

The Effectiveness of Supportive and Refutational Defenses in Immunizing and Restoring Beliefs Against Persuasion¹

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Previous studies (2, 5) have shown that merely giving a person arguments supporting his belief, without even a mention of possible counterarguments against the belief, has little efficiency in making that belief resistant to persuasion. The present study is designed to show that supportive defenses, when employed in specified ways, can contribute appreciably to belief maintenance.

The hypotheses of both the previous and the present studies derive from the "selective exposure" postulate—that people tend to defend their beliefs by avoiding exposure to counterarguments rather than by developing positive supports for the beliefs. As a consequence of the ideological "aseptic" environment that results, the person tends to remain highly confident about his beliefs, but also to be highly vulnerable to strong counterarguments when forced exposure to them occurs. The previous findings, that prior exposure to supportive arguments fails to reduce the vulnerability, are consonant with the above analysis: the person's selective exposure has left him overconfident of his belief's invulnerability. Hence, he regards the supportive defense as belaboring the obvious, and is little motivated to utilize it seriously.

The finding that a prior defense-by-refutation does produce considerable immunity to persuasion is also consonant with the selective exposure hypothesis. (The term "refutational defense" will be used in this paper to refer to defenses which involve pre-exposing the person to the mention of counterarguments against his beliefs together with a detailed refutation of these counterarguments.) Such pre-exposures, analogous to inoculating with a weakened virus a person who has been raised in a germ-free environment, would be expected to stimulate the person's belief defenses, thus making him better able to resist the subsequent massive exposure. This analysis is particularly appropriate when the beliefs involved are cultural truisms, since the selective exposure tendency is especially likely to have been successfully carried out as regards such beliefs. For this reason, the present study utilizes cultural truisms as the experimental beliefs.

The preceding theoretical analysis suggests some techniques for enhancing the belief-maintaining effectiveness of the supportive defenses. The first

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prediction is that, while the supportive defense is ineffective in producing resistance to persuasion when used alone, it does make an appreciable contribution when used in conjunction with the refutational defense. The thinking underlying this prediction stems from the selective exposure postulate. While the person tends to disregard these apparently obvious supportive defenses when they are presented alone, the shock value of the contemporaneous presentation of the refutational defense, which suggests to him that his beliefs are not as invulnerable as he thought, serve to provoke his interest in and utilization of the supportive arguments.

A second prediction is that the resistance increment produced by adding the supportive to the refutational defenses is greater when the attack utilizes strong forms of novel counterarguments than when the already-refuted counterarguments are used. This hypothesis is derived from considerations similar to the preceding: the refutational defense's effectiveness against the same counterarguments derives mainly from the thoroughness with which these specific counterarguments were refuted; while its effectiveness against novel counterarguments derives more from its provoking the person into seeking support for his belief, which the supportive defense aptly supplies.

Similar theoretical considerations lead to a series of predictions of differential effectiveness of various sequences of the defenses. It was predicted firstly that the double defense condition produces more immunity when the supportive defense follows the refutation than when it comes first. The other sequence predictions involve comparing the belief-maintenance efficiency of immunization prior to the attack with that of restoration after the attack. It was predicted that with these overprotected cultural truisms, the belief defenses are more effective when they follow than when they precede the attack. Further, it was predicted that this superiority of restoration over immunization is greater with the supportive than with refutational defense. Finally, it was predicted that the hypothesized superiority of the refutation-supportive defense sequence over the supportive-refutational sequence is more pronounced in the immunization than in the restoration procedure. All four of these sequence predictions are derived from the above-mentioned postulate that the believer tends to utilize the supportive defense only to the extent that he is provoked to realize the vulnerability of his beliefs. It was assumed that such realization could be provoked by prior presentation either of the refutational defense or, especially, of the strong attack.

A final purpose of the present study is to determine if the refutation-only defense is superior in belief-maintaining efficacy to the supportive-only, even when the strong attacks involve novel (not previously refuted) counterarguments. Its superiority has been demonstrated (5) as regards attacks utilizing the very counterarguments refuted, but other studies (4, 6) have

shown that while the refutational defense does confer some resistance to attacks by novel counterarguments, the resistance is less than that to attacks by the same counterarguments as refuted. The present study is designed to determine whether in the case of attacks by novel counterarguments, the refutational defense is less effective than the supportive in conferring resistance to the later attacks.

METHOD

Materials and Treatments

Opinion measures. Four health beliefs were selected because in a pre-study they were found to be accepted as truisms by college students. The four beliefs were the following: "Everyone should get a chest X-ray each year to detect any possible TB symptoms at an early stage;" "The effects of penicillin have been, almost without exception, of great benefit to mankind;" "Everyone should brush his teeth after every meal if at all possible;" and "Everyone should see his doctor at least once a year."

The beliefs on these issues were measured by an opinion questionnaire containing 17 statements, four of which touched on each issue (the seventeenth being a repeat of an earlier item to permit a reliability check). The subject indicated his belief in each statement by marking a 15-point graphic scale at the point between "Definitely disagree" and "Definitely agree" which indicated his degree of assent to the statement. In computing the opinion scores, a numerical value of 15 was always given to the end of the scale indicating concurrence in the belief, with a value of one assigned to the end indicating rejection of the belief. The scores reported in the "Results" section below are based on the mean of the responses to the four items on the given belief.

Defensive treatments. The supportive and refutational defenses consisted of reading mimeographed messages approximately 600 words in length.² Each message was divided into three paragraphs. In the supportive defense, the first paragraph mentioned that the belief was obviously true but that to forestall any possible objections we should familiarize ourselves with the reasons for holding the belief. Two such supporting arguments were then

² All 24 of the messages used in the study (including the eight refutational defenses, the eight supportive defenses, and the eight attacks) have been deposited with the American Documentation Institute Auxiliary Publications Project, Photoduplication Service, Library of Congress, Washington 25, D. C. Included are two alternate versions of supportive, refutational and attacking messages on each of the four issues. Order Document No. 6629, remitting \$2.00 for 35mm. microfilm or \$3.75 for 6 by 8 inch photo-copies. Advance payment is required. Make checks or money orders payable to: Chief, Photoduplication Service, Library of Congress.

mentioned. In the following two paragraphs, these two supporting arguments were developed in detail with (purportedly) factual information. In the refutational defenses, the first paragraph mentioned that the belief was obviously true but that occasionally one heard misguided attacks on it, and hence it would be wise to know the fallacies in these erroneous counterarguments, two of which were then mentioned. In the following two paragraphs, these two counterarguments were refuted in detail with (purportedly) factual information.

Supportive and refutational messages were prepared on each issue. Because the design required that in some conditions the strong attack involve the same counterarguments as had been refuted in these defensive messages, while in other conditions the attacks involve novel counterarguments, counterbalancing the material necessitated preparation of two alternate refutational messages on each issue, refuting different pairs of counterarguments. In order to keep the design symmetrical, duplicate supportive messages were also prepared on each issue, presenting different pairs of arguments supporting the belief. Hence there were two supportive and two refutational defensive messages on each issue. For example, on the belief that "Everyone should see his doctor at least once a year," the first pair of refuted counterarguments were that such a practice would swamp medical facilities and that it would interfere with specialization within the medical profession; and the second pair of refuted counterarguments were that it would promote hypochondriasis and that it would result in putting off visits to a physician, even when symptoms began to appear, until one's routine checkup date arrived. In the supportive defenses on this issue, the first pair of supporting arguments was that such routine checkups catch symptoms in early stages when the illness is more easily cured and that they reduce community epidemics; and the second pair was that they allowed the physician to give instruction in currently important preventive measures and that they reduced unnecessary anxiety over health.

The attacking messages. The messages used in the strong subsequent attacks were, like these defenses, about 600 words long and divided into three paragraphs. The first paragraph stated that although the belief was commonly held, modern research was beginning to show that it was somewhat fallacious and then mentioned two counterarguments against the belief. The next two paragraphs developed these counterarguments in detail, bolstering them with (purportedly) factual information. There were two alternative attacking messages on each issue, each developing a pair of counterarguments that had been presented in a refutational message.³

³ See footnote 2 regarding these messages.

Design and Subjects

Four types of defense were used (supportive-only, refutational-only, supportive-refutational, and refutational-supportive) and each could be followed by attacks employing either of the two alternative forms of the attacking messages. One of these alternative forms constituted an attack by the same counterarguments as those previously refuted, the other by novel counterarguments (except that in the supportive-only conditions all the subsequent counterarguments were by definition novel). Analogously, there were eight restoration conditions, corresponding to these eight immunization conditions except for the order of attack and defense, the defense coming after the attack in the restoration conditions and prior to the attack in the immunization.

Also included in the design were a number of control conditions. There were four defense-only conditions (one for each type of defense), to give a measure of the direct strengthening effects of the defenses; one attack-only treatment, to measure the effect of the attack when no defensive treatment had been given; and a complete control involving neither attack nor defense, to measure the "initial" levels of the beliefs in the absence of any experimental treatments. Each subject served in a total of four different conditions, one on each of the four issues. The combinations of conditions given to any one subject is indicated in Table 1.

TABLE 1

One of the Eight Blocks That Made up the Experimental Design

Issues	Subject						
	1	2	3	4	5	6	7
a (X-ray for TB)	RSA	SRA	RSA'	SRA'	SR	SA	SA'
b (pencillin)	ARS	ASR	A'RS	A'SR	AS	SR	A'S
c (tooth-brushing)	A	A	A	A	S	RA	RA'
d (annual check-up)	—	—	—	—	AR	R	A'R

NOTE: Letters in the cells indicate the sequence of messages received by the given subject on the given issue. "R" indicates a refutation-defense message; "S," a supportive-defense message; and "A," a strong-attack message. Each subject served in one column of cells as indicated.

The block of treatments shown in this table was one of eight such blocks that made up the design. The eight blocks were needed in order that the "prime" and "no-prime" messages on the four issues (a, b, c, and d) could be systematically rotated around the conditions. Hence, 56 subjects were needed to complete a single replication. There were three such replications, requiring 168 subjects in all.

The significance levels reported below are based on analyses of variance in which the "error terms" are the residual variance in the conditions being compared, after the treatment effect and, where appropriate, the individual difference variance were removed.

The 168 subjects used in this study were students enrolled in the introductory psychology course at the University of Illinois. They were selected from a pool of about a thousand such students on the basis of availability at the required times. Females were more numerous than males by a seven to three ratio. Ninety of the subjects were sophomores; the others were about equally divided between freshman and junior year, except for eight seniors.

General Procedure

Each subject took part in one two-hour experimental session which was represented to him as part of a study designed to develop a test of "analytic thinking ability" for selecting high-level government personnel, particularly those having to do with administering scientific and medical activities. He was told he would be given passages discussing health issues and asked to identify the main points being made in each passage under limited time conditions. The experimental messages were then presented to him, each being either a supportive defense, a refutational defense or a strong attack, depending on which of the treatment combinations had been assigned to him (as shown in Table 1). He was told to read each message and to select and underline the crucial clause in each paragraph. We stated that the primary purpose of the experiment was to determine how accurately and completely he selected the crucial point and how completely he avoided underlining the noncrucial material. (The actual reasons for introducing this underlining task was to help disguise the persuasive aim of the material and to enhance the subject's exposure to it.) The subject was allowed five minutes for working on each passage in the order presented and was not allowed to turn back to previously seen material.

When the time was up for working on these messages the subject was given a questionnaire requesting background information and containing personality items, this part of the session serving to disguise further the persuasive purpose of the study. The subject was then given the opinion questionnaire (described above) for measuring beliefs on the four issues. He was told that we desired to know his own current beliefs on the issues to see if one's own beliefs on the topics affected at all one's ability to analyze the passages. It was stressed that he was to indicate his personal beliefs regardless of what any of the passages previously read might have argued. The subject's final task was to fill out a questionnaire designed to measure the effectiveness of the experimental manipulations (inquiring what he had

heard of the experiment before taking part in it; whether the time allowances had been adequate; what he thought might be the purposes of the experiment, etc.).

The real purpose of the experiment was then explained to the subject and the various deceptions and the need for their employment were pointed out to him. Particular stress was laid on the fact that the messages had been prepared strictly for propaganda purposes, without any necessary regard for the evidence or expert opinion, and that therefore the subject should not give any particular credence to a view on account of its having been presented in one of the present passages.

RESULTS

Direct Effect of the Defenses

The beliefs were, as intended, quite high initially, the overall mean being 12.44 on the 15-point scale in the control condition which involved neither defense nor attack. This and the other results are summarized in Table 2.

There was only slight evidence of increased strength of belief immediately after the defensive treatments. The overall mean belief level in the four defensive treatments, without any attack, was 12.76, which was only slightly greater than the 12.44 control level. (The *F* of this difference was 1.04.) Only one of the four defensive treatments produced a significant ($p < .05$)

TABLE 2

Mean Belief Levels in the Various Treatment Conditions

Type of Defense	Type of Attack					Mean of all attacks
	None	Same Counterarguments		Novel Counterarguments		
		Immuni- zation	Resto- ration	Immuni- zation	Resto- ration	
No defense	12.44	—	—	—	—	9.94
Single defenses						
s-only	13.48	—	—	10.54	10.42	10.49
r-only	11.30	12.16	12.31	9.96	9.62	11.03
both singles	12.89	12.16	12.31	10.25	10.01	10.85
Double defenses						
s, then r	12.40	11.68	12.18	11.30	11.81	11.76
r, then s	12.85	11.35	12.20	11.19	11.50	11.58
both doubles	12.62	11.51	12.19	11.25	11.66	11.67
All single and double refutational	12.18	11.74	12.24	10.83	10.99	11.32

NOTE: Scores in the cells are the overall means for the four issues on a 15-point scale. Number of cases in each cell range from 24 to 96 as described in text under "Design."

direct effect on the beliefs, namely the supportive-only defense. (See Table 2.) The double defenses had only a slight strengthening effect and the refutational-only, none at all. The only significant difference among the four defensive treatments was the superiority ($p < .05$) of the supportive-only to the refutational-only.

The lack of any sizable increase in strength of belief as a direct result of the defenses is to a large extent imposed by the experimental condition. The selection of "truisms" for study means that the defenses are operating under a very low "ceiling" that makes it difficult for them to show any further increase due to the defenses. Although this lack of direct strengthening effect is largely artificial, it remains a point of interest that, despite the apparent failure of the defenses to produce any direct increase in strength, they did confer considerable latent resistance to attack, as will be discussed below. The further finding that the supportive-only defense is the most effective treatment as regards direct strengthening effect is likewise interesting, since this type of defense was the least effective as regards conferred resistance to counterarguments. Clearly the immunizing benefits of a defensive treatment are not adequately indicated by its direct strengthening effect on the belief.

Immunization and Restoration Effects

Comparisons of the attack-and-defense with the no-attack control condition. The beliefs in the 14 attack-and-defensive conditions were in all cases lower than the 12.44 control level (see Table 2). The overall mean of the 14 conditions was 11.32, significantly ($p < .001$) lower than the control level. Hence it is clear that neither the immunization nor restoration defenses were completely successful in maintaining the belief. The only defensive condition which came close to conferring complete resistance was the refutational-only, when the attack involved strong forms of the very counterarguments refuted. The differences between the 12.26 level in this condition and the 12.44 control level yielded a t of only 0.44.

Comparisons between attack-and-defense and attack-only conditions. The strong attacks proved quite effective in reducing the beliefs in these cultural truisms when neither an immunizing nor restorative defense accompanied them. The overall mean of beliefs in the attack-only conditions was 9.94, a drop of 2.50 points on the 15-point scale from the control level ($p < .001$).

The results shown in Table 2 indicate that this drop was largely attenuated when a prior or subsequent defense accompanied the attack. The beliefs after defense-and-attack were higher than after the attack-only in 13 of the 14 treatments and their overall mean of 11.32 points exceeded the 9.94 mean in the attack-only condition by an amount that was significant at the .001 level.

Hence both immunization and restoration did produce appreciable resistance to the attacks, although, as we have just seen, in no case was the resistance complete. In only two of the seven defensive conditions did the magnitude of this resistance increment fail to attain the .05 level of significance. Both of these unsuccessful procedures involved single defenses: the refutational-only, when the attack involved novel counterarguments, and the supportive-only defense.

Comparisons among differential sequence treatments. None of the predicted sequence effects occurred to any appreciable extent (see Table 2). In both immunization and restoration conditions, the differences between the sequence of the supportive and refutational defense were trivial. Furthermore the overall difference between the immunization and restoration procedures was negligible. The nearest approach to a sequence effect was in the double-defense conditions. In all four of the double-defense conditions, the restoration sequence was superior to the immunization, the overall means being 11.93 and 11.40, but this overall mean difference was significant only at the 13 per cent level of significance. Because there are no appreciable order effects and because the relative belief-maintaining effectiveness of the seven different defensive treatments was found to be almost perfectly correlated in the immunization and restoration conditions (see Table 2), the results of these two conditions will be combined in the subsequent discussion. We shall refer to "belief maintenance" efficacy without regard to whether immunization or restoration was involved, and present the data based on the combined results. We could, however, draw the same conclusions with regard to the relative merits of the different defenses in either the immunization or restoration conditions separately.

Comparisons within the single defense conditions. The supportive-only defense was less effective ($p < .01$) in maintaining the beliefs against attack than were the refutational-only defenses when the attack involved strong forms of the very counterarguments refuted, a finding in accord with earlier results (5). Since the supportive-only defense was found to be more effective as regards direct strengthening effect, it is evident that the direct strengthening effect of a treatment is a poor predictor of its immunizing effectiveness.

The comparative belief-maintaining efficacy of the supportive and refutational defenses was reversed when the counterarguments used in the attack were different from those explicitly refuted, but the superiority of the supportive defense yields a t of only 0.90 in this case. The refutational defense is far less effective when the strong attack involves novel than when it involves the same counterarguments as those refuted ($p < .001$), a difference in the same direction as that found in a previous study (6), but which is of far greater magnitude in the present case. One discrepancy from the earlier

study is that here the refutational defense was completely ineffectual in maintaining the belief when the attack involved novel counterarguments, while in the earlier study the refutational defenses bestowed a highly significant amount of resistance even when the attack involved novel counterarguments.

Comparisons between the single and double-defense conditions. The overall effectiveness of the double defense was greater than that of the single defense ($p < .01$). The supportive-plus-refutational defense was significantly ($p < .05$) superior to the refutational-only in conferring resistance, indicating that, while the supportive defense failed to confer appreciable immunity when used alone, it did confer a sizable increment over and above the refutational-only defense when it was used in combination with the refutational.

The overall results (including the refutational-only and the refutational-plus-supportive defenses) showed a considerably greater ($p < .001$) belief-maintaining effectiveness against attacks by the same counterarguments as refuted than against novel counterarguments. However, as can be seen in Table 2, this superior resistance to attacks by the same counterarguments is due almost entirely to the results in the refutation-only conditions wherein, as was pointed out above, the refutational defenses proved far less effective against novel than against the same counterarguments. The refutational-plus-supportive conditions, on the contrary, were almost as effective against attacks by novel as by the same counterarguments, the resultant belief levels being 11.47 and 11.87 in the two cases (see Table 2). This predicted interaction effect between the same versus novel counterargument variable and the refutational-only versus refutational-plus-supportive defense variable is significant beyond the .01 level.

DISCUSSION

The pattern of the present results, as regards both the differences and lack of differences found, and as regards their relations to previous studies, yield a succinct theoretical interpretation.

The present results provide a clear indication that the supportive defense, previously found to be ineffective in conferring resistance to persuasion when used alone, does contribute a significant increment in resistance when used in conjunction with the refutational defense. The further finding, that the superiority of the supportive-plus-refutational defense over the refutational-only was particularly pronounced when the subsequent attacks involved novel counterarguments, adds credence to the original theoretical analysis of the roles of these two types of defenses. The refutational defense serves

to weaken the plausibility of the counterarguments refuted and also to provoke the believer into seeking backing for his belief; the supportive defense serves to provide the resistance-conferring backing for the belief in so far as the believer is motivated to seek it.

These results also clarify a theoretical ambiguity raised by Lumsdaine and Janis's (2) finding that the "two-sided" defenses were more efficacious than the "one-sided" in conferring resistance to persuasion. A subsequent study (5) showed that even the refutational-only defense was superior in this regard to the supportive-only (which is equivalent to the "one-sided" defense). The question then arose whether the superiority of the "two-sided" defense could be entirely due to its refutational component, or whether its superiority depended on the additional supportive component. The present results indicate that the supportive component adds nothing when the subsequent attack involves the very counterarguments refuted, but adds considerably when the attack involves novel counterarguments.

One discrepancy of the present results from previous findings has heuristic value. The refutational-only defense in the present study was completely ineffective in producing resistance to attacks employing novel counterarguments. Two previous studies (4, 6) indicated a high immunizing effectiveness under these conditions. Both of the previous studies involved appreciable intervals between the defenses and the attacks—one week in one study and two days in the other—while in the present study the attacks and defenses were immediately contiguous. The theoretical interpretation of the efficacy of the refutational defense in providing resistance against novel counterarguments is that the pre-exposure to counterarguments which the refutational defense involves makes the person more aware of the vulnerability of his belief and hence motivates him to seek supporting arguments to bolster it. We may hypothesize that such bolstering tends to require an appreciable amount of time, since the person is unpracticed in the defense of his "truisms." Hence it is predicted that the efficacy of the refutation-only defense in immunizing beliefs against novel counterarguments increases with time subsequent to the attack; or, more exactly, the relationship between effectiveness and time is hypothesized as being non-monotonic, since as further time passes the provoked motivation to bolster the belief will also decay. Some indirect support for this delayed-action hypothesis comes from the finding that in the double-defense condition the conferred resistance is almost as great against novel as against the same counterarguments. The supportive component of the double defense provides an immediate source of material with which the belief can be bolstered and therefore the time interval is no longer necessary.

The compression of all the manipulations within a single session may also account for the lack of sequence effects in the present study. The predicted effects of combinations of supportive and refutational defenses were found, but not the predicted permutation effects. It may be that various sequences of such treatments are not meaningfully different when the treatments are immediately contiguous.

Any attempt to make the permutation manipulations more pronounced by increasing the interval between the treatments confronts us with a dilemma, particularly in comparing immunization and restoration effects. As the interval between the treatments increases, any belief-maintaining superiority of the restoration treatment could be attributed to a "recency" effect which has been shown (1, 3) to increase with the inter-treatment interval. Hence a more adequate test of the hypothesized superiority of restoration over immunization when truisms are involved awaits a further study in which a longer interval is introduced between defenses and attacks and also control groups are added which will permit the statistical elimination of primacy and recency effects.

There is theoretical basis for suspecting that some of the present findings cannot be validly generalized to beliefs other than the "truism" type involved in this study. To the extent that the issue involved is saliently controversial, so that the person recognizes that his belief is subject to attack, our predictions regarding the immunizing efficacy of some of the defensive treatments would change. With such controversial beliefs, the person would be more motivated to seek out and utilize the supportive-only defenses and might even tend to avoid the refutational defenses which remind him of the formidable counterarguments against his belief. Hence, we might predict that the supportive-only defense would be more effective in immunizing saliently controversial beliefs than it was found to be with the truisms used in this study, and that it would gain less from the motivation-increasing accompaniment of the refutational defense found to be so necessary with the truisms used here (especially when the subsequent attacks involved novel counterarguments).

It should also be noted that the present results regarding the relative belief-maintaining merits of the different defensive treatments were obtained with respect to a single type of attack, namely forced exposure to an authoritative-sounding message containing factual counterarguments. Hence, it would be risky to generalize the findings to situations involving other types of attack—e.g., where exposure was voluntary, or where the subjects' beliefs were attacked by the assertions of his peers and friends or by a physically present authority figure.

SUMMARY

Several hypotheses concerning the efficacy of different treatments for conferring resistance to persuasion were derived from the "selective exposure" postulate. Four types of treatments were used: supportive-only (providing arguments in support of the belief), refutational-only (providing refutations of counterarguments against the belief), supportive-then-refutational, and refutational-then-supportive. These defenses came prior to the attacks in half the conditions (immunization) and subsequent to the attacks in the other half (restoration). In the three defenses involving refutations, the attack involved strong forms of the refuted counterarguments in half the cases and in the other half they involved novel counterarguments. Health truisms were employed as the experimental beliefs.

It was found that the attacks considerably ($p < .001$) weakened the beliefs when they were not accompanied by any defense and that the overall effect of the defenses was to attenuate ($p < .001$) the amount of this weakening. The supportive-only defense proved the most effective of the four defensive treatments in direct strengthening effect prior to any attack, but the least effective as regards conferred resistance to the attack. The refutational-only defense was superior ($p < .01$) to the supportive-only in conferring resistance when the attack involved the very counterarguments refuted, but inferior to it when novel counterarguments were involved. Although the supportive defense conferred no resistance when used alone, it added a considerable increment when used together with the refutational defense ($p = .05$), but this increment was restricted to conditions in which the attack involved novel counterarguments ($p < .01$). There were no permutation effects: immunization and restoration were equally effective, and the ordering of the defenses as regards effectiveness was the same with immunization as with restoration. These findings permitted a parsimonious theoretical interpretation.

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