A FOCUS THEORY OF NORMATIVE CONDUCT: A THEORETICAL REFINEMENT AND REEVALUATION OF THE ROLE OF NORMS IN HUMAN BEHAVIOR

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During the past two decades, the state of the natural environment has become an increasingly important concern in our society. Consequently, public and private groups at the local, state, and national levels have undertaken a wide variety of programs designed to discourage behaviors that damage or despoil the environment. One of the most visible such programs can be seen in the consistent efforts of the Keep America Beautiful, Inc. organization to reduce the amount of litter that occurs in public places. Although the organization has attacked this problem effectively in numerous ways, it has perhaps made its greatest impression on the public consciousness through its sponsorship of a series of televised public service announcements (PSAs) against littering.

Easily the most famous of these PSAs is one that is renowned within the Keep America Beautiful, Inc. organization as the single most powerful and memorable message that has ever been sent to the American people against litter. It begins with a shot of a stately, buckskin-clad American Indian paddling his canoe up a river that carries the scum and trash of various forms of industrial and individual pollution. After coming ashore near the littered side of a highway, the Indian watches as a bag of garbage is thrown, splattering and spreading along the road, from the window of a passing car. From the refuse at his feet, the camera pans up slowly to the Indian's face, where a tear is shown tracking down his cheek, and the slogan appears; "People Start Pollution, People Can Stop It."

By now, millions of us have seen and been affected by this touching piece of public service advertising-called the "Iron Eyes Cody spot" after the Native American actor who starred in its several versions. However, despite the fame and recognition value of the advertisement, our research suggests that it contains

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features that may be less than optimal, and perhaps even negative, in their impact on the littering actions of those who see it. That is, certain unintended and untoward effects may be produced in the audience that are contrary to the purposes of the advertisement and its sponsor. To understand fully the nature of those potentially problematic features, it is necessary to consider the basic nature and current status of a long-standing and controversial concept in social science.

I. The Concept of Social Norms

Despite a history of long and extensive use within the discipline, there is no current consensus within social psychology about the explanatory and predictive value of social norms. On the one hand are those who see the concept as crucial to a full understanding of human social behavior (e.g., Berkowitz, 1972; Fishbein & Ajzen, 1975; McKirnan, 1980; Pepitone, 1976; Sherif, 1936; Staub, 1972; Triandis, 1977). On the other hand are those who view the concept as vague and overly general, often contradictory, and ill-suited to empirical test (e.g., Darley & Latané, 1970; Krebs, 1970; Krebs & Miller, 1985; Marini, 1984). A parallel controversy has developed in academic sociology where ethnomethodological and constructionist critics have faulted the dominant normative paradigm of that discipline (Garfinkel, 1967; Mehan & Wood, 1975). What are we to make of such a state of affairs? What are we to believe about the concept of social norms when one set of respected voices assigns it undeniable, and in some instances predominant} influence over much of human social conduct while a set of equally respected voices calls its demonstrated influence weak at best?

Informed by the results of the research program described in this article, our own answer to the puzzle has been to recognize the concurrent validity of both positions. That is, it is our view that both camps are correct: Norms do have a strong and regular impact on behavior, but the force and form of that impact can only be soundly established through theoretical refinements that have not been traditionally or rigorously applied. The first such refinement is definitional.

A. DESCRIPTIVE AND INJUNCTIVE NORMS

Part of the ambiguity attendant to the role of norms in accounting for human action can be traced to confusion in the meaning of the term. As is true in everyday language, "norm" has more than one meaning in academic usage (Schaffer, 1983). It can refer either to what is commonly done-that is, what is normal-or to what is commonly approved-that is, what is socially sanctioned.

It is important to recognize that, despite the shared label, evidence as to what others commonly do and evidence as to what others commonly approve represent separate sources of human motivation [cf. Deutsch and Gerard's (1955) classic distinction between informational social influence and nonnative social influence]. Thus, with reference to a given social group, we will refer to norms that characterize the perception of what most people do as *descriptive norms* (or the norms of "is") and we will refer to norms that characterize the perception of what most people approve or disapprove as *injunctive norms* (or the norms of "ought").[1]

There is little controversy surrounding the impact of descriptive norms on behavior. From the early days of experimental social psychology, researchers regularly have been able to document the magnetic pull of the typical response, even in matters wholly lacking an "ought" component (e.g., Asch, 1956; Crutchfield, 1955; Sherif, 1936). For instance, by progressively enlarging the size of a group of confederates looking up from a street comer at an empty spot in the sky, Milgram, Bickman, and Berkowitz (1969) were able to increase dramatically (to 84%) the number of passers-by who followed suit.

Descriptive norms motivate by providing evidence as to what will likely be effective and adaptive action: "If everyone is doing or thinking or believing it, it must be a sensible thing to do or think or believe." Cialdini (1988) has argued that such a presumption offers an information-processing advantage and a decisional shortcut when one is choosing how to behave in a given situation. By simply registering what most others are doing there and imitating their actions, one can usually choose efficiently and well. No doubt this is one reason that advertisers frequently load their television commercials with scenes of crowds moving toward their stores or of many hands depleting shelves of their products; and no doubt it is the same reason that they claim their products to be the' 'fastest growing" or "largest selling." In this fashion, they need not convince us directly that their product is good; they need only convince us that many others think so, which, among consumers, is often proof enough (Venkatesan, 1966).

In contrast to descriptive norms, which specify what is done, injunctive norms specify what ought to be done. They constitute the moral rules of the group. Such norms motivate action by promising social rewards and" punishments (informal sanctions) for it. Whereas descriptive norms inform behavior, injunctive norms

[1]Descriptive norms as we mean them have sometimes been called *popular* norms; and injunctive norms as we mean them have sometimes been called *prescriptive* norms. Foregoing the opportunities for creating rhyming or alliterative terms for the two norm types (e.g., "descriptive and prescriptive" or "popular and prescriptive"), we opted against such mnemonics in favor of conceptual clarity. That is, in the instance of the first kind of norm, a common definition of popular implies a necessary sense of approval-something we think important to reserve for the second kind of norm. As regards the second kind of norm, prescriptive is too restrictive a term for our preferred meaning, which includes proscriptions as well as prescriptions.

enjoin it. Thus, it could be argued that one reason people may be helpful in our society is to act in accord with the societal norm for helpfulness, which is positively sanctioned (Berkowitz, 1972). Similarly, one reason people may repay the gifts, favors, and services they have received is to conform to the norm for reciprocity, thereby garnering social approval and avoiding social disapproval (Gouldner, 1960).

Much of the controversy surrounding the concept of social norms swirls around the contention that widely held injunctive norms account for much of human behavior. Writers such as Darley and Latané (1970), Krebs (1970), Krebs and Miller (1985), and Marini (1984) have despaired at the ability of this concept to predict or explain a significant amount of the variance in social behavior. They have pointed out, for example, that frequently within the same societal group mutually incompatible norms exist simultaneously (e.g., the norm for getting involved and the norm for minding one's own business). Consequently, no matter which type of behavior were to occur, it could be attributed to the action of norms; of course, when a concept can explain any behavior pattern after the fact, one suspects that it is too vague or circular to explain anything. These authors argue further that the majority of human responding is only sometimes in keeping with the dominant social norms; if the same norms are in place when behavior is norm inconsistent as when it is norm consistent, why should we believe that norms mediated any of it?

Criticisms of these sorts have been helpful to us in identifying the second major theoretical refinement that must be rigorously applied before the utility of normative explanations can be confidently established: Whether a particular norm will influence responding is dependent on the degree to which the respondent's attention is focused on that norm.

B. THE IMPORTANCE OF NORMATIVE FOCUS

There is substantial evidence that shifting an individual's attention to a specific source of information or motivation will change the individual's responses in ways that are congruent with the features of the now more prominent source (Agostinelli, Sherman, Fazio, & Hearst, 1986; Kallgren & Wood, 1986; Millar & Tesser, 1989; Storms, 1973). In keeping with this evidence, Deaux and Major (1987) concluded that the occurrence of gender-consistent behavior is frequently determined by situational factors that shift attention to the construct of gender, thereby making it more salient. A similar relationship appears to obtain in the normative arena. That is, norms motivate and direct action primarily when they are activated (i.e., made salient or otherwise focused upon); thus, persons who are dispositionally or temporarily focused on normative considerations are decidedly more likely to act in norm-consistent ways (Berkowitz, 1972; Berkowitz &

Daniels, 1964; Gruder, Romer, & Korth, 1978; Miller & Grush, 1986; Rutkowski, Gruder, & Romer, 1983; Schwartz & Fleishman, 1978).

An analysis of this sort allows us to retain a belief in the usefulness of normative explanations in the face of the insightful criticisms discussed earlier. That is, it becomes wholly understandable why the dominant norms of a society-that are presumably always in place-may only sometimes predict behavior: They should activate behavior only when *they* have been activated first. Similarly, the simultaneous existence of incompatible social norms is no longer a damaging criticism of normative accounts if we assume that the conflicting norms may coexist within the same society but that the one that will produce congruent action is the one that is temporarily prominent in consciousness.

Pursuing this last realization further, we can see that it also applies to the distinction between descriptive and injunctive norms. Although it is most frequently the case that what is done and what is approved in a social group are the same, this is often not the case. For instance, even though the majority of people who pass a sidewalk Salvation Army donation kettle might not give a contribution, it is likely that the majority would approve of someone who did. In situations of this kind, with clearly conflicting descriptive and injunctive norms, we would expect that focusing observers on what most people did or on what most people approved would lead to behavior change that is consistent only with whichever has become the now more salient type of norm.

II. Studying Littering in Natural Settings

One purpose of the present research program was to test our theoretical model as it applied to individuals' decisions to litter in public places. We chose littering because it allowed us to test our norm focus model on a behavior that was of practical importance. Although at first glance littering may appear to be a trivial problem that is more a mere annoyance than anything else, upon closer inspection it is clear that littering constitutes a large and growing social problem with considerable aesthetic, financial, and health-related costs. For example, in the state of California alone, litter has increased by 24% over a recent span of 15 years, requiring $100 million annually in clean-up costs (California Waste Management Board, (988). Litter poses health threats, for both humans and wildlife, ranging from minor injury to death through water pollution, fire hazards, highway accidents, and rodent and insect infestations, as well as through thousands of injuries from discarded cans and broken bottles (Geller, Winett, & Everett, 1982). Clearly, then, littering is a social problem worthy of study.

In order to substantiate the need for the theoretical refinements presented in our norm focus model, two questions need to be answered: (1) Do behavioral

patterns confirm our theorized distinction between descriptive and injunctive norms? and (2) is focus a critical mediator of which type of norm guides behavior? Depending upon how these questions are answered, there is also a third question of the practical implications and applications of our theoretical formulation. To attempt to converge upon the answers to these questions, we present a series of nine studies we have conducted that examine littering in public places.

Owing to this choice of public littering as our behavior of interest, we decided to conduct our studies in field settings where littering would occur naturally. Although people will litter in laboratory settings (e.g., Krauss, Freedman, & Whitcup, 1978), the external validity of such studies might be questioned. Given the stormy history surrounding the practical utility of normative explanations, we wanted to maximize our external validity in order to offer suggestions for litter abatement programs. Thus we conducted the bulk of our research in field settings to increase our ability to generalize to such settings.

A. FOCUSING ON DESCRIPTIVE NORMS

We first turn our discussion toward the explication of the effects of focusing on the descriptive norms of a situation. One of the most commonly reported findings from studies of littering behavior is that individuals litter into an already littered environment at a greater rate than they do into an otherwise clean environment (see Geller *et al.,* 1982, for a review).[2] According to our focus theory, this occurs because individuals are to some degree focused on the descriptive norms present in the situation. Of course, our model is not the only one capable of explaining this data pattern. A social learning theorist (e.g., Bandura, 1977) might say that the effect is due to subjects' imitation of the behavior of those who have been in the environment before them. It could also be argued that the effect occurs because individuals perceive that their littering would do less damage in an already littered environment compared to a clean environment. Consequently, in order to show the utility of our theoretical refinements, we needed to develop a theoretical test that would predict effects for our model that were different from those predicted from the alternative accounts discussed above.

1. Study 1: *Does Litter Always Beget More Littering?*

In the first test of our theoretical model, we explored the effects of varying the saliency of the descriptive norm. We sought to increase the prominence of the

[2]In addition, gender differences in littering tendencies are often, but not always, reported. When there are gender differences, it is almost always the case that women littered less than men. Analyses of our data occasionally demonstrated gender differences. When these were encountered they are reported but are not discussed if they were not present.

descriptive norm regarding littering in our experimental setting by exposing subjects to a confederate who conspicuously dropped a piece of paper into the environment, thereby drawing their attention to the state of the environment and to its evident descriptive norm. We expected that if subjects were thereby focused on the state of the environment in a littered setting, they would litter at rates greater than those for control subjects, who were also exposed to the environment but not focused on evidence that many others had littered there. Conversely, in a clean environment, we expected to reduce littering among those subjects who we had focused on the state of the environment.

The form of this predicted cross-over interaction was important because, although consistent with our theoretical predictions, it could not be explained by either of the alternative accounts discussed previously. First, the imitation-based prediction is for an increase in littering in both clean and littered environments when the subject witnessed an unpunished litterer. Second, the prediction based on avoidance of damage to the environment is that littering should increase in both clean and littered environments after a confederate littered. Furthermore, the rate of increase in littering should be greater in the clean environment because the confederate's littering action would have markedly decreased the relative damage the subject's potential littering might have done. Thus, according to both of these alternative accounts, subjects should be more inclined to litter after seeing a confederate litter into a clean environment, not less inclined as we predicted.

Participants in this first study (Cialdini, Reno, & Kallgren, 1990, Experiment I) were unobtrusively observed as they returned to their vehicles in a multilevel parking garage adjacent to a university-affiliated hospital. In the high-norm salience condition, shortly after a subject exited an elevator, a confederate who was walking toward the subject dropped a large handbill he or she was carrying approximately 4.5 m (5 yd) in front of the subject. In the low-norm salience condition, the confederate simply walked by the subject without a handbill to provide an equivalent degree of social contact. To manipulate the descriptive nonn, on a 2-hour rotation the parking garage was either sprinkled with sundry litter (including a large number of handbills) to create a prolittering descriptive norm, or all traces of litter were carefully removed to create an antilittering descriptive norm. Upon arriving at their cars, subjects found a handbill, like the one dropped by the confederate, tucked under the driver's side wiper that read "THIS IS AUTOMOTIVE SAFETY WEEK. PLEASE DRIVE CAREFULLY." The dependent measure consisted of whether the subject dropped the flyer into the environment.

As may be seen in Fig. I, the data patterns supported our experimental hypotheses. There was more littering in the littered environment than in the clean environment, and this pattern was accentuated by our descriptive norm focus manipulation. That is, the most littering occurred in the littered environment

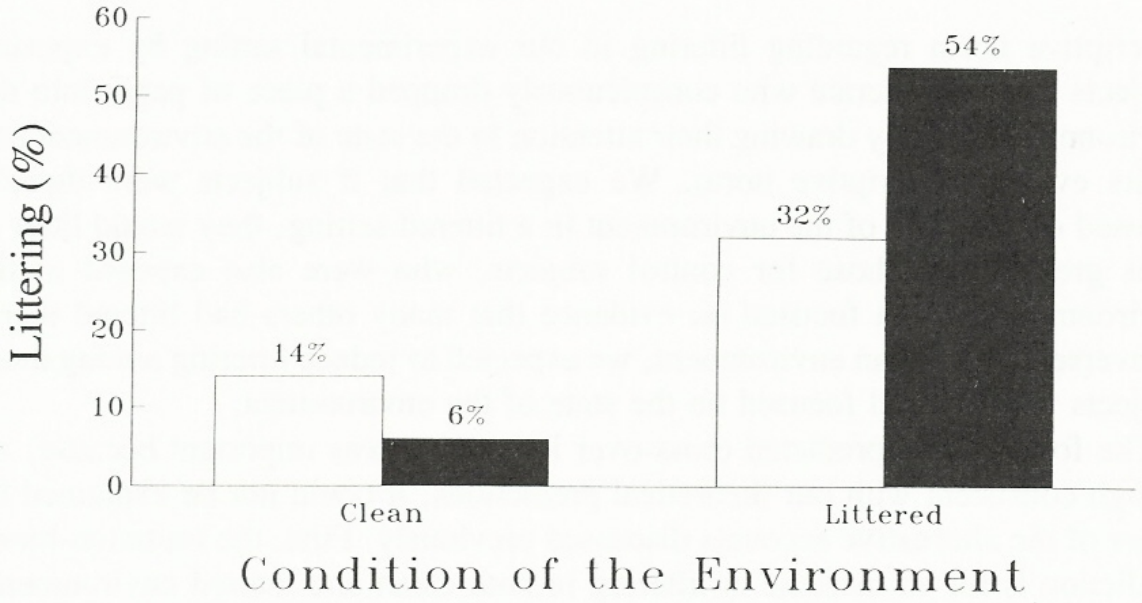

Fig. 1. Percentage of subjects littering as a function of norm salience and the environmental condition in Study 1. (□), Model walks by; (■), model litters.

when subjects saw a confederate throw down a handbill, and the smallest proportion of subjects littered after having witnessed the confederate throw down the handbill in a clean environment. It is important to note once again that this latter effect is incompatible with both the imitation and damage to the environment alternate explanations but is consistent with our norm-focus model.

Although the predicted interaction was significant, neither of the simple effects within environmental condition was significant, suggesting that caution is warranted in drawing strong conclusions from these data. Thus, in the interest of generating enhanced confidence in our conclusions, a conceptual replication and extension was the next step.

2. Rethinking the Iron Eyes Cody Advertisement

Before discussing the next study, however, it would be appropriate to look back at the earlier described "Iron Eyes Cody" PSA, as the findings of Study I point to the reasons for our concern about the effectiveness of that advertisement. Recall that it depicted an Indian who shed a tear after encountering an array of litter - debris in the water and on the roadside, trash tossed from an automobile. No doubt the tear was a powerful reminder of the injunctive norm against littering in our culture. But accompanying the beneficial reminder was the potentially damaging message that many people *do* litter. Thus, the resultant impact of the injunctive norm *against* littering may have been undermined by the unintended presentation of a descriptive norm *for* littering. Moreover, that presentation occurred in a way that, according to the results of Study 1, may have been especially damaging. That is, the creators of the advertisement seem to have

been correct in their decision to show an instance of someone (the passing motorist) actively littering the environment; but, they may have been mistaken in their decision to use an already littered environment, as that combination of circumstances produced the greatest littering in our data. In contrast, the combination of a littering other and an otherwise clean environment generated the least littering from our subjects.

Were we to advise the Keep America Beautiful organization on how to revise the Iron Eyes Cody advertisement, then, it would be to make the procedurally small but theoretically meaningful modification of changing the depicted environment from trashed to clean. Then, when the Indian cries, viewers would be focused on injunctive and descriptive norms working in concert to motivate the viewers against littering. Of course, it would be unwarranted to assume from the data of Study I that the *overall* impact of this advertisement has been negative. Our feeling is that, because it is so moving and memorable a piece, it has been a strong positive force. Nonetheless, it is interesting to wonder if its impact on viewers' littering actions could have been greater through a small change that would have put the presented injunctive and descriptive norms into line rather than into conflict with one another. Leaving the pragmatic issue of optimal litter-abatement tactics for the moment, let's return to a consideration of how to generate evidence pertinent to our conceptual model.

3. Study 2: *Varying the Descriptive Norm for Littering*

Dissatisfied that the simple effects in Study I were not significant, we conducted a replication and extension in order to detect the hypothesized decrease in littering when subjects were focused on the descriptive norm in a clean environment. This second study (Cialdini *et al.*. 1990, Experiment 2) was also designed to determine if the results from Experiment I were generalizable to other settings and other focus manipulations or whether they were due to some unique characteristics of our previous study. We reasoned that a lone piece of litter would, by its conspicuous nature, draw attention to the nearly pristine state of the environment. Thus, we expected subjects' littering would decrease when the amount of litter in the environment increased from zero to one piece because the single piece of litter would serve to focus subjects on the antilittering descriptive norm. As the number of pieces of litter in the environment increased beyond one, however, the perceived descriptive norm would change from antilittering to prolittering. As the descriptive norm changed in this fashion, we expected the littering rate would increase. Thus, we made a counterintuitive prediction that could be best described graphically as a checkmark-shaped relationship between amount of existing litter in the environment and the likelihood that subjects would litter into it.

To test these hypotheses, we observed the tendencies of adult visitors to an

amusement park. At 1-minute intervals, the first adult to pass a confederate was given a handbill that read "DON'T MISS TONIGHT'S SHOW." Immediately afterward, upon rounding a comer, subjects were unobtrusively observed by a different experimenter as they walked down a path of approximately 55 m (60 yd) on which we had placed either 0, 1, 2, 4, 8, or 16 clearly visible handbills. All other litter had been removed from the walkway. In addition to whether or not subjects littered their handbill on the path, the subjects' latencies to litter were also recorded.

Preliminary analyses revealed a gender difference in littering rates that was consistent with that of previous studies that have detected a gender difference in littering behavior2; males tended to litter more than females (31 vs 19%). Gender, however, did not interact with any of the obtained effects described below, and thus will not be discussed further.

A visual inspection of Fig. 2a reveals a pattern of results that appears consistent with our predictions. Indeed, a planned comparison using trend weights for a check mark function (-2, -4, -1, 1, 2, 4) was significant. Despite the fact that littering decreased (from 18 to 10%) when one piece of litter was added to the environment, this planned comparison failed to reach conventional levels of significance. As may be seen in Fig. 2b, the results for the latency to litter measure were comparable to the frequency of littering results; the overall contrast was significant, and the contrast of zero to one piece was not.

While we were encouraged by the degree of corroboration our theorizing received from the empirical data to this point, we were nevertheless concerned by the lack of statistical significance we obtained in both studies for the reduction in littering in a clean environment when we focused people on the state of the environment. As is often the case when nonsignificance prevails, we had a *post hoc* explanation for this lack of significance; we may have bumped into a naturally occurring floor effect when we tried to reduce the already low littering frequency in clean environments (14% in Study 1 and 18% in Study 2) with our focus manipulations. Such an untested explanation was not satisfactory, however, as this hypothesized reduction in littering was a theoretically important effect.

4. Study 3: *Varying Descriptive Norm Saliency*

Given the theoretical importance of this effect, we were reluctant to rule out the ability of normative focus to reduce littering based on these nonsignificant results. Therefore, we conducted a conceptual replication (Cialdini *et at., 1990,* Experiment 3) in which we made four changes: First, we chose an experimental situation, a college high-rise dormitory mailroom lobby, that allowed us to run a large volume of subjects in a relatively short period of time to increase our statistical power. Second, we limited our experimental conditions to three con-

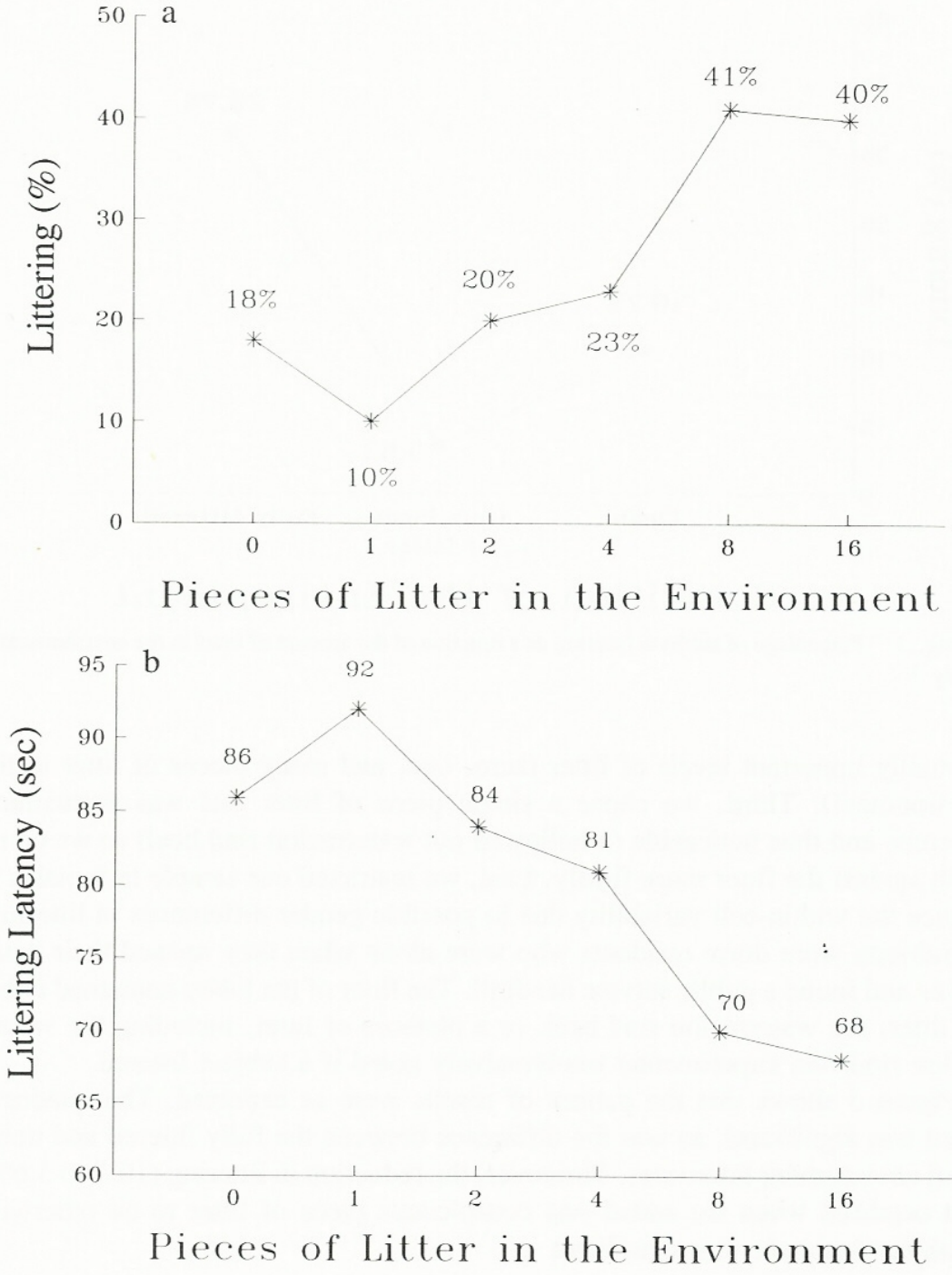

Fig. 2. (a) Percentage of subjects littering as a function of the number of pieces of litter in the environment in Study 2. (b) Mean latency (in seconds) to litter as a function of the number of pieces of litter in the environment in Study 2.

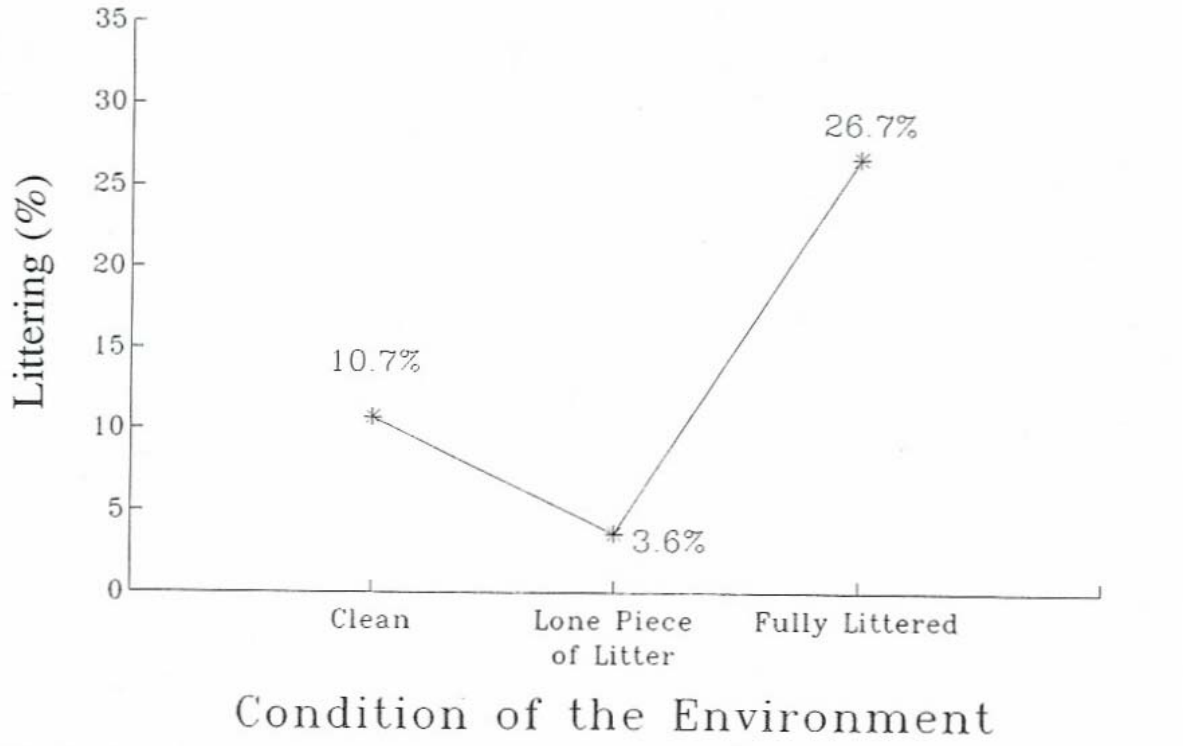

Fig. 3. Percentage of subjects littering as a function of the amount of litter in the environment in Study 3.

ceptually important levels of litter (zero, one, and many pieces of litter in the environment). Third, we chose a single piece of litter that was particularly noisome and thus noticeable (a hollowed out watermelon rind heel) so we could push against the floor more firmly. Last, we restricted our sample to females to reduce the within-cell variability due to possible gender differences in littering.

Subjects were dorm residents who were alone when they opened their mailboxes and found a public service handbill. The floor of the lobby contained either no litter, the watermelon rind heel, or a plethora of litter, including the watermelon rind. An experimenter unobtrusively noted if a subject littered.

Figure 3 shows that the pattern of results were as expected. The quadratic trend was significant, as was the difference between the fully littered and unlittered environment litter rates. Moreover, the reduction in littering (10.7 to 3.6%) that occurred when we added one conspicuous piece of litter to an otherwise clean environment was significant.

5. Summary

In summary, we have consistently demonstrated thus far that one factor that motivates individuals' decisions to litter is the descriptive norm of the situation. That is, under control conditions, subjects litter more in littered environments (where the descriptive norm favors littering) than they do in clean environments, where the descriptive norm opposes littering. More important, when the saliency

of these descriptive norms is increased, people tend to litter even more in littered environments and even less in clean environments. From a theoretical perspective, then, focusing people on the state of the environment (and thus the appropriate descriptive norm regarding littering) increases their norm-consistent behavior regardless of whether the behavior takes the form of littering or not littering. Having demonstrated this, we now turn our focus toward the behavioral influence of injunctive norms.

B. FOCUSING ON INJUNCTIVE NORMS

At the beginning of this article, we argued that norm theorists must be specific about whether they are referring to the descriptive or injunctive norm and which of these, if either, is salient. Up to this point we have only presented evidence of the effect of focusing attention on the descriptive norm. A demonstration that focusing on the injunctive norm against littering leads to injunctive norm-consistent behavior (decreased littering) would be theoretically important, as well as potentially important practically. If we are correct, focusing people on the injunctive norm, which is independent of the environmental conditions, should decrease littering in both littered and clean environments.

1. Study 4: *Contrasting Injunctive and Descriptive Norms*

In designing a test of these hypotheses concerning the injunctive norm, our first problem was developing a way that would allow us to focus people on clear social disapproval of littering in an experimentally malleable field situation where the descriptive norm indicated that littering was common there. Serendipity provided the answer. One of the experimental sessions of Study 1, wherein the parking garage was fully littered, occurred on an especially windy day, and all of the litter we had strewn about was blown into a rather tidy looking line along the leeward wall. We were perplexed because, even though there was much litter in the environment, when our confederate dropped a handbill onto the floor, virtually no subjects littered. As we talked about this apparent anomaly in our otherwise consistent data, it dawned on us that the line of litter looked like it could have been swept by human hands rather than by the wind. If that were true, we reasoned that subjects may have seen the seemingly swept litter as a clear disapproval cue for littering.

We recognized this as a way to arrange the experimental situation such that the descriptive norm indicated that-one action was appropriate (littering is common in this environment), and the injunctive norm indicated that the opposite action was appropriate (one ought not to litter). Swept litter, we thought, would provide information to subjects that even though many people littered here (abundant

litter), it ought not to be done (disapproval was strong enough that the litter had been swept up). Therefore, we arranged the environment to contain either swept or unswept litter, and we exposed a subject to a confederate who either did or did not drop a handbill in clear view of a subject in that environment (Cialdini *et al.,* 1990, Experiment 4). The experimental setting was the same as in Study 1.

When comparing low-salience (confederate walks by subjects) swept and unswept conditions, we expected a small effect indicating less littering for the swept condition. Because of the contradictory normative messages present in the swept litter conditions, without a normative focus there was no theoretical specification as to which type of norm would more strongly guide behavior. At the same time, however, we suspected that, because the swept piles of litter we had placed in the environment were relatively prominent features of the environment, subjects would probably litter less when litter was swept as opposed to when it was not swept.

Our main predictions, however, concerned the high-salience conditions, wherein subjects saw a confederate drop a piece of paper onto the floor. When the confederate littered into the environment thusly, we expected an increase in littering if the extant litter had not been swept (as found in Study 1) and a decrease if it had been swept into piles. In this latter condition, we reasoned that with the added attention drawn to the environment by our salience manipulation, even though their attention would be drawn to the litter in the environment (the descriptive norm), it would have been very hard for subjects not to have recognized that it was swept up litter (which should have brought the injunctive norm to bear). Consequently, these subjects were predicted to litter less. Thus, because little difference was expected between the low-salience conditions, we were predicting a magnitude interaction.

The results, depicted in Fig. 4, were consistent with our predicted interaction. Although a small and nonsignificant difference between the swept and unswept low-salience conditions occurred, a significantly larger difference appeared between the high-salience conditions, resulting in a significant interaction. Thus, shifting subjects' focus from descriptive (unswept litter) to injunctive (swept litter) normative cues resulted in differing behavioral tendencies that were nonetheless consistent with the type of normative information on which the subject had been focused.

Although we were encouraged that heightened normative focus resulted in greater amounts of both injunctive and descriptive norm-consistent behavior, the simple effects within environmental conditions were not significant. A normative focus did increase compliance with the prominent source of normative information, but it did not lead to significant shifts within the particular environmental conditions. It did appear, however, that we were able, to some extent, to reduce littering when we shifted subjects' attention to information that provided mixed descriptive and injunctive norm cues. Thus, the next reasonable step was to see if

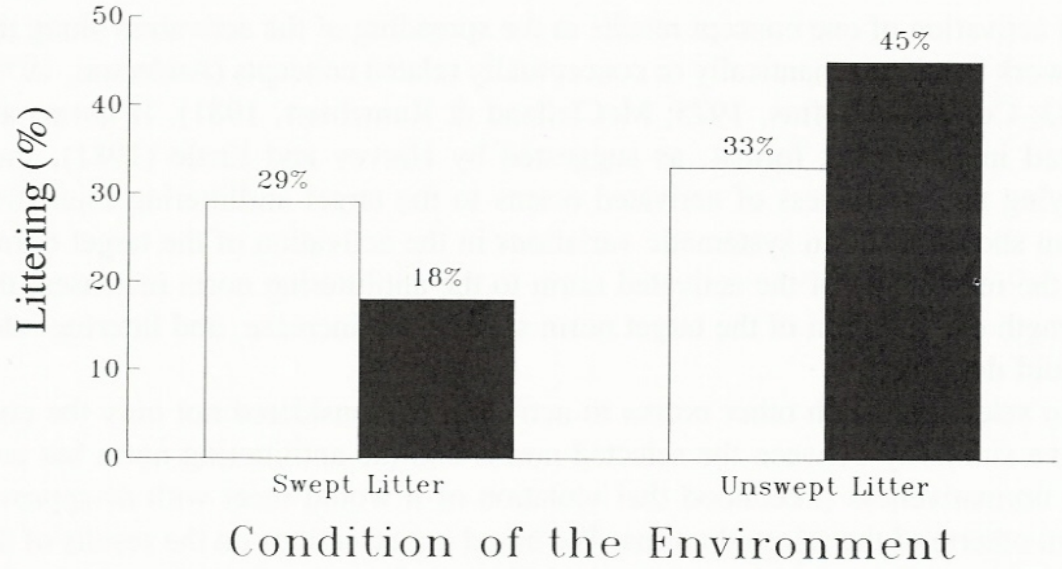

Fig. 4. Percentage of subjects littering as a function of norm salience and the configuration of litter in the environment in Study 4. (□), Model walks by; (■), model litters.

littering could be reduced by focusing subjects in an uncontaminated way on the injunctive norm.

In addition to uncontaminating our injunctive norm cue, we also sought to change the nature of the norm-salience manipulation in our next study. A number of our studies have involved having a confederate throw down a handbill or having a solitary piece of litter in an otherwise clean environment. These manipulations may have resulted in subjects reacting negatively to the confederate (or the assumed cad who tossed down the solitary piece of litter). Subjects therefore may have desired to distance themselves from such an individual. To rule out such explanations of desired disassociation we performed a fifth experiment (Cialdini *et at.*, 1990, Experiment 5) in which we sought to develop a different focus manipulation, one that was not amenable to this type of explanation for reduced littering. To this end, we borrowed a manipulation from research conducted by cognitive psychologists.

2. Study 5: *Priming Injunctive Norms*

To focus people solely on the injunctive norm against littering in a way that was not amenable to disassociation-type explanations, we relied on the effect of cognitive priming (see Higgins & Bargh, 1987, for a review). That is, one concept (e.g., littering) has a greater probability of being activated when attention is drawn to a related concept (e.g., recycling) compared to when attention is drawn to an unrelated concept (e.g., fine arts). Furthermore, many explanations of priming effects invoke the concept of spreading activation, which posits that similar concepts are linked together in memory within a network of nodes and

that activation of one concept results in the spreading of the activation along the network to other semantically or conceptually related concepts (Anderson, 1976, 1983; Collins & Loftus, 1975; McClelland & Rumelhart, 1981). If norms are stored in a network format, as suggested by Harvey and Enzle (1981), then varying the relatedness of activated norms to the target antilittering injunctive norm should result in systematic variations in the activation of the target norm. As the relatedness of the activated norm to the antilittering norm increases, the strength of activation of the target norm should also increase, and littering rates should decrease.

In selecting which other norms to activate, we considered not only the cognitive similarity between the selected norms and the antilittering norm but also the normativeness (likelihood that violation of it would meet with disapproval from others) of the selected norms. We based our selections on the results of the following scaling procedure. A total of 35 possible norms, including the antilittering norm, were presented to two separate classes of upper division psychology students. The first class rated the 35 possibilities as to their normativeness; the second class rated their conceptual similarity to the antilittering norm. Based on these ratings, we selected four norms that were comparable in perceived normativeness to the antilittering norm; however, one was identical to the antilittering norm (refraining from littering), one was close to the antilittering norm (recycling), another moderately close to the antilittering norm (turning out lights), and another was far from the antilittering norm (voting). We also selected a control issue that was nonnormative (the availability of museums).

Our experimental setting was a community library parking lot. We left the extant litter in place (there was a small amount of litter that was equivalent across all conditions). To manipulate focus on the various norms, we tucked flyers with norm-relevant statements under the driver's side windshield wiper of each car while the patrons were in the library. Upon returning to their cars, subjects found handbills with one of the following statements (similarity condition) on their windshields: "April is Keep Arizona Beautiful Month. Please Do Not Litter." (identical); "April is Preserve Arizona's Natural Resources Month. Please Recycle." (close); "April is Conserve Arizona's Energy Month. Please Turn Off Unnecessary Lights." (moderately close); "April is Arizona's Voter Awareness Month. Please Remember That Your Vote Counts." (far); and "April is Arizona's Fine Arts Month. Please Visit Your Local Art Museum." (control). We unobtrusively recorded littering of these handbills.

Preliminary analyses revealed a significant main effect for gender that was consistent with earlier reported gender effects; females littered less than males (14 and 22%, respectively). This gender effect did not interact with the effects of theoretical interest, and thus will not be discussed further.

As is clearly evidenced in Fig. 5, a significant linear trend was obtained, as predicted. This trend indicated that as the conceptual distance between the acti-

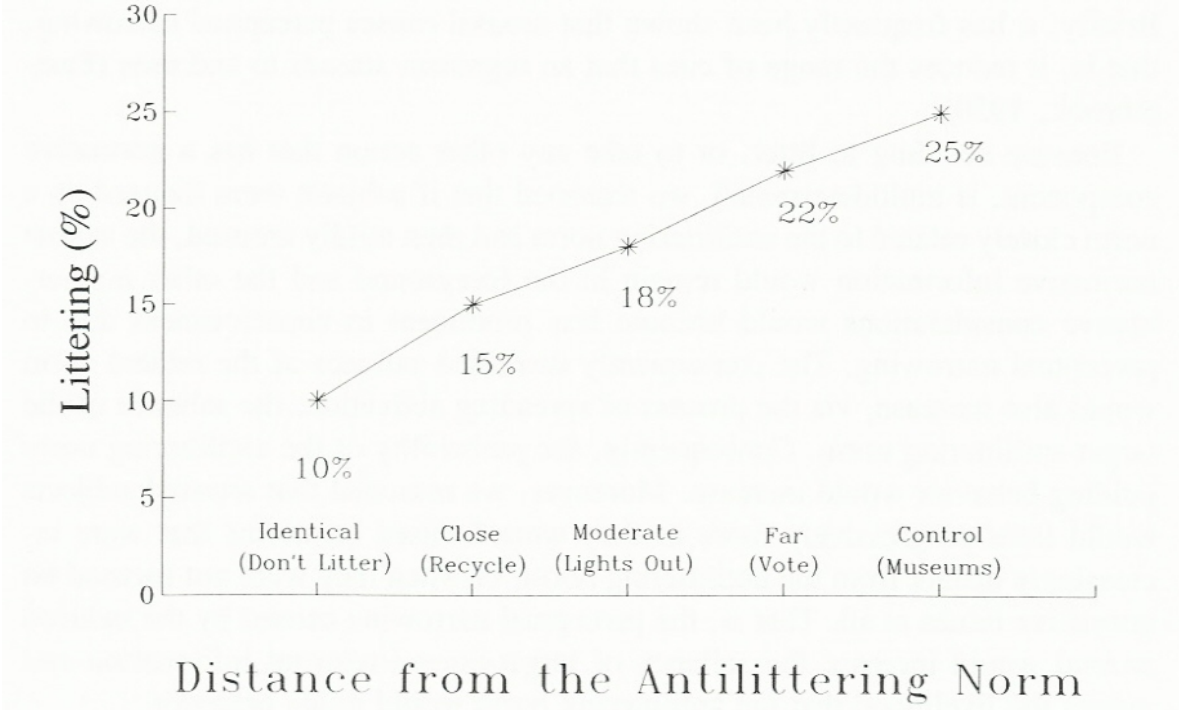

Fig. 5. Percentage of subjects littering a handbill message as a function of its proximity to the injunctive norm against littering in Study 5.

vated norm or concept and the target antilittering norm increased, littering also increased. The specific norms were selected to provide a stepwise increase in the littering rates. As a result, the only significant comparison was that between the antilittering norm message (10%) and the control message (25%). This comparison, however, was the one of theoretical interest and supported our expectation that we could significantly reduce littering by simply shifting subjects' focus to the injunctive norm. The results of this study also ruled out the potential explanations that the reductions achieved in earlier studies were solely due to the subjects wishing to avoid negative association with the littering confederate.

3. Study 6: *Perceptual Narrowing and Priming of Injunctive Norms*

Bolstered by the results of Study 5, we returned once again to the question we had raised in Study 4; namely, would focusing subjects on the injunctive antilittering norm result in reduced littering in a littered environment where the descriptive norm condoned littering? We (Kallgren, Cialdini, & Reno, 1989) decided to address this question by using the priming technique employed in Study 5. In addition to the obvious difference of the present study being conducted in a littered rather than clean environment (Study 5), there was an additional difference. We attempted to strengthen the priming effect from Study 5 through perceptual narrowing that was generated by means of induced physical arousal.

Briefly, it has frequently been shown that arousal causes perceptual narrowing, that is, it reduces the range of cues that an organism attends to and uses (Easterbrook, 1959).

Because deciding to litter, or to take any other action that has a normative component, is multidetermined, we reasoned that if subjects were focused on a norm closely related to the antilittering norm and then mildly aroused, the salient normative information would remain in the foreground and the other nonnormative considerations would become less prominent in consciousness due to perceptual narrowing. The consequently increased salience of the related norm would also increase, via the process of spreading activation, the salience of the target antilittering norm. Consequently, the probability of the antilittering norm guiding behavior would increase. Moreover, we reasoned that aroused subjects would litter progressively more as they were focused on norms that were increasingly distant from the antilittering norm, or when they were not focused on normative issues at all. That is, the perceptual narrowing caused by the induced arousal would increase the saliency of target-norm-irrelevant information and reduce the likelihood that the antilittering norm would guide behavior.

Therefore, our predictions consisted of a main effect for the cognitive distance of the salient norm to the target norm (distance), and a cross-over interaction effect of distance and arousal/nonarousal (arousal). More specifically, we thought the pattern of this interaction would show progressively more littering as subjects who had been aroused were focused on norms that were increasingly distant from the target antilittering norm. However, we expected that this linear trend would not be present among nonaroused subjects, who would not be so focused on the normative information we gave them.[3]

Our experimental setting was an enclosed, heavily prelittered, three-story cement stairwell where we had precise control over the environment. We chose this setting because it was an environment where people were likely to litter (as opposed to a typical laboratory, where it would be more difficult to get subjects to litter), we could keep the amount of litter in the stairwell constant, we could exclude other people from the setting, and it provided a convenient way for us to arouse subjects-by having them walk down and up the stairs from the topmost landing where we conducted most of the experiment.

Our subjects were college students who participated for experimental credit in a study of a new (bogus) physiological measure. In reality, this was a cover story for giving our subjects paper towels they could litter. To focus subjects on a norm, after we had first taken a pulse reading, they read short diary excerpts in

[3]An alert reader will recognize an implication of this prediction for the results of Study 5: that we consider the subjects in that study, whose data did show a linear trend, to have been relatively aroused at the time they had the opportunity to litter. We make this presumption based on the fact that, before reaching their cars and the attached handbills, Study 5 subjects had emerged rather abruptly from a calm, quiet library environment and had traversed a busy public area that included a heavily trafficked street and parking lot:

which a norm was violated, the transgressor was chastised, and subsequently saw the error in her (for female subjects) or his (for male subjects) ways. The normative topics used in the diary excerpts were selected by the same criteria for topic selection used in Study 5. There were two topics for each distance from the antilittering norm: not writing graffiti and not polluting water (close); reusing containers and keeping one's stereo sound down at night (moderate); voting and returning library books on time (far). We also included a control condition with the topics of weather for a picnic and location of a picnic. Half of the subjects were assigned to sit quietly for 3 minutes, and half walked down and up the stairs three times (which took about 3 minutes). After sitting or exercising, pulse was again measured, the new bogus physiological measure was taken (a partial hand imprint of petroleum jelly and Wedgwood blue fingerpaint on a Petri dish), solvent was applied (in reality K- Y jelly), and subjects were reminded of the main point of the passage they had read while the alleged solvent loosened the goo. Subjects were then handed a small towel to wipe off their hand and told to exit via the door at the very bottom of the stairwell.

The dependent measure consisted of whether or not subjects littered the messy paper towel they were left holding, and if they littered it, where in relation to the bottom of the stairwell they littered. The information on where littering occurred was included as another measure of readiness to violate the littering norm. Although we opted for clarity's sake to present below only analyses of the measure of whether subjects littered, analyses based on the location measure were highly similar and slightly more powerful.

Preliminary analyses showed that subjects' pulse rates were elevated in our physical arousal condition. These preliminary analyses also showed that males violated the antilittering norm more than did females, but that gender did not interact with any other factor.

The data related to overall littering rates are presented in Fig. 6. Analysis yielded the predicted effects. There was a main effect for distance, and the overall linear trend was significant. As is evident in Fig. 6, there was also a significant interaction that was consistent with our predictions, except that the nonarousal control condition subjects violated the antilitter injunctive norm less than anticipated. For nonarousal conditions, no trend or comparison was significant. Within the arousal conditions, there was a significant linear trend indicating more littering with increasing conceptual distance from the antilittering norm, and the close and moderate distance conditions were significantly different from the control condition.

C. APPLIED CONSIDERATIONS

To this point, we have examined evidence from a variety of settings indicating that focusing individuals on descriptive or injunctive norms led to behavior that

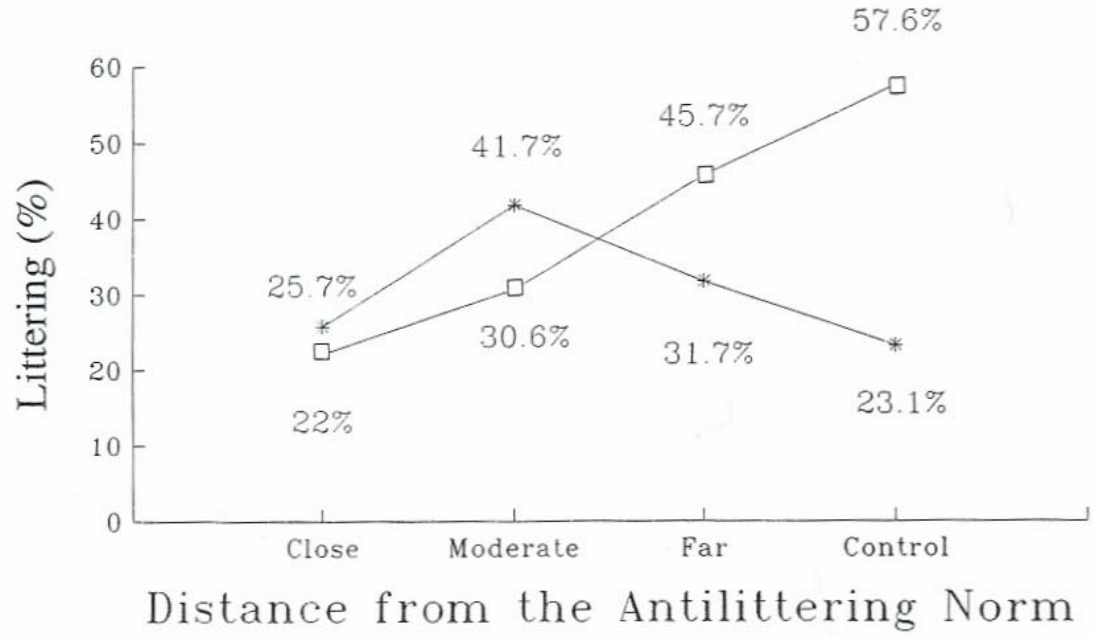

Fig. 6. Percentage of littering behavior for arousal (□) and nonarousal (*) subjects by distance between the norm made salient and the antilittering norm.

was consistent with the dictates of the focused-upon norm. Such evidence fits well with the conceptual model that we have proposed. However, because littering is a social problem, it is appropriate to consider the practical implications of our data as well as their theoretical import.

For the first such implication, let's reexamine the results of Studies 1-3, which are consistent in demonstrating that the least littering occurred when subjects encountered a lone piece of litter in an otherwise clean environment. At first glance, this kind of result might seem to suggest that individuals seeking to retard the accumulation of litter in a particular environment should affix a single, prominent piece of litter there. More thoughtful consideration, however, suggests that such an approach would be inferior to beginning with a totally clean environment. Examination of Fig. 2a and b, showing the average likelihood and latency of littering among subjects in our amusement park study, illustrates the point. Subjects who encountered a perfectly clean environment tended not to litter there, leading to long delays before anyone despoiled it with a handbill. Once a single handbill appeared in the setting, subjects were even less likely to litter, generating even longer latencies before the second piece of litter appeared. At that point-with two pieces of litter visible in the environment-the descriptive norm began to change, and subjects' reluctance to litter into the setting began to deteriorate steadily, causing shortened littering latencies with each new addition of litter. Anyone wishing to preserve the state of a specific environment, then, should begin with a clean setting so as to delay for the greatest time the appearance of two pieces of litter there, as those two pieces are likely to begin a "slippery slope" effect that leads to a fully littered environment and to a perception that "everybody litters here." According to this logic, then, environments

will be best able to retard littering if they are subjected to frequent and thorough litter pick-ups that return them to the optimal litter-free condition.

The second practical implication of our data comes from Studies 4-6, which showed the ability of injunctive norms to reduce littering. In each instance, procedures that focused subjects on the injunctive norm against littering brought littering rates down below control conditions; this was even the case, as in Studies 4 and 6, when the descriptive norms favored littering in that setting. This latter effect is instructive in that it suggests a practical advantage that injunctive norm-focus procedures may have over descriptive norm-focus procedures in reducing litter. Drawing an individual's attention to the descriptive norms of a situation should retard littering only in environments that are wholly or virtually unspoiled. Indeed, a focus on what others have done when the environment is widely littered could tend to increase littering there, as was seen in Studies 1 and 4. A descriptive norm-focus procedure, then, should have socially beneficial effects only in environments that do not need much help. The upshot is quite different, however, when the injunctive norm is made salient and when individuals, consequently, are focused on what others typically approve and disapprove rather than what they typically do in a situation. By making the injunctive norm against littering more prominent, we should see reduced littering no matter what the littered state of the ambient environment.

To test this prediction, we chose to use a different kind of injunctive norm-focus technique than we had used previously: We exposed subjects to a confederate who *picked up* a piece of litter. Reasoning that this display would focus subjects on the concept of social disapproval for littering in our society, we expected that-by drawing attention to the injunctive norm against littering-the procedure would suppress littering rates whether the environment was clean or littered. In counterpoint, as we had done in Studies 1 and 4, we exposed other subjects to confederate who threw down a piece of litter. We expected that they-having had their attention thus drawn to the state of the environment and to the dictates of the reigning descriptive norm there-would show suppressed littering rates only in an unlittered environment.

1. Study 7: *Environmental1nfluences on the Effects of Norms*

We selected as our experimental setting the one that we had used in Study 5: the local municipal library and its adjoining parking area. Subjects were library visitors who had left the library building and were returning to their cars in the main parking lot. That lot had either been cleaned by our experimental team of all visible litter or had been littered with a large number of handbills that read, "THIS IS AUTOMOTIVE SAFETY MONTH. PLEASE DRIVE CAREFULLY." As subjects approached a roadway separating the library grounds from the parking area, they encountered a college-age experimental confederate

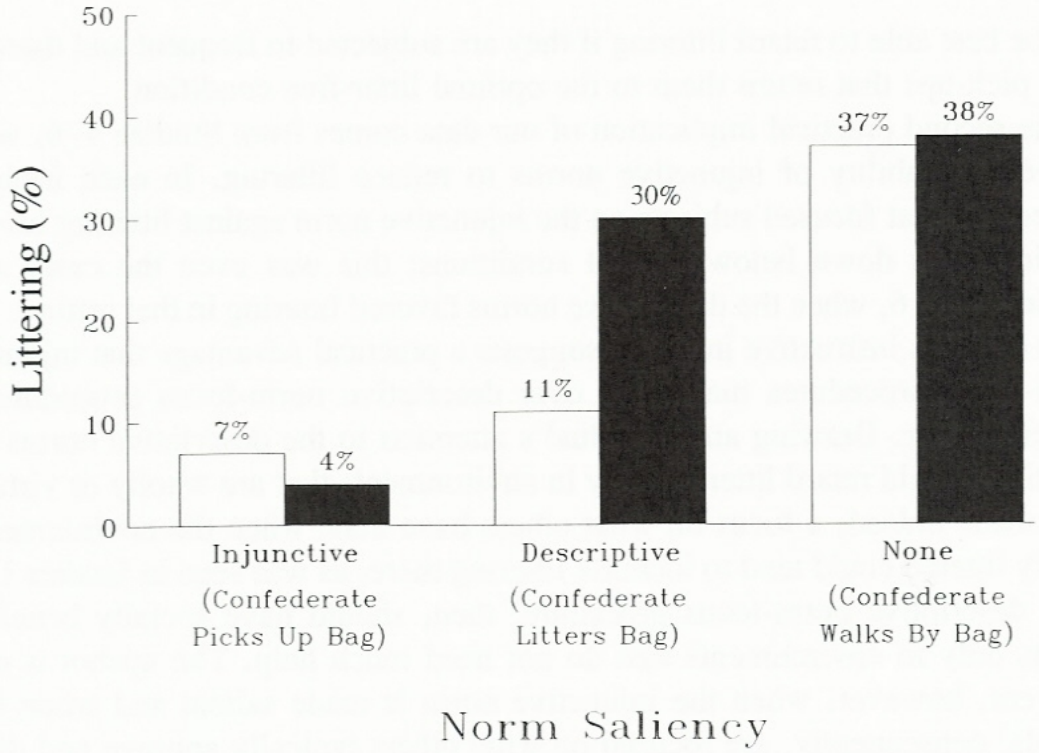

Fig. 7. Percentage of subjects littering by environmental condition and type of norm made salient in Study 7. (□), Clean environment; (■), littered environment.

who, before passing by, (1) threw down a fast food restaurant bag approximately 4.5 m (5 yd) in front of them, (2) picked up the same kind of bag at the same approximate distance from them, or (c) merely walked by, carrying nothing and picking up nothing in the process. Upon reaching their cars, subjects found an AUTOMOTIVE SAFETY MONTH handbill placed under the driver's side windshield wiper. Whether they deposited the handbill into the environment or placed it in the car with them (there were no trash receptacles nearby) constituted the measure of littering, which was assessed by a second experimental assistant from a hidden vantage point.

The results, depicted in Fig. 7, offer good support for our experimental hypotheses (unpublished data, Arizona State University). That is, subjects who saw another pick up the bag littered significantly less than the walk-by control subjects, regardless of the state of the environment. This was not the case, however, for subjects who saw another throw down the bag; they littered significantly less than control subjects only in the clean environment.[4] Thus, it appears that for

[4]Despite the generally confirmatory pattern of data for our experimental hypotheses, there was one way that the data did not fit our expectations. Extrapolating from the comparable conditions of Studies I and 4, we had anticipated that the subjects who saw another litter into a widely littered environment would litter more than would control subjects in such an environment. This did not occur, however, as these two sets of subjects did not differ in their littering rates. Although there are numerous differences between the present study and the earlier two, our favored explanation for the discrepancy is that, previously, subjects' littering involved the same type of litter (a handbill) as they saw the confederate discard, whereas in the present study the two types of litter were different (a

practical purposes there is an advantage to using techniques that create an injunctive rather than descriptive norm focus, in that injunctive norms-once activated-are more beneficial in their impact across the range of potential situations.

2. Transcendent Norms

The enhanced cross-situational robustness of an injunctive as compared to a descriptive norm focus may be even greater than the results of Study 7 suggest, however. That is, the advantage of an injunctive norm focus may not be limited to settings with societally harmful descriptive norms (e.g., fully littered environments; roads on which most drivers speed; precincts with low voter turnout). That advantage may apply, as well, to the likelihood of nonnative conduct in settings that are different from the one in which the relevant norm was evoked. Because the perception of what people do within a particular setting is a more situation-specific motivational construct than the perception of what people approve/ disapprove in a society, it may be that the effect of focusing individuals on descriptive norm information (e.g., what another has done) will have less impact in a novel, second situation than will the effect of focusing subjects on injunctive norm information (e.g., what another has approved/disapproved). That is, descriptive norms are designed to tell us what makes for adaptive/effective behavior, which can be influenced and changed by many situationally based factors. Injunctive norms, on the other hand, are designed to tell us what others have been socialized to approve/disapprove in the culture, which is likely to change relatively little from situation to situation. Consequently, an injunctive norm focus should transcend situational boundaries to a greater extent than a descriptive norm focus.

It is our view, then, that not only will descriptive norm-salience procedures be relatively limited in their effect to the settings in which they occur but that, in contrast, injunctive norm-salience procedures will tend to remain effective even in relatively different settings. To test this hypothesis, we recognized the need to include norm-salience procedures of the descriptive and injunctive variety within the conditions. of the same experimental design.

3. Study 8: *The Impact of Norms across Environments*

To generate a focus on what another has done, we chose to show subjects in the descriptive nonn-salience conditions of Study 8 a confederate who was carrying a piece of litter (a fast food restaurant bag filled with paper wrappers and

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handbill versus a bag). It seems possible that subjects who saw a handbill thrown into a littered environment had more specific nonnative information on which to base their own (handbill) littering behavior.

an empty soft drink can) and who disposed of it by throwing it into a trash container before passing a subject. Subjects in the injunctive norm-salience conditions, on the other hand, saw the same behavioral event as had occurred in the comparable conditions of Study 7-an approaching confederate *picking up* the bag and then continuing on past the subject. In addition, another set of (control) subjects saw a confederate who merely walked past them without carrying, disposing of, or picking up any litter in the process.

As in Study 7, the subjects were visitors to the local municipal library who had left the library building and were returning to their cars in a library parking lot. However, they encountered the confederate and his or her relevant action either on a path within a grassy, landscaped section of the property (different environment) or after they had proceeded into the asphalt-paved parking area (same environment); these areas had been cleaned of visible litter. We expected that seeing the confederate properly dispose of litter would provide descriptive norm information (what another has done) that would produce congruent behavior only if it occurred in the same setting in which subjects had to make their own littering decisions. However, we expected that seeing the confederate pick up litter would provide injunctive norm information (what another approves/disapproves) that would produce norm-congruent behavior across environments. To test these expectations, we watched what subjects did with an AUTOMOTIVE SAFETY WEEK handbill that they found attached to their windshields upon returning to their cars in the parking area.

As can be seen from Fig. 8, the results of the experiment generally confirmed

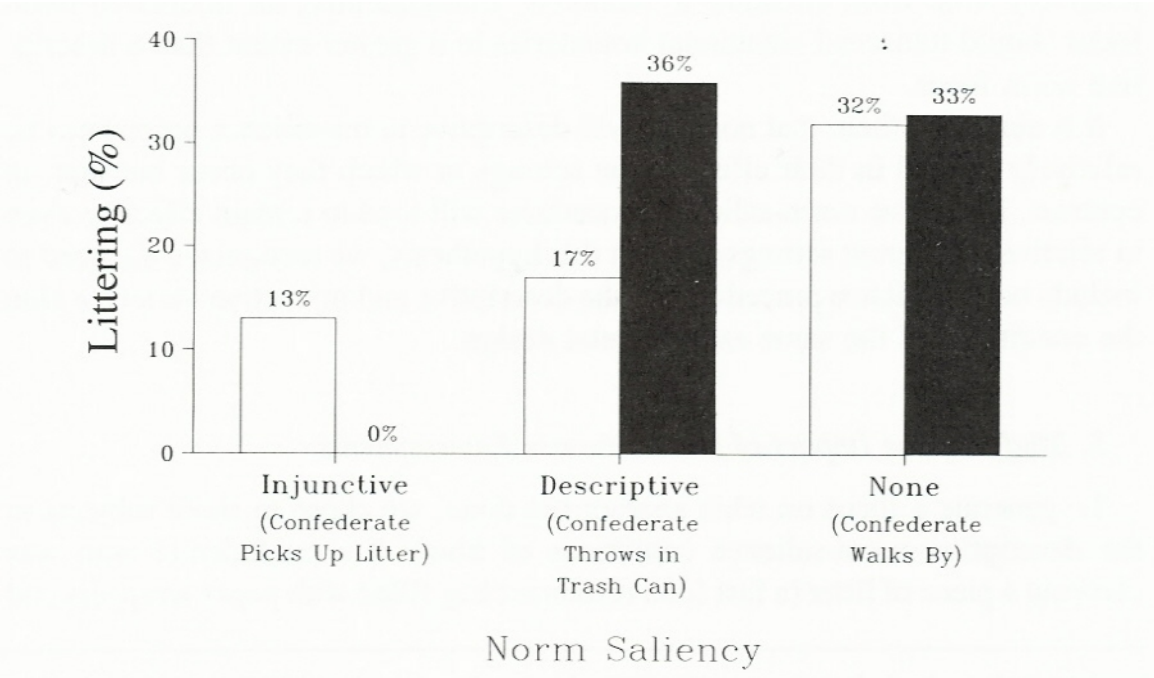

Fig. 8. Percentage of subjects littering by environmental similarity and type of norm saliency in Study 8. (□), Same environment; (■), different environment.

our hypotheses (unpublished data, Arizona State University). Subjects who encountered the confederate who picked up litter were less likely than controls to litter no matter where they had witnessed the confederate's action. This was not the case, however, for subjects who saw the confederate throw litter into a trash receptacle; they littered less than controls only when that event had occurred in the same setting as their own opportunity to litter.

D. PICKING UP CONCEPTUAL IMPLICATIONS FROM PRACTICAL APPLICATIONS

It seems clear from the findings of Studies 7 and 8 that one practical advantage of focusing individuals on injunctive versus descriptive norms is that the former are more robust in their impact across situations than the latter. Take, for example, the outcomes of Study 8. Our subjects who saw another refrain from littering (by using a litter receptacle) were affected by that display only in that particular setting, whereas our subjects who saw another disapprove of littering (by picking up litter) were affected by that display in a rather different setting as well. Our preferred explanation for this pattern of results is that (I) subjects were focused by the respective displays either on descriptive norm information or on injunctive norm information and that (2) injunctive norms are more likely to transcend situational boundaries because they orient individuals away from a concern with how others have behaved in a particular setting and toward a concern with what others approve/disapprove across the culture.

However, a close look at what subjects experienced in that experiment suggests that things may not be as clear-cut as we have implied. After all, subjects in *both* conditions saw another perform a behavior in a particular setting from which they could reasonably infer the other's disapproval of littering. Yet it was only when that behavior involved picking up another's litter that it was generally effective. We think this was the case because only that behavior clearly implicated the subjects' own littering action in the disapproval; the message from our confederate was unambiguous, "I find littering by others (our subjects included) objectionable." In this way, subjects were directly focused on a central feature of injunctive *norms-social sanctions* (e.g., disapproval) for counternormative behavior-thereby making the injunctive norm salient and generating powerful effects across situations. In contrast, subjects who saw litter thrown into a receptacle got a different message from the confederate, "I find littering objectionable within my own behavior," which did not remind them directly of social sanctions and, consequently, of injunctive norms. Instead, subjects may have remained focused on the descriptive norm information of what another had decided to do regarding littering in that setting.

A conceptual implication of our analysis, if correct, is that the concept of

approval/disapproval needs sharpening in its relation to social norms. Another's demonstrated approval/disapproval for norm-related conduct may engage the full power of the relevant injunctive social norm in an observer only when the observer is actively made to think that the approval/disapproval would be applied to his or her relevant conduct. Thus, expressing disapproval for counternormative action (e.g., cigarette smoking in an elevator, excessive alcohol consumption) in one's own behavior by visibly refraining from the action should not bring to bear on observers the full salutary impact of the injunctive social norm; instead, that impact should flow from the visible expression of disapproval for the action *in others.* A key, then, to the effective activation of injunctive social norms is a focus on the applicability of *interpersonal* sanctions to the behavior *in question.*

It is not our position, however, that injunctive social norms function only when evaluating others are physically present to provide social sanctions. We concur with the developers (Cooley, 1902; Mead, 1934) and modern proponents (e.g., Schlenker, 1980) of symbolic interaction theory that people often seek to satisfy the expectations of imagined audiences, one of which-the generalized other-represents the generalized viewpoint of society. Thus, once focused on a representative of society who approves/disapproves of another's behavior, an observer is likely to conform to the societal rules for that behavior even when alone, as long as the focus remains. In this respect, injunctive social norms are somewhat similar to the concept of personal norms as explicated by Schwartz (1973, 1977; Schwartz & Howard, 1982), in that the possibility of direct social sanctions is not necessary for the stimulation of normative conduct.

According to Schwartz, personal norms are self-based standards or expectations for behavior that flow from one's internalized values and that are enforced through the anticipation of self-enhancement or self-deprecation. Thus, Schwartz differentiates personal norms from (injunctive) social norms by locating both the standards and the sanctions for action inside the self. A number of studies (see Schwartz, 1977, for a review) have demonstrated a significant relationship between measured personal norms and relevant behavior that is greater than the comparable relationship between the behavior and perceived social norms. What's more, the social norm measured in these studies provided no additional predictive component to that already provided by the personal norm measure. On the surface, these results would seem to indicate that personal norms represent the stronger influence on behavior. We hold a different view, however.

In keeping with our emphasis on attentional focus, we are convinced that both constructs are importantly generative of normative conduct, but which one has the greater impact on action in any given setting will depend on whether the actor is focused on internal or external standards and sanctions for that action. To investigate our contention, we performed a final experiment that was designed to test several hypotheses. First, we sought to demonstrate that, for at least a short

time after subjects have been focused on social disapproval of a behavior thereby activating the relevant injunctive social norm-they will behave consistently with the norm even when their behavior is not under direct social surveillance. Second, we wanted to test our view that others' evaluation of an individual will not result in conduct that is more consistent with the injunctive social norm unless the evaluation implies social approval/disapproval of the nonnative behavior in question. Finally, we wished to examine the hypothesis that a focus on internal standards and sanctions for a particular behavior would result in action that is consistent primarily with personal norms, whereas a focus on social standards and sanctions for the same behavior would result in action that is consistent primarily with (injunctive) social norms. To these ends, we returned to the stairwell setting used in Study 6 and once again assessed littering tendencies there.

Study 9: *The Impact of Social and Personal Sanctions*

Subjects were undergraduate students from the Introductory Psychology course at Arizona State University who, as part of an omnibus testing session during the first week of classes, had responded to a questionnaire designed to measure their personal norms toward littering. The measure, based on the personal norm for helping scales used in prior research by Schwartz, included 10 items asking about the extent to which subjects felt a personal obligation to refrain from littering in a variety of situations (see Table I). Subjects were classified as having a strong or weak personal norm toward littering on the basis of a median split done on the scores of experimental participants.

The subjects, who were seated in a deskchair on the top landing of a little-used 3!-story stairwell in the psychology building, listened to pairs of tones presented over earphones while physiological measures were supposedly being taken to assess various "physiological correlates of auditory discriminations." One of these physiological measures required that a petroleum jelly paste be applied to one hand. At the completion of the experiment, subjects received a small paper towel from the experimenter to wipe the paste off the affected hand. The experimenter then exited the stairwell through a locked third floor door, leaving the subjects alone to exit by descending three flights of stairs to the ground floor door. After the subject had left, the experimenter returned and searched the stairwell to determine whether the subject had littered the paper towel on the way out. So as to demonstrate the power of (activated) personal norms and injunctive social norms over descriptive norms, in all instances we had previously littered the stairwell environment with a variety of litter, including a large number of paper towels.

Before the opportunity to litter, however, subjects experienced one of four experimental treatments while hearing the tones over their earphones. In the first,

TABLE I
PERSONAL NORM AGAINST LITTERING QUESTIONNAIRE ITEMS

My personal obligation to not litter is:

No personal obligation for me 1 ---------- 2 ---------- 3 ---------- 4 ---------- 5 ---------- 6 ---------- 7 ---------- 8 ----------9
Weak Moderate Strong Very Strong

1. Do you feel a personal obligation to not liner when you are holding an empty soft drink can and there are no trash cans available?

2. Do you feel a personal obligation 10 not litter when you are holding a gum wrapper and there are no trash cans available?

3. Do you feel a personal obligation to stop and pick up a piece of scrap paper that you accidentally drop because you are in a hurry?

4. Do you feel a personal obligation to stop and pick up a piece of scrap paper that blows off a big stack of papers that you are carrying in both arms?

5. Do you feel a personal obligation to not litter when you are ill (fever, headache, muscle ache) and you would have to walk out of your way to reach a trash receptacle?

6. Do you feel a personal obligation to not litter when you are preoccupied with important things on your mind?

7. Do you feel a personal obligation to pick up a piece of paper you dropped when it is raining and you are getting soaked?

8. Do you feel a personal obligation to not litter when it is dark outside and nobody could have seen if you littered?

9. Do you feel a personal obligation to not liner even though you know a litter pickup crew will be coming to the area soon?

10. In general, do you feel a personal obligation to not litter?

the *simple external focus condition,* subjects watched a television monitor that displayed a set of geometric fonns that changed every 10 seconds for 3 minutes. This served as our baseline condition. In the second, the *simple social focus condition,* subjects watched a television monitor picture of three researchers who appeared to be recording data from a computer screen. Subjects were told that the researchers (who were actually on videotape) were in an adjacent room monitoring the subjects' physiological responses to the tones. This condition was intended to focus subjects on a simple form of social evaluation that was not related to the nonnative behavior under consideration. Consequently, according to our earlier analysis, we should not expect it to influence littering rates. In the third, the *(injunctive) social norm focus condition.* subjects were treated exactly as in the simple social focus condition except that, along with the tones, they also

heard two vignettes over their earphones. In one, a college student was admonished by a friend for writing graffiti on a wall. In the other, a college student was admonished by a friend for the improper disposal of a chemistry project. Recall that these were the vignettes used in Study 6 to activate the littering norm in subjects by virtue of the process of spreading activation. Accordingly, we expected that subjects in the (injunctive) social norm focus condition of Study 9 would have had their attention drawn indirectly but nonetheless effectively to the societal rule against littering and that their littering tendencies would be suppressed. In addition, we expected that this would be the case even for subjects with weak personal norms against littering. Finally, in the fourth, the *self-focus condition*, subjects saw on the monitor a closed circuit television picture of themselves. We anticipated that this would cause subjects to focus on internal standards and sanctions for behavior (Duval & Wicklund, 1972), thereby activating their personal norms. In this condition, we predicted that only those subjects with strong personal norms against littering would show a lowered littering rate.

The results shown in Fig. 9 supported all three of our predictions nicely (unpublished data, Arizona State University). Taking those predictions in reverse order, we found good evidence that focusing subjects on internal standards and sanctions for behavior would cause the relevant personal norm to predominate, but focusing subjects on social standards and sanctions for that behavior would cause the relevant (injunctive) social norm to predominate. It is clear that, among subjects who were focused on themselves, only those with strong personal norms against littering showed lowered littering rates relative to the externally oriented

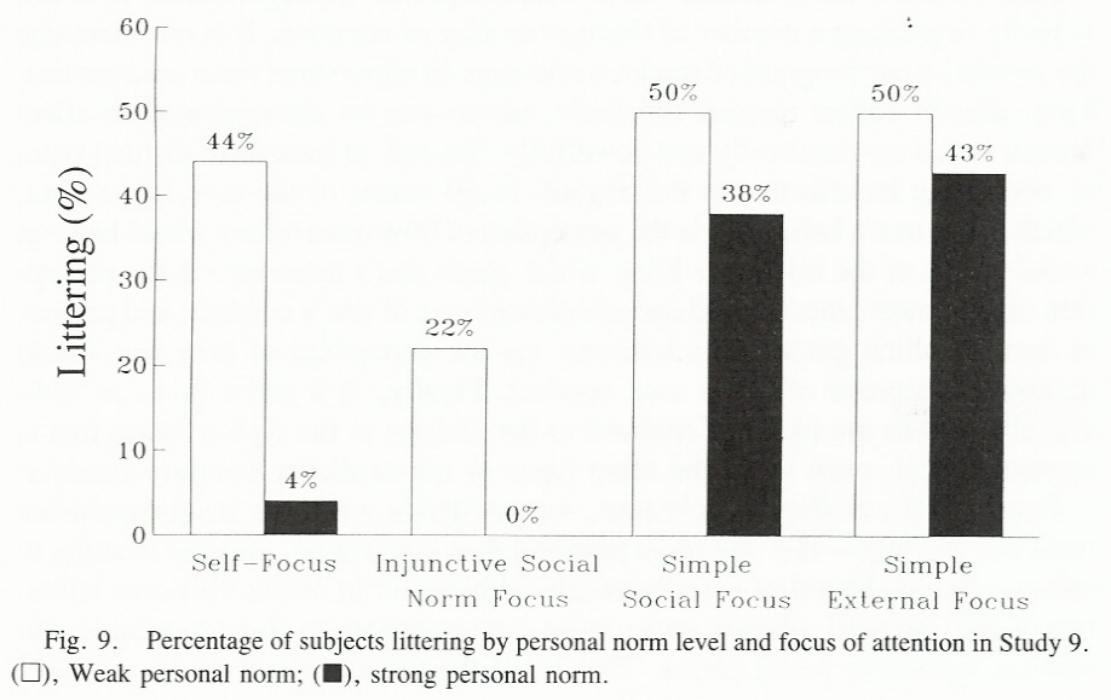

Fig. 9. Percentage of subjects littering by personal norm level and focus of attention in Study 9. (□), Weak personal norm; (■), strong personal norm.

control subjects. In fact, the personal noun measure had little impact on behavior except for subjects who were oriented on normative considerations. As could be extrapolated from Schwartz's (1977) model, this impact was greatest among those focused inward; however, there was a smaller (nonsignificant) impact on subjects who were focused on social rules, suggesting that an injunctive social norm focus may have a weaker, reverberating effect upon individuals' personal nouns as well. The most important difference in our data, however, between subjects focused on personal nouns versus (injunctive) social nouns is that the social noun-focused subjects showed significantly retarded littering tendencies regardless of their personal noun status. **It** was only in the (injunctive) social norm-focused condition that even the weak personal norm subjects suppressed their littering.

No such suppression occurred among the simple social focus-condition subjects. In line with our second prediction, social evaluation unrelated to the relevant normative behavior was not sufficient to influence that behavior. Finally, because subjects were alone with no chance of detection when making their littering decisions, the suppressed littering rates in the (injunctive) social norm-focus condition offer support for our first prediction that such a focus would be influential in the absence of the possibility of direct social sanctions.

III. Conclusions

Any integrated series of nine studies on an important aspect of human behavior is likely to produce a number of findings worthy of attention. It is our view that the results of our program of research converge to allow three main conclusions. First, despite earlier reasons for doubt, norms can be demonstrated to affect human action systematically and powerfully. Second, at least three distinct types of norms can be effective in this regard: social nouns of the descriptive kind, which guide one's behavior via the perception of how most others would behave; social nouns of the injunctive kind, which guide one's behavior via the perception of how most others would approve/disapprove of one's conduct; and personal norms, which guide one's behavior via the perception of how one would approve/disapprove of one's own conduct. Finally, at a given time, an individual's actions are likely to conform to the dictates of the type of norm that is currently focal, even when the other types of norms dictate contrary conduct.

From the last of these conclusions, we can derive one more main conclusion from our findings-this one more practical than conceptual. Anyone wishing to enhance the likelihood of socially beneficial behavior in others via noun activation would be well advised under most circumstances to use procedures that activate injunctive social nouns. That is, of the three types of norms we have

discussed, injunctive social norms-once activated-are likely to lead to beneficial social conduct across the greatest number of situations and populations. A descriptive social norm focus will be effective prosocially only when most individuals already *do* behave in a socially desirable way; in situations where such desirable action is not the norm, a focus on what others do is likely to prove detrimental to societal goals. Likewise, orienting individuals to their personal norms will be societally advantageous only when the personal norms of the target individuals already fit with prosocial goals; here again, such an orientation could backfire among those individuals whose personal standards for their own conduct are not congruent with the societal standards. Thus, a billboard campaign designed to reduce excessive highway speeds by (1) creating a descriptive norm focus in passing motorists should be successful only on those stretches of road where speeding was not typically a problem; (2) creating a personal norm focus should be successful only among those passing motorists who don't prefer to exceed the speed limit; (3) focusing motorists on social disapproval of speeders should be successful across a wide variety of settings and drivers.

Although we feel that our research program has answered several important questions about norms and norm salience, we recognize that other questions remain. One such important question concerns the nature of the stimuli that are likely to lead to a norm's salience. On the one hand, one could say that the factors that enhance norm salience will be the same as those that have been shown to enhance the salience of any concept-the cognitive accessibility of the concept (Fazio, 1986), the recency and frequency of activation of the concept, its degree of connectedness with other salient concepts in the environment, etc. (see Fiske and Taylor, 1991, for a review of the evidence for these and other influences on salience). On the other hand, because norms appear to occur in three distinct forms, one must be careful in specifying the particular type of norm that is being made salient by a given technique or mechanism. For example, we should expect that dispositional tendencies toward high or low self-monitoring (Snyder, 1987) would make injunctive and personal norms differentially accessible and thereby differentially salient. That is, the low self-monitor, who tends to orient primarily to personal standards in the determination of his or her conduct, should find personal norms chronically more salient; whereas the high selfmonitor, who tends to orient primarily to the approval of others in the determination of his or her conduct, should find injunctive and (to a lesser degree) descriptive social norms more salient.

Another interesting but unexplored set of questions involves the relationships among the three types of norms that we have specified. It seems likely that there are perceived connections between each of these types of norms. For example, even though the connections are not logically necessary ones, there is normally a relationship between what most people do and what most people approve/disapprove, just as there is normally a relationship between societal and

individual standards of conduct. Thus far, these relationships have not played a central role in our research. That is, by focusing subjects on one or another type of norm, we have been able to stimulate the action of that particular kind of norm, without seeming to activate the other kinds. However, it strikes us as possible that we could simultaneously energize two related norm types if we focused subjects on one kind of norm and on its *connection* to another kind of norm. Once again, then, we are led to expect that the crucial ingredient in any attempt to predict an individual's norm-relevant behavior is the ability to localize that individual's focus of attention within an intricate normative mix. That undoubtedly dynamic mix should provide the opportunity for much further research.

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