

- Buller, D.B., & Aune, R.K. (1987). Nonverbal cues to deception among intimates, friends, and strangers. *Journal of Nonverbal Behavior*, 11, 269-290.
- Buller, D.B., & Burgoon, J.K. (1991, August). *The language of interpersonal deception: Falsification, equivocation, and concealment*. Paper presented at the 4th International Conference on Language and Social Psychology, Santa Barbara, CA.
- Buller, D.B., & Burgoon, J.K. (1994). Deception: Strategic and nonstrategic communication. In J.A. Daly & J.M. Wiemann (Eds.), *Strategic interpersonal communication* (pp. 191-223). Hillsdale, NJ: Erlbaum.
- Buller, D.B., & Burgoon, J.K. (in press). Interpersonal deception theory. *Communication Theory*.
- Buller, D.B., Comstock, J., Aune, R.K., & Strzyzewski, K.D. (1989). The effect of probing on deceivers and truth-tellers. *Journal of Nonverbal Behavior*, 13, 155-169.
- Buller, D.B., Strzyzewski, K.D., & Comstock, J. (1991). Interpersonal deception: I. Deceivers' reactions to receivers' suspicions and probing. *Communication Monographs*, 58, 1-24.
- Burgoon, J.K. (1983). Nonverbal violations of expectations. In J.M. Wiemann & P.P. Harrison (Eds.), *Nonverbal interaction* (pp. 77-111). Beverly Hills, CA: Sage.
- Burgoon, J.K., Buller, D.B., Ebesu, A., & Rockwell, P. (1994). Interpersonal deception: V. Accuracy in deception detection. *Communication Monographs*, 61, 303-325.
- Burgoon, J.K., Buller, D.B., Guerrero, L.K., Afifi, W.A., & Feldman, C.M. (this volume). Interpersonal deception: XII. Information management dimensions underlying types of deceptive messages. *Communication Monographs*.
- Burgoon, J.K., & Hale, J.L. (1988). Nonverbal expectancy violations: Model elaboration and application to immediacy behavior. *Communication Monographs*, 55, 58-79.
- Cappella, J.N., & Greene, J.O. (1982). A discrepancy-arousal explanation of mutual influence in expressive behavior for adult and infant-adult interaction. *Communication Monographs*, 49, 89-114.
- DePaulo, B.M. (in press). Detecting deception. *Current Directions in Psychological Science*.
- DePaulo, B.M., Stone, J.I., & Lassiter, G.D. (1985). Deceiving and detecting deceit. In B.R. Schlenker (Ed.), *The self and social life* (pp. 323-370). New York: McGraw-Hill.
- Fiedler, K., & Walka, I. (1993). Training lie detectors to use nonverbal cues instead of global heuristics. *Human Communication Research*, 20, 199-223.
- Grice, P. (1989). *Studies in the way of words*. Cambridge, MA: Harvard University Press.
- Hopper, R., & Bell, R.A. (1984). Broadening the deception construct. *Quarterly Journal of Speech*, 70, 288-302.
- Jacobs, S., Dawson, E., & Brashers, D. (this volume). Information manipulation theory: A replication and assessment. *Communication Monographs*.
- McCornack, S.A. (1992). Information manipulation theory. *Communication Theory*, 59, 1-16.
- McCornack, S.A., Levine, T.R., Morrison, K., & Lapinski, M. (this volume). Speaking of information manipulation: A critical review of research addressing deceptive messages. *Communication Monographs*.
- McCornack, S.A., Levine, T.R., Solowczuk, K., Torres, H.I., & Campbell, D.M. (1992). When the alteration of information is viewed as deception: An empirical test of information manipulation theory. *Communication Monographs*, 59, 17-29.
- Metts, S. (1989). An exploratory investigation of deception in close relationships. *Journal of Social and Personal Relationships*, 6, 159-180.
- Metts, S., & Chronis, H. (1986, October). *An exploratory investigation of relational deception*. Paper presented at the annual meeting of the International Communication Association, Chicago, IL.
- Metts, S., & Hippensteele, S. (1988, February). *Characteristics of deception in close relationships*. Paper presented at the annual meeting of the Western Speech Communication Association, San Diego, CA.
- Turner, R.E., Edgely, C., & Olmstead, G. (1975). Information control in conversations: Honesty is not always the best policy. *Kansas Journal of Sociology*, 11, 69-89.

## TRUTH AND DECEPTION

SCOTT JACOBS, DALE BRASHERS, AND EDWIN J. DAWSON

McCornack, Levine, Morrison and Lapinski (this volume) correctly point out that there is more similarity than difference in our models of deception. Nevertheless, pinpointing theoretical differences and pushing their logical and empirical consequences is still the best way to engage in a serious program of progressive social scientific research.

## CONCEPTUALIZING DECEPTION

Jacobs, Dawson, and Brashers (this volume) note that implicatures play no central role in information manipulation theory's (IMT) model of deception and that this leads to an implausible sense in which the information in a deceptive message is misleading. Despite using Grice's (1975) Cooperative Principle (CP) and conversational maxims, IMT does not recognize the vast range of implicatures that are generated when what a speaker says is in conformity with the CP and its maxims. IMT only recognizes implicatures generated by flouting the maxims. Since deception involves covert violations of maxims, IMT is committed to the position that no implicatures are involved. Deceptive messages simply lead a hearer to assume falsely that the speaker is observing the CP and its maxims.<sup>1</sup>

This also leads McCornack et al. (this volume) to defend an expressive editing model of message production by arguing that implicatures require "listener recognition that the message deviates from an expected 'baseline' of complete, truthful, relevant, and perspicuous information." However, that is only true for implicatures generated by flouting the maxims. This does not define the only possible relation between text and context. Grice (1975) provides numerous illustrations of implicatures generated on the assumption that the face value meaning of what is said is in conformity with the maxims. In such cases, a context of beliefs, intentions, wants, and so on are constructed to be consistent with that assumption.

Certainly the strength and specificity of prior contextual assumptions restrict what interpretations people will arrive at. However, we see no reason to think that speakers are more restricted in their productive possibilities than listeners are in their interpretative possibilities. It is precisely this sort of constructive possibility that is exploited in a rhetorical design logic (O'Keefe, 1988), and the fact that IMT is admittedly incapable of accommodating such processes should be a cause for concern.

We have suggested taking seriously the constructive quality of message interpretation and, when conceptualizing what it means for a message to be deceptive, recognizing the privileged place of Quality maxim violations. Thus, deception can occur when the Quality maxim is covertly violated at the level of what is said (i.e., a direct lie) or at the level of what is implicated (i.e., indirect deception by covertly violating some other maxim). For IMT, a speaker will be misled simply in thinking that the maxims are being observed; for an implicature model, by thinking that the maxims are being observed, a speaker will be misled into thinking that substantive beliefs are warranted or unwarranted when this turns out to be false. In situations like Committed Chris, specific beliefs, such as "my partner is not currently involved in a casual sexual relationship with someone else," need not be consciously entertained. The falsity of this proposition is what makes the message deceptive. Such a proposition is pragmatically entailed by the more general implicature ("nothing else unusual is going on that would merit disclosure"). Because the specific entailment is false, the general implicature is false.

Citing Galasinski (1994), McCornack et al. (this volume) draw attention to an important distinction: the difference between active, direct deception and passive, indirect deception. The latter sort of deception is characteristically associated with the covert violation of Quantity, Relevance, or Manner maxims and is far more likely to allow a speaker to evade accountability by shifting the burden of inference

TABLE 1  
SUMS OF SCALE MEANS FOR MESSAGE EXAMPLES

Scales							
Quantity		Quality		Relevance		Clarity	
CLt2	8.52 <sup>a</sup>	<b>QLt2</b>	7.08 <sup>a</sup>	<b>REc1</b>	11.28	<b>CLt2</b>	8.52 <sup>a</sup>
CLt1	8.68 <sup>a</sup>	<b>QLt1</b>	7.40 <sup>a</sup>	QLt2	12.12	<b>CLt1</b>	9.04
QLc1	9.80	<b>QLc2</b>	8.12 <sup>a</sup>	QLc1	12.76	QLc1	9.24
QLc2	9.84	<b>QLc1</b>	8.60 <sup>a</sup>	<b>REc2</b>	13.08	REc1	10.52 <sup>a</sup>
<b>QNc2</b>	10.68 <sup>a</sup>	REc2	11.84	QLc2	13.40	QLc2	10.64
CLc1	10.76 <sup>a</sup>	REc1	12.80	QNc2	15.12	<b>CLc1</b>	11.24
REc1	11.56	CLt2	13.08	QLt1	15.32	REc2	11.80 <sup>a</sup>
QLt2	11.64	REt2	14.80 <sup>a</sup>	CLt1	15.60	QLt2	13.00
REc2	11.76	CLt1	15.12	CLc1	15.96	QNc2	13.24
QLt1	12.52	REt1	15.24	<b>REt2</b>	16.28	QNt1	13.44
<b>QNt1</b>	12.52 <sup>a</sup>	QNt1	17.12	CLt2	16.56	QNt2	14.48
REt1	12.56 <sup>a</sup>	CLc1	17.56	BAt1	18.84	REt1	15.32
<b>QNc2</b>	13.68 <sup>a</sup>	QNc2	19.32	<b>REt1</b>	19.36	QLt1	15.64
<b>QNc1</b>	13.84 <sup>a</sup>	QNc2	19.88	QNc2	19.64	REt2	15.68
REt2	15.56	BAt1	20.56	BAt2	19.88	QNc1	16.88
CLc2	16.64 <sup>a</sup>	CLc2	20.60	QNt1	20.00	<b>CLc2</b>	17.36
BAt1	19.00	BAt2	20.80	CLc2	20.40	BAt1	18.96
BAt2	19.68	BAc2	22.24	QNc1	20.72	BAt2	20.08
BAc1	21.12	QNc1	22.32	BAc1	21.72	BAc1	23.04
BAc2	21.20	BAc1	22.32	BAc2	21.76	BAc2	23.36

Note. Messages are coded by labels from Appendix A, McCornack et al. (1992). QN = Quantity; QL = Quality; RE = Relevance; CL = Clarity; c and t = Chris or Terry situation; messages are numbered as ordered in Appendix A. Messages intended to manipulate that type of violation are marked by bold type.

<sup>a</sup>lowest rating for that example (Baseline messages excluded).

onto the hearer. This is similar to the distinction Brown and Levinson (1979) drew between on-record and off-record communication strategies of implicature.

But how should we account for the distinctive properties of these two means of deception? Why should a direct covert violation of Quality be any different from a direct covert violation of Quantity, Relevance, and/or Manner? For IMT, the difference in accountability is a puzzle. For an implicature model, the answer lies in the inferential path to a deceptive message. These latter violations are not in themselves deceptive—the substantive implicatures they may generate are.

## EMPIRICAL ISSUES

McCornack et al. (this volume) raise two empirical objections to our implicature model.

*Objection 1: There are significant differences in perceived honesty between messages.* It is unclear why McCornack et al. think an implicature model predicts no functional differences among messages. Any serious theory of deception will acknowledge degrees of deceptiveness among messages. The issue is whether such variation is theoretically interpretable (cf. Brashers, 1994; Jackson, 1992; Jackson & Jacobs, 1983). Significant differences among Honesty ratings across message conditions means nothing without a defensible interpretation of those conditions. McCornack et al. can provide none. Our analysis of manipulation checks demonstrated that there is no good reason to assume that differences in Honesty can be attributed to the labels attached to the different conditions. This point is further shown by the mean ratings of individual messages in Table 1.

TABLE 2  
FIRST-ORDER FACTOR STRUCTURE (JACOBS ET AL. DATA)

Scale	FACTOR 1	FACTOR 2	FACTOR 3
	Honesty/ Quality	Quantity/ Clarity	Relevance
QN1	.11298	.78412*	.21806
QN2	.40826	.70148*	.17958
QN3	.28154	.66018*	.07769
QN4	.23033	.72572*	.07661
QL1	.77474*	.15893	.24709
QL2	.74726*	.22665	.27195
QL3	.73081*	.31904	.24406
QL4	.76072*	.32305	.22722
RE1	.21021	.17000	.82685*
RE2	.29403	.19686	.73140*
RE3	.26562	.24631	.77305*
RE4	.39874	.44106	.49838*
CL1	.16408	.77334*	.26003
CL2	.27918	.69599*	.22238
CL3	.19582	.83862*	.15092
CL4	.38740	.69824*	.18537
HN1	.86850*	.19619	.17376
HN2	.84872*	.24602	.19780
HN3	.80127*	.27961	.15917
HN4	.70902*	.41462	.17256

*Note.* QN = Quantity; QL = Quality; RE = Relevance; CL = Clarity; HN = Honesty. Scale numbers correspond to ordering reported in Appendix B, McCornack et al. (1992). Total variance accounted for: 69.3%  
\*highest loading factor for each scale

The examples of Quality violations are the only messages that consistently embody the intended manipulation more effectively than other messages purportedly representing some other type of manipulation. Only the Quantity and Quality messages turn out to be most strongly manipulated on the intended violation. All of the other manipulated messages were more strongly manipulated along some other dimension. Thus, even where some "Relevance" and "Clarity" examples embody the strongest violations of these dimensions, those particular messages exemplify even more strongly some other type of violation. Even though Quantity is the strongest kind of violation occurring in the "Quantity" messages, 75% of all the manipulated messages (excluding Baselines) violate Quantity as strongly or more strongly than all but one of those messages. There is no reason to think that the messages in the so-called "Quantity," "Clarity," or "Relevance" violation conditions are properly labelled.

The only sensible way to look for the relation between maxim violations and perceptions of deceptiveness is to examine across all of the messages correlations of participant ratings for Honesty with ratings of Quantity, Quality, Relevance, and Clarity. We did this and found no reason to think that anything other than Quality violations (at the level of what is said or implicated) have any strong bearing on deceptiveness judgments.<sup>2</sup>

*Objection 2: Second-order factor loadings support IMT, not an implicature model.* McCornack et al. are correct that our implicature model predicts that Quality violations and perceived Honesty should load on the same factor and that this factor should be conceptually and empirically distinct. In fact, when a first-order factor analysis is

TABLE 3  
FIRST-ORDER FACTOR STRUCTURE (McCORNACK ET AL. DATA)

Scale	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4
	Honesty/ Quality	Clarity	Quantity	Relevance
QN1	.28068	.26673	.80059*	.23183
QN2	.27344	.31151	.80454*	.12878
QN3	.23883	.20562	.82348*	.14289
QN4	.34693	.30252	.77523*	.16005
QL1	.78959*	.19177	.22296	.22733
QL2	.83398*	.19426	.18768	.20336
QL3	.83959*	.13349	.13633	.24927
QL4	.85181*	.08779	.12262	.24358
RE1	.28439	.22035	.16126	.83098*
RE2	.22190	.20275	.12002	.84127*
RE3	.25184	.19402	.16010	.86223*
RE4	.29644	.26544	.19392	.82201*
CL1	.21084	.83474*	.28869	.22581
CL2	.25088	.82518*	.25280	.27081
CL3	.22552	.83427*	.28818	.20526
CL4	.29085	.79231*	.27654	.28391
HN1	.78137*	.21011	.31675	.18667
HN2	.77447*	.28085	.30303	.19638
HN3	.69888*	.29876	.38948	.21379
HN4	.65028*	.33898	.36836	.20924

Note. QN = Quantity; QL = Quality; RE = Relevance; CL = Clarity; HN = Honesty. Scale numbers correspond to ordering reported in Appendix B, McCornack et al. (1992). Total variance accounted for: 82.4% \*highest loading factor for each scale

performed using varimax rotation, scales measuring Quality violations and perceived Honesty do load on the same factor. Moreover, the other violation types also form more or less distinct factors (Quantity and Clarity scales form a single factor in our data set; they form distinct factors in the McCornack et al., 1992, data set). And every scale loads most strongly on the factor that the implicature model would expect (see Tables 2 and 3).

McCornack et al. also contend that all the first-order factors reduce to a common second-order factor. They think of this second-order factor as "adherence (or lack thereof) to the CP," since conversational maxims are ways of satisfying the CP.

Of course, we believe in the CP too. Since Honesty and Quality already load on the same first-order factor, and since Quantity, Relevance, and Clarity are tied to Honesty to the degree that they lead to Quality violations, a single second-order factor is not surprising. However, the presence of a single, second-order factor does not deny the interpretability of the discrete, first-order factors. Moreover, the first-order factor structure is exactly what an implicature model would predict and is contrary to the implications of IMT.

## CONCLUSION

It is important to keep in mind a point that McCornack et al.'s response fails to address: *IMT lacks any credible empirical support*. Our manipulation checks revealed that McCornack et al. (1992) did not successfully produce the *covert* violations that are essential to demonstrating their theoretical claims. Our report of manipulation checks for type of violation demonstrate that McCornack et al. (1992) have no

empirical basis for claiming that their messages primarily embodied the intended type of violation or that the perceptions of honesty were the effects of the violations they intended. The only defensible interpretation of the empirical evidence at this point supports predictions that deception requires Quality violations at the level of what is said or implicated, that violations of other maxims have a bearing on deceptiveness only to the extent that these covert violations generate false implicatures, and that message interpretation is a constructive process that goes beyond reading the face value meaning of what is said even when that face value meaning is in conformity to the CP and its maxims.

## ENDNOTES

<sup>1</sup>Propositions like "the speaker is observing the CP" or "the speaker is being informative" are not implicatures. They are communicative presuppositions required to make sense of the message in the first place. They have the same standing as the assumption "the author is writing in English."

<sup>2</sup>Much to our amazement, we discovered upon exchanging data sets that McCornack et al. (1992) had collected all of the data needed to produce the analyses reported by Jacobs et al. Why they would collect the additional data required for genuine manipulation checks of their messages and then not report the data—or even the fact of its collection—remains a puzzle. This is especially disturbing since in reporting their methods McCornack et al. (1992) claim: "Given the purposes of the current experiment, messages coded as 'combinations' were not used" (p. 20) and continue in a footnote, "This was to ensure that any significant effects detected could be attributed to one primary form of message manipulation."

## REFERENCES

- Brashers, D.E. (1994). *A critical review of the design and analysis of experiments using replications factors*. Unpublished doctoral dissertation, University of Arizona, Tucson, AZ.
- Brown, P., & Levinson, S. (1979). Universals in language usage: Politeness phenomena. In E.N. Goody (Ed.), *Questions and politeness* (pp. 56–310). Cambridge, England: Cambridge University Press.
- Galasinski, D. (1994, July). *Deception: A linguist's perspective*. Paper presented at the 5th International Conference on Language and Social Psychology, Brisbane, Australia.
- Grice, H.P. (1975). Logic and conversation. In P. Cole & J.L. Morgan (Eds.), *Speech acts* (pp. 41–58). New York: Academic Press.
- Jackson, S. (1992). *Message effects research*. New York: Guilford.
- Jackson, S., & Jacobs, S. (1983). Generalizing about messages: Suggestions for the design and analysis of experiments. *Human Communication Research*, 9, 169–181.
- Jacobs, S., Dawson, E., & Brashers, D. (this volume). Information manipulation theory: A replication and assessment. *Communication Monographs*.
- McCornack, S.A., Levine, T.R., Morrison, K., & Lapinski, M. (this volume). Speaking of information manipulation: A critical review of research addressing deceptive messages. *Communication Monographs*.
- McCornack, S.A., Levine, T.R., Solowczuk, K.A., Torres, H.I., & Campbell, D.M. (1992). When the alteration of information is viewed as deception: An empirical test of information manipulation theory. *Communication Monographs*, 59, 17–29.
- O'Keefe, B.J. (1988). The logic of message design: Individual differences in reasoning about communication. *Communication Monographs*, 55, 80–103.

