12–22.

Management and Interpersonal

nd the Interpretation of Ambif Abnormal Psychology 102(2):

at Caused Panic." Advertiser,

on Error: Extending Allport's and Social Psychology Bulletin

New Minorities of Western

A Study Relating to the Great ychology 26:1–15.

mours and Reports in Earth-

urney." American Psychologist

nterpersonal Interaction and 3–32 in *Behaving Badly: Aver* d by R. M. Kowalski. Wash-

y 1988. "Factors Influencing Language and Communication

Gossip: The Social Psychology

b. 1986. "Belief in Rumor and d Communication 6(3):189–94. Field Experiment on Rumor mal and Social Psychology 50:

on Altruism." Pp. 221–79 in the 10, edited by L. Berkowitz.

Shibutani, Tamotsu 1966. *Improvised News: A Sociological Study of Rumor*. Indianapolis, IN: Bobbs-Merrill.

Steele, Claude M. 1988. "The Psychology of Self-Affirmation: Sustaining the Integrity of the Self." Pp. 261–302 in *Advances in Experimental Social Psychology*, Volume 21, edited by L. Berkowitz. San Diego, CA: Academic.

Stevens, Laura E. and Susan T. Fiske. 1995. "Motivation and Cognition in Social Life: A Social Survival Perspective." *Social Cognition* 13(3):189–214.

Sugiyama, Michelle S. 1996. "On the Origins of Narrative: Storyteller Bias as a Fitness-Enhancing Strategy." *Human Nature* 7(4):403–25.

Tajfel, Henri and John C. Turner. 1986. "The Social Identity Theory of Intergroup Behaviour." Pp. 7–24 in *Psychology of Intergroup Relations*, 2nd edition, edited by S. G. Worchel and W. Austin. Chicago: Nelson-Hall.

Taylor, Scott. 2003. "Rumours Feed Iraqi Fears; Widespread Tale of GIs Raping Locals." *Toronto Sun*, March 14, p. 5.

Tesser, Abraham and Sidney Rosen. 1975. "The Reluctance to Transmit Bad News."
Pp. 193–232 in *Advances in Experimental Social Psychology*, Volume 18, edited by
L. Berkowitz. New York: Academic.

Walker, Charles J. and Carol A. Beckerle. 1987. "The Effect of Anxiety on Rumor Transmission." *Journal of Social Behavior and Personality* 2:353–60.

Walker, Charles J. and Bruce Blaine. 1991. "The Virulence of Dread Rumors: A Field Experiment." Language and Communication 11:291–97.

Weenig, Mieneke W. H., Arieneke C. W. J. Groenenboom, and Henk A. M. Wilke. 2001. "Bad News Transmission as a Function of the Definitiveness of Consequences and the Relationship between Communicator and Recipient. *Journal of Personality and Social Psychology* 80(3):449–61.

Wills, Thomas. 1981. "Downward Comparison Principles in Social Psychology." Psychological Bulletin 90:245–71.

Wood, Wendy. 1999. "Motives and Modes of Processing in the Social Influence of Groups." Pp. 547–70 in *Dual Process Theories in Social Psychology*, edited by S. Chaiken and Y. Trope. New York: Guilford.

Wood, Wendy. 2000. "Attitude Change: Persuasion and Social Influence." Annual Review of Psychology 51:539–70.