

2 Paltering

Frederick Schauer and Richard Zeckhauser

TO IMMANUEL KANT (as well as to Aristotle, St. Augustine, St. Thomas Aquinas, and countless others) lying was simply and absolutely wrong.¹ For Kant, the intentional assertion of a knowingly factually false proposition was a morally impermissible act that derived from its incompatibility with the liar's own dignity as a human being. By contrast, others have located the wrong of the lie in its deprivation of the victim's ability to choose and thus of the victim's autonomy.² And still others have assessed lying's impermissibility in utilitarian terms.³ But regardless of whether it be through a focus on the liar, the victim, or the well-being of society at large, we have inherited a venerable tradition that has little hesitance in condemning lying as wrong.

FREDERICK SCHAUER is Frank Stanton Professor of the First Amendment, Emeritus, at the John F. Kennedy School of Government, Harvard University, and David and Mary Harrison Distinguished Professor of Law, University of Virginia. He works on constitutional law, freedom of speech, and the forms of legal reasoning and legal argument. Among his books are: *Free Speech: A Philosophical Enquiry* (1982), *Playing by the Rules: A Philosophical Examination of Rule-Based Decision-Making in Law and in Life* (1991), *Profiles, Probabilities, and Stereotypes* (2003), and *Thinking Like a Lawyer: A New Introduction to Legal Reasoning* (2009).

RICHARD ZECKHAUSER is Frank P. Ramsey Professor of Political Economy at the John F. Kennedy School of Government, Harvard University. A pioneer in the field of policy analysis, he conducts conceptual and policy studies using decision analysis and microeconomics. His most recent (coauthored) books are *Targeting in Social Programs: Avoiding Bad Bets, Removing Bad Apples* (2006) and *The Patron's Payoff: Conspicuous Commissions in Italian Renaissance Art* (2008). His experience with deception comes from playing bridge; he won the 2007 United States Mixed Pair Championship.

Although few nowadays subscribe to the Kantian view in its unalloyed form, lying is still widely considered morally objectionable. Yet despite the virtual unanimity of the view that lying is presumptively even if not absolutely wrong, it is not entirely clear which component of a lie is the principal contributor to the lie's wrongness, or whether one or more of those components is sufficient on its own. To be more precise, we commonly understand a liar to be someone who *intentionally* utters words that he or she knows to be false, where what is uttered is in fact *literally false*, and where utterance of the literally false words produces the *effect* of the listener believing or being likely to believe in the truth of something that is not in fact true.⁴ A lie in its full glory, therefore, involves elements of intent, literal meaning, and effect. When one or more of these elements is missing, we would be hesitant to designate the activity as lying, even though it might in other ways be morally questionable or socially detrimental.

Just as a lie involves the confluence of all three of these elements, so does the absence of all of the three constitute truth telling in its purest form—the sincere assertion of a proposition both believed to be true and actually true, under circumstances in which the assertion either creates or reinforces a belief by the listener in a true proposition. Yet although we can thus distinguish truth telling from lying, numerous statements are, intriguingly, neither lies nor truth tellings. Rather, they make up a universe of morally and socially problematic statements and propositional actions in which one or more of the elements of the genuine lie is missing, but in which one or more of the elements of authentic full-bore truth telling is missing as well. Sometimes we talk about “misstatements,” and sometimes we (or the law) criticize or punish people for “misleading” others, understanding that in such instances we are concerned with the effect on the listener more than with the moral worth of the speaker or the literal meaning of the words used.

Our goal in this chapter is to explore this area of “less than lying” and to focus in particular on the widespread practice of fudging, twisting, shading, bending, stretching, slanting, exaggerating, distorting, whitewashing, and selective reporting. Such deceptive practices are occasionally designated by the uncommon word *paltering*, which the *American Heritage Dictionary* defines as acting insincerely or misleadingly. Although the intended effect of a palter is the same as that of a lie, both the dictionary definition and everyday usage of related ideas make a palter somewhat troublesome while still less than a full-fledged lie. More specifically, the palter falls short of being a lie in two important dimensions.

First, the palter may not be literally false. One of us is a furniture maker and is known by his friends to be a furniture maker. When a friend comments on the excellent workmanship of a store-bought desk in his office and he responds by saying “thank you,” he has paltered, because he has left the false impression that he made the desk himself, even though none of his words said so explicitly.⁵ Relatedly, and more commonly, paltering is somewhat more active and creative. The other of us is a tournament bridge player. When asked about his successes, he might remark: “When I played in the World Pairs Championship recently, we got to the finals,” intentionally omitting mention of the fact that in pairs tournaments a sizable fraction of the pairs—10 percent in this case—reach the finals, and omitting mention as well of his more frequent worse results. Thus the typical palter achieves its misleading effect without the use of literal falsity.

In addition to not relying on literal falsity to produce its misleading effect, the typical palter, like the ones just noted, often seems at least slightly less harmful than the typical lie. We treat palters as sometimes unfortunate and sometimes not, but to accuse someone of paltering—even assuming he knows what the word means—falls short of calling someone a liar. Indeed, in many cases we make no charge at all against the palterer, in part because we are embarrassed to have been fooled, but in part because the Kantian legacy has left a residue of belief that the lack of literal falsity is indicative both of lesser harm and of a lesser wrong.

Although palterers often escape unscathed and even uncriticized, part of our claim in this paper is that it is nevertheless a mistake to regard palters as generally harmless or near harmless. Often a particular palter seems as wrongful as would a lie in the same or similar circumstances, and often its consequences are as severe. Indeed, the expected harm of a particular palter may occasionally be greater than the harm of a similar lie, *ceteris paribus*, just because palterers are more likely than liars to escape detection. And insofar as a particular palter, even if detected, is less likely to be subject to either legal or nonlegal blame, the expected harm may again on occasion exceed the expected harm of an analogous lie. These factors together suggest that the use of a palter is often as reprehensible as the use of a lie, and perhaps at times more so just because choosing to palter rather than to lie, assuming equivalent intent to deceive and equivalent harm to the victim, is typically a much safer strategy.

Given that the expected punishment of a palter is typically minimal, it is no surprise that paltering is widespread, and although a tally would be difficult to prepare, we would conjecture that the aggregate palters in the world do

more harm than the aggregate lies, precisely because they are underpunished and underdeterred as compared to pure lies and hence are widely employed. In addition, palters are likely to be common relative to lies because, although there may be only one way (or just a few ways) to lie about a proposition, there are many ways to palter. Palters can abound therefore, even when effective lies are likely to be relatively rare.

In seeking to explore the dimensions of paltering, this chapter is motivated by our belief that individual palters are not only often more harmful than lies, but also that paltering in the aggregate is almost certainly much more common than lying. Yet the fact that paltering exists largely outside of the reach of the law, and indeed often outside the reach of the harshest of nonlegal social sanctions, may explain why it has not been well studied. If paltering is as harmful and as widespread as we believe, however, and if the typical palter leads the recipient—the palteree, if you will—to have an incorrect perception of reality, then the omnipresence of paltering may in fact be more of a social problem than many people suppose. This chapter thus aims to explore the practice of paltering, alongside of and in contrast to its cousin lying, and to examine the various ways in which the two activities might be controlled.

Definitional Preliminaries

Bearing in mind the three-part definition of the genuine lie as involving (1) an intent to deceive, (2) the use of words that are literally false, and (3) the presence of a recipient who is caused by the lie to have a misimpression of reality, we can hypothesize the relaxation of one or two of these three components.⁶ If we relax the requirement of intent, we wind up with the category of statements in which speakers say something they erroneously believe to be true, in which that belief leads them to say things that are literally false, and in which those false statements lead listeners to have a false view of some actual state of affairs. Under many accounts, for example, the statements of President Bush about Iraqi weapons of mass destruction fit this characterization, for it is unlikely that he actually knew there were no weapons of mass destruction at the time he announced that they existed. Although the president might be charged with making a negligent misstatement, and thus with being somewhere between slightly and highly imprudent, we would not, contemporary political hyperbole aside, normally call the unintentional misstatement a lie, no matter the degree of negligence or recklessness. This requirement of actual

intent to deceive is consistent with the common law of fraud, at least in its purest traditional form, which requires that there be some actual intent to mislead in order to support legal liability.⁷ When the actual intent to deceive is missing, there is no fraud and there is no lie.

The unintentional misstatement does not amount to fraud in law, even when the other requirements of fraud are satisfied, but there are circumstances in which the law does impose other sorts of liability for unintentional misstatements. The common law of libel, for example, made libel (and slander) strict liability torts, such that the mere utterance of a reputation-harming falsehood could support legal liability—even absent the speaker's or writer's knowledge of falsity and, indeed, even absent the intent to harm, and even absent negligence. Similarly, various aspects of the securities, consumer protection, and food and drug laws impose liability upon the makers of false statements even where there exists no intent to deceive.

Although the nature of legal liability or moral responsibility for the unintentional utterance of a falsehood on which someone relies to his detriment is an important topic, it is not our topic here. Paltering, as we understand it, is an intentional act, even though the act is different from (although not necessarily less harmful than) lying, and paltering is typically an act intended to mislead or to defraud.⁸ Thus our concern is with a certain form of calculated deception, and not with acts that unintentionally, even if negligently or recklessly, mislead others.

Nor is our concern in this paper presented when the listener is not ultimately led to believe something that is not true. In some circumstances, listeners will understand falsehoods as just that, and then even an intent to deceive coupled with a false statement will still produce no misimpression. This is how, for example, we decode inflated letters of recommendation, or adjust for the nonrepresentativeness of what are described on résumés as “representative” lists of publications. In other circumstances, speakers may exaggerate or distort the truth when they believe a listener's existing beliefs make a clear understanding or evaluation of the unadulterated truth unlikely. For example, parents may overstate the dangers of drinking, driving, smoking, or sex to children who probably would underestimate those dangers.⁹ Such misstatements, intended to compensate for biased inferences, is a category of some interest, but not to us here, largely because, by producing accuracy rather than misperception, they are far from obviously morally, socially, or legally problematic.

Finally, we are not interested here in the genuinely beneficial social lie or white lie. Telling sick people that they are looking better, or saying to our spouses that their clothes are becoming when they are not, or declining an invitation by inventing a prior engagement rather than truthfully expressing distaste for the host are lies, pure and simple, but they are lies whose consequences are either beneficial or at least believed, sometimes *ex ante* and sometimes *ex post*, by the liar as likely to be beneficial. Palters may be employed in the same fashion, and they may receive the same assessment. But while white lies and white palters comprise a fascinating topic, it is again one that we are content to leave to others.

By contrast, our interest *is* in the category in which the second criterion for a lie is relaxed while the first and the third are retained. That is, we are interested in the category of statements in which the speaker intends for the listener to have a misimpression, and in which the listener does wind up with a misimpression as a result of the speaker's statement, but in which the connection between the speaker's intent to deceive and the listener's state of having a misimpression is not the literal falsehood, as in the true lie, but something short of literal or exact falsity. This is the category of the successful palter, and this category will be our primary focus in the balance of this chapter.

Varieties of Paltering

Examples of paltering are widespread. Sometimes paltering seems to occur when people take advantage of vague language, as when a used-car dealer describes a car as a “cream puff,” when a real estate agent describes a location as “prestigious” or “highly desirable,” when a stockbroker describes a new public offering as “hot,” or when a restaurant announces on the menu that its own signature pastrami and cheese sandwich is “famous.” But since almost all of the consumers of such loose exaggerations are well aware of the practice, and consequently accept the vagueness of the language used, it is not clear that vague language by itself, in most circumstances, even qualifies as mild paltering.¹⁰

True examples of paltering, therefore, are the ones that occur when something the palterer says (or does not say) or does (or does not do) is intended to leave the impression that a specific state of affairs obtains, and when the recipient as a result of the palterer's actions or inactions believes that this specific state of affairs obtains, but when in fact the reality is quite different

and perhaps just the opposite. Often the recipient's misimpression is a consequence of failing to correct a wrong impression. People who physically resemble a famous person may be treated better than they would otherwise expect and, knowing what is happening, may simply let the misimpression stand. So, too, with people who share names with famous persons.¹¹ Such examples only scratch the surface, with people often taking advantage of the countless misimpressions that are held by people all around us.

Much more common, however, is creating a wrong impression through deliberate action. PhDs will often make restaurant or hotel reservations as "Dr. So-and-so," hoping in the process to lead the establishment to believe that they are (typically wealthy) physicians and not (typically nonwealthy) academics. Advertisers wishing to draw consumers' attention to the contents of an envelope will frequently put a government warning about tampering with the mail on the outside of the envelope, while also omitting a return address, thus intentionally attempting to create the misimpression that the envelope contains an official letter from a government agency. People will often refer to a famous person by his or her first name, attempting to create the impression of close friendship. The Internal Revenue Service is alleged to deliberately select the period immediately preceding the April 15 tax-filing deadline as the time to initiate tax-fraud criminal prosecutions and to send out routine press releases about audit practices, presumably hoping in the process to lead taxpayers to believe in a probability of audits and criminal prosecutions that is considerably higher than the actual objective probability of those occurrences. Politicians will often take advantage of the availability heuristic by presenting extreme and unrepresentative examples of various problems and benefits—discussing Willy Horton, for example—hoping thereby to lead their listeners into a predictably mistaken generalization.¹² These are but a few examples, but even such a short list should be sufficient to establish that paltering—the deliberate attempt to create a misimpression in someone by means other than by uttering a literal falsehood—is as widespread as it is interesting.

The Political Economy of Paltering

Most people would much prefer to palter than to lie. Perhaps this is due to their upbringing, and perhaps the preference has other causes. Some might even attribute these preferences to evolution or adaptation, as identified (although not necessarily fully endorsed) by Mark Frank (this volume). But whatever the

cause, it is hardly clear why paltering should be thought preferable to lying, or deemed less reprehensible. The law is of course concerned with problems of proof, and thus much of the law's tolerance for paltering is likely less a function of its social acceptability and more a function of the difficulty of proving that paltering has occurred. The current state of the law aside, however, once we understand paltering as involving the same intent as lying and the same effect as lying, and lacking only the exact mechanism of literal falsehood, it is hard to understand why the law, except for the obvious problems of proof involved, would be less concerned with paltering than lying.

Indeed, if we forget about the law for a moment, and just think more generally about the political economy of paltering and lying, we might suspect that paltering is in some sense worse than lying.¹³ Because lies involve literal untruths, they are easy—or at least easier than palters—to identify, whether legally or through loss of reputation. And because lies are easier to identify with some certainty, they are also easier to punish. Conversely, because palters are harder to identify, there is a considerable incentive for those who wish to deceive others to turn to paltering rather than to lying. First, the personal discomfort from paltering is likely to be less than that from lying. After all, no one talks about galvanic skin responses attending the clever misrepresentation. Second, the same problems of proof that may lead the law to be comparatively unconcerned with paltering make paltering easier to get away with than lying, regardless of the law. Those who intend to deceive will thus have multiple incentives to palter rather than lie. But if the harm of the palter is no less than the harm of the lie, then the very fact that it is safer to engage in one rather than another equally harmful act would suggest that it is the safer but equally harmful act—the palter—that is likely to become the greater social problem.

This comparative propensity to palter rather than to lie is likely exacerbated by the way in which many—probably most—people have a somewhat hard time telling a straight (and nonwhite) lie. Whether this reluctance is caused by hardwired moral sensibilities or, more likely, by socially reinforced condemnation of lying as such (George Washington refused to lie about the cherry tree, we were taught,¹⁴ but we were not taught what he might have done had there been paltering options available¹⁵), it seems plain that most of us have developed an internal "reject" button that makes it hard for us to lie. But this internal reject button exists within a psyche that also resists taking actions that are to our detriment, and so the palter often emerges as the self-interested but internally palatable alternative to lying.

Although incentives thus exist for people to palter, it is also likely that the cost of identifying a palter is higher than that of identifying a pure lie, in part because many palters, like President Clinton's statement that "I did not have sexual relations with that woman," have the element of deniability.¹⁶ That is, the palterer can, if exposed, often claim, unlike the liar, to have been misunderstood. Because careful wordings often tend to be misheard in direct hearing—and even more often in secondhand accounts—the palterer gets the benefit of the likely understanding coupled with a defense based on the exact and careful wording that is actually used.

Deniability, combined with the absence of a plainly demonstrable falsehood, thus makes it more costly to identify a palter than to identify a lie. And so, if it is cheap to palter and expensive to identify a palter, and beneficial to palter if undiscovered, we can expect the practice to be widespread. We thus find ourselves with a practice that is often beneficial to those who engage in it, difficult to identify, and hard to penalize through the law and outside the law, all of which combine to make the practice likely to be common. The palter, therefore, presents almost all of the same harms as the lie,¹⁷ but because the lie is easier to identify, easier to penalize with and without the law, and subject to internal controls on its use, it may turn out—surprisingly perhaps—that lying is less common and less of a problem, in the aggregate, than paltering.

Penalizing Paltering

Although neither the law of perjury nor the traditional law of fraud penalizes paltering, the situation is changing. The securities laws, for example, penalize "material" omissions,¹⁸ and in modern times civil penalties for deceit or fraudulent misrepresentation (see Harrington, this volume) cover conduct as well as words and encompass a wide range of nondisclosures, passive acts, half-truths, and evasions.¹⁹ So, too, with crimes of larceny. Obtaining property by false pretenses nowadays covers a broad range of potential targets, and people with larcenous motives to induce false beliefs in their victims—such as the contractor who wants a homeowner to make a substantial advance payment for repairs that are unlikely to be completed, for example—may find themselves subject to legal liability.²⁰

Although the law is broadening, it still remains a narrow and (comparatively) rarely used weapon against paltering. The law indeed has its place, but it often plays a subordinate role in the control of antisocial behavior, espe-

cially when compared to the role played by social norms, informal sanctions, and various other extralegal remedies. (See Fine, this volume.) And because of this, we turn, at least here, primarily to the question of nonlegal remedies for paltering and to the crucial role played by reputation in explaining the dynamics of paltering.

In considering nonlegal remedies, a number of interrelated dynamics come into play. First, the palterer's gains—financial or otherwise—from paltering are likely to be greater where paltering produces more misimpressions. Moreover, the effectiveness of a palter will depend both on how difficult it is to distinguish a palter from the truth and on the percentage of palterers in a given group or society. When distinguishing palters from the truth is difficult, and when the number of palterers is relatively small, paltering is likely to be effective.

Consider the question of frequency. For some activities, like driving in excess of the speed limit, the incentives to break the law vary positively with the prevalence of the activity, because the prevalence reduces the probability of enforcement, and at times even of detection. The driver on the Massachusetts Turnpike who drives at 78 miles per hour (the speed limit is 65) along with scores of others is far less likely to be apprehended than the driver who drives at 78 when everyone else is going no faster than 66. If all motorists were identical, and if prevalence increased attractiveness, there would then be two equilibria: one in which no one exceeded the speed limit, and another in which everyone did. But for other activities, like murder, the incentive to commit the crime is largely independent of the prevalence of the activity. Whether there are more or fewer murders in a given time frame or area is largely irrelevant to the individual murderer.

Unlike speeding, in which frequency increases the incentive to participate, however, and unlike murder, in which the incentive is independent of frequency, paltering is an activity in which the practice becomes less attractive as more people participate. As used-car dealers and rug sellers have come to lament, paltering is far more effective when only a small number of people engage in it. And, indeed, the limiting case is the one in which the behavior is so widely expected (and accepted) that no one is deceived and we do not have paltering at all. But even short of this limiting case, the more common paltering is, the harder it is for the individual palterer, since recipients will set higher standards for accepting some statement as true. A palter will thus be most effective in an environment in which palters are rare, and hence where

recipients are especially likely to be trusting. An individual palterer, therefore, has an interest in there not being much paltering.

An additional problem, however, is the way in which this dynamic may limit the effectiveness of sanctions. The reduced ability of sanctions to dissuade the behavior they are directed against—at least in the case of paltering, as we have just seen—will increase an individual palterer's incentive to palter.²¹ The less paltering there is, the more a potential palterer will have an incentive to engage in it, thus limiting the effectiveness of any scheme of sanctions and suggesting that an irreducible positive level of paltering is likely.

This dynamic works the other way as well, however, and thus it might initially appear that paltering is to some extent a self-enforcing, self-limiting, and self-correcting activity. The more paltering there is, the higher the cost (greater probability of detection, more elaborate palters necessary to produce the same effect, and so on) of engaging in it, and thus paltering might appear to some people to be a problem that can, at least to a significant degree, take care of itself. It will not go away, but it may be inherently self-limiting and thus not in need of external sanctions in order to keep its incidence to manageable proportions.

Although at the extremes such self-limitation may be expected to occur, short of the extremes there is a familiar coordination problem: a problem exacerbated because paltering often cuts across preexisting social or professional groupings and to a lesser extent within the groupings, and individual palterers will have an interest in there being less paltering so that their own palters will be more effective. When one palters, one is more likely to be trusted when everyone is trusted than when some are not trusted (see Möllering, this volume, and also Glenney, this volume, who makes a similar point with respect to military deception). Thus the best palter of all is the first in any given arena. But this dynamic affects everyone, at least on the assumption that there is a bit of the palterer in each of us. Without external enforcement of some sort, therefore, no one will have an incentive not to palter, but everyone will have an incentive to have others not palter, and it is precisely in this situation when outside help is most needed. If this outside help takes the form of punishment, the palterers who are punished will clearly be worse off and the world will be better off. Even if there is a cost to punishment, it will typically be the case that the loss to the palterer will be greater than the loss to the punisher, which is why the incentives encourage gossip and other forms of reputation-damaging sanctions against palterers.

Before turning to an analysis of the externalities that have been hinted at among players, we should identify the three reasons why a society—comprised of senders and receivers, with many players in both roles—should want fewer palterers in its midst. First, the senders do not like palterers because paltering makes it harder to be believed themselves. Second, receivers do not like palterers because it makes them more likely to be deceived. And third, any instruments designed to ameliorate the effects of paltering—either by enabling senders to demonstrate that their statements are whole truths, or receivers to discern the truthful essence of a statement—will come with costs of employing them. These costs will rise as the number of palterers increases.

In assessing various approaches to outside help, which in this context would consist largely of calibrated social sanctions, we need to focus on two kinds of errors. In doing so, we can first put ourselves in the shoes of an individual confronting someone who makes a statement that may or may not be a palter. In this situation, to borrow the language of statistics and decision theory, the Type II error will be in believing someone who is paltering. And the Type I error will be in not believing someone who in fact is telling the whole truth. Obviously, there are degrees of truth and untruth and degrees of believing and nonbelieving, but we will stick to this simplified form of presentation.

Now imagine we have an environment, call it World A, in which one hundred people each deliver one message every day. And to simplify further, imagine that in World A another, distinct group of one hundred people each receive one message every day. Now assume that a 5 percent chance exists in World A that any given message is a palter, perhaps because all of the message deliverers palter 5 percent of the time, or because 95 percent never palter and 5 percent always palter. Whatever the cause, any individual message is 5 percent likely to be a palter. The task of the message recipient is to make a decision under these conditions about whether to believe a given message.

Assume that if the recipient accepts all messages at face value, he will make 5 percent Type II errors and no Type I errors. If the recipient scrupulously sorts all of the messages in order to exclude those that could conceivably be palters, assume that he would screen out all of the palters but also 10 percent of the truthful messages. Thus he would make no Type II errors and 9.5 percent (95% x 10%) Type I errors.²²

Now let us move to another society, which we will call World B. In World B, assume that 10 percent of the statements are palters, and only 90 percent are

truthful. A recipient who accepts all statements in World B will thus make 10 percent Type II errors. And if the recipient rejects all even slightly suspicious messages, she will make 9.0 percent (90% x 10%) Type I errors. Thus the recipient's possible trade-off rate between Type II and Type I errors is greater in World B than it was in World A. She should be more skeptical and disbelieve more messages. Using this more formal analysis, therefore, we can see why it is that the honest used-car salesman, like the midnight stroller in a neighborhood plagued with burglaries, is at a particular disadvantage. Ultimately, of course, the enhanced doubting by receivers in World B would feed back to affect the behavior of senders.

Recall P. T. Barnum's statement that "there's a sucker born every minute." Assuming that Barnum was right (we are confident that his estimate was actually on the low side), he was smart enough to recognize that a plentiful supply of suckers would make being a huckster more attractive. Barnum's implicit model was based on two types of receivers, suckers and sophisticates, where sophisticates knew how to avoid being taken in by a palter. Barnum, who was particularly smart in these matters, was presumably interested in the ratio of suckers to hucksters, hoping for a higher ratio. Thus if the supply of suckers increased, the returns to hucksters would increase. But this, in turn, would stimulate the supply of hucksters, leading to a falloff in business, and eventually an equilibrium would be reached.

If switching from being an honest sender to being a huckster were costless, the ultimate returns to both suckers and hucksters would be the same as before the suckers were born, and nothing would have changed. Thus Barnum was obviously interested in a world containing many suckers and few hucksters, and his interest in there being fewer hucksters was not just about being able to divide up the pie into fewer sections. Rather, it was primarily in his interest in raising the returns of huckstering, which would result from there being fewer hucksters to increase wariness among suckers and fewer sophisticates who could costlessly detect hucksterism. As long as the ratio of suckers to hucksters remained high, Barnum would do very well. And what is interesting is that this is a world in which society would also benefit. A world in which a small number of hucksters preying on a large, basically trusting population that is rarely fleeced is, under reasonable empirical assumptions, probably a better world than one in which a large number of hucksters seek to fleece an equivalent number of wisened-up potential suckers. Thus a world with fewer hucksters, even if it contains fewer older but wiser suckers, would be a world

with few actual fleecings. The task, then, is to devise strategies for getting to this better world and avoiding the worse one. And the goal is certainly to avoid the worst world, one in which a large number of hucksters serially fleece the same suckers, suckers who rarely learn from their own bad experiences.²³

Chief among the strategies for getting to this better world is likely to be one focusing on reputation. Although the law may have a role to play, and although direct condemnation—"You dirty palterer!"—can occasionally be valuable, we believe that reputational mechanisms that spread condemnation, and hence raise the expected costs of paltering, are more likely to be effective. To be caught in a serious palter may not hurt much, but to be caught in half a dozen may truly tarnish a reputation. The businessman of yesteryear, who could establish that "my word is my bond," had a reputation that protected against both lying and paltering. The more a society rewards those who scrupulously avoid harmful palters and are known as straight shooters, the more important it will be for people to avoid being known as even minor palterers.

We do not think it wise for reputational enforcement to rely (even if it could) on brittle barriers, in which reputations would remain good in the absence of harmful palters, and would turn bad if but one were detected. Reputational enforcement needs to be more flexible than this. That is partly a function of the fact that all of us would probably like to palter a bit, and also partly of the fact that, given current standards, all of us probably palter from time to time. But more important, it is frequently difficult to determine whether a statement is a palter. Between Type I errors (rejecting a truthful statement as a palter) and Type II errors (responding to a palter as if it were the truth), optimal detection will lead to some Type I errors. Thus sending someone to the gallows for a single detected palter will be undesirable. But over the longer term, particularly if perceived palters to one individual are passed on to others, it should be easy to distinguish the palterer from the truth teller.

The need for measured drops in reputation is also partly a function of the fact that, as hinted above, the optimal level of paltering may not be zero. Just as there is a line between the palter and the lie, and between the palter and the truth, so too is there a line between the harmful palter and the beneficial white lie or, to keep the parallelism, between the harmful palter and the white palter. If there were no paltering, especially in a world of uncertainty about the line between the palters that are harmful and those that are beneficial, there might be too much blunt and harmful truth, and thus the optimal level of paltering, although likely low, is also unlikely to be zero.

The task then is to imagine a reputational mechanism that recognizes that people will be deterred from paltering not primarily by the inner voice that tells them not to, because there are also inner voices telling us that sometimes it is good for us to palter even if it is not good for society that we do so. Indeed, some of us get a sneaky but good feeling from fooling others, partly because a palter requires more ingenuity than a lie. Moreover, still another voice is telling us that some palters are socially beneficial and that this might just be one of them. Under these circumstances, the fear that we will be regarded poorly by others or that others will not deal with us can prove to be a much more significant regulatory mechanism than self-policing.

How might such a regulatory mechanism work? Leaving to others (Farid, this volume; Hancock, this volume; Thompson, this volume) the very important question of how modern technology may be as important for controlling deception as for facilitating it, we focus here on what a regulatory approach would seek to achieve, and how—whether through technology, incentives, or simply altered awareness of the problem. First, a regulatory approach must separate and sanction most severely the intentional palterers, leaving the negligent or innocent palterers for different forms of punishment. Let us focus, then, on the palterers that we most want to limit, the self-interested intentional palterers that are meant to and in fact will hurt others. Even for these, the reputational repercussion cannot simply be one that imposes large penalties in a small number of instances. Although such strategies seem appealing in theory, low enforcement/high penalty regulatory strategies tend to work least well when the high penalties are socially unacceptable.²⁴ And high penalties are socially unacceptable in this context for a variety of reasons. One is that there is a bit of the palterer in each of us, and the line between self-interested palterers and harmless ones is not easy to draw. Is it wrong, for example, and, if so, how wrong, to enhance our own athletic accomplishments in order to impress a member of the opposite sex? People tend to be comfortable with imposing heavy penalties for crimes that they themselves cannot imagine committing, but when it is a socially harmful activity that they can see themselves doing—driving under the influence is the classic example of a socially harmful activity that is underpenalized because of the “there but for the grace of God” phenomenon—the willingness to punish heavily is severely weakened.

Moreover, it is considered bad form to mistakenly accuse someone of being less than honest. This is well known to students who ask for extensions on final papers for reasons of computer failure, death of a grandparent, and

the like. Although the student knows that the story is false (these, by the way, are typically lies and not palters), and knows that the teacher knows that the story is likely false, the student also knows that the penalties to the accuser for making a false accusation of dishonesty are high. Few teachers want to accuse the student of dishonesty only to be presented with a death certificate for the student's deceased grandmother, or the dated repair bill for the computer, or the verified record of a genuine medical emergency. Thus under conditions of uncertainty, even suspicious conditions, we often do not accuse when an accusation is merited, and for similar reasons we often are unwilling to impose severe reputational penalties even when they appear to be justified.

Thus the imposition of reputational penalties is impeded by the way in which imposition of such punishment can cost the punisher as well as the punishee, by the fact that the optimal level of paltering is above zero, and by the fact that our universal desire to palter now and then makes us squeamish about heavy penalties. The task, therefore, is to devise a system of social or reputational sanctions for paltering that takes account of the unavailability of the theoretically efficient high-penalty/low-enforcement devices that might otherwise seem optimal. So if we are restricted to lower-penalty enforcement mechanisms, we are also restricted—unless we are unwilling to be effective—to low-penalty/high-enforcement devices.

Such devices are hardly rare. Indeed, the typical parking ticket is a classic example, even if we assume (counterfactually in some locations) that the law enforcement goal is to minimize the activity rather than to maximize revenue. In the context of paltering, therefore, the task is to imagine a set of reputational sanctions that is the equivalent of the parking ticket. That is, the sanctions should be easy to apply, but not so costly that they would not be applied. Gossip is one such sanction that comes to mind. But gossip, itself appropriately regulated by second-order social norms penalizing loose gossip, can be a useful first-order social norm in the control of antisocial behavior. Gossip can be a powerful social deterrent; while a single item of gossip will rarely have a serious negative effect, multiple tidbits will transform gossip into large-scale reputational penalties. Some jurisdictions raise the marginal cost of parking tickets as they accumulate during a year, just to discourage those who regard parking fines basically as a convenience that save money on average, or as a beneficial trade-off between ease of parking and money. Such an escalation scheme thus separates the true scofflaws from those who accidentally overstay the meter's limit. So, too, one item of gossip about a palterer may do little, two

items may do some harm but not too much, and three or more may produce a widespread reputation for dishonesty. Such an approach is quite consistent with rational decision making, given the occurrence of multiple events, each of which would be low probability, given good behavior.²⁵ Similarly, an extremely harmful palter would incur a large reputational penalty. Thus if reputations spread fluidly, then appropriately directed and regulated gossip about palterers may succeed in imposing large deterrents on serial palterers, but only small deterrents and penalties on those who occasionally palter.²⁶ If properly calibrated, this might well achieve the optimal result of aligning the societal interest in limiting large-scale paltering with the individual tendency in almost everyone to occasionally fall prey to the temptation to palter.

account both the cost of doing so and the benefit that will come from the response of the signal receiver. This choice need not be a conscious decision or calculation on the part of the signaler; it can be a decision rule that is encoded by the genes and tuned through the action of natural selection. Relative to weak individuals, strong individuals can bear greater handicaps at lower costs, and so they will choose to produce larger ornaments. As a result, handicap size serves as a reliable signal of strength—and thus the receivers' preference for large handicaps is justified.

16. C. T. Bergstrom, S. Számádó, and M. Lachmann, "Separating Equilibria in Continuous Signalling Games," *Philosophical Transactions of the Royal Society of London* 357 (2002): 1595–606.

17. Nur and Hasson, "Phenotypic Plasticity"; M. Lachmann, S. Számádó, and C. T. Bergstrom, "Cost and Conflict in Animal Signals and Human Language," *Proceedings of the National Academy of Sciences, USA* 98 (2001): 13189–94.

18. C. T. Bergstrom and M. Lachmann, "Signalling among Relatives, Vol. 1: Is Costly Signalling Too Costly?" *Philosophical Transactions of the Royal Society of London Series B* 352 (1997): 609–17.

19. S. Rohwer, "The Social Significance of Avian Winter Plumage Variability," *Evolution* 29 (1975): 593–610; D. P. Whitfield, "Plumage Variability, Status Signalling and Individual Recognition in Avian Flocks," *Trends in Ecology and Evolution* 2 (1987): 13–18; J. Maynard Smith and D. G. C. Harper, "The Evolution of Aggression: Can Selection Generate Variability?" *Philosophical Transactions of the Royal Society of London, Series B* 319 (1988): 557–70.

20. Rohwer, "The Social Significance of Avian Winter Plumage Variability"; S. Rohwer, "Status Signaling in Harris Sparrows: Some Experiments in Deception," *Behavior* 61 (1975): 107–29; A. P. Möller, "Social Control of Deception among Status Signalling House Sparrows *Passer domesticus*," *Behavioral Ecology and Sociobiology* 20 (1987): 307–11.

21. Lachmann, Számádó, and Bergstrom, "Cost and Conflict in Animal Signals and Human Language."

22. Ibid.

23. Ibid.

24. Lachmann and Bergstrom, "The Disadvantage of Combinatorial Communication."

25. P. Hammerstein, ed., *Genetic and Cultural Evolution of Cooperation* (Cambridge, MA: MIT University Press, 2003); C. T. Bergstrom, J. L. Bronstein, R. Bshary, R. C. Connor, M. Daly, S. A. Frank, H. Gintis, L. Keller, O. Leimar, R. Noë, and D. C. Queller, "Interspecific Mutualism: Puzzles and Predictions Regarding the Emergence and Maintenance of Cooperation between Species," in *Dahlem Conference Report: Genetic and Cultural Evolution of Cooperation*, ed. S. Bowles and P. Hammerstein (Cambridge, MA: MIT University Press, 2003).

26. Resnick and Zeckhauser, "Trust among Strangers in Internet Transactions."

27. C. Anderson, "The Long Tail," *Wired* 12, no. 10 (2004).

28. L. R. Gooding, "Virus Proteins that Counteract Host Immune Defences," *Cell*

71 (1992): 5–7; D. M. Haig, "Subversion and Piracy: DNA Viruses and Immune Invasion," *Research in Veterinary Science* 70 (2001): 205–19.

29. A. Liston and S. McColl, "Subversion of the Chemokine World by Microbial Pathogens," *BioEssays* 25 (2003): 478–88.

30. Not only do viruses practice trickery by spoofing immune signals and fashioning decoy signal receptors, but their very ability to do so has also been acquired by a sort of trickery. In many cases, the genes that the virus uses to tamper with a host's immune system have been stolen from the host species' genome at some earlier point in the virus's evolutionary history. By virtue of replicating within host cells using the host's genetic machinery, viruses have "access" to the full genomes of the host and can incorporate modified versions of host genes into their own viral genomes.

31. The familiar vertebrate adaptive immune system is only one of many immune systems that have evolved in the biological world. For example, bacteria rely on simple immunelike pathways known as restriction-modification systems to detect and destroy viral DNA. Many eukaryotes from yeast to plants to insects use RNA interference (RNAi) as a form of intracellular immune response against viral infection. Plants and animals have evolved diverse and extensive mechanisms of innate immunity. Some immune systems even operate at the colony level: in addition to their individual immune systems, social insects use smell to distinguish between members of the colony and potentially dangerous outsiders.

32. C. T. Bergstrom and R. Antia, "How Do Adaptive Immune Systems Control Pathogens while Avoiding Autoimmunity?" *Trends in Ecology and Evolution* (January 2006).

33. Ibid.

34. R. C. Dorf and R. H. Bishop, *Modern Control Systems*, 10th ed. (Upper Saddle River, NJ: Prentice Hall, 2004).

35. H. Kitano, "Computational Systems Biology," *Nature* 420 (2002): 206–10.

36. S. Kaeck and R. Ahmed, "Memory CD8+ T Cell Differentiation: Initial Antigen Encounter Triggers a Developmental Program in Naive Cells," *Nature Immunology* 2 (2001): 415–22; R. Antia, C. T. Bergstrom, S. Pilyugin, S. M. Kaeck, and R. Ahmed, "Models of CD8+ Responses. 1. What Is the Antigen-Independent Proliferation Program?" *Journal of Theoretical Biology* 221 (2003): 585–98.

37. C. T. Bergstrom and R. Antia, "How Do Adaptive Immune Systems Control Pathogens while Avoiding Autoimmunity?" *Trends in Ecology and Evolution* (January 2006).

NOTES

Chapter 2

1. Immanuel Kant, "On a Supposed Right to Tell Lies from Benevolent Motives," in *Kant's Critique of Practical Reason and Other Works on the Theory of Ethics*, ed. Thomas K. Abbott (London: Longmans, Green, 1898); Immanuel Kant, in *The Metaphysics of Morals*, ed. Mary Gregor (Cambridge: Cambridge University Press, 1996); Aristotle, *Nicomachean Ethics* Bk. IV (1127a): 28–30; Augustine, "Against Lying," in

Treatises on Various Subjects, ed. R. J. Deferrari (New York: Fathers of the Church, 1952); Thomas Aquinas, *Summa Theologiae*, vol. 41 (2a2ae 110): 3.

2. Sissela Bok, *Lying: Moral Choice in Public and Private Life* (New York: Pantheon Books, 1978).

3. Jeremy Bentham, *The Theory of Legislation*, ed. C. K. Ogden (New York: Harcourt, Brace, 1931), 170.

4. The effect is typically produced by the victim's belief in the sincerity of the liar's assertion, and so we might include this belief by the victim as a separate component of what constitutes a lie.

5. Or consider the situation, one that most academics have experienced, in which a smiling and grateful student announces that she has been offered the job or place in graduate school for which she thinks you have recommended her, when in fact you have still not gotten around to writing the letter. When you respond by saying that you are happy for her, or even "you're welcome," you have paltered, even though you have not lied.

6. Causation would be less important to a Kantian liar-focused account of the wrong of lying, but we believe it relatively noncontroversial under most other accounts to maintain that a lie derives part of its wrongfulness from the actual way in which it causes a recipient either to come to false belief or to be reinforced in a false belief.

7. Larry Alexander and Emily Sherwin, "Deception in Morality and Law," *Law and Philosophy* 22 (2003): 393–450.

8. When houses are sold in Cambridge, Massachusetts, it is now the norm that the seller is asked to respond to a questionnaire. One question is whether the house has leaked recently. But consider a response of "A few years ago, during that very rainy summer, there was mild seepage into the basement, perhaps a cup of water overall." If the roof has been leaking since then, however, this would be a palter. The potential buyer will not be suspicious, but leaving the question blank would raise suspicions, and stating explicitly that there were no roof leaks would be actionable.

9. We acknowledge, but nevertheless bracket, the agency problem in the example, such that the parent is trying to get the child to make the decision that the parent would prefer, and not necessarily the decision that even a well-informed child would make.

10. And especially so when the role of the person making the statement—car dealers, carpet salesmen, and so on—causes recipients of the messages to have their antennae up.

11. Robert Solo was a well-regarded economist at Michigan State University who undoubtedly had many temptations to use palters of omission when people were impressed upon meeting him because of the similarity of his name to that of the considerably more famous Robert Solow of MIT.

12. Amos Tversky and Daniel Kahneman, "Judgment under Uncertainty: Heuristics and Biases," *Science* 211 (1974): 1124–30; Amos Tversky and Daniel Kahneman, "Availability: A Heuristic for Judging Frequency and Probability," *Cognitive Psychology* 5 (1973): 207–32.

13. See Thomas Lutz, this volume, who also addresses the social impact of mis-

leading or false actions and words. For example, he observes that having his then-girlfriend see through his crocodile tears was important to their relationship.

14. It may be that the very teaching of this tale about George Washington itself involves some paltering. Teachers and parents suspect the story may be apocryphal, but they resolve the uncertainty in the way that assists the lesson they wish to impart, rather than in the way they believe most likely true.

15. The tree might have had a disease, for example, a disease that young George could have accurately described in order to avoid the fact that, disease notwithstanding, he chopped down the tree just for fun.

16. Clinton obviously miscalculated on this occasion, partly because he may have overestimated by orders of magnitude the number of people who would treat oral sex and sexual relations as different categories. Even so, Clinton still had the implausible but not completely impossible defense that he thought of the two as falling in significantly different categories, and therein lies the core of the idea of deniability.

17. Among these harms are various externalities, especially the way in which both paltering and lying tend to hurt people who do not engage in the practice. The more untruths that are told, the harder it is for the truth teller to be believed, as any honest used-car dealer or carpet salesman will tell you. Honest people must then either suffer the consequences of not being believed or spend additional resources—such as hiring intermediaries, offering special warranties, or paying for inspections—in order to be believed. Yet their counterparts in professions where liars and palterers are scarce face no such costs.

18. Section 12(2) of the Securities Act of 1933, for example, prohibits not only making an "untrue statement of a material fact," but also the omission of "a material fact necessary in order to make the statements, in light of the circumstances in which they were made, not misleading."

19. See *Restatement (Second) of Torts* §550 (1977) (literally true statements intentionally creating misimpressions); §527 (partial truths); see, generally, W. Page Keeton, Dan B. Dobbs, Robert E. Keeton, and David G. Owen, *Prosser and Keeton on the Law of Torts*, 5th ed. (St. Paul, MN: West, 1984), 725–38.

20. See *Model Penal Code* §223.3.

21. And so, too, for closely related reasons, for burglary. An increase in burglary in a neighborhood will increase the watchfulness of neighbors, the prevalence of alarm systems, and the frequency of police patrols. Thus the more burglary there is, the harder it is for the individual burglar; and the less burglary that exists, the easier it will be for an individual burglar to burgle undetected.

22. Of course, the trade-off rate is likely to increase with the intensity of rejection, because heterogeneity almost certainly exists among messages. Thus, some palters are relatively easy to detect, implying that eliminating them would entail few Type I errors. As the costs in Type I errors to avoid Type II errors becomes greater, the possibility curve showing the possible values for the two types of errors bulges toward (is convex to) the origin.

23. This huckster-sucker example points to why, popular conception aside,

retail establishments are very interested in finding out the names and identifying information of people who have declared personal bankruptcy. People in this category may be poor credit risks, but interest rates can offset any potential losses; more important to many retailers is that people who have declared personal bankruptcy are especially likely to be vulnerable to sales pitches and to spend beyond their means.

24. See Frederick Schauer, *Profiles, Probabilities, and Stereotypes* (Cambridge: Harvard University Press, 2003), 311–28.

25. See Frederick Schauer and Richard Zeckhauser, “On the Degree of Confidence for Adverse Decisions,” *Journal of Legal Studies* 25 (1996): 27–52.

26. The success of eBay in promoting trust is due in large part to its system of rating reputations, in which buyers are asked to rate sellers after each transaction and in which reputations are posted. See Paul Resnick and Richard Zeckhauser, “Trust Among Strangers in Internet Transactions: Empirical Analysis of eBay’s Reputation System,” in *The Economics of the Internet and E-Commerce*, ed. M. R. Baye (Amsterdam: Elsevier Science, 2002), 127–57.

Chapter 3

1. Charles Darwin, *The Expression of the Emotions in Man and Animals*, 3rd ed., with commentary by Paul Ekman (New York: Oxford, 1998 [1872]).

2. Mark L. Knapp and Judith A. Hall, *Nonverbal Communication in Human Interaction* (London: Thomson Learning, 2002).

3. Bella M. DePaulo, Deborah A. Kashy, Susan E. Kirkendol, Melissa M. Wyer, and Jennifer A. Epstein, “Lying in Everyday Life,” *Journal of Personality and Social Psychology* 70, no. 5 (1996): 979–95.

4. Maureen O’Sullivan, “The Fundamental Attribution Error in Detecting Deception: The Boy-Who-Cried-Wolf Effect,” *Personality and Social Psychology Bulletin* 29, no. 10 (2003): 1316–27.

5. Hee Sun Park, Timothy R. Levine, Steven A. McCornack, Kelly Morrison, and Merissa Ferrara, “How People Really Detect Lies,” *Communication Monographs* 69, no. 2 (2002): 144–57.

6. Robert S. Feldman, James A. Forrest, and Benjamin R. Happ, “Self Presentation and Verbal Deception: Do Self-Presenters Lie More?” *Basic and Applied Social Psychology* 24, no. 2 (2002): 163–70.

7. Suzanne Hala, Michael Chandler, and Anna S. Fritz, “Fledgling Theories of Mind: Deception as a Marker of Three-Year-Olds’ Understanding of False Belief,” *Child Development* 62, no. 1 (1991): 83–97.

8. Thomas Suddendorf and Andrew Whiten, “Mental Evolution and Development: Evidence for Secondary Representation in Children, Great Apes, and Other Animals,” *Psychological Bulletin* 127, no. 5 (2001): 629–50.

9. Todd K. Shackelford, “Perceptions of Betrayal and the Design of the Mind,” in *Evolutionary Social Psychology*, ed. Jeffrey A. Simpson and Douglas T. Kenrick (Hillsdale, NJ: Erlbaum, 1997), 73–108.

10. Jeffrey J. Haugaard and N. Dickon Reppucci, “Children and the Truth,” in *Cognitive and Social Factors in Early Deception*, ed. Stephen J. Ceci, Michelle DeSimone-Leichtman, and Maribeth E. Putnick (Hillsdale, NJ: Erlbaum, 1992).

11. Paul Ekman, *Telling Lies: Clues to Deceit in the Marketplace, Politics, and Marriage*, 3rd ed. (New York: Norton, 2001).

12. Ibid.

13. Mark Curkiden, “The Lies Have It,” *ABA Journal* 81 (1995): 68–72.

14. Suddendorf and Whiten, “Mental Evolution and Development.”

15. Ekman, *Telling Lies*.

16. Park et al., “How People Really Detect Lies.”

17. Paul Ekman and Mark G. Frank, “Lies That Fail,” in *Lying and Deception in Everyday Life*, ed. Carolyn Saarni and Michael Lewis (New York: Guilford, 1993); John E. Hocking and Dale G. Leathers, “Nonverbal Indicators of Deception: A New Theoretical Perspective,” *Communication Monographs* 47, no. 2 (1980): 119–31.

18. Bella M. DePaulo, James J. Lindsay, Brian E. Malone, Laura Muhlenbruck, Kelly Charlton, and Harris Cooper, “Cues to Deception,” *Psychological Bulletin* 129, no. 1 (2003): 74–118.

19. Bella M. DePaulo, Julie Stone, and Daniel Lassiter, “Deceiving and Detecting Deceit,” in *The Self and Social Life*, ed. Barry R. Schlenker (New York: McGraw-Hill, 1985), 323–70; Paul Ekman, W. V. Friesen, and K. Scherer, “Body Movement and Voice Pitch in Deceptive Interaction,” *Semiotica* 16, no. 1 (1976): 23–27.

20. Stephen Porter and John C. Yuille, “Credibility Assessment of Criminal Suspects Through Statement Analysis,” *Psychology, Crime & Law* 1, no. 4 (1995): 319–31.

21. Udo Undeutsch, “The Development of Statement Reality Analysis,” in *Credibility Assessment*, ed. John C. Yuille (New York: Kluwer Academic/Plenum, 1989).

22. John C. Yuille, *Credibility Assessment* (New York: Kluwer Academic/Plenum, 1989).

23. Miron Zuckerman and Robert E. Driver, “Telling Lies: Verbal and Nonverbal Correlates of Deception,” in *Multichannel Integrations of Nonverbal Behavior*, ed. A. W. Siegman and S. Feldstein (Hillsdale, NJ: Erlbaum, 1985).

24. Ekman, *Telling Lies*.

25. Paul Ekman, “Strong Evidence for Universals in Facial Expression: A Reply to Russell’s Mistaken Critique,” *Psychological Bulletin* 115, no. 2 (1994): 268–87; Paul Ekman, *Emotions Revealed* (New York: Henry Holt, 2003); Nico H. Frida, *The Emotions* (Cambridge: Cambridge University Press, 1986).

26. Paul Ekman, Robert W. Levenson, and Wallace V. Friesen, “Autonomic Nervous System Activity Distinguishes between Emotions,” *Science* 221, no. 4616 (1983): 1208–10; Robert W. Levenson, Paul Ekman, and Wallace V. Friesen, “Emotion and Autonomic Nervous System Activity in the Minangkabau of West Sumatra,” *Journal of Personality and Social Psychology* 62, no. 6 (1992): 972–88.

27. Carroll E. Izard, “Innate and Universal Facial Expressions: Evidence from Developmental and Cross-Cultural Research,” *Psychological Bulletin* 115, no. 2 (1994): 288–99.