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19 Gossip and Other Aspects of Language as Group-Level Adaptations

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Gossip has a strange status in everyday life. On the one hand, people in all cultures gossip with an appetite that rivals their interest in food and sex. On the other hand, gossip is often denigrated and trivialized with terms such as "small talk" and "tittle-tattle." Gossiping is thought to be undignified and the information conveyed by gossip is regarded as unreliable and self-serving.

The academic study of gossip mirrors its ambivalent status in everyday life. Ethnographers seldom fail to mention gossip as a pervasive activity in cultures around the world. A few authors have stressed the need to study gossip as an important part of human nature (e.g., Gluckman, 1963; Haviland, 1977; Merry, 1984; Barkow, 1992; Levin and Arluke, 1994; Goodman and Ben-Ze-ev, 1994; Dunbar, 1996), but their call has not been heeded. The scientific literature on gossip remains miniscule (in addition to the above cited papers, see Roberts, 1964; Paine, 1967, 1968, 1970a, b; Gluckman, 1968; Abrahams, 1970; Bleek, 1976; Cox, 1970; Handelman, 1973; Wilson, 1974; Besnier, 1989, 1990; de Raad and Calje, 1990; Dunbar et al., 1997; Walker and Blaine, 1991; Eder and Enke, 1991; Nevo et al., 1993; Harrington and Bielby, 1995).

Gossip's perennial neglect can be traced to at least two factors, the first of which is conceptual. Gossip is frequently interpreted by ethnographers as benefitting the group: for example, by communicating the values of the group, punishing those who violate social norms, or defining the boundaries of group membership (e.g., Gluckman, 1963). However, many scientists reject group-level explanations, insisting that all adaptations must be explained in terms of individual or genetic self-interest. The issue of group vs. individual welfare needs to be clarified before gossip can be properly understood.

The second factor is methodological. Gossip is usually confined to familiar associates and stops in the presence of outsiders, including scientists studying gossip. Numerous anthropologists have observed that understanding and partaking in gossip is a sure sign of acceptance by the people who are being studied (e.g., Haviland, 1977). Even then, however, it would be difficult to study gossip experimentally without betraying the trust that is required to be a member of a gossip community. These methodological difficulties must be solved before the study of gossip can move beyond the descriptive stage.

In this paper we will attempt to alleviate both of these limiting factors. First we will discuss gossip in the light of multilevel selection theory, which shows how group-interest and self-interest can be understood within a single conceptual framework.

Then we will present a method for studying gossip by using fictional gossip episodes whose elements can be systematically varied.

Gossip is fascinating in its own right, but it is also just the tip of the larger iceberg of language in general. Language, like gossip, has often been explained in terms of its group-level benefits, yet this kind of explanation has been avoided by many scientists who have adopted an individualistic perspective. We will therefore attempt to point out the implications of multilevel selection theory for the general study of language, in addition to the more specific study of gossip.

Multilevel Selection, Altruism, and Social Control

Seeing groups as adaptive units in their own right and seeing groups as a byproduct of individual self-interest are two longstanding perspectives that exist across scientific disciplines and in everyday thought. For example, Gluckman's (1963) group-level perspective on gossip was criticized by Paine (1967), who claimed that individuals gossip, not groups, and they gossip for their own benefit. This argument took place without any reference to evolution and ended in a stalemate. That is the usual outcome of clashes between the two perspectives, at least outside evolutionary biology. The two sides merely agree to disagree and their interaction does not lead to productive research.

In evolutionary biology, the conflict between the two perspectives came into sharp focus because both made claims about adaptation and natural selection. Darwin realized that many traits that would benefit the whole group would actually decrease the fitness of the individuals expressing the traits, compared to other individuals in the same group. The classic example is altruism, which benefits others at the expense of the self. Darwin realized that, despite the disadvantage of altruism within groups, groups of altruists would have an advantage over groups of selfish individuals in intergroup competition. In short, evolutionary biology provides a theoretical foundation for *both* perspectives and shows how they can be related to each other. Groups can evolve into adaptive units in their own right, but only by a process of between-group selection that outweighs the often opposing process of within-group selection.

Modern evolutionary biologists have refined Darwin's formulation of the problem but they have not altered its basic structure. Thus, the question of whether gossip or any other set of traits can be explained as group-serving rather than self-serving depends on whether group selection has been a significant force and the degree to which it has been opposed by selection at other levels. In the 1960s, a consensus

emerged that group selection is so weak that it can be ignored for most traits, which therefore must be explained in terms of their individual-level (or gene-level) benefits. Since then, most evolutionary biologists and social scientists inspired by evolution have avoided group-level explanations at all costs. With respect to gossip, Gluckman (1963) would be branded a "naive group selectionist" and Paine (1967) would be regarded as on the right track.

Despite it's rock-solid appearance, it is almost certain that the earlier consensus was wrong. Group selection is a significant evolutionary force and probably was especially important throughout human evolution. Justifying this statement requires a book-length treatment (Sober and Wilson, 1998; see also Richerson and Boyd, this volume). Here, we will discuss only a few points that facilitate our study of gossip from a multilevel perspective.

One important development that challenges the earlier consensus is the interpretation of individual organisms as higher-level units of selection. The history of life on earth is increasingly viewed as a series of major transitions in which previously independent lower-level units coalesced into functionally integrated higher-level units (Maynard Smith and Szathmary, 1995). These coalescing events involve the same problems of altruism and selfishness that Darwin envisioned for individuals in social groups. For example, a group of genes might collectively benefit by coordinating their activities, but some genes might also "cheat" by using shared resources to replicate faster than other genes in the same cell. According to Maynard Smith and Szathmary, this problem is solved by the evolution of mechanisms that prevent the possibility of cheating. For example, if the genes form into a string (a chromosome) that replicates as a unit, the differential reproduction of genes within the cell is no longer possible. Higher-level selection (more coordinated cells outcompeting less coordinated cells) can now proceed in the absence of opposing within-group selection (some genes replicating faster than others within cells).

This scenario illustrates an important trend in modern evolutionary thought, in which higher-level organization is explained on the basis of *social control* rather than *altruism*. An entire lexicon of words describing social control in human life has been borrowed to explain the interactions of genes and other subunits of individual organisms: "sheriff" genes, "parliaments" of genes, "rules of fairness," and so on. These mechanisms suppress within-group selfishness without themselves being overtly altruistic, but they still require group selection to evolve. A sheriff gene imposes harmony for the whole group, including alternative "freeloader" genes that do not suppress "outlaw" genes. In fact, if there is any cost to suppressing outlaw genes, the sheriff gene itself qualifies as altruistic by imposing harmony for everyone at its own expense. The evolution of social control is a multilevel selection problem

similar to the evolution of altruism, but selection pressures within groups are weak when the costs of imposing social control are low, allowing between-group selection to proceed unopposed (Sober and Wilson, 1998, ch 4).

An example of social control from the social insects will pave the way for our study of gossip. Altruism and the intricate coordination of social insect colonies has traditionally been explained on the basis of kin selection (Hamilton, 1964). However, it turns out that members of a colony are often less related than previously thought because the colony has multiple queens or a single queen has mated with multiple males. For example, honey bee queens routinely mate with ten or more males, resulting in multiple patrilines among the workers of a single hive. In such a genetically diverse colony, a gene that causes workers to lay unfertilized eggs (which develop into males) would be favored by within-colony selection, even if it disrupted the well-being of the colony as a whole. This kind of "cheating" has been looked for but rarely observed, in part because workers who try to lay eggs are attacked by other workers and their eggs are eaten (reviewed by Seeley, 1995). This response to cheating is called "policing," borrowing yet another term from the lexicon of human social control. We therefore must consider the evolution of two sets of behaviors: the original act of cheating and its altruistic alternative ("lay eggs" vs. "refrain from laying eggs"), and the act of policing and its alternative ("attack egg layers and eat their eggs" vs. "do nothing to prevent egg laying"). Policing can itself be considered altruistic if it involves costs that are not shared by its do-nothing alternative. The population structure of honeybee colonies is not sufficient for "refrain" to evolve by itself, but it is sufficient for "attack/refrain" to evolve as a package. The adaptive organization of social insect colonies, like the adaptive organization of individual organisms, relies on social control mechanisms to buttress the behaviors that would be considered overtly altruistic if they were performed in the absence of social control.

Policing in Human Social Groups

Comparing human groups to single organisms and social insect colonies would be regarded by many as the ultimate in "naive group selectionism." Nevertheless, this conditioned reaction, based on a consensus that is now over thirty years old, needs to be questioned in the light of the developments outlined above. It is true that the members of human groups are often weakly or entirely unrelated to each other, but genetic relatedness is only one of many factors that must be considered from the multilevel perspective. Other factors, including social control mechanisms, have probably made group selection a strong force throughout human evolution. Once again, this statement requires a book-length treatment to justify (Sober and Wilson, 1998), but it will probably be considered obvious in retrospect. After all, if meta-

phorical sheriffs, police, and parliaments can turn groups of genes and insects into well-functioning units, why can't real sheriffs, police, parliaments, and their ancient counterparts do the same for human groups?

To see this more vividly, imagine that you are a honey bee worker who is tempted to lay your own eggs. The problem is that you are *never alone* and you are fully aware that if you try to lay eggs in the presence of others, you will be attacked and your eggs will be eaten. Furthermore, if you see another worker lay eggs, you are filled with righteous indignation and join in the attack. Attacking another worker might be dangerous if it was a one-on-one confrontation, but not when it is many-on-one. You therefore prudently refrain from laying eggs and devote your time to making the colony run as a smoothly functioning unit. Your payoff for being a solid citizen may be substantial, but it is not measured by comparing your fitness with that of other members of your colony. Rather, it is measured by comparing your well-running colony with other colonies that do not function so well. Your behaviors are *group-serving*, not *self-serving*.

Now imagine that you are a member of a human group who is tempted to benefit yourself at the expense of your neighbors. The possibilities are endless: you can avoid sharing the food that you procure, avoid the effort of procuring food while sponging off more altruistic suckers, spend more effort having babies than caring for them, and on and on. The uses of language for self-serving purposes are also endless: you can denigrate your rivals, tell lies and withhold vital information when it serves your purposes, and on and on and on. The trouble is that you are almost *never alone* and your selfish efforts are always in danger of being detected. Furthermore, when you observe selfishness in others you are filled with righteous indignation and join in the attack. Righteous indignation can be dangerous if it results in a one-on-one confrontation, but less so if the confrontation is many-on-one. Seeing that the odds are stacked against you, you wisely decide to avoid the temptations of selfishness and join the group effort. Your payoff as a solid citizen may be considerable, but it is not to be measured by comparing your fitness with that of other members of your group. Rather, it must be measured by the performance of your group, compared to other groups. Your efforts are *group-serving*, not *self-serving*.

We indulge in this imagery with reluctance because it can be mistaken for a claim about the mental processes that actually guide behavior. It would be absurd to suppose that honey bees actually think about how to behave as we have described above. It may be equally wrong to suppose that *people* think about how to behave as we have described above. Perhaps all people are scheming Machiavellians who are quick to cheat when they can get away with it, but perhaps something closer to genuine psychological altruism also exists (Wilson et al., 1996, 1998; Sober and Wilson,

1998). The evolution of the psychological mechanisms that motivate behavior is an important subject in its own right, but it does not concern us here. Our point is to show that social control mechanisms can promote group-serving behaviors and suppress self-serving behaviors in human groups in much the same way as in social insect colonies, despite the large differences in genetic relatedness. The comparison between human groups, social insect colonies, and single organisms is not so far-fetched after all.

Two Meanings of Gossip

Now we are in a position to approach gossip from a multilevel perspective. The word gossip is often used to describe the use of language for self-serving purposes. For example, a person who spreads information (true or false) that tarnishes the reputation of a rival is clearly gossiping. Another common meaning of the word gossip, emphasized by observers of cultures around the world, is the use of language to control all kinds of self-serving behavior in others, including the self-serving use of language. In short, the single word "gossip" refers *both* to self-serving uses of language *and* to the use of language to police the self-serving behaviors of others.

For gossip to function as an efficient social control mechanism, self-serving behaviors must be detectable and punishable at low cost to those who impose the punishment. These conditions do not invariably exist; when absent, we should find groups in which selfishness is rampant, including the self-serving use of language, and efforts to promote group-interest are feeble and ineffective. However, it is also likely that these three conditions *do* exist in *some* human groups and may have been especially prevalent in the small, face-to-face groups that existed throughout our evolutionary history. Social behavior in these groups should be organized to promote the common good.

Three examples out of hundreds that could be cited from the ethnographic literature will illustrate how gossip often serves as an effective policing device. The first comes from the Melanesian island of Lesu (Powdermaker, 1933, p. 323):

> There is much talk in the village because Tsengali's pig has broken into Murri's garden. Murri displays no particular anger but Tsengali is much annoyed because of all the talk that the incident has occasioned. So he announces that he will give a pig to Murri to stop the talk. But Murri tells him that this would be foolish "to eat a pig for nothing." Instead, Murri declares that the incident has ended, and that there should be no talk.

This example involves an act of negligence rather than willful selfishness, but it nevertheless triggered a surge of gossip in the community. Acts like these are virtu-

ally certain to be detected in a close-knit society like the Lesu, satisfying the first condition outlined above. The gossip clearly damages the offender's reputation, which he is willing to go to great lengths to salvage. If one's reputation stands for more tangible costs and benefits, then the second condition is satisfied. Finally, the cost of imposing the punishment appears negligible. Those who gossiped presumably would have talked about something else and the person who suffered most from the negligent act probably increased his reputation by acting gracious and good-natured. Gossip appears to be such an effective mechanism of social control in this example that it almost has a machinelike quality: a tiny rupture in social organization instantly leads to a gossip response, which ends as abruptly as it began when the rupture is repaired.

Our second example comes from a Norwegian fishing village studied by Paine (1970b), the anthropologist who criticized Gluckman's (1963) group-level perspective on gossip. Despite his emphasis on self-interest, Paine's field work shows how gossip makes it difficult for individuals to pursue their self-interest without regard to the rest of the community. The fishing village studied by Paine included an entrepreneur who attempted to increase his own wealth by starting new businesses. This person tried to form alliances by talking privately with individuals and asking them not to divulge the contents of their conversation. In fact, this person's house was unusual for including a room in which it was *possible* to have a private conversation! His secretive methods of talking aroused the entire community, whose public talk caused the entrepreneur to become isolated: "In the end, he had to keep his own company" (p. 177). Paine also described a shopkeeper who went bankrupt for betraying confidences and a man who achieved high status by fostering an open form of communication that involved the entire community. Once again, the three conditions of detecting transgressions, and the high-cost punishment that can be imposed at low cost to the punishers, appear to be satisfied in this example.

A recent study of cattle ranchers in California (Ellickson, 1991) shows that gossip can function as strongly in modern life as in more traditional societies. Order was maintained through informal social norms and almost never by resorting to formal legal channels. The first response to a neighbor who refused to mend fences (both literally and figuratively) was "truthful negative gossip" (e.g., p. 57).

> The mildest form of self-help is truthful negative gossip. This usually works because only the extreme deviants are immune from the general obsession with neighborliness.... People tend to know one another, and they value their reputations in the community. Some ranching families have lived in the area for several generations and include members who plan to stay indefinitely. Members of these families seem particularly intent on maintaining their reputations as good neighbors. Should one of them not promptly and courteously retrieve a stray, he might fear that any resulting gossip would permanently besmirch the family name.

The dynamics of social control in this example are almost identical to our first example from Melanesia. The general thesis of Ellickson's book is that small groups of people establish and maintain social norms that promote the common good. Many evolutionary biologists might object to this "benefit of the group" perspective, but effective social control mechanisms show how it can be justified.

These examples illustrate what has always seemed obvious to observers of human societies around the world. People tend to be passionate about maintaining their reputations, which in turn depends on being solid citizens, as defined by the social norms of the community. The breakdown of social organization is quickly detected by other members of the group and communicated by gossip. Offenders must repair the damage and make amends to salvage their reputation. In a perceptive review, Merry (1984) emphasizes that gossip and loss of reputation by themselves are not effective social control mechanisms, but must stand for more tangible forms of punishment that will take place if the offenders fail to mend their ways. Talk is "empty" in the absence of real social control, but when social groups have the means to truly punish their members, gossip and reputation are usually sufficient to maintain social order without heavy-handed punishment actually occurring.

We need to emphasize once again that these conditions do *not* invariably exist in human social groups. The purpose of multilevel selection theory is not to show that all groups are adaptive but to recognize adaptations where they exist, at all levels of the biological hierarchy. It is easy to imagine social environments (especially in modern life) in which antisocial behaviors are difficult to detect and even when detected are difficult to punish without great cost to those attempting to enforce social norms. The concept of group-interest should have little predictive value in these cases. Nevertheless, it would be a great mistake to extend this conclusion to all human social groups, which is what many scientists do when they categorically reject arguments based on "the good of the group." Multilevel selection theory combines the group and individual perspectives into a single predictive framework in which gossip plays at least two central roles: as a form of antisocial behavior, and as a means of controlling all forms of antisocial behavior.

Other Group-Serving Functions of Language

The word "gossip" defies precise definition. We have already identified two fundamentally different meanings, and others may also exist. Many uses of language do not qualify as gossip in any sense of the word. If group selection has been a significant force in human evolution, we need to think about language in general from the group-level perspective. To state the conjecture boldly, suppose that human groups

have evolved into "superorganisms" with a "group mind." The components of the group mind are connected not by neurons but by language. How must language be structured for a group to have a mind? The purpose of indulging in this fantasy of group-level functionalism is not because it is literally true but because it may be *partially* true, depending on the degree to which language has evolved by group selection. Group-level adaptations must be imagined before their existence can be tested (Wilson, 1997; Sober and Wilson, 1998, ch 3).

Individual minds are often portrayed by evolutionary psychologists as a collection of special purpose mechanisms that evolved to solve the major adaptive problems confronted in ancestral environments (see Bitterman, this volume; Lefebvre, this volume; Richerson and Boyd, this volume; Shettleworth, this volume). If this view is true for individual minds, it should be equally true for group minds. Language must be *multifunctional* to adaptively coordinate the activities of human groups. It also must be richly *context sensitive* for the different functions to be performed through a common medium. Finally, just as most individual cognition takes place without conscious awareness, people should routinely participate as components of the group mind without being aware of what they are doing. *People should talk in ways that they do not talk about.* These are three major predictions that emerge easily by viewing language from the group-level perspective.

What are some of the specific functions of the group mind, beyond the policing function that we have already discussed? One possibility is the gathering and transmission of accurate information (see also Lefebvre, this volume; Richerson and Boyd, this volume). Groups with many eyes and ears that evaluate the quality of information would fare better than other kinds of groups. It might seem that these predictions are manifestly false, because gossip is commonly thought to be a notoriously unreliable source of information. However, this criticism ignores the importance of context-sensitivity that we emphasized above. Accurate knowledge is not adaptive in *all* contexts. Even outrageously false beliefs can be adaptive if they cause the believers to behave adaptively in the real world (Wilson, 1990, 1995). To evaluate the claim that language functions to gather and transmit accurate information, we must study the use of language in contexts in which it is adaptive to know the facts of the matter.

This discussion obviously fails to do justice to the large and complicated subject of language, but perhaps it is sufficient to show how language can be approached from the multilevel perspective. Of course, it is not enough to have a conceptual framework that generates interesting predictions. We must also have an empirical methodology for testing the predictions.

Testing Predictions about Gossip and Other Forms of Talk

Psychological research includes the use of simple paper-and-pencil tests that can be administered to hundreds of subjects in only a few minutes. These tests have limitations and should be used in conjunction with more naturalistic methods, but they are undeniably an important tool for testing predictions about human nature. They have been used successfully by evolutionary psychologists to explore subjects ranging from mate choice (Buss, 1994), to social exchange (Cosmides and Tooby, 1992), to sex differences in spatial abilities (Silverman and Philips, 1998). Curiously, these methods have not been used to study gossip. We therefore conducted a series of experiments involving fictional gossip episodes whose elements can be systematically varied.

Our main hypothesis was that response to gossip should be *context sensitive*. People should condemn gossip when it is self-serving but not when it is used for social control. They should attend to the quality of information when it is important to know the facts of the matter but not otherwise. Our first experiment consisted of two versions of the following story.

Jane and Susan are waiting outside their biology class for the final grades to be posted. They have been best friends since high school. Both are hard-working students, well liked and trusted by their friends. They take their classes very seriously and each are working part-time jobs to supplement their academic scholarships. The grade in this class is particularly important, because the medical schools they have applied to have high standards. When the grades are posted, they see that they have just missed the cut-off for a grade that the schools find acceptable.

Jane: "This would be easier to take if I didn't know that a group of students cheated."

Susan: "Really? What do you mean?"

Jane: "They asked me if I wanted to join them! They stole a copy of the exam from the office the night before!"

In this version, the two gossipers are described as good people who had much to lose from cheating by others, a clear violation of a social norm. In the second version, the same story was followed by a more self-serving dialogue:

Jane: "I bet we would have gotten a better grade if we sucked up to the professor the way those students in the front row did."

Susan: "Really? What do you mean?"

Jane: "Oh you know, always asking questions and pretending they're interested."

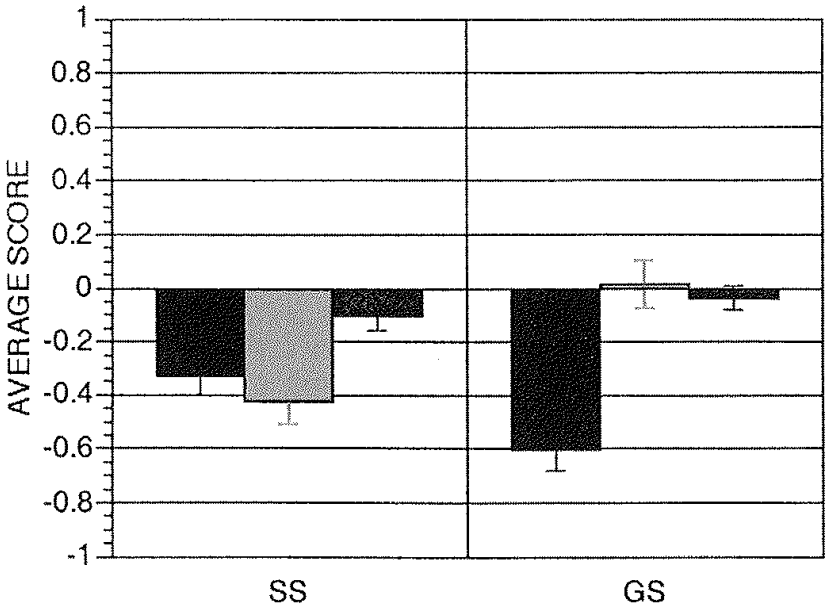

Figure 19.1
Average subject approval rating of the target (black histogram), the speaker (light-shaded histogram), and the listener (dark-shaded histogram), for fictional gossip episodes in which the speaker is self-serving (SS) or responding to the violation of a social norm (group-serving, or GS) Male and female scores were not statistically significant and are combined for analysis.

Although some people might regard asking questions in class as a violation of a social norm, we assumed that most would interpret Jane's comments as blaming others for her own poor performance. Eighty-four undergraduate students (23 males, 61 females) read one version of the story and were asked to indicate the degree to which they approved of the speaker, the listener, and the target of the gossip on a scale from "highly disapprove" (−1) to "highly approve" (+1). Figure 19.1 shows that response to negative gossip is indeed context-sensitive, as we had predicted. Self-serving gossip damaged the reputation of the gossiper even more than the target of the gossip. When the gossip was about a rule-breaking event, the target was judged extremely harshly but the evaluation of the speaker was neutral. The difference in the evaluation of the speaker between the two treatments is highly significant (ANOVA, $df = 1$, $SS = 16.29$, $F = 12.83$, $p = .0006$).

Our second experiment consisted of five fictional gossip episodes patterned after Ellickson's study of cattle ranchers. Each version was divided into two parts, corresponding to the events leading up to the gossip and the gossip itself. The first version was intended to represent the "truthful negative gossip" that ranchers actually employ against their neighbors who refuse to mend fences.

Part 1. Shasta County, California, is cattle ranching country. The ranches have been passed from father to son for many generations and the ranchers almost always settle their disputes among themselves rather than using formal legal procedures. The Jim Turner ranch is well known for its careless management. In 1967, some of Jim Turner's cattle broke their fence and started grazing the land of one of Jim's neighbors, Tom Stark. Tom's first response was to call Jim's ranch to inform him of the problem, but his calls were not answered. Tom's second response was to visit the Turner ranch in person. Jim met Tom at the door and said he would retrieve the cattle but did not invite Tom inside. A week after the incident began, the cattle were still not retrieved.

Part 2. The next day, Tom sat down with a group of other ranchers at a local diner and felt like airing his complaint against Jim. They had the following conversation.

Tom: Jim Turner is at it again.

Another rancher: What do you mean?

Tom: His cattle broke my fence and have been grazing my land for a week and he hasn't done anything about it!

Ellickson's emphasis on *truthful* negative gossip suggests that false or gratuitous negative gossip might damage the reputation of the gossiper, even when provoked by the violation of a norm. We tested this hypothesis in a second version of the story by adding a single sentence to Tom's final speech: "I'll bet he spends too much time getting drunk to think about mending fences!"

It might seem that the most honorable form of policing would take place *in the presence of the rule-breaker*. We tested this hypothesis in a third version by changing part 2 of the story as follows:

Part 2. The next day, Tom sat down with a group of other ranchers that included Jim Turner at a local diner and felt like airing his complaint against Jim. He began the following conversation.

Tom: Jim, perhaps you would like to explain to all of us here why you haven't done anything about your cattle that broke my fence and have been grazing my land for a week.

Another possible course of action for Tom would be to remain silent. This might seem especially noble, but it would also leave the problem unresolved. Boyd and Richerson (1992) have shown that effective policing requires what they call *higher-order punishment*, in which failure to enforce social norms itself violates the norms and is subject to punishment. We therefore predicted that at least some subjects would judge Tom harshly for *failing* to gossip, which we tested in a fourth version of the story by altering part 2 as follows:

Part 2. The next day, Tom sat down with a group of other ranchers at a local diner and felt like airing his complaint against Jim, but decided to remain silent.

These four versions examined differences in how a person might respond to a norm-breaking event. The fifth version altered the story to make the gossip self-serving, although the specific content of the gossip remained truthful.

Part 1. Shasta County, California is cattle ranching country. The ranches have been passed from father to son for many generations and the ranchers almost always settle their disputes among themselves rather than using formal legal procedures. In 1967, some of Jim Turner's cattle broke their fence and started grazing the land of one of Jim's neighbors, Tom Stark. Tom's first response was to call Jim's ranch to inform him of the problem, but his calls were not answered. Tom's second response was to visit the Turner ranch in person, where he discovered that Jim was out of town and his ranch manager was in the hospital with a broken leg. Jim apologized to Tom, retrieved his cattle, and mended the fence as soon as he returned from his trip, a week after the incident began.

Part 2. Several months later, both Jim and Tom ran for the office of county sheriff. Tom had the following conversation with some other ranchers at a local diner.

Tom: Jim's a good man but sometimes he does things that a neighbor just shouldn't do.

Another rancher: What do you mean?

Tom: Why, his cattle broke their fence and grazed my land for a whole week before he did anything about it!

One hundred and ninety-five undergraduate students (78 males, 117 females) read a single version of the story and were asked to indicate the degree to which they approved of Tom Stark's conduct during part 2 on a scale from "highly disapprove" (−1) to "highly approve" (+1). The subjects were also asked to provide written comments on their reaction to the story. An important interaction with gender emerged in this study, so results for males and females are shown separately in figure 19.2. Confirming the results of the previous study, self-serving gossip was judged far more harshly than gossiping in response to the violation of a social norm (compare SSG with the other four treatments in figure 19.2; for the comparison between SSG and TNG, $n = 79$, $df = 1$, $SS = 184.51$, $F = 49.09$, $p = .80$ E-09). A typical verbal comment on the truthful negative gossip version was: "He had a right to complain to others." A typical comment for the self-serving gossip version was "Tom's conduct in part 2 was completely inappropriate—he only told part of the story of what occurred."

In addition, subjects reacted to the details of gossip in response to the violation of a social norm. Supplementing truthful negative gossip with a single pejorative sentence significantly decreased the reputation of the gossiper (compare TNG with FNG in figure 19.2; $n = 82$, $df = 1$, $SS = 21.98$, $F = 5.32$, $p = .023$). The verbal comments left little doubt that the subjects were holding the gossiper to a high moral standard. One wrote, "The way that Tom responded in part 2 was certainly less than appro-

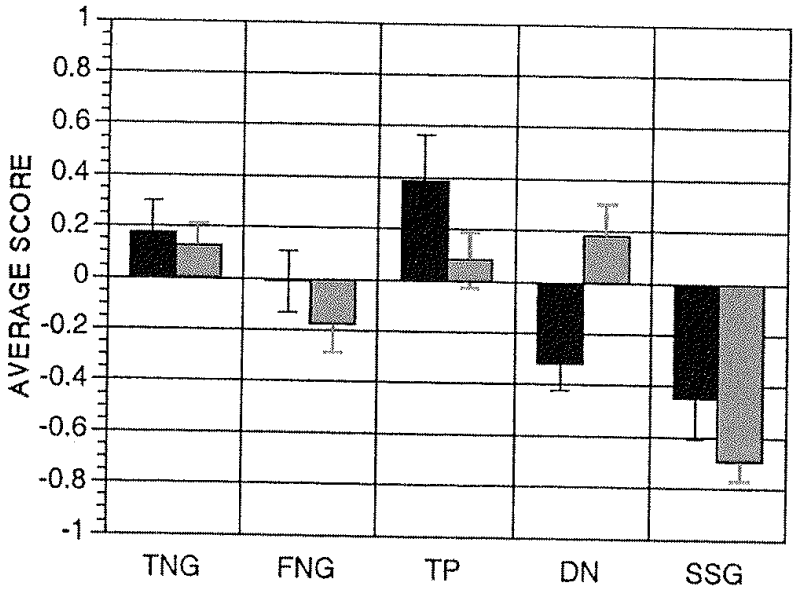

Figure 19.2
Average approval rating by male subjects (black histogram) and female subjects (shaded histogram) for five gossip scenarios: TNG, truthful negative gossip in response to a norm violation; FNG, false negative gossip in response to a norm violation; TP, speaking with the transgressor present in response to a norm violation; DN, remaining silent (doing nothing) in response to the norm violation; SSG, self-serving gossip episode.

priate, since he had no grounds to base his claim of drunkenness. The fact that he voiced his opinion to the other ranchers, however, could serve to help bring Jim back into the right through pressure of his peers." It would be hard to improve upon this comment as a statement of our own hypothesis!

Discussing the problem in the presence of the transgressor was *not* rated more highly than discussing it in his absence (compare TNG with TP; $n = 85$, $df = 1$, $SS = .097$, $F = .019$, $p = .89$). Some subjects did feel that it was better not to "talk behind someone's back," but others felt that raising the issue to his face in front of others was too confrontational and might escalate the conflict.

Remaining silent was strongly disapproved by male subjects but not by female subjects (compare TNG with RS; $n = 84$, $df = 1$, $SS_{TRT} = 15.51$, $SS_{SEX} = 16.95$, $SS_{TRT \times SEX} = 25.31$, $F_{TRT} = 3.67$, $F_{SEX} = 4.01$, $F_{TRT \times SEX} = 5.99$, $p_{TRT} = .058$, $p_{SEX} = .048$, $p_{TRT \times SEX} = .016$). A typical comment from a female was "Tom Stark did the right thing [in part 1], although he didn't say anything in part 2 when most people would have. The problem is between Tom and Jim, no one else, but if Jim still does not cooperate, then either the law should be informed or Tom should tell the other ranchers to ask for their opinions or help in how to deal with Jim." Even

this person thought that talk would eventually be appropriate to deal with the problem. A typical male response was "Plain and simple he should have told about the problem to warn other ranchers about Jim Turner." For this person and for many other subjects, *failing* to gossip violated a social norm.

To summarize, our second experiment confirmed and extended the results of our first experiment, even though it occurred in a completely different social setting (male cattle ranchers vs. female undergraduate students). Self-serving gossip was judged highly inappropriate. Gossiping to enforce a social norm was judged appropriate, but only when done in a responsible manner. Approval of truthful negative gossip equalled or exceeded all the other courses of action, including remaining silent.

Our third experiment examined context sensitivity with respect to the quality of information with eight versions of the following story.

Pat and Adrian are both teaching assistants for Professor Wright's physics class. Professor Wright is a brilliant scientist whose involvement with his work has given him the reputation of an "absent minded professor." He relies on his TA's to keep his class in good running order. After an exam, Pat approaches Adrian for advice.

Pat: A student cheated on the exam. Do you think that I should tell Professor Wright?

Adrian: How do you know that he cheated?

Pat: I saw him do it.

This story describes a situation in which it is clearly important to know the facts of the matter. Four versions of the story were prepared in which Pat was an eyewitness to the event ("I saw him do it"), a trusted friend reported the event ("A very good friend of mine told me that he saw him do it and I know that he wouldn't lie about something like that"), two unknown students reported the event independently ("Two different students approached me after the exam and told me that they saw him do it"), or one unknown student reported the event ("Another student told me that he saw him do it"). If people are sensitive to the quality of information, they should regard an eyewitness account as more believable than hearsay. When evidence is based on hearsay, they should be sensitive to the number and trustworthiness of the sources. To create a context in which the quality of information is not important, the dialogue part of the story was changed as follows:

Pat: Did you hear that Professor Wright came to work with his pants on inside out?

Adrian: No way! How do you know that?

Pat: I saw him myself!

The quality of information was also varied for this version of the story, leading to a total of eight treatments. After reading the story, subjects were asked to rate the credibility of the information on a scale from "highly unbelievable" (−1) to "highly believable" (+1). As predicted, sensitivity to the quality of information was context dependent (figure 19.3). The four versions of the cheating story were ranked with respect to credibility in the order eyewitness account (S) > Two unknown sources (2) > One trusted source (T) > One unknown source (1). The difference between the versions was highly significant (ANOVA, df = 3, SS = 8.79, F = 8.96, p = .00003). A multiple comparison of means showed that the major difference was between the eyewitness account and other accounts, which were not statistically different from each other. When the professor was being caricatured, subjects regarded the story as moderately credible but were completely insensitive to the quality of information, with no significant differences among the four versions.

All paper-and-pencil tests in psychological research must be interpreted with caution and cross-checked with other methods to confirm that they correspond to behavior in the real world. Our results are preliminary, but they suggest that people respond to fictional gossip events much as they would respond to gossip in their own lives (e.g., our cattle rancher study compares well with the behavior of actual cattle

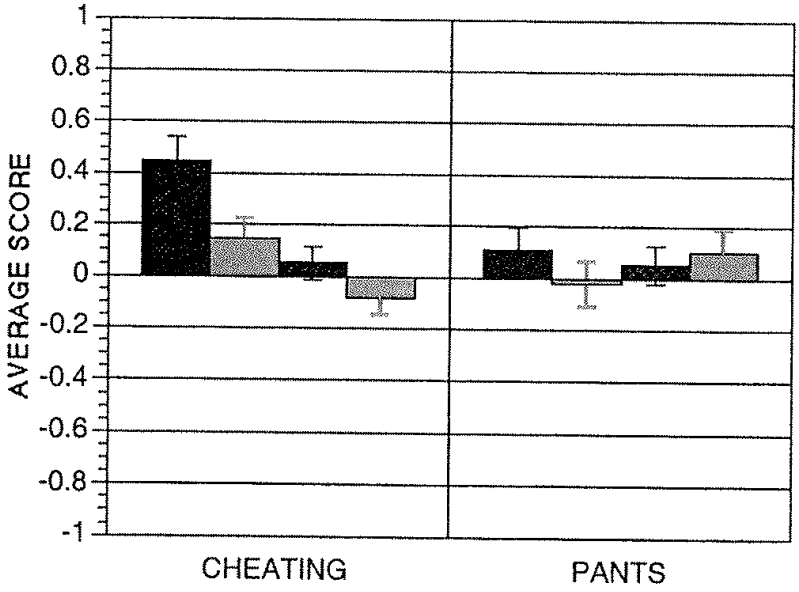

Figure 19.3
Average subject rating for credibility of the information for four versions of two episodes; one in which it is important to know the facts of the matter (Cheating) and one in which it is not (Pants). The four versions are eye-witness account (black histogram), two hearsay accounts (moderately shaded histogram), one hearsay account from a trusted person (darkly shaded histogram), and one hearsay account (lightly shaded histogram). Male and female scores were not statistically significant and are combined for analysis.

ranchers as reported by Ellickson, 1991). If so, then it will be possible to make rapid empirical progress toward understanding the contours of gossip in particular and language in general from a multilevel perspective.

Summary

We have tried to provide both a conceptual framework and an empirical methodology for studying gossip. Our starting point was the longstanding conflict between group and individual-level perspectives that exists, independently, in biology and the social sciences. We showed that effective social control mechanisms allow groups to evolve into adaptive units and that gossip has been reported to function as a social control mechanism in cultures around the world. Methodologically, we explored the use of simple paper-and-pencil tests that have been widely used to study other subjects in psychology but not gossip. We showed that people are easily engaged by fictional gossip episodes whose elements can be systematically varied. They highly disapprove of self-serving gossip but approve of gossiping in response to norm violations, as long as the gossip is conducted in a responsible manner. Indeed, in some contexts, failing to gossip can be more hazardous than gossiping to one's reputation. The results of our experiments agree with descriptive accounts of gossip around the world and show how gossip can function as a social control mechanism without damaging the reputation of the gossiper.

Our study of gossip led to the more general study of language from a multilevel perspective. Language is among the most communal of human faculties, yet the individualistic perspective dominant in the study of human evolution has retarded the study of language as something that evolved to benefit whole groups. We boldly asked what language would look like as the medium of a group mind and predicted context dependent sensitivity to the quality of information. Our prediction was supported by a single experiment. Obviously, we have only scratched the surface of a very large set of subjects, but perhaps sufficiently to show that our conceptual framework, coupled with our simple methods, offers a fertile interplay between hypothesis formation and testing.

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