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JUSTIFICATION EXPLICITNESS AND PERSUASIVE EFFECT: A META-ANALYTIC REVIEW OF THE EFFECTS OF VARYING SUPPORT ARTICULATION IN PERSUASIVE MESSAGES

Daniel J. O'Keefe

Argumentative explicitness is one commonly-recognized normative good in the conduct of advocates. That is, it is normatively desirable that arguers articulate their viewpoints fully and specifically: "Evasion, concealment, and artful dodging . . . are and should be excluded from an ideal model of critical discussion" (van Eemeren, Grootendorst, Jackson, & Jacobs, 1993, p. 173). Explicit argumentation is normatively desirable because explicitness opens the advocated view for critical scrutiny.

However, an advocate might fear that explicit argumentation would not be instrumentally successful, that is, persuasive. If such fears are justified, then arguers face an unhappy choice between instrumentally-successful and normatively-desirable conduct. The question thus is whether such concerns are in fact warranted, that is, whether argumentative explicitness necessarily damages persuasive success.

One facet of this question has been addressed by O'Keefe (1997), who reviewed research concerning the persuasive effects of variations in the explicitness of a message's conclusion (the degree of articulation of the message's overall standpoint or recommendation). His review suggested that better-articulated message conclusions are depend-

ably more persuasive than less-articulated ones.

This article concerns the persuasive effects of another aspect of argumentative explicitness, namely, variation in the explicitness of an message's supporting argumentation. Making such supporting argumentation more explicit could plausibly be supposed either to impair or enhance persuasive success. The critical scrutiny such explicitness enables—the very property that makes explicitness normatively desirable—might reduce a message's persuasiveness. Expressed most broadly, explicitness enlarges the apparent "disagreement space," in the sense that it makes more obvious just what claims are being advanced (on the idea of disagreement space, see van Eemeren, Grootendorst, Jackson, & Jacobs, 1993, pp. 95-96; Jackson & Jacobs, 1980). Each further specification of an advocate's standpoint invites scrutiny and objection, and thus courts rejection. An advocate might also think that less-explicit argumentation would enjoy greater persuasive success because it actively engages the audience (in an enthymematic fashion). When the advocate does not provide fully-articulated support, message receivers must mentally supply missing argumentative elements; such active participation might lead the audience to be more persuaded than if the advocate had explicitly supplied those elements.

On the other hand, support explicitness could enhance persuasive success. Explicitly laying out strong supporting material might make the message more convincing than it

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would have been otherwise. As another possibility, advocates whose viewpoints are more fully articulated might be perceived as more credible (more trustworthy and more competent), since receivers could reason that an advocate willing to be so explicit about the supporting materials must be especially honest and well-informed; such enhanced credibility then might make for greater persuasive effectiveness.

But the question of the relationship between support explicitness and persuasive effectiveness is an empirical one. As will be seen, a number of studies have (implicitly or explicitly) addressed this question, though many of these have never been systematically collected or reviewed. The purpose of the present study is to provide a meta-analytic review of this research, and thus to consider what light is shed by existing research on the general question of the persuasive consequences of variation in explicitness of support.

Meta-analytic literature reviews aim at providing systematic quantitative summaries of research studies (Rosenthal, 1991, provides a useful general discussion of meta-analysis). Traditional narrative literature reviews emphasize statistical significance (whether a given study finds a statistically significant effect), but this can be a misleading way of characterizing research findings; whether statistical significance is achieved is a matter of, inter alia, sample size. Meta-analytic reviews instead commonly focus on the size of the effect obtained in each study, with these then being combined to give an observed average effect (with an associated confidence interval). In this review, the effect of central interest is the persuasive outcome associated with variation in support explicitness.

Any careful empirical examination of this matter will quickly encounter a potential obstacle, namely, the lack of a well-worked-out principled conceptualization of alterna-

tive ways in which argumentative support might vary in explicitness. However, the interest of this article is in mining the extant research literature for what evidence it can provide. That is, this analysis is driven less by some master conceptualization of all the possible ways in which support might vary in explicitness than by what sorts of potentially-relevant message variations have been considered in the persuasion effects literature.

That literature contains studies of three distinctive message variations that represent variations in support explicitness. One is variation in information-source citation, that is, whether the advocate explicitly identifies the source(s) of information and opinion that are offered in the message. A second may be characterized as variation in the completeness of arguments, that is, whether the advocate explicitly spells out the underlying bases of message claims (provides explicit articulation of the premises, supporting information, and the like). A third is variation in quantitative specificity, that is, variation in the specificity of quantitative information given ("75%" versus "most," for instance). Plainly, advocates who spell out the premises of their supporting arguments, identify the sources of their information, and provide specific quantitative information offer more explicit argumentative support than do advocates who leave their supporting premises and information implicit, omit mention of their sources of information, or offer relatively non-specific quantitative information. That is, each of these message variations instantiates variation in argumentative explicitness. Hence the purpose of the present investigation may be more carefully formulated as that of reviewing extant research on the persuasive effects of these three specific variations in support explicitness.

A number of studies relevant to this question are ones commonly characterized as studies of the effects of "evidence" in persuasive messages (e.g., McCroskey, 1969;

Reinard, 1988). The question of interest in these studies is what difference it makes to persuasive effectiveness if the advocate provides evidence supporting the message's claims. As Kellermann (1980) has pointed out, however, the concept of evidence invoked in this research is not carefully formulated; correspondingly, evidence research has seen a large number of different experimental realizations of evidence variations (see Kellermann, 1980, pp. 163–164). Kellermann has argued quite pointedly for the importance of more careful conceptualization of the relevant message properties.

Despite such observations, discussions of research on evidence commonly lump distinctive experimental manipulations under a generalized "evidence" heading, without consistently attending closely to the specific message manipulations employed in the research (e.g., McCroskey, 1969; Reinard, 1994; Reynolds & Burgoon, 1983). For example, both Harte's (1972) manipulation and Anderson's (1958) manipulation have been labelled manipulations of evidence, although Harte's (1972) study varied both information-source citation and argument completeness, whereas Anderson's (1958) varied only information-source citation.

The present review thus has a somewhat sharper focus than those in discussions of evidence, by virtue of being based on the identification of three distinctive message variations examined in persuasion-effects research that reflect variations in the explicitness of supporting argumentation. This more careful specification of message properties has also made it possible to locate relevant research not commonly mentioned in discussions of evidence. Moreover, the present focus on specific message properties permits one to distinguish cases in which only one relevant property varies from cases that simultaneously vary more than one such property. As just noted, empirical investigations of the persuasive effects of the message

variations of interest have sometimes manipulated several of these features simultaneously (e.g., Harte, 1972; McCroskey, 1966). Studies of such joint manipulations are of distinctive interest, precisely because they shed light on the question of the effects of combining support-explicitness variations, and hence are included in the present review.

METHOD

Identification of Relevant Investigations

Literature search. Relevant research reports were located through personal knowledge of the literature, examination of previous reviews and textbooks, and inspection of reference lists in previously-located reports. Additionally, searches were made through databases and document-retrieval services using such terms as "documentation," "evidence," and "support" in conjunction with "persuasion" and "persuasive" as search bases; these searches covered material through at least January 1998 in PsycINFO, ERIC (Educational Resources Information Center), *Current Contents*, ABI/Inform, and *Dissertation Abstracts Online.*

Inclusion criteria. Studies selected had to satisfy two criteria. First, the study had to compare two messages varying in the articulation of the message's support for its overall conclusion; specifically, included studies varied information-source citation, argument completeness, or quantitative specificity. Second, the investigation had to contain appropriate quantitative data pertinent to the comparison of persuasive effectiveness or perceived credibility between experimental conditions.

Three different experimental realizations of support explicitness were distinguished: information-source citation, argument completeness, and quantitative specificity. Information-source-citation variation reflected the contrast between a message that explicitly identified the sources of (at least some of) the

message's information (facts, opinions, and the like) and a message that presented the same information without such identifying source information. Argument-completeness variation reflected variation in how explicitly the message spelled out the support for its overall conclusion; this included variation in whether the premises of supporting arguments were stated explicitly (including, e.g., whether premise-relevant supporting information was supplied) and variation in whether the conclusions of supporting arguments were stated explicitly. Quantitative-specificity variation reflected variation in the specificity of quantitative supporting information, and specifically a contrast between verbal (e.g., "most") and numerical (e.g., "75%") formulations.

Excluded were studies that varied the explicitness of the message's overall conclusion (e.g., Hovland & Mandell, 1952), studies that varied simultaneously the explicitness of both the overall conclusion and the supporting argumentation (Cruz, 1991) or, more generally, that confounded the manipulations of interest with manipulations not of interest (e.g., Mackenzie, 1986; Reynolds, 1986), and studies that did not provide appropriate quantitative information about effects (e.g., Babich, 1971; Bush & Bush, 1986; Bush, Bush, & Ortinau, 1987; Bush & Lashbrook, 1973; Deighton, 1984; Ha & Hoch, 1989; Kilcrease, 1977; McCroskey, 1967b, studies 2, 6, 11, 12, and 13; Sheffet, 1983; Yalch & Elmore-Yalch, 1979, Experiment 1).

Dependent Variables and Effect Size Measure

Dependent variables. Two dependent variables were of interest. The one of primary interest was persuasiveness (as assessed through measures such as opinion change, postcommunication agreement, behavioral intention, and the like). When a single study contained multiple indices of persuasion, these were averaged to yield a single summary.

The other dependent variable was credibility (as assessed through, e.g., measures of competence, trustworthiness, believability, and the like). Where multiple indices of credibility were available, these were averaged.[1]

Effect size measure. Every comparison between a relatively explicit (i.e., more articulated) message and its relatively inexplicit (less articulated) counterpart was summarized using r as the effect-size measure. Differences favoring explicit messages were given a positive sign; differences favoring inexplicit messages were given a negative sign.

When correlations were averaged across several dependent measures, the average was computed using the r-to-z-to-r transformation procedure, weighted by n. Wherever possible, multiple-factor designs were analyzed by reconstituting the analysis such that individual-difference factors (but not other experimental manipulations) were put back into the error term (following the suggestion of Johnson, 1989).

When a given investigation was reported in more than one outlet, it was treated as a single study and analyzed accordingly. The same research was reported (in whole or in part) in Cathcart (1953) and Cathcart (1955); in Harte (1972) and Harte (1976); in Hayes (1966) and Hayes (1971); in Kardes (1986) and Kardes (1988); in Kline (1968) and Kline (1969); in Luchok (1973) and in Luchok and McCroskey (1978), recorded here under the latter; in McCroskey (1967b, Study 1), McCroskey (1966, pilot study), McCroskey (1967a), and in McCroskey and Dunham

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[1] Given that studies of the persuasive impact of credibility variations have commonly manipulated various credibility-related facets (e.g., competence and trustworthiness) simultaneously (O'Keefe, 1990, p. 140), this review correspondingly did not distinguish different credibility-related outcomes.

(1966, Experiment 1); in McCroskey (1967b, Study 2) and in McCroskey and Dunham (1966, Experiment 2); in McCroskey (1967b, Study 3) and in Holtzman (1966); in McCroskey (1967b, Study 4) and in McCroskey (1966, major study I); in McCroskey (1967b, Study 5) and in McCroskey (1966, major study II); in Ostermeier (1966) and Ostermeier (1967); in Reinard (1984, Experiment 1) and in Reinard and Reynolds (1976), recorded here under the former; in Sikkink (1954) and Sikkink (1956); in Whitehead (1969) and Whitehead (1971); and in Yalch and Elmore-Yalch (1979, Experiment 3) and in Yalch and Elmore-Yalch (1984), recorded here under the latter.

Analysis

The unit of analysis was the message pair (that is, the pair composed of an explicit message and its inexplicit counterpart). When the same messages were used in more than one investigation, results were combined. Such combined results were computed in the following cases: results recorded under Cathcart (1953, 1955) reflect results from Cathcart (1953, 1955) and from Bostrom and Tucker (1969); results recorded under "McCroskey capital punishment" reflect results from studies 1, 3, and 4 in McCroskey (1967b); results recorded under "McCroskey pro-education" reflect results from studies 1, 4, and 5 in McCroskey (1967b) and McCroskey (1970).[2] Some designs used multiple messages but did not report results separately, and so were treated as having only one message (e.g., Berger, 1988, second preliminary study and main study; Whitehead, 1969, 1971); the consequence is that the present analysis underrepresents any message-to-message variability in these data.

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[2] The results recorded under "McCroskey con-education" are from McCroskey (1970); the results recorded under "McCroskey revised capital punishment" are from McCroskey (1967b, Study 5).

The individual correlations (effect sizes) were initially transformed to Fisher's zs; the zs were analyzed using random-effects procedures described by Shadish and Haddock (1994), with results then transformed back to r. A random-effects analysis was employed in preference to a fixed-effects analysis because of an interest in generalizing across messages.

Meta-analysts of message effects research face a circumstance parallel to that of primary researchers whose designs contain multiple instantiations of message categories. Such multiple-message designs can be analyzed treating messages either as a fixed effect or as a random effect. The relevant general principle is that replications should be treated as random when the underlying interest is in generalization. This reflects the fact that fixed-effects and random-effects analyses test different hypotheses: a fixed-effects analysis tests a hypothesis concerning whether the responses to a fixed, concrete group of messages differ from the responses to some other fixed, concrete group of messages, whereas a random-effects analysis tests whether responses to one category of messages differ from responses to another category of messages (see, e.g., Jackson, 1992, p. 110). A meta-analysis involves a collection of replications (parallel to the message replications in a multiple-message primary research design), and similar considerations (including whether the analyst is interested in generalization) bear on the choice between a fixed-and a random-effects meta-analysis (for some discussion, see Jackson, 1992, p. 123; Shadish & Haddock, 1994). In the present review, the interest is naturally not in the concrete messages studied by past investigators, but in the larger classes of messages of which the studied messages are instantiations; hence a random-effects analysis was the appropriate choice. In a random-effects analysis, the confidence

TABLE 1

PERSUASION EFFECTS

Study	r	n	Coding[a]
Anderson (1958)	−.056	149	0/1/0
Berger (1988) second preliminary study	.127	63	0/1/0
Berger (1988) main study	.140	180	0/1/0
Bettinghaus (1953)	.123	286	2/2/0
Bradley (1981)	.283	96	1/0/0
Cathcart (1953, 1955) [argument completeness]	.214	219	1/1/0
Cathcart (1953, 1955) [source citation]	−.032	253	1/1/0
Costley (1958)	.024	126	0/0/1
Cowdin (1968) Type II	−.040	58	0/1/0
Cowdin (1968) Type III	.026	151	0/1/0
Cronin (1972)	.186	306	2/2/0
Fisher (1972)	−.285	54	1/0/0
Florence (1975)	.220	161	1/0/0
Gilkinson, Paulson, & Sikkink (1954)	.027	260	0/1/0
Gill, Grossbart, & Laczniak (1988)	.035	109	1/0/0
Gutteling (1993)	.058	383	1/0/0
Harte (1972, 1976) Experiment 1	−.080	40	2/2/0
Harte (1972, 1976) Experiment 2	−.220	40	2/2/0
Hayes (1966, 1971)	−.156	289	0/2/2
Hunt (1972)	.112	216	1/0/0
Kardes (1986, 1988)	.038	192	1/0/0
Kardes, Kim, & Lim (1994)	.150	144	1/0/0
Kavanoor, Grewal, & Blodgett (1997) Study 2	.292	98	1/0/0
Kline (1968, 1969) legalized gambling	.046	150	1/0/0
Kline (1968, 1969) admission requirements	.068	150	1/0/0
Kline (1968, 1969) accelerated programs	−.135	150	1/0/0
Kline (1968, 1969) fact topics	.122	150	1/0/0
Knouse (1983) [argument completeness]	.211	98	1/0/1
Knouse (1983) [quantitative specificity]	.055	98	1/0/1
Luchok & McCroskey (1978)	−.062	225	2/2/0
Maddux & Rogers (1980)	.264	106	1/0/0
McCroskey capital punishment	.074	752	2/2/2
McCroskey pro-education	.139	702	2/2/2
McCroskey con-education	.267	132	2/2/2
McCroskey revised capital punishment	.033	480	2/2/2
Munch, Boller, & Swasy (1993)	.255	294	1/0/0
Norman (1976)	.465	75	1/0/0
Ostermeier (1966, 1967)	.082	100	0/1/0
Reinard (1984) Experiment 1	.307	120	0/1/0
Reinard (1984) Experiment 2	.207	360	0/1/0
Sikkink (1954, 1956)	.004	212	0/1/0
Wagner (1958)	.010	120	0/1/0
Whitehead (1969, 1971)	.119	80	0/1/0
Yalch & Elmore-Yalch (1984)	.071	104	0/0/1

[a]The codes indicate the sort of experimental manipulation employed (and hence the sort of effect size available) for, respectively, argument completeness, information-source citation, and quantitative specificity. The codings are: 0 = no manipulation; 1 = independent manipulation of this variable; 2 = manipulation of this variable jointly with another variable of interest. For example, a study coded 2/2/0 jointly manipulated argument completeness and information-source citation.

interval around an obtained mean effect size reflects not only the usual human-sampling variation, but also between-studies variance; this has the effect of widening the confidence interval over what it would have been in a fixed-effects analysis (see Shadish & Haddock, 1994, p. 275).

RESULTS

Persuasion Effects

Details for each included case appear in Table 1.

Information-source citation. Effect sizes were available for 23 information-source-citation

cases with a total of 5,358 participants. Across all 23 cases, the mean correlation was .064 [Q(22) = 60.2, p < .001]; the lower and upper bounds of the 95% confidence interval (CI) for this mean were .014 and .114 respectively, which indicates a significant persuasive advantage for messages providing information-source citations.

There were 13 cases (N = 2,106) involving the individual manipulation of information-source citation. Across these cases, the mean correlation was .073 [Q(12) = 23.1, p < .05]; the bounds of the 95% CI were .018 and .128.

There were 10 cases (N = 3,252) involving the joint manipulation of information-source citation and another aspect of support explicitness. Across these cases, the mean correlation was .050 [Q(9) = 37.1, p < .001]; the bounds of the 95% CI were −.043 and .144.

Argument completeness. Effect sizes were available for 27 argument-completeness cases with a total of 5,808 participants. Across all 27 cases, the mean correlation was .116 [Q(26) = 75.1, p < .001]; the bounds of the 95% CI were .052 and .180.

Eighteen cases (N = 2,845) individually manipulated argument completeness. Across these cases, the mean correlation was .138 [Q(17) = 51.7, p < .001]; the bounds of the 95% CI were .056 and .220.

Nine cases (N = 2,963) jointly manipulated argument completeness and another aspect of support explicitness. Across these cases, the mean correlation was .078 [Q(8) = 20.9, p < .01]; the bounds of the 95% CI were −.016 and .171 (p < .15).

*Quantitative specificity.*Effect sizes were available for 8 quantitative-specificity cases with a total of 2,683 participants. Across all 8 cases, the mean correlation was .060 [Q(7) = 24.4, p < .001]; the bounds of the 95% CI were −.020 and .141 (p < .15).

There were 3 cases (N = 328) involving the individual manipulation of quantitative specificity. Across these cases, the mean

TABLE 2
CREDIBILITY EFFECTS

Study	r	n	Coding[a]
Bradley (1981)	.229	96	1/0/0
Cathcart (1953, 1955) [argument completeness]	.027	156	1/1/0
Cathcart (1953, 1955) [source citation]	−.001	253	1/1/0
Fleshler, Ilardo, & Demoretcky (1974)	.333	120	0/1/0
Harte (1972, 1976) Experiment 1	−.279	40	2/2/0
Harte (1972, 1976) Experiment 2	.183	40	2/2/0
Hayes (1966, 1971)	−.040	289	0/2/2
Kavanoor, Grewal, & Blodgett (1997) Study 2	.227	98	1/0/0
Kline (1968, 1969) policy topics	.126	150	1/0/0
Kline (1968, 1969) fact topics	.234	150	1/0/0
Luchok & McCroskey (1978)	−.206	225	2/2/0
Maddux & Rogers (1980)	.076	106	1/0/0
McCroskey capital punishment	.026	752	2/2/2
McCroskey pro-education	.306	702	2/2/2
Ostermeier (1966, 1967)	.233	100	0/1/0
Whitehead (1969, 1971)	.149	80	0/1/0
Yalch & Elmore-Yalch (1984)	.103	104	0/0/1

[a]The codes indicate the sort of experimental manipulation employed (and hence the sort of effect size available) for, respectively, argument completeness, information-source citation, and quantitative specificity. The codings are: 0 = no manipulation; 1 = independent manipulation of this variable; 2 = manipulation of this variable jointly with another variable of interest. For example, a study coded 2/2/0 jointly manipulated argument completeness and information-source citation.

correlation was .048 [Q(2) = .1, ns]; the bounds of the 95% CI were −.061 and .158.

There were 5 cases (N = 2,355) involving the joint manipulation of quantitative specificity and another aspect of support explicitness. Across these cases, the mean correlation was .068 [Q(4) = 24.2, p < .001]; the bounds of the 95% CI were −.070 and .205.

Credibility Effects

Details for each included case appear in Table 2.

*Information-source citation.*Effect sizes were available for 10 information-source-citation cases with a total of 2,601 participants.

Across all 10 cases, the mean correlation was .077 [Q(9) = 81.0, p < .001]; the bounds of the 95% CI were −.053 and .206.

Four cases (N = 553) individually manipulated information-source citation. Across these cases, the mean correlation was .169 [Q(3) = 10.9, p < .05]; the bounds of the 95% CI were .028 and .311.

Six cases (N = 2,048) jointly manipulated information-source citation and another aspect of support explicitness. Across these cases, the mean correlation was .009 [Q(5) = 69.1, p < .001]; the bounds of the 95% CI were −.170, .188.

Argument completeness. Effect sizes were available for 11 argument-completeness cases with a total of 2,515 participants. Across all 11 cases, the mean correlation was .096 [Q(10) = 69.8, p < .001]; the bounds of the 95% CI were −.014 and .206 (p < .10).

There were 6 cases (N = 756) involving the individual manipulation of argument completeness. Across these cases, the mean correlation was .147 [Q(5) = 5.4, ns]; the bounds of the 95% CI were .075 and .219.

There were 5 cases (N = 1,759) involving the joint manipulation of argument completeness and another aspect of support explicitness. Across these cases, the mean correlation was .017 [Q(4) = 63.6, p < .001]; the bounds of the 95% CI were −.202 and .237.

Quantitative specificity. Effect sizes were available for 4 quantitative-specificity cases with a total of 1,847 participants. Across all 4 cases, the mean correlation was .104 [Q(3) = 40.7, p < .001]; the bounds of the 95% CI were −.046 and .254 (p < .20).

Only one case (N = 104) individually manipulated quantitative specificity, with r = .103.

Three cases (N = 1,743) jointly manipulated quantitative specificity and another aspect of support explicitness. Across these cases, the mean correlation was .103 [Q(2) = 40.6, p < .001]; the bounds of the 95% CI were −.111, .316.

DISCUSSION

General Effects

Characterized very broadly, these results suggest that advocates have little to fear from making their argumentative support explicit. For both persuasion- and credibility-related outcomes, every observed mean was positive (though not always dependably positive), which suggests that at a minimum advocates are in general unlikely to harm either their persuasiveness or their credibility by making their supporting argumentation more explicit. In fact, as suggested by the dependably positive observed mean effects for studies individually manipulating information-source citation and argument completeness, messages with more explicit argumentative support of these kinds are significantly more credible and significantly more persuasive than their less explicit counterparts. The observed positive mean effects for quantitative specificity were not statistically significant, though the small number of cases made for low statistical power; additional research on this facet of argumentative specificity will be welcomed, but the research in hand at least does not suggest any dependable negative effects of quantitative specificity.

An Implicit Limiting Condition

The effects of articulating argumentative support might plausibly be supposed to depend in part on the character of what is articulated. Two advocates who are equally explicit about their supporting materials might find different effects if one has closely-reasoned arguments with high-quality supporting information and opinions where the other has shoddy arguments with information of dubious relevance or provenance.

There is not extensive evidence that bears directly on this supposition, but two points can appropriately be made concerning the studies in hand. First, in the great bulk of the research reviewed here, the supporting mate-

rial (that varied in articulation) appears to have been plainly relevant information attributed to sources likely to have been perceived as relatively high in credibility; for example, Bettinghaus (1953) used information sources identified in pretesting as persons thought competent to render judgments in the topic area. Investigators have commonly not intentionally sought to articulate palpably unsatisfactory support. Thus there may implicitly be a limiting condition on the observed general effects, specifically, that persuasion- and credibility-enhancing effects of explicit argumentative support obtain only when the articulated support is of sufficiently high quality.

Second, the few studies that have varied the apparent quality of the supporting material have not produced consistent effects. Luchok and McCroskey's (1978) results suggested that citing poor-quality information sources or irrelevant information would inhibit persuasion (compared to not being so explicit in articulating argumentative support); however, in Cronin's (1972) study, citing low-credibility information sources was more persuasive than not citing any information sources.[3]

At a minimum, then, the observed positive effects of support articulation on credibility and persuasiveness obtain at least when the support that advocates make explicit is recognizably high-quality support. It is not yet clear whether there are specifiable general circumstances under which such positive effects might obtain with poorer argumentative support. Future research might

usefully be directed at clarifying this potential limiting condition.

Individual and Joint Effects

The best evidence for the effect of a given message variation obtains in designs in which that variation is manipulated independently of other message variations. In this research area, however, a number of studies have jointly manipulated two or more relevant message properties (commonly capturing such joint variation under the general heading of "evidence"). Such designs, of course, obscure the possible causal mechanisms for any observed effects. In this particular research literature, the observed mean effects (on credibility and persuasion) of such joint-manipulation designs are not dependably different from those of individual-manipulation designs, though for both information-source citation and argument completeness the joint-manipulation means are smaller and (unlike the individual-manipulation means) are not dependably different from zero. Thus with respect to the research question of interest here—that is, the question of the effects of variation in support explicitness—the best evidence in hand (the evidence from individual-manipulation studies) indicates that both persuasiveness and credibility are significantly enhanced by information-source citation and by argument completeness, though not by quantitative specificity.

These findings also speak to the research practice of jointly manipulating several message variables in this confounded way. Such quasi-experimental designs can be attractive for various reasons. In the early stages of research, uncertainty about possible mechanisms might recommend casting one's net widely. For field (as opposed to laboratory) experiments, quasi-experimental designs may be more practical (e.g., Gonzales, Aronson, & Costanzo, 1988; Reynolds, West, & Aiken, 1990). More generally, manipulating a suite of message features can appear to promise

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[3] Warren's (1969) design varied the credibility of information sources, and Dresser's (1962, 1963) design varied both the credibility of information sources and the relevance of the provided material to the claims advanced; neither, however, contained an appropriate nonexplicit-support condition (e.g., a no-source-citation condition), and thus these studies could not provide information about the effects of variation in support explicitness (e.g., the relative persuasiveness of leaving information sources uncited versus citing low-credibility sources).

stronger effects: one might expect relatively larger impact by contrasting two messages that vary in several features (for instance, comparing a message that lacks both quantitative specificity and information-source citations against a parallel message that is both quantitatively more explicit and provides citations to the sources of its information) rather than just one feature. Interestingly enough, however, in the limited data afforded by this research area, there is no evidence of such enhanced impact. This concretely illustrates that the effects of joint manipulations are not necessarily the sum of the effects expected from the individual manipulations, and indeed may not be larger than the effect of a single manipulation. Insofar as experimental design in persuasion effects research is concerned, then, the lesson is that the manipulation of a suite of message features does not necessarily enhance effect size.

Explaining the Observed Effects

Credibility enhancement. One appealing possible explanation of the observed effects is that explicit supporting argumentation enhances the communicator's credibility, which then leads to enhanced persuasion. Such a process would presumably involve receivers' invoking a credibility heuristic, in which the apparent credibility of the communicator is used as a basis for assessing the advocated view (see, e.g., Chaiken, 1987; Petty & Cacioppo, 1986). The observed positive mean effects for both credibility-related and persuasion-related outcomes are consistent with this account.

This explanation leads to the expectation that communicators initially low in credibility might enjoy greater impact from explicit support than would high-credibility communicators. High-credibility communicators might not enjoy so much credibility enhancement from explicitly articulating argumentative support as would low-credibility commu-

nicators (because of ceiling effects), and so they might not obtain so much greater persuasive impact.

Evidence relevant to this expectation can potentially be obtained from research designs varying both initial communicator credibility and support explicitness. A number of studies have used designs of this sort, though commonly these do not provide sufficient quantitative information to permit useful meta-analytic treatment; however, it is possible to consider simply the direction of effect observed in such studies. As a broad overview, it appears that there is not a striking difference between high- and low-credibility communicators in the character of the observed effects of support-explicitness variations on either persuasive outcomes or perceived credibility.

With respect to persuasive effects, for communicators initially high in credibility, a number of studies have indicated that explicit messages have some persuasive advantage over nonexplicit messages (Harte, 1972, Experiment 1; McCroskey capital punishment; McCroskey pro-education; McCroskey revised capital punishment; McCroskey revised education), but several studies have reported effects in directions favoring nonexplicit messages (Bush & Lashbrook, 1973; Harte, 1972, Experiment 2; Hayes, 1966; Luchok & McCroskey, 1978; McCroskey con-education). Similarly, for communicators initially low in credibility, in several cases explicit-support messages have been more persuasive than nonexplicit ones (Bush & Lashbrook, 1973; Luchok & McCroskey, 1978; McCroskey capital punishment; McCroskey pro-education; McCroskey revised capital punishment; McCroskey revised education; Yalch & Elmore-Yalch, 1984), but in a number of cases the opposite direction of effect has been observed (Harte, 1972, Experiment 1; Harte, 1972, Experiment 2; Hayes, 1966; McCroskey con-education). That is, the pattern of effects does not display

the expected greater superiority of explicit support for low-credibility communicators.

Concerning credibility perceptions, for communicators initially high in credibility, a number of studies have indicated that explicit-support messages lead to more positive credibility judgments than do nonexplicit messages (Fleshler, Ilardo, & Demoretcky, 1974; McCroskey pro-education; McCroskey con-education; McCroskey revised education), but several other studies have reported effects favoring nonexplicit-support messages or mixed effects (Harte, 1972, Experiment 1; Harte, 1972, Experiment 2; Hayes, 1966; Maddux & Rogers, 1980; McCroskey capital punishment). Similarly, for communicators initially low in credibility, some studies report that explicit-support messages enhance perceived credibility more than do nonexplicit ones (Fleshler, Ilardo, & Demoretcky, 1974; Hayes, 1966; Maddux & Rogers, 1980; McCroskey pro-education; McCroskey con-education; McCroskey revised education), but other cases favor nonexplicit-support messages or report mixed directions of effect (Harte, 1972, Experiment 1; Harte, 1972, Experiment 2; McCroskey capital punishment). Again, the pattern of effects does not suggest that low-credibility communicators enjoy some marked advantage over high-credibility communicators in the impact of support explicitness on credibility perceptions.

Thus variations in support explicitness do not seem to have dramatically different effects on the perceived credibility of, or the persuasiveness of, communicators initially high in credibility and those initially low. This research evidence is limited in a number of important ways (there are few relevant cases, effect sizes are not available, and so forth), so one ought not make too much of what is in hand; future research could plainly be useful in clarifying the relevant relationships. But at a minimum the evidence to date does not give substantial

encouragement to the supposition that the effects of support-explicitness variations depend in some crucial way on the communicator's initial level of credibility. This, in turn, suggests that credibility enhancement may not be the causal mechanism by which explicit supporting argumentation enhances persuasion.

*Argument enhancement.*An alternative account is that explicit supporting argumentation directly enhances belief in the relevant supporting argument and thereby makes the message more persuasive. That is, quite apart from any effects that such explicitness might have on perceptions of the communicator's credibility, provision of explicit argumentative support could enhance the persuasiveness of the supporting argumentation. For instance, a receiver might reason that a particular supporting argument is more likely to merit belief given the identification of the source of some information invoked by the argument, or given the greater articulation of the argument's underpinnings (its premises, supporting material, etc.). Thus the impact of the supporting argument might itself directly be enhanced by such explicitness, without any intervening step involving enhanced perceptions of the communicator's credibility. From this vantage point, the observed credibility-enhancement effects are epiphenomenal, that is, not implicated in bringing about the observed effects on persuasiveness.

This explanation underscores the importance of research focussed on identification of specific argument features that enhance the impact of individual arguments (and thus the impact of the messages in which they appear). One well-known body of research that might appear to bear on this question is elaboration likelihood model research concerning the role that variation in "argument strength" plays in persuasion (e.g., Petty, Cacioppo, & Goldman, 1981). But as several commentators have noted (e.g., Areni &

Lutz, 1988), this research has not specified the properties that make specific arguments relatively more or less persuasive. The present results suggest that information-source citation, argument completeness, and perhaps quantitative specificity might be candidates worthy of closer examination.

There are at least two different means by which such support explicitness could directly bolster the persuasiveness of supporting arguments. One possibility is that the effect arises through the receiver's careful scrutiny of the articulated support; if this is the underlying process, then poorer-quality articulated support might diminish persuasiveness (because close examination of the explicated support will reveal the support's weaknesses). A second possibility is a more heuristic-like process, in which the explicitness of support is taken as a sign of the merit of the argument, in a way that does not necessarily involve careful attention to the argumentative details; if this is the underlying process, then even poorer-quality articulated support might enhance persuasiveness (for example, citing *any* information source may be taken as an indication of the argument's being worthy of belief).[4]

These two possibilities are not mutually exclusive, of course. As suggested by dual-process models of persuasion (e.g., Chaiken, 1987; Petty & Cacioppo, 1986), receivers' scrutiny of message arguments will sometimes be cursory and sometimes be close (depending on, inter alia, the personal relevance of the topic to the receiver). This obviously provides a potential basis for explaining the inconsistent results noted earlier concerning the effects of articulating poorer-quality argumentative support (Cronin, 1972; Luchok & McCroskey, 1978).

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[4] Thanks to Sally Jackson for suggesting this second possibility.

CONCLUSION

For two kinds of support explicitness—information-source citation and argument completeness—messages with more explicit argumentative support are significantly more credible and significantly more persuasive than their less explicit counterparts; for a third kind—quantitative specificity—no dependable effects were observed either on credibility or persuasiveness, though there were relatively few studies. Additional research will be needed to identify the limits of the observed effects (circumstances under which the effects do not occur, or are reversed) and to explain how and why the effects arise. But as a rule, advocates can appropriately be advised, on both normative and instrumental grounds, to articulate their argumentative support in these ways.

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