

Ten Years of Research on Group Size and Helping

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In the decade following Latané and Darley's publication of the discovery that the presence of other people inhibits an individual from intervening in an emergency, numerous researchers have attempted to replicate this finding, extend its range of applicability, and determine what boundary conditions limit it. In the present article, we review both published and unpublished research, with special attention to the nature of the precipitating incident, the ambiguity of the helping situation, laboratory versus field settings, characteristics of the subjects, of the victim, and of other bystanders, and the amount and kinds of communication among bystanders. We conclude that, despite the great diversity of styles, settings, and techniques among the studies, the social inhibition of helping is a remarkably consistent phenomenon; but we identify some conditions under which the effect can be weakened or eliminated. Finally, we explore the implications of these findings for assessing and increasing a victim's likelihood of receiving help.

Some 10 years have passed since Latané and Darley (1970) published their monograph reporting the results of a program of research on bystander intervention in emergencies. This research provided strong support for the general proposition that "the presence of other people serves to inhibit the impulse to help" (p. 38). Their work elicited a good deal of interest, and it has stimulated a large amount of subsequent research in this area.

We see at least four reasons for the interest generated by this research. First, its high degree of mundane realism (Aronson & Carlsmith, 1968) spoke to an issue of widespread public concern—the alarm created by the failure of 38 witnesses to report

to the police the murder of Catherine Genovese. Since the research problem corresponded to a real-world problem, readers gained insights into a type of situation that could potentially confront anyone. Latané and Darley (1970) offered a plausible scientific explanation of the dynamics of the emergency situation, suggesting that such vague and frightening concepts as "alienation" and "apathy" may not be necessary to understand events such as the Genovese incident.

A second reason stems from the high level of experimental realism (Aronson & Carlsmith, 1968) in the research procedures. Participants found themselves in highly involving, serious, and realistic settings, and they were faced with choices among reasonable courses of action. By engaging participants in a meaningful situation, the research seems to have avoided many of the artificialities of the laboratory environment without sacrificing experimental control.

A third focus of interest has been Latané and Darley's (1970) theoretical framework itself. They posited a decision tree that bystanders must climb if they are to intervene; The bystander must notice the event, interpret it as an emergency, feel personally responsible for dealing with it, and possess the necessary skills and resources to act. They painted a sympathetic picture of the unfor-

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fortunate bystander, forced to choose among courses of action hurriedly, on the basis of incomplete information, and under unfavorable cost and reward schedules. They proposed three psychological processes—social influence, audience inhibition, and diffusion of responsibility—that lead bystanders to be less likely to act when others are present.

A final factor is that Latané and Darley (1970) uncovered a previously unknown phenomenon: the social inhibition of helping. Contrary to common opinion and the predictions of colleagues, people are less likely to give aid if they are exposed to the emergency in the presence of others than if they are alone; many people were surprised to find no support for their belief in “safety in numbers.” The discovery of such a powerful phenomenon was valuable in its own right, but it also occasioned the need for experiments designed to determine the generality of the effect, explore its boundary conditions, and discover exceptions. As we see, many experiments of this sort have been reported, but the exceptions are remarkably few.

We attempt a thorough appraisal of the empirical support for the social inhibition of helping. In addition to presenting a comprehensive tabular summary of the work, both published and unpublished, dealing with the effect of group size on helping, we review the literature in an attempt to specify the limiting conditions of the phenomenon.

Before turning to the review itself, we consider some theoretical explanations for the phenomenon of social inhibition (see also Latané, Nida, & Wilson, in press). The processes we discuss provide a useful perspective for understanding the studies we review.

Latané and Darley (1970) depicted the emergency situation as placing the bystanders in an especially unenviable position. It is surprising, they maintained, that anyone should intervene at all when one considers the many costs and few rewards for helping in an emergency. In short, bystanders in an emergency experience an avoidance-avoidance conflict, since there are also costs associated with *not* helping (e.g., embarrassment, guilt). Witnesses to an emergency, then, may be motivated to find ways of avoiding having to choose a course of action.

Latané and Darley (1970) described a se-

quence of decisions that a bystander must take before intervening; a negative decision at any step in this sequence will result in a failure to intervene. Within such a theoretical framework, there are three social psychological processes that might occur when an individual is in the presence of other people, and all three are apparently necessary to account fully for the phenomenon of the social inhibition of helping.

The first process is *audience inhibition*. The bystander who decides to intervene runs the risk of embarrassment if, say, the situation is misinterpreted and is not actually an emergency—the more people present, the greater this risk. The presence of others can inhibit helping when individuals are fearful that their behavior can be seen by others and evaluated negatively.

Social influence also contributes to the social inhibition of helping. Since an apparent helping situation is likely to be ambiguous, an individual looks to other people to help define it. The presence of others can thus inhibit helping when individuals see the inaction of others and interpret the situation as less critical than it actually is or decide that inaction is the expected pattern of behavior.

Finally, *diffusion of responsibility* can be viewed as a means of reducing the psychological cost associated with nonintervention. When others are present, such costs are shared and nonintervention becomes more likely. The knowledge that others are present and available to respond, even if the individual cannot see or be seen by them, allows the shifting of some of the responsibility for helping to them.

Review of the Research

In addition to assembling a summary of all the published experiments dealing with the effect of group size on helping in emergencies that we could find, we have written to the authors of all these articles and to other persons known to have done work in this area asking them to refer us to their unpublished work on this issue. For ease of comparability and to facilitate the meta-analysis we present later, this review focuses on those studies with the following elements

in common: (a) a measure of the percentage of subjects helping and (b) a clear manipulation of group size in which it is possible to say precisely how many people were present in any given condition. Other relevant studies lacking one or both of these elements exist, and some of these, though not included in the tables, are cited in this article.

We have classified each comparison into one of two general categories. The first category consists of cases in which the helping behavior of persons exposed to an event by themselves is compared with that of individuals who were tested in the presence of confederates or who believed other, unseen, persons to be present (Table 1). The second general category consists of cases in which single individuals are compared with actual groups (Table 2). Entries in the tables are listed in increasing order of the alone helping rate to facilitate the comparison of alone and group helping rates both within and across studies.

The comparison between individual and group response is straightforward when groups are composed of confederates or others who are merely believed to be present, as in the studies in Table 1. Since there is only one actual bystander in each group, one can simply compare the percentage of persons in groups helping with the percentage of single individuals helping. With actual groups, as reported in Table 2, however, a problem arises in that once someone has offered help, the same action by anyone else no longer has the same meaning, and the percentage of group members helping would not be informative. Most research on helping in groups has considered the group as the unit of analysis and hence reported the proportion of groups containing at least one helper. Such data do not themselves provide any indication of the effect of the group on the individual's propensity to respond.

As a means of dealing with this problem, we have calculated the effective individual probability of helping. Given the proportion of groups helping, one can derive the individual probability of helping necessary to obtain the observed number of groups helping by means of the formula

$$P_i = 1 - \sqrt[N]{1 - P_G} ,$$

where P_i is the effective individual probability of helping and P_G is the proportion of groups of size N in which at least one person helps. This formula is derived from a simple binomial independent trials model and has the advantage of permitting the comparison of effective individual rates of helping across groups of different sizes. In both tables, then, the last two columns should be compared to determine the effect of the presence of others on an individual's probability of helping.

A person in a real emergency situation and in actual need of help is not likely to be concerned with any given bystander's likelihood of giving assistance but simply with whether *anyone* helps. To examine each experiment from this perspective, we have indicated in each table the needy person's likelihood of receiving help. In Table 2, involving studies with actual groups, we simply recorded the percentage of groups containing one or more helpers. With bogus groups (Table 1), however, we computed a hypothetical percentage of groups of size n that would be expected to contain at least one helper if each group member independently had the same probability of helping as single bystanders. As with the effective individual probability of helping, this figure is calculated from a simple binomial model based on the size of the group and the probability that an individual in that group will help. In both tables, then, the fourth and sixth columns should be compared to determine the effect of the presence of more than one bystander on a victim's likelihood of receiving help.

We consider the following major classes of variables that have been examined within the general context of the research on group size and helping in emergencies: nature of the precipitating incident, laboratory versus field settings, ambiguity of the helping situation, bystander characteristics, victim characteristics, characteristics of other bystanders, and communication possibilities among bystanders. Despite the wide diversity of variables that have been manipulated and experimental situations that have been used, we found very few limitations to the general conclusion that the individual probability of helping is lower when groups are involved than when persons witness an emergency alone. Our tables suggest that, with

rare exceptions, individuals faced with a sudden need for action exhibit a markedly reduced likelihood of response if other people are available or are believed to be available to act.

The Precipitating Incident

Investigators have used considerable ingenuity in devising experimental situations, which in most cases have been credible and realistic representations of emergencies. These can be classified into three major types.

Bystanders in danger. One group of experiments has exposed persons to a situation representing danger to everyone present—as in Latané and Darley's (1968) prototypic study in which a room in which persons waited for an interview gradually became filled with smoke. Since a failure to act in such a situation could be as risky for the individual as for others, intervention in such an emergency cannot be considered entirely altruistic. Other investigators who have used emergencies of this type include Ross (1971), Ross and Braband (1973), and Sommerfreund and Goodstadt (Note 2), who set off a ringing bell and a flashing red "Fire" sign. As indicated in the tables, evidence of social inhibition can be found in all four of these studies.

A victim in danger. Perhaps the most commonly studied type of emergency is one in which a "victim" is in danger. In the initial study of this type (Darley & Latané, 1968), participants in a group discussion heard (via an intercom) a fellow participant suffer a seizure. In both this study and another that used this procedure (Schwartz & Clausen, 1970), the question was whether the other participants would help the victim. In another group of conceptually similar studies (Smith, Smythe, & Lien, 1972; Beaman & Diener, Note 3), the experimenter "fainted" in the next room. Subway riders in New York (I. M. Piliavin, Rodin, & Piliavin, 1969) and Philadelphia (J. A. Piliavin & Piliavin, 1972) witnessed a fellow rider stagger and fall; Harris and Robinson (1973) had their experimenter undergo a severe asthma attack. In all of these settings, the victim's distress cannot be attributed to any

external agent, and in all except the Piliavin studies—which we discuss later—social inhibition of helping was found.

In a related group of studies, victims were endangered by accident. In the experiment by Latané and Rodin (1969), participants heard a crash in the next room as the experimenter fell while trying to reach a book. Similarly, participants in a study reported in Latané and Darley (1976) saw, over closed-circuit television, the experimenter apparently receive an electric shock. In experiments by Ross (1971) and Ross and Braband (1973), the bystanders heard a workman in the next room injure himself with a power saw. Other experiments using similar paradigms have been conducted by Darley, Teger, and Lewis (1973), Staub (1970, 1974), Clark and Word (1972, 1974), and Bickman (1971). All of these studies have found social inhibition effects in at least some conditions.

A villain acts. A final category of experimental settings involves a perpetrator who causes the emergency or commits some antisocial act. Latané and Elman's (1970) participants saw one of their number steal cash being used by the experimenter to pay them, and customers in a carry-out saw someone steal a case of beer (Latané & Darley, 1970). Howard and Crano (1974), on the other hand, arranged for the theft of books in a variety of Michigan State University campus locations. In cases such as these, intervention involves getting another person, the villain, in trouble, and witnesses must choose between the rights of the victim and the rights of the perpetrator. In each of these three cases, social inhibition was found.

Nonemergency settings. The initial impetus for this entire area of research—the Kitty Genovese incident—is no doubt the reason that most of the experiments have dealt with emergency situations, though not of such a serious nature as murder. A number of studies providing relevant data, however, have dealt with incidents that are not genuine emergencies, and the variety of non-emergency settings that have yielded social inhibition effects is remarkable. When others are present or believed to be so, people are less likely to answer an intercom or the door (Freeman, 1974; Levy et al., 1972),

Table 1
Social Inhibition: Alone Subjects Compared With Individuals in the Presence of Confederates or With Others Believed Present

Study	Situation	Confederates or others believed present	Hypothetical proportion of groups helping	Proportion of subjects in groups helping	Proportion of alone subjects helping
Byeff (Note 1) ^a	Fall	1	73%	48% (44)	47% (30)
Ross & Braband (1973)	Smoke	1 normal	26%	14% (14)	50% (14)
		1 blind	87%	64% (14)	(50%)
Shaffer, Rogel, & Hendrick (1975)	Theft	1	44%	25% (32)	54% (32)
Horowitz (1971) ^a	Seizure	3 service group	98%	65% (20)	55% (20)
		3 social group	59%	20% (20)	(55%)
Thalhofer (1971) ^a	Help child	"Many"	99%	44% (96)	60% (96)
Krupat & Epstein (1973) ^a	Request	"Several"	?	58% (36)	61% (36)
Ross & Braband (1973)	Crash	1 normal	58%	35% (14)	64% (14)
		1 blind	48%	28% (14)	(64%)
Smith, Smythe, & Lien (1972)	Experimenter faints	1 similar	10%	5% (20)	65% (20)
		1 dissimilar	58%	35% (20)	(65%)
Latané & Rodin (1969)	Crash	1	14%	7% (14)	69% (26)
Wilson (1976)	Explosion	2 don't help	74%	38% (61)	75% (69)
		2, 1 helps	99%	83% (66)	(75%)
Latané & Darley (1968)	Smoke	2	27%	10% (10)	75% (24)
Levy et al. (1972)	Demands to enter room	1	68%	43% (30)	77% (30)
		2	49%	20% (30)	(77%)
Sommerfreund & Goodstadt (Note 2)	Fire alarm	1 calm	68%	43% (14)	79% (14)
		1 worried	59%	36% (14)	(79%)
Bickman (1971) ^a	Crash	1 (can't help)	93%	74% (15)	80% (15)
		1 (can help)	64%	40% (15)	(80%)
Beaman & Diener (Note 3) ^a	Experimenter faints	1 (saw subject)	94%	75% (20)	80% (20)
		1 (subject saw)	80%	55% (20)	(80%)
Harris & Robinson (1973) ^a	Asthma attack	2	95%	63% (30)	81% (16)
Gaertner & Dovidio (1977)	Experiment I ^a	2 (white victim)	98%	75% (16)	81% (16)
Schwartz & Clausen (1970) ^a	Seizure	4	98%	54% (48)	84% (49)
		3 and expert	96%	48% (50)	(84%)
Latané & Darley (1970) ^a	Seizure	1 friend	94%	75% (28)	85% (13)
1 stranger		86%	62% (26)	(85%)	
Darley & Latané (1968) ^a		4 strangers	84%	31% (13)	(85%)
	Ross (Note 4)	Drug	3	82%	35% (20)
Teger & Henderson (Note 5)	Sounds of distress	1 nonhelping M	58%	35% (20)	90% (10)
		1 nonhelping F	99%	90% (30)	(90%)
		1 helping M or F	99%	90% (30)	(90%)
Schwartz & Gottlieb (1976) ^a	Theft, crash	5 (no communication)	95%	45% (11)	92% (13)
		5 (saw subject)	100%	86% (14)	(92%)
		5 (subject saw)	87%	33% (12)	(92%)
Schwartz & Gottlieb (1976)	Theft, crash	5	99%	62% (13)	(92%)
Ross (1971)	Smoke, crash	2 peers	41%	16% (12)	92% (12)
		2 children	88%	50% (12)	(92%)
Staub (1974)	Crash	1 "nonemergency"	44%	25% (12)	93% (14)
		1 "emergency"	89%	67% (12)	(93%)
		1 "discourage"	94%	75% (12)	(93%)
		1 "encourage"	97%	82% (11)	(93%)
		1 "encourage plus"	100%	100% (12)	(93%)
Gaertner & Dovidio (1977)	Experiment I ^a	2 (black victim)	76%	38% (16)	94% (16)
Latané & Darley (1976) ^a	Shock	1 (no communication)	97%	83% (19)	95% (19)
		1 (saw subject)	92%	72% (19)	(95%)
		1 (subject saw)	92%	72% (19)	(95%)
Latané & Darley (1976)	Shock	1	75%	50% (19)	(95%)
Silverman (Note 6)	Crash	1	99%	92% (40)	95% (43)
Gaertner (1975)	Crash	3 (white victim)	100%	90% (10)	100% (10)
		3 (black victim)	76%	30% (10)	100% (10)

Table 1 (*continued*)

Study	Situation	Confederates or others believed present	Hypothetical proportion of groups helping	Proportion of subjects in groups helping	Proportion of alone subjects helping
Clark & Word (1972) Experiment 1	Crash	1	100%	100% (20)	100% (10)
Misavage & Richardson (1974) ^a	Broken tape	2	94%	60% (10)	100% (10)
Overall % helping			88%	53% (1,279)	75% (774)

Note. ? = not calculable; M = male; F = female. All studies are laboratory experiments except those of Shaffer et al. (1975) and Teger and Henderson (Note 5). *N*s are given in parentheses. Some percentages in the last column in both tables appear within parentheses, indicating that the data have also been compared with the data of another condition above and are not based on independent subjects.

^a Studies that involved restricted communication among bystanders.

pick up coins and pencils in an elevator (Latané & Dabbs, 1975), report a broken tape recording (Misavage & Richardson, 1974), help with a flat tire (Hurley & Allen, 1974), leave a large tip in a restaurant (Freeman, Walker, Borden, & Latané, 1975), and take a coupon for a free cheeseburger (Petty, Williams, Harkins, & Latané, 1977). Social inhibition appears, then, to be a powerful phenomenon in both emergency and non-emergency situations.

Ambiguity of the Situation

As Latané and Darley (1970) suggested, an ambiguous emergency is likely to lead bystanders to look to one another for help in defining the situation. If what the individual bystander sees is inaction, then that person will be likely not to act as well—a state of affairs leading to “pluralistic ignorance.” If the need for help is clear and unambiguous, a bystander does not need to look to others and group size effects should be reduced, depending only on diffusion of responsibility.

Clark and Word (1972, 1974) examined the relation among group size, ambiguity, and emergency helping. In their 1972 study, participants overheard a maintenance man fall and either cry out in agony (low ambiguity) or give no verbal signs of injury (high ambiguity). They found social inhibition in the high-ambiguity condition but none under conditions of low ambiguity. In their 1974 studies Clark and Word found a puzzling pattern of results, obtaining social inhibition

only at an intermediate level of ambiguity, leading them to suggest the existence of upper and lower boundaries of situational ambiguity beyond which social influence has little impact. Although the pattern of these results is difficult to explain, it could be that participants in the ambiguous condition did not even perceive that an emergency was potentially in progress; they saw only a flash of light and heard a dull buzzing sound (suggestive of a victim's receiving electrical shock). One is not likely to look to others for information about how to interpret a situation if one does not perceive enough cues even to be concerned. Unfortunately, a ceiling effect seems to have obscured the results of the unambiguous condition; the emergency was so clearly serious that virtually everyone helped whether in groups or alone. When the rate for groups is so high, there is no room for increased helping in the alone condition.

Solomon, Solomon, and Stone (1978) also investigated auditory and visual cues as determinants of emergency intervention. In three laboratory studies and one field study, they found that when bystanders only heard an emergency, helping was significantly reduced in groups as compared with alone; when the emergency was both seen and heard, these differences were reduced, regardless of whether the victim was male or female, whether the emergency was taped or live, or whether the victim on tape had or had not been seen in person prior to the emergency and regardless of the type of emergency. These studies, then, support the

Table 2

Social Inhibition: Alone Subjects Compared With Actual Groups

Study	Situation	Group size	Proportion of groups with one or more helpers	Effective individual probability of helping	Proportion of alone subjects helping
Staub (1970)	Crash	2 (5-7 yr.)	30% (43)	16%	6% (48)
Clark & Word (1974) Experiment I	Ambiguous shock	2	44% (16)	25%	16% (11)
Staub (1970)	Crash	2 (9-11 yr.)	20% (30)	11%	23% (35)
Latané & Elman (1970)	Money theft	2	19% (16)	10%	24% (25)
Solomon, Solomon, & Stone (1978)	Faint	2	19% (27)	10%	26% (35)
Clark & Word (1972) Experiment II	Ambiguous crash	2	20% (10)	11%	30% (10)
		5	40% (10)	10%	(30%)
Piliavin, Piliavin, & Trudell (Note 7)	Theft	2	19% (16)	10%	32% (28)
Freeman (1974)	Request for help	2-8	68% (56)	22%	39% (46)
Howard & Crano (1974) ^a	Book theft	3	36% (72)	14%	43% (72)
Byeff (Note 1)	Fall	2	37% (30)	20%	47% (30)
Latané (1970) ^a	Request money, help	2-3	40% (355)	19%	47% (1,736)
Moylan & Greenwood (Note 8) ^a	Beer theft	2-4	33% (18)	14%	47% (19)
Clark & Word (1974) Experiment I	Some ambiguity	2	62% (16)	39%	53% (19)
Ross & Burke (Note 9)	Shock	2-3	50% (14)	25%	57% (14)
Solomon et al. (1978)	Faint	2	52% (60)	30%	57% (49)
Latané & Darley (1970) ^a	Beer theft	2	56% (48)	34%	65% (48)
Allen (1972) ^a	Misinformation	2-3	69% (45)	38%	67% (45)
Latané & Rodin (1969)	Crash, strangers	2	40% (20)	23%	69% (26)
	Crash, friends	2	70% (20)	45%	(69%)
Solomon et al. (1978)	Crash	2	45% (20)	26%	70% (20)
Freeman (1974)	Knock on door	2-8	54% (56)	16%	72% (46)
Latané & Darley (1968)	Smoke	3	38% (8)	15%	75% (24)
Freeman (1974)	Lights go off	2-8	70% (56)	23%	76% (46)
Anonymous (Note 10) ^a	Fall in mall	2	65% (58)	43%	79% (33)
Piliavin et al. (Note 7)	Fall	2	59% (17)	36%	79% (29)
Solomon et al. (1978) ^a	Fall in laundry	2	75% (16)	50%	81% (16)
Konecni & Ebbesen (1975)	Fallen confederate	2	71% (14)	46%	86% (14)
Experiment I ^a		2	53% (15)	31%	(86%)
Darley, Teger, & Lewis (1973)	Crash, facing	2	80% (10)	55%	90% (10)
	Crash, not facing	2	20% (10)	11%	(90%)
Clark & Word (1974) Experiment I	Unambiguous shock	2	100% (24)	?	93% (30)
Staub (1974)	Crash	2	60% (15)	37%	93% (14)
Clark & Word (1972)					
Experiment I	Crash	2	100% (20)	?	100% (10)
Experiment II	Unambiguous crash	2-5	100% (20)	?	100% (10)
Misavage & Richardson (1974)	Broken tape	3	90% (10)	54	100% (10)
I. M. Piliavin, Piliavin, & Roden (1975); I. M. Piliavin, Rodin, & Piliavin (1969); J. A. Piliavin & Piliavin (1972) ^a	Fall in subway	8-20	71% (263)	6-14%	?
Overall % helping			50% (1,291)	22%	50% (2,028)

Note. ? = not calculable. All studies involve full communication in the sense that subjects are in each other's presence. Data from I. M. Piliavin et al. (1975), I. M. Piliavin et al. (1969), and J. A. Piliavin and Piliavin (1972) studies are not included in totals since there was no alone condition. *Ns* are given in parentheses. Some percentages in the last column in both tables appear within parentheses, indicating that the data have also been compared with the data of another group condition and are not based on independent subjects.

^a Field studies.

conclusion that the social influence processes leading to the inhibition of helping are more likely under relatively ambiguous conditions than in situations in which it is clear that an

emergency has occurred and that help is needed.

In manipulating ambiguity, these studies unfortunately have at the same time varied

seriousness; that is, bystanders with an abundance of cues regarding the situation are naturally led to believe that it is more serious than bystanders with only a few clues.

Laboratory Versus Field Settings

From the beginning researchers have made use of field as well as laboratory settings. Ideally, social psychology should progress on the basis of an interplay between the two classes of settings (McGuire, 1973). Unfortunately, many people seem to believe that social inhibition of helping may not always occur in natural environments. This impression has apparently been caused by several studies reported by the Piliavins and their colleagues (I. M. Piliavin, Piliavin, & Rodin, 1975; I. M. Piliavin et al., 1969; J. A. Piliavin & Piliavin, 1972), which led them to suggest that social inhibition might be limited to the laboratory. This speculation, which we believe to be unfounded, has persisted despite numerous empirical contradictions and has therefore created a good deal of unnecessary confusion.

All three Piliavin studies involved a person who collapsed in a subway car—and all three report no evidence that the likelihood of getting help was less with more people present. However, there were always a sizable number of people present (the number of witnesses in the 1969 study averaged 43, with 8.5 in the immediate vicinity), and social inhibition was probably high in all cases.¹

Although the appropriate evaluation of the Piliavin data is that they do not provide direct evidence either for or against social inhibition, our own calculations suggest that the phenomenon might in fact have been operative. As indicated in Table 2, the effective individual probability of helping implied by the obtained group helping rates ranges from 6% to 14%. These figures are low—both in comparison with most other studies and subjectively, considering that the victim collapsed directly in front of and right at the feet of witnesses. We suspect that if the Piliavins had been able to obtain data from isolated witnesses, the rate of helping would have been much higher.

In the 10 field studies listed in Table 2, the percentage of single individuals helping

exceeds the effective individual probability of helping for people in groups in nine comparisons, though such a comparison is not possible in the case of the Piliavin studies. In addition, social inhibition has been found in other emergency studies conducted in the field (e.g., Shaffer, Rogel, & Hendrick, 1975; Teger & Henderson, Note 5) as well as in nonemergency situations (e.g., Latané & Dabbs, 1975). There is, then, considerable evidence that social inhibition routinely occurs in the field as well as in the laboratory.

Characteristics of the Bystanders

Although they have rarely been a principal research focus, a number of studies have varied the characteristics of the bystander. We briefly consider three: sex, age, and geographic region.

Sex. As might be expected, some studies have found males to be more helpful than females (e.g., Latané & Dabbs, 1975; I. M. Piliavin et al., 1975; I. M. Piliavin et al., 1975; J. A. Piliavin & Piliavin, 1972), others have found females more helpful than males (Levy et al., 1972; Thalhoffer, 1971), and a number have failed to find any sex effects at all (e.g., Darley & Latané, 1968; Howard & Crano, 1974; Misavage & Richardson, 1974; Schwartz & Clausen, 1970; Shaffer et al., 1975; Staub, 1970). The important question from the present perspective is whether social inhibition occurs with both males and females.

In all but a few cases, the group size effect holds for both sexes—even if there is a main effect for sex (as in Latané & Dabbs, 1975). One exception to this pattern is the study by Schwartz and Clausen (1970), who reported

¹ In analyzing their data, the Piliavins did seem to recognize the need to correct for the mathematical fact that as group size increases, the likelihood that *someone* will help also increases, and they formed "hypothetical" groups by combining groups of smaller size (they also excluded females from this consideration). Such hypothetical baselines, regrettably, are not capable of telling us what a group of size *n* would do if the individuals did not influence one another, nor can they tell us anything about how individuals would behave alone or in groups. The later Piliavin studies simply compared latencies across various group sizes. Thus it is impossible to perform the appropriate comparisons to determine whether social inhibition occurred.

a significant effect for females but not for males—possibly because the other bystanders were female. A second exception is the case of Solomon et al. (1978, Experiment 3), who found social inhibition for males but not for females. Solomon et al. suggested that this result may have been due to the nature of their experimental situation, in which single females may have felt it more dangerous to intervene than males.

The group size effect has been found repeatedly with both sexes; we have found at least 34 studies showing social inhibition for males and at least 19 for females. Despite the fact that sex differences in the type of helping or in the absolute amount of helping may occur, the group size phenomenon affects both males and females.

Age. Although most laboratory experiments have studied college students, one involved adults (Staub, 1974), and three studied high school students (Ross & Braband, 1973; Sommerfreund & Goodstadt, Note 2; Ross, Note 4). All of these studies found social inhibition effects, as have the majority of the field studies that have sampled adult populations.

In an experiment dealing with the developmental aspects of helping behavior (Staub, 1970), children ranging from 5 to 11 years of age overheard distress sounds from another child in an adjoining room while they were either alone or in pairs. Our reanalysis of the probability of *active helping* in Staub's data suggests that helping increases significantly with age, but so does the degree of social inhibition (Figure 1). Children of ages 5–7 were more likely to help with another child present than when alone; Staub noted that the distress sounds seemed to be stressful for the younger children and suggested that the presence of another child may have facilitated helping by reducing fear. With children of ages 9–11, however, social inhibition was present; children had a lower probability of response when another child was present than when they were alone. Children under the age of 9 constitute the only group we have covered thus far that has failed to show a substantial degree of social inhibition of helping.

Volunteering, or admitting an awareness that someone had been in distress after hav-

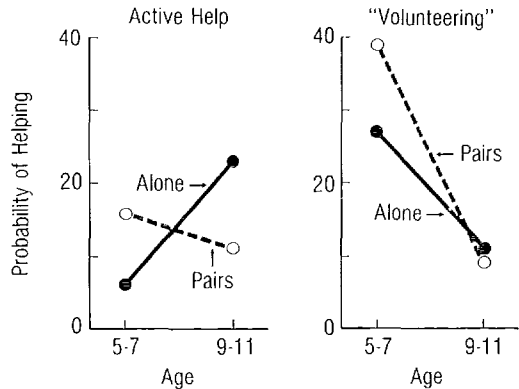


Figure 1. Reanalysis of data from Staub (1970). (Pairs scores represent estimated individual probabilities of helping based on the formula $P_i = 1 - \sqrt[n]{1 - P_G}$.)

ing done nothing, decreased with age (Figure 1). One interpretation of this fact is that older children were more aware of a socially defined responsibility for helping others, which might be why older children were more helpful in the absence of other people. It is interesting that social inhibitions against helping seem to develop at the same time as the emergence of social awareness of the need to help.

Geographic region. Testing for differences in helping rates among cities of different sizes might be seen as a manipulation of group size, and a few researchers have adopted such a strategy. For example, Merrens (1973) found in six of the eight midwestern towns he investigated a greater amount of nonemergency helping than in New York City, and in Massachusetts Korte and Kerr (1975) determined on three different measures that the likelihood of help was greater in nonurban than in urban locales. Similarly, Dalton and Nida (Note 11) found that more persons complied with a request in a small city in eastern Tennessee than in Atlanta, Georgia, and in a field experiment by McKenna (1976), rural residents were more likely to assist a stranded motorist than were urbanites. Still other studies (House & Wolf, 1978; Milgram, 1970; Takooshian, Haber, & Lucido, 1977) have produced parallel results, whereas Rushton (1978) found that the percentage of helping behavior (on each of four different measures) decreases linearly as urban den-

sity increases. The data of Latané and Darley (1970) suggested—consistent with these studies—an inverse relation between speed of helping and the size of the community in which the helper grew up; further investigation (Werner, Latané, Walsh, & Darley, Note 12), however, found that such an effect for individual differences failed to hold. At least two failures to replicate the urban-rural difference in helping behavior have been reported (Forbes & Gromoll, 1971; Schneider & Mockus, 1974).

To our knowledge only one study has actually explored the effect of group size on helping within different cities. Latané and Dabbs (1975) on some 1,500 occasions exposed almost 5,000 elevator passengers in Atlanta, Georgia, Columbus, Ohio, and Seattle, Washington, to a fellow passenger who “accidentally” dropped a handful of pencils or coins. The result was a highly significant group size effect, with the individual probability of helping decreasing from 40% to 15% as the number of people available to respond increased from one to six. This effect, moreover, was essentially identical for all three cities.

Characteristics of the Victim

Very little research has systematically manipulated victim characteristics, but the most frequently studied characteristic has been sex. Latané and Dabbs (1975) found that females were more likely than males to get help in picking up dropped pencils or coins; similarly, Howard and Crano (1974) found college students more likely to help prevent the theft of a female's books than those of a male. Other studies have found no effect for sex of victim (e.g., Shaffer et al., 1975), whereas others including sex of victim manipulations have failed to report analyses for that variable (e.g., Konecni & Ebbesen, 1975). None of these studies reported any differences in the amount of social inhibition based on the victim's sex. Furthermore, social inhibition has been found in females with a male victim (e.g., Misavage & Richardson, 1974; Schwartz & Clausen, 1970; Thalhoffer, 1971), in females with a female victim (Bickman, 1971), in males with a female victim (e.g., Latané

& Elman, 1970; Latané & Rodin, 1969; Smith et al., 1972), and in males with a male victim (e.g., Levy et al., 1972; Misavage & Richardson, 1974; Thalhoffer, 1971).

At least two studies manipulated the number of victims. Latané (1970) found that compliance with minor requests (e.g., “What time is it?”) increased as a function of the number of requesters. Similarly, Wegner and Schaeffer (1978) found what they termed a “concentration of responsibility” effect: Helping was greater when there were three victims than when there was only one. Other studies have varied the race of the victim (e.g., Gaertner, 1975; I. M. Piliavin et al., 1969), the presence of physical or social stigmata (I. M. Piliavin et al., 1975), and victim status (Harris & Robinson, 1973). Although several of these studies (Gaertner, 1975; Gaertner & Dovidio, 1977; Harris & Robinson, 1973) reported interactions between group size and the manipulated variable of interest, it is difficult to evaluate their meaningfulness, since they are so rare and since little rationale has been offered for their existence.

Characteristics of Other Bystanders

Sex. Effects of the sex of other bystanders has not received much systematic attention. Researchers often fail to specify the sex; when it is made clear, all of the bystanders are usually of the same sex. When actual groups are studied, their composition is sometimes allowed to vary randomly. The status of sex effects concerning other bystanders is much the same as with sex effects concerning the victim; social inhibition has been found with males in the presence of other males (e.g., Shaffer et al., 1975; Smith et al., 1972), with males in the presence of females (e.g., Beaman & Diener, Note 4), and with females in the presence of other females (e.g., Bickman, 1971; Shaffer et al., 1975). The combination of females in the presence of males has apparently not been investigated, but we find no reason to expect that social inhibition would not appear in these circumstances as well.

Teger and Henderson (Note 5) suggested that males may be less likely to use females than males as a valid source of information

about what behavior is appropriate in a given emergency. When males observed another male fail to help a person in apparent pain behind the locked door of a janitor's closet, significantly less helping occurred than when no confederate was present. After seeing a female offer no assistance, however, males helped as much as they did when they witnessed the emergency alone—as if they had not accepted the female's definition of the situation.

Competence. In their original seizure study, Darley and Latané (1968) found that the presence of a male medical student had no greater effect on helping than the presence of untrained bystanders, a finding they interpreted as being due to the fact that reporting the victim's distress does not require any degree of medical competence. This explanation is consistent with Schwartz and Clausen's (1970) finding that the presence of a medically competent bystander reduced helping for females, since in that study direct help occurred more frequently than in Darley and Latané. J. A. Piliavin and Piliavin (1972) found a nonsignificant tendency for this type of effect, whereas J. A. Piliavin et al. (1975) obtained an effect but only when helping was high in costs.

A study by Horowitz (1971) also offers data relevant to this issue. In his experiment the three other bystanders ostensibly comprised either a service group or merely a social group. When persons thought the others were a service group, the helping rate of those in groups (65%) actually exceeded that of alone subjects (55%), whereas only 20% of the people witnessing the emergency along with the social group intervened.

Other studies have examined the effect of whether another bystander is physically able to help. Bickman (1971) found a social inhibition effect when another bystander was near both the subject and the victim, but the helping rate of individuals believing the bystander to be in a different building did not differ from that for those who thought they were alone; Bickman argued that as others' ability to help decreases, so does the amount of diffusion of responsibility. In a related study Ross and Braband (1973) exposed participants who were alone, with a blind by-

stander, or with a normal-sighted bystander to one of two emergencies. In both emergencies social inhibition occurred when the bystander had normal vision, but when the emergency consisted of odorless smoke entering the room, bystanders with a blind person present reacted as did single individuals. When the emergency consisted of a scream, however, bystanders helped less in the presence of a blind person than when alone. When the blind person was capable of reacting to the emergency but did not (i.e., the scream), he retained his value as a source of social comparison and social inhibition occurred; when he could not react (i.e., the smoke), however, the blind person apparently did not serve as a source of social comparison.

Age. Ross (1971) exposed individuals to an emergency alone, with a nonresponding adult, or with a nonresponding child. As expected, bystanders in the presence of a nonresponding adult helped substantially less than did single individuals, but an intermediate degree of social inhibition occurred with the child present. Konecni and Ebbesen (1975, Study 1), in finding that single women were more likely to aid an "injured" confederate than women in pairs or mixed-sex pairs, noted that the presence of a child significantly decreased the helping of single females but increased helping with mixed-sex pairs (but not beyond that of single individuals). The authors argued that this increase might have occurred because in our culture fathers rather than mothers are expected to act as altruistic models for children. In any case, children can indeed serve as models for nonintervention, thus leading to social inhibition rather than a focusing of responsibility.

Friendship and similarity. Latané and Rodin (1969) found that although pairs of friends overhearing a woman fall and cry out in pain displayed social inhibition as compared with single individuals, they intervened significantly faster than did pairs of strangers. Latané and Rodin observed that friends tended to discuss the incident and often arrived at a mutual plan of action. They suggested that friends should be less likely than strangers to misinterpret each

other's lack of action and less likely to feel embarrassed about acting in front of each other, making it less likely that "pluralistic ignorance" would develop. Using the common seizure paradigm, Latané and Darley (1970) found that bystanders who believed a friend was present (though physically separated from them) were more likely to report the emergency and did so faster than persons who thought a stranger was present. Latané and Darley suggested that friends know they will see each other again and may thus act quickly to protect each's high opinion of the other, or that friends do not diffuse responsibility as much as strangers; that is, there may be a "we" shouldering the responsibility together rather than an "I" and a stranger who divide it.

Smith et al. (1972) manipulated the perceived similarity between bystanders rather than actual friendship. In a situation in which the experimenter feigned physical distress, a similar, nonreactive bystander inhibited helping more than a dissimilar one. Although 35% of the bystanders paired with a dissimilar bystander helped, only 5% of those with a similar bystander did so—a finding consistent with predictions derived from Festinger's (1954) theory of social comparison, a postulate of which states that the tendency to compare oneself with others should increase as a function of perceived similarity. An essential difference from Latané and Rodin (1969) is that this study used a confederate who intentionally acted passive and unconcerned, whereas Latané and Rodin used pairs of real friends. If friends do strongly communicate their lack of concern and intention to remain passive, one might expect them to inhibit one another more than strangers.

Communication Among Bystanders

A final yet important variable affecting intervention is the communication possibilities that exist among bystanders. Each of the three psychological processes posited by Latané and Darley to explain social inhibition involves different preconditions, and each requires a different direction or channel of communication among the bystanders to

be effective. For audience inhibition to have an effect, other bystanders must be able to tell what an individual does, but not vice versa. If social influence is to operate, on the other hand, the individual must be able to tell what other bystanders do, but it is not necessary that they be able to reciprocate. Finally, of course, diffusion of responsibility does not require that anyone be aware of others' actions—only that each individual believe that others are available to help.

Participants in a study by Latané and Darley (1976) witnessed a victim receiving an apparent shock while they believed either that they were alone or that another person was in a nearby cubicle. Through the use of a television camera and monitor, participants could (a) see and be seen, (b) see but not be seen, (c) not see but be seen, or (d) neither see nor be seen by the other bystander. Bystanders who thought they were alone helped the most, followed by persons who could neither see nor be seen (but who could still communicate with the other subject). In the one-way communication conditions, an intermediate level of helping occurred. People who could both see and be seen by the other person helped least. Adding channels of communication, then, apparently increased the amount of social inhibition, and the results thus provide strong support for the independent and additive operation of each of the three processes. These results are consistent with those of Beaman and Diener (Note 3), who found a higher rate of helping when confederates could see the subject than when the subject could see the confederate.

Misavage and Richardson (1974) stressed the importance of verbal communication among bystanders, arguing that the group size effect had been demonstrated only in settings in which verbal communication was not possible. These authors in fact believe that bystanders in a freely interacting group will *focus* responsibility in some organized fashion rather than diffuse it; because group members can see and evaluate each other's actions, any violations of a helping norm are apparent. This position, incidentally, is consistent with that of Schwartz and Gottlieb (1976, 1980), who suggested that evaluation

apprehension and the tendency to present oneself favorably according to the prevailing norm of behavior can lead to both inhibition and the enhancement of helping. The evidence suggests, however, that persons do not spontaneously come up with social pressure to help. Misavage and Richardson reported that in their study people who were alone or in interacting groups helped faster than people in noninteracting groups. Unfortunately they did not consider that there were three potential helpers in the interacting group condition as opposed to only one in the other conditions; responding in the interacting group thus cannot be directly compared with responding in the other conditions of the experiment. Our own application of the formula for the effective individual probability of helping to their data revealed that the interacting and noninteracting groups helped about equally, both rates being significantly less than the alone helping rate.

Such a finding is not really surprising when one considers that in at least some of the studies finding evidence for social inhibition, bystanders were able to communicate freely with each other. The question seems to be what bystanders say to one another when a help-needing situation arises. Staub (1974) manipulated the type of comments made by a confederate during an emergency to examine the effects of verbal communication more systematically. Using an emergency situation consisting of apparent sounds of distress coming from an adjoining room, he found, for example, that helping tended to increase when a confederate defined the sounds as indicative of distress (i.e., "That sounds bad. Maybe we should do something"), but tended to decrease when the confederate claimed that the sounds were from a tape recording. His data indicate the verbal communications about an emergency can affect reactions to the point that helping in pairs is as great as when bystanders are alone, a result that occurred when the confederate said, "I'll go try to find the experimenter. You go in and see what happened." As Staub noted, these communications may affect a bystander's interpretation of the event (which in turn affects behavior), or they may reflect the communicator's belief about what should be done or about expect-

tations about what the other person will do, thus leading to compliance. Of course, another bystander's behavior can affect a person's interpretation of the situation as well. Teger and Henderson's (Note 5) and Wilsons (1976) data indicate that a confederate who helps can markedly increase the number of people in groups who help.

Darley et al. (1973), on the other hand, focused on nonverbal communication among bystanders, maintaining that less helping occurs in groups because of the definition of the situation given by group members. Signals that break the uniformity of the group's response of indifference should leave the individual free to make a different interpretation, that is, that the event may in fact be an emergency. If startle responses (one such set of signals) are visible, the typical group size effect should be reduced. Consistent with their prediction (but not with our general conclusion that fuller communication increases social inhibition), the results indicated that people who were face-to-face when hearing a crash helped at a higher rate than nonfacing pairs.

Considered collectively, the studies in our tables support the premise that communication possibilities affect helping. When communication is restricted and diffusion of responsibility is the only process operating, that is, when individuals are separated yet know of each other's presence (studies marked with an asterisk in Table 1), 56% of the people in groups help. When full communication among bystanders is possible (the remainder of the studies in the two tables), however, the overall helping rate for persons in groups is only 36%. It seems, then, that the more communication channels available, the greater the degree of inhibition; when full communication is possible, not only are bystanders aware of each other's presence, but they also can observe and be affected by each other's reactions.

Analysis of Results

Despite the great diversity found in the studies reviewed, the inhibition of helping in groups appears to be a remarkably consistent phenomenon. In our concluding sections we explore the prevalence and the apparent limiting conditions of the effect.

Prevalence of Social Inhibition

Tables 1 and 2 summarize some four dozen published or unpublished studies from nearly three dozen different laboratories that reported data from almost 6,000 persons faced with the opportunity to help either alone or in the presence of others. Listed in Table 1 are 56 published and unpublished comparisons of helping by persons who were alone versus those who were tested in the presence of confederates or who believed other, unseen persons to be present. In 48 of these 56 comparisons, there was more helping alone, a result that would be expected to occur by chance less than 1 time in 42 million. Overall, about 75% of people tested alone helped, but fewer than 53% of those tested with others did so. Table 2 shows 37 comparisons between persons tested alone and in actual groups ranging in size from two to eight. In four cases the comparison is indeterminant; in 31 the effective individual probability of helping was less than the alone response rate, a proportion that would occur by chance less than 1 time in 15 million. Overall, about 50% of the persons exposed to the emergencies alone offered help; the effective individual response rate for persons who viewed the emergencies in groups, on the other hand, was only 22%.

Rosenthal (1979), in discussing the "file drawer problem" (the fact that one cannot know how many studies in a given area of research have, through failure to find positive results, gone unreported), described meta-analytic techniques for assessing the net effect of a group of studies. Following his lead we computed a chi-square for each comparison listed in Tables 1 and 2, transformed each chi-square into a z score, summed the z s, and divided by the square root of the number of comparisons. Our calculations result in an overall z of 18.24, indicating that the overall pattern of results could be expected to occur by chance alone less than 1 time in 1.6 billion. An especially meaningful statistic can be computed by means of a formula supplied by Rosenthal, namely, the number of new, filed, or unretrieved studies with null results that would be necessary to reduce the overall p value to nonsignificance. In the present case, in

excess of 11,000 unretrieved or new studies reporting null results would be required for us to abandon our conclusion that being in a group tends to inhibit helping.

Of course, the effect does seem to be reduced under some conditions: with children under the age of 9 years (Staub, 1970), when the situation calling for help is made less ambiguous (e.g., Clark & Word, 1972), when other bystanders are less capable of giving help (e.g., Bickman, 1971; Ross & Braband, 1973) or are programmed to provide positive information about the seriousness of the emergency or the desirability of acting (e.g., Darley et al., 1973; Staub, 1974), and when available channels of communication are limited (e.g., Latané & Darley, 1976). The group size phenomenon seems to be pervasive, its boundary conditions remarkably few. A number of purported limitations, such as that the effect is limited to the laboratory (e.g., I. M. Piliavin et al., 1975; I. M. Piliavin et al., 1969) or to males (e.g., Schwartz & Clausen, 1970), have been shown to have no foundation in actuality.

Thus, with very few exceptions, individuals faced with a sudden need for action exhibit a markedly reduced likelihood of response if other people are or are believed to be available to act. It is clear that the social inhibition of helping occurs in both laboratory and field settings using a wide variety of emergencies designed by a multitude of independent researchers. It is indeed a robust social psychological phenomenon, perhaps as thoroughly replicated and documented as any in our field.

Likelihood of Receiving Help

Thus far we have been dealing with the question of whether an individual is less likely to help if part of a group than if alone. The victim of an emergency is concerned with a different issue, however (whether *anyone* will offer assistance), and is likely to assume that the more people available to respond, the greater the chance of finding at least one to do so. If we view the victim's probability of going unhelped as simply the product of each individual bystander's probability of not helping, the question of whether the increases in probability of receiving help

due to the increased availability of helpers is great enough to outweigh the decrease in each helper's individual probability of giving help can be treated as an empirical issue.

According to the data, very often the victim is actually less likely to get help as the number of helpers increases. In the nonasterisked studies of Table 1 (which involve full communication among the bystanders or confederates present) the percentage of alone subjects helping exceeds the hypothetical proportion of groups helping in 21 out of a total of 32 comparisons, in 9 the reverse occurs. Treating the comparison as the unit of analysis, a matched-pair t test performed on the percentages shows that the victim is indeed less likely to receive help when groups are present (70% help) than when there is a single bystander, 82% help, $t(31) = 3.00, p < .01$. As expected, this effect is weakened under conditions of restricted communication (asterisked studies in Table 1). In this case, the percentage of alone subjects helping exceeds the hypothetical proportion of groups helping in only 7 out of 23 cases; the reverse occurs in 15 comparisons. Although the victim actually fares a little better in front of groups (89% help) than with single bystanders (84% help), this difference is nonsignificant, $t(22) = 1.49$.

When actual groups are considered (Table 2), the victim once again appears to have a greater likelihood of receiving help when there is a single witness. The percentage of alone subjects helping exceeds the percentage of groups with one or more helpers in 26 of 36 instances, with the reverse occurring in 8 comparisons. For Table 2, matched-pairs $t(35) = 2.16, p < .05$, indicating again that the likelihood of a victim's receiving aid is reliably lower in the presence of groups (55% help) than with individual bystanders (62% help). When all of the data in both tables are considered, the difference (69% vs. 74%) is in the same direction and is again statistically reliable: $t(90) = 2.64, p < .01$. In general, a victim does seem to stand a greater chance of receiving assistance when only a single individual witnesses his or her plight.² However, the difference is small. A victim's best strategy is probably to avoid getting entangled in an emergency rather than to try to manage the number of witnesses.

Ten Years of Research

After 10 years and over 50 studies, what can be concluded? As we have demonstrated in this review, the original phenomenon discovered by Latané and Darley has a firm empirical foundation and has withstood the tests of time and replication. Although we have not discussed it in this review, the research has also led to interesting theoretical advances (see Latané et al., in press, for a summary). To our knowledge, however, the research has not contributed to the development of practical strategies for increasing bystander intervention. Although the original experiments and the continuing interest in the topic were certainly stimulated, at least in part, by the dramatic, real-world case of the failure of 38 witnesses to intervene in or even report to the police the murder of Kitty Genovese, none of us has been able to mobilize the increasing store of social psychological understanding accumulated over the last decade to devise suggestions for ensuring that future Kitty Genoveses will receive help.

² In these analyses each comparison has been weighted equally, thus explaining the minor discrepancy between these results and the overall summaries of Tables 1 and 2, which reflect the data considered collectively, thus weighting each comparison according to the number of persons on which it is based.

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