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# MINORITY INFLUENCE

*Edited by*

**SERGE MOSCOVICI**

Ecole des Hautes Etudes en Sciences Sociales, Paris

**ANGELICA MUCCHI-FAINA**

University of Perugia

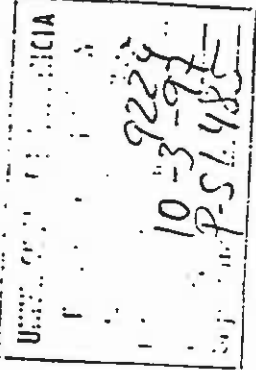
**ANNE MAASS**

University of Padova



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# CHAPTER TEN

## INTEGRATING MINORITY AND MAJORITY INFLUENCE: CONVERSION, CONSENSUS, AND UNIFORMITY

*Juan A. Pérez, Gabriel Mugny, Fabrizio Butera,  
Claude Kaiser, and Patricia Roux*

Is the robot the prototype of true influence? Can one conceive of influence as equivalent to a touch which is sufficient to reverse the direction of movement? It is true that the individual is often conceived as a "response machine" (Moscovici, 1972), lacking any autonomy, a simple reflection of external pressures which, according to circumstances, cause him or her to hold completely opposed views with equal conviction. A vision of this kind certainly inspired the first studies on influence, studies based on such notions as suggestion and hypnosis (see Aebischer and Oberlé, 1990; Paicheler, 1988; Moscovici, 1985). In contrast to this vision an alternative was developed (cf. Asch, 1948), that of a person at once "psychological" and "rational," encouraging us to look for the explanation of genuine influence in the reasons which have to do with a particular conception of "objective reality." One idea, shared by many researchers, derives from the principle that deep, latent changes flow from the perception that the views of others provide a proof of objectivity and truth (Leisinger, 1950, 1954).

On the one hand, we approve of expert, credible, majority, and in-group sources, and reject minority, incompetent, out-group sources at the overt level for normative reasons or in the name of heuristics of simplification (cf. Chaiken, 1987; Cialdini, 1987). These normative influences (Deutsch and Gerard, 1955) depend on the degree of (symbolic) power available to the source, power to provide social approval, and on the extent to which the

target can be identified by the source (cf. Allen, 1965). The conformity of the subject, whether it takes the form of compliance or identification (Kelman, 1958) fulfills an instrumental function here (to permit an escape from punishment or to ingratiate) or a symbolic function (to affirm solidarity or a community of identity—cf. Turner, Hogg, Oakes, Reicher, and Wetherell, 1987—or more simply a special relationship). On the other hand, however, we would only genuinely appropriate the response, we would only internalize it (Kelman, 1958) for informational reasons (the source informs us about objective reality—Goethals, 1972). This informational influence is a function of the degree of competence or credibility of the source and of target's uncertainty about their own judgments or beliefs or opinions. In particular by virtue of the ambiguity of the stimulus or the complexity of the task (Festinger, 1950). The source is the pledge of truth and reducer of uncertainty, certainly for reasons linked to its social characteristics (its superior numbers, credibility, expertise, trustworthiness), but it is the content of its message which has informational value.

However, we are in the presence of an "epistemological nightmare" here (cf. Paichelet, 1988). Without overstating the influence actually assumed, it must be asked how influence is possible at all when, as in the Asch (1956) majority influence paradigm, responses depart from any evidence of objective reality, when they are clearly erroneous (cf. Friend, Rafferty, and Bramel, 1990)? In the name of what normative force can an erroneous majority exercise influence overtly? In the name of what informational force can a message without objective foundations exercise an influence, be it only indirect? It is this question that we shall address in the present chapter. We shall defend the hypothesis that in reality rational man may be brought to change even his most confident and objective judgments, not because of some loss of consciousness or as a result of the play of irrational forces residing in the group, but probably because of the very social psychological foundations of his rationality or what one might call his "epistemological ideology" (Mugny and Doise, 1979).

### Asch Revisited: Just Compliance?

Let us take Asch's (1951, 1956) experiment on conformity and independence and push the reasoning to the limit. The essential characteristic of the situation is that the stimuli are entirely without ambiguity; subjects responding in isolation almost never make mistakes. Subjects anticipate a perfect consensus in responses, and this expectation is then confirmed at the beginning of the experiment because for the first two items the source responds in the same way as the subject, which is to say correctly. ("in order to lend a quality of trustworthiness to the majority." Asch, 1956, p. 7,

rationally. "the errors of the majority were smallest on the early trials, generally increasing as the experiment progressed," p. 6). When subjects then discover all the other participants, with whom they share the same background (they belong to the same college), giving responses which unanimously depart from this objective reality, they display two common psychological reactions or sentiments. On the one hand, there is confusion and perplexity, given that the others are seen as having the same motivations and the same abilities as themselves, and because they are assumed to see the same reality that the subjects see. This is all the more true as the task presented is in reality not difficult, and subjects correctly perceive this and given that there is only one correct response which can be determined without the slightest ambiguity.

In practice, all subjects respond to this perplexity by searching for an explanation for the absence of consensus. The post-experimental interviews are most revealing on this point. The subject can question himself and ask himself for example if he has properly understood the instructions; faced with the unanimous persistence of the others in their error, he might imagine that the others have mutually influenced one another (see, for example, Wilder, 1977) or that perhaps the difference in responses reflects the different perspective one has depending on where one sits, or again that it is a test of psychological illusions which are produced in some persons. But the lack of hesitation, certainty, and calmness with which the others respond, the absence of any evident cultural differences between the partners to this interaction, and the fact that from time to time the others do give the correct response (on average, one time in three), thereby occasionally verifying the consensus, all these elements converge so that one by one the plausibility of these various explanations is undermined. The consequence is that if one is not able to agree with the majority then one finds oneself needing to change the representation of the nature and role of consensus, in brief questioning the definition of what is an "objective reality."

There thus arises a socio-cognitive dilemma: the subject must choose between remaining faithful to his perception or submitting to the erroneous judgment of the majority. We know that subjects resolve this conflict in various ways (see also Crutchfield, 1955). Some subjects, with more or less confidence in their judgments, maintain their independence throughout the experiment. Most of the others show some compliance either on just a few trials or on a majority of the trials. Among these overtly influenced subjects there are some who say they have changed their answers only to avoid spoiling the experiment, and others who do it in order not to appear different from the group and to avoid ridicule or confrontation. Others continue to deny that they went along with the group judgment either because they do not wish to acknowledge their conformity or because they were influenced

fluence, which contradicts the first conclusion drawn earlier. Finally, and this result would seem to be even more challenging, the introduction of such an explanation caused the appearance of a latent influence by the majority, which contradicts the second assumption. Thus, the invalidation of the informational value of the source's response does not counteract all its influence.

This is not an isolated observation in our literature; notably Sperling (in Asch, 1952), DiVesta (1959), Pollis, Montgomery, and Smith (1975), and even Nemeth and Wachtler (1983) who have reported a stronger majority influence when the majority is in error than when it is correct, all provide indications that despite being discredited in tasks which involve facts or precise answers a source can continue to exert a significant influence. Thus, it would seem that the effects observed in the Asch paradigm are more complex than one might have imagined at first sight.

These effects seem, however, to contradict those observed in studies on *denial*. Let us recall that in these latter studies subject must as a general rule determine which four arguments out of five summarizing the message of a minority or majority source are improbable, unworthy of belief and not to be taken into consideration. In brief, denial consists of placing the credibility of a source's message in doubt. Now, somewhat in the same manner as in the paradoxical effect of "thought suppression" (Wegner, Schneider, Carter, and White, 1987), we have observed two things. First, if denial counteracts the overt influence of a source, it also increases its delayed and/or indirect influence (Moscovici, Mugny, and Pérez, 1984-85). If these paradoxical effects of denial seem to be of sufficiently general significance, it emerges nonetheless that they only occur when the source is a minority and not when it is a majority (Pérez and Mugny, 1992; Pérez, Mugny, and Moscovici, 1986; Pérez, Moscovici, and Mugny, 1991).

On the basis of these results the conclusion would be different from that drawn from conformity research (Mugny, 1984; Nemeth and Wachtler, 1983). In the latter, when the system of responses of the majority is invalidated (perceptual illusion) and has no basis recognizable by the target (incorrect majority), then majority sources seem to be able to generate indirect influence effects similar to those usually produced only by minority sources. Studies on denial show that indirect influence can also be exerted by minority sources, under the paradoxical condition that they lose any credibility. In conclusion, in some cases denial seems to facilitate the indirect effect of minority sources but not of majority sources; in others, the reverse seems true.

Our hypothesis is that this difference might be due to the nature of the norm which is salient in the various issues chosen to build up the influence situation. In particular, studies on denial favoring minority sources (Pérez et

without being aware of it. Whichever the case, two conclusions can be drawn from this more qualitative analysis of Asch's experiments, conclusions which are often touched upon in his accounts. The first seems inevitable: if one gives subjects a plausible explanation for the differences between their judgments and those of the source, there will be no influence. The second is that one should not be too troubled by these influence effects because for the most part they are only compliance effects, they do not involve genuine influence (in variant four, for example, a plausible pretext is constructed for subjects giving their responses in writing and this substantially reduces the influence obtained; see also Allen, 1965). However, one of the fundamental principles of research practice is not to trust appearances too much and at least to test the implausibility of the null hypothesis.

This was the task undertaken in an experiment which used Asch-type material, but also allowed the assessment of indirect influence (Mugny, 1984). Subjects were given the incorrect response of a majority (88 percent of a population of college students) or a minority (12 percent of that population). Additionally, half of the subjects were told that the experiment was a study of perceptual illusions and were provided with some dramatic examples of such illusions. The others, in a manner more akin to the Asch experiments, received no such information. As regards the effects of a minority source, these were totally intelligible within the framework of psychological conversion (Moscovici and Mugny, 1987; Mugny and Pérez, 1991). First of all, compared to a control condition in which there was no influence pressure, the minority achieved no overt influence in any of the situations. However, it did achieve a hidden or latent influence (cf. Maass and Clark, 1984; Maass, West, and Cialdini, 1987) in accord with the pattern of conversion described by Moscovici (1980), but only if no explanation was introduced for the minority error in terms of visual illusions. When this was the case, even the indirect influence disappeared, an effect similar to that of psychologization (cf. Papastamou, 1983). In this situation, invalidation of the minority response wiped out any influence. All this seems very reasonable.

Things look radically different, however, when one considers the majority. Three things can be observed. First of all, compared to the control condition in which there was no influence attempt, the majority source produced an overt influence when no reference was made to visual illusions. But as would be expected on the basis of comparable work on majority and minority influence (cf. Levine and Russo, 1987; Moscovici, 1985), a majority had no latent influence. Moscovici and Personnaz (1980, 1986) have claimed that overt majority influence cannot be accompanied by any deeper influence. Next, the fact of introducing an explanation (in terms of illusions) for the majority errors did not noticeably diminish its overt

(plurality conditions). The rationale for this manipulation was that with 90 degree figures, subjects would expect to a greater extent a correct answer, that is, a higher consensus and uniformity of responses, while with 85 degree figures the correct response would not be so clear and, therefore, an absence of total consensus and the emergence of some divergence in the responses would be more readily accepted. For each figure subjects were informed that either 88 percent of the people (majority conditions) or 12 percent (minority conditions) previously studied had estimated the size of the angle as around 50 degrees, subjects then having to give their own estimation of the angle.

Before starting the influence phase, we sought to invalidate the credibility of the source's responses. The experimenter showed the subjects a picture with two lines, one obviously longer than the other, and announced that either 88 percent or 12 percent of subjects who participated in the previous experiments had incorrectly judged these lines to be equal in length. Thus, in all conditions, the source is presented as less competent than the subjects. A possible explanation of these "errors" was then provided: they could have been due to the occurrence of a visual illusion. In order to make this explicit, subjects were demonstrated two sets of illusions where seemingly differing lines or circles were actually of equal size. The question is whether, in spite of these manipulations, the source still constitutes a reference point, as the early observations by Sperting (1946, cited in Asch, 1952) suggest. He found that despite the explicit indication that the autokinetic effect was a perceptual illusion, some interindividual convergence still occurred.

Direct influence was evaluated from the estimates of degrees of the angles in the figures during the experimental phase, underestimation constituting a direct positive influence of the source. Indirect influence was measured along two dimensions: the length of the two lines, and the weight of the "piece of cheese." According to Robinson (1972), the decrease of an acute angle implies an increase in the length of the lines, thus an increase in length between the pre- and post-test can be considered a positive indirect influence. The second index of indirect influence is the weight of "the piece of cheese" (the lower the weight estimated at the post-test run, the greater the indirect positive influence).

Our main hypotheses were that despite the denial of the source's informational power (incorrectness and perceptual illusion), majority sources should produce an indirect influence when the stimulus calls for a uniform response (90 degree angle), while the same should be true for minority sources with a less compelling angle (85 degrees). The predictions for direct influence were more trivial: on the base of the classical effects observed in studies on conformity (cf. Allen, 1965), a greater influence should be found

al., 1986) have been carried out basically using opinion issues which admit of subjective responses, while the Asch-like study by Mugny (1984) and the Nemeth and Wachtler (1983) experiment have employed tasks demanding objectively correct solutions. In the former, influence is based on a preference norm; in the latter, it involves a norm of objectivity (Moscovici, 1976). Thus, when the influence situation is based on an objectivity norm, which is to say, when it induces the subjects to expect only one response to be correct, then denial would increase indirect influence of a majority. Conversely, when the situation of influence allows for a certain pluralism (i.e., when the subject is not led to anticipate a full consensus but to regard a variety of responses as having some orienting value), then denial would favor indirect influence by a minority.

The basis for this hypothesis lies on our view that there may be an intervening effect of some representation of knowledge (either that implied in the task by the nature of the stimuli used or that induced by some characteristic of the context); according to which the existence of a given consensus (majority source) must correspond to a uniform reality or unity. On the other hand, if minority viewpoints emerge that differ from those of the majority, they would imply that reality must be multifarious in nature. Thus when a particular situation of influence (majority and objective stimulus, minority and subjective stimulus) arouses either one kind of correspondence (consensus and uniformity) or another (lack of consensus and diversity), then the subjects will adopt a cognitive functioning and orient their responses in a convergent or a divergent way, similar to the processes described by Nemeth (1986, her chapter). This is the core of the theoretical problem that led us to conceive the study reported next (Brandstatter, et al., 1991).

### The "Cheese" Experiment

After filling in a personal questionnaire, subjects were shown successively, for five seconds each, nine figures with a varying angle (72.5, 50, or 27.5 degrees) and lines (varying in length from 16.5 to 17.5 cm.). Subjects had to estimate the angle (in degrees), the length of the horizontal and of "the other line" (in centimeters). They were also asked to imagine that the figure represented a piece of cheese, and to estimate its weight (in grams). In a post-test run after the experimental phase, the same data were collected for a second time, allowing for the evaluation of changed scores. After completing the post-test run, subjects were asked some questions concerning their evaluation of the task as well as of the source of influence.

During the experimental phase subjects were shown successively six figures with an angle of 90 degrees (unity conditions) or 85 degrees

Table 10.1 Difference between Post- and Pretest in the Weight of the Piece of Cheese (- Means more Influence) and Length of Lines (+ Means more Influence)

	Majority		Minority	
	90°	85°	90°	85°
Cheese	49.26	129.95	151.55	-46.60
Horizontal line	1.03	-0.46	-1.10	-0.45
Other line	0.86	-0.22	-1.27	0.62

Source: Brandstatter et al. Copyright 1981 John Wiley. Adapted by permission of the publisher.

in conditions implying higher ambiguity (85 degrees), and, on the base of studies of innovation, one should expect majorities to achieve more direct influence than minorities.

Let us consider the results. We calculated in how many of the six items of the experimental phase subjects did underestimate the size of the angle (90 degrees or 85 degrees depending on the experimental stimulus). One condition yielded a larger number of subjects underestimating the angle; in the majority-85 degree condition which induced more direct influence than each of the other three ( $p < .05$ ), eleven of the twenty-one subjects are influenced for at least one item, nine of these being influenced for five or six items. With respect to differences between pre-test and post-test we calculated a mean difference over the nine items for the weight of the piece of cheese and the length of the two lines of the figure. Results indicate that for the three indices there is an interaction between type of source and type of stimulus, for weight of piece of cheese ( $p < .02$ ); length of the horizontal line ( $p < .01$ ); length of "the other line" ( $p < .02$ ).

As table 10.1 shows, the strongest influence on the weight estimates was found in the minority-85 degree condition, estimates in this condition being reduced compared to the majority-85 degree condition ( $p < .06$ ) and the minority-90 degree condition ( $p < .03$ ). As regards the changes observed in horizontal line length, the condition which really shows a greater indirect influence was that of majority source-90 degrees which differed from the minority-90 degree condition ( $p < .02$ ), and tended also to differ from the majority-85 degree condition ( $p < .09$ ). No other contrast approached significance, although we should note that the minority-85 degree condition had a slight positive effect. With respect to the effects in the length of "the other line," the effects are rather similar: the majority-90 degree differs from the minority-90 degree condition ( $p < .04$ ), which in turn tended to differ from the minority-85 degree condition ( $p < .06$ ).

These results support part of our hypotheses. First, we observed very little direct influence. At this level, majority produced a significant influ-

ence, but only when stimulus was 85 degrees. Here we find a most characteristic result (e.g., Crutchfield, 1955): when there is a decrease in the degree of confidence, then dependence with respect to the more consensual response (that of the majority in this case) increases. However, as the majority is explicitly erroneous one must suppose that there is some residual effect of power symbolized by the majority status, consistent with the fact that subjects are less influenced but can nonetheless be significantly influenced when there is no explicit normative or informational dependence (cf. Deutsch and Gerard, 1955; Spertling, in Asch, 1952; Hogg and Abrams, 1988). This residual power is expressed elsewhere in the fact that the minority for its part exercises no influence under the same conditions, the behavior of subjects expressing a dissimilarity with the source (cf. Mugny, Butera, Pérez, and Huguet, 1993). It is understandable that there is no influence in the 90 degree conditions at this direct level. Both majority and minority lacked a certain normative "power" (subjects responded anonymously; cf. Deutsch and Gerard, 1955). Informational pressure was also explicitly reduced by the incorrectness of the source and by the demonstration of the perceptual illusions. Finally, the distinctiveness of the 90 degree angle provided subjects with more confidence in their own responses than the 85 degree angle.

Nevertheless, several kinds of indirect influence are apparent. A majority source, with a 90 degree stimulus, produced an indirect influence effect on the perception of length of the lines, and a minority source, with a 85 degree stimulus, influenced weight estimates. These indirect influence effects are difficult to explain in terms of either the notion of normative influence or the notion of informational influence. The former seems inappropriate because the indirect nature of this influence means the target cannot be controlled directly by the source. Informational influence is also unlikely to account for these indirect effects. First, the information from the source was obviously wrong and subjects had a correct perception, and second, the source's manner of perceiving was explicitly invalidated as due to visual illusion. Furthermore, even though the source might have a certain informational value, it would still be necessary to explain why subjects do not integrate such information into their responses on the same dimension where the source gives the information.

### Two Representations of Knowledge: Unity and Plurality

To integrate this new effect theoretically, an effect we regard as a majority conversion (the latent majority influence is greater than the overt influence), we believe it is necessary to refer to the concept of representation of knowledge. A representation of knowledge functions according to a

an effect in this condition. This first is that it is a condition where subjects are provided with no consensual response, where on the contrary, they are told that the response originates from a minority. Second, the stimulus itself is less normative (85 degrees). In these specific influence conditions (a minority and a non-normative stimulus) the correspondence between lack of a majority consensus and diversity of ways of defining the object becomes highly salient, leading targets to adopt divergent cognitive functioning and to orientate their influenced responses to indirect dimensions. This occurs only at an indirect level, due partly to an animinority intergroup bias and to the identification conflict commonly induced by minorities (cf. Pérez and Mugny, 1990).

#### Explaining Majority Conversion

Despite the impressive number of studies conducted on majority influence (cf. Allen, 1965, 1975), one rarely finds conditions in which subjects adopt the response of another because that response is ascendant (restoration of consensus) or in order that the definition of the object should become more uniform (restoration of uniformity). In order to determine whether persons change in order to reestablish consensus rather than because they are dependent, it would be necessary to confront the targets of influence with a majority stripped of its normative and informational power; for example, a majority consisting of nothing but a reference percentage. Could one still expect any influence, especially on judgments about an unambiguous physical reality? The answer would seem to be in the negative, if one accepts the view that influence is a function of dependence. However, on the basis of the hypothesis that targets can also construct the consensus and not merely submit to it, a positive answer might be expected.

So, do targets change only because the source possesses normative and informational credentials, or do they perhaps sometimes modify their own positions in order to construct or strengthen a valid norm for the condition of uniqueness and consensuality (Hogg and Turner, 1987; Turner, 1991)? In effect, when subjects find themselves confronted with a situation in which a source questions the principle of unity by a response that is novel for the targets, they have three possible means of restoring the principle:

- a. They can resort to a strategy of reciprocally influencing the source: In particular, by more firmly asserting their own position. The likelihood of pursuing this solution is reduced to the extent that the source enjoys a normative or informational ascendancy over the targets. Even if the latter are able to express themselves symbolically by some polarization of responses in opposition to those of the source, this is not readily compatible with the type of paradigm considered here

two-fold logic, the assumption being that majorities induce a representation of unity and that minorities induce a representation of multiplicity. The representation of unity will involve a belief that the existence of a given consensus will correspond to a unique, uniform reality, this belief being activated by the simple reference to a majority judgment. From the point of view of the representation of plurality, the belief will be that the absence of consensus corresponds to a diverse, plural reality. This belief will normally arise as a result of consistently expressed minority perspectives.

The representation of unity would operate in two ways: one reflects conformity or compliance and relates to what Nemeth (1986) refers to as the dynamics of convergent thinking: in the face of a majority, subjects tend to adopt its response, discarding other possible (even more correct) alternative responses (cf. Nemeth and Staw, 1989). But another outcome is possible: instead of adapting their own responses to the propositions made by the source in order to ensure that just one point of view dominates (restoring of the consensus), subjects can also redefine or change their perception of the object properties so that they fit the source's point of view and re-construct the unity of the specific knowledge (restoring of uniformity). Thus, when the representation of unity is activated, subjects will tend to cause its intervention at a direct level. If, however, it is not possible for them at this level for whatever reason (e.g., when there is a manifest informational deficiency in the source) then the intervention will occur at an indirect level. Thus, subjects would not accept the source's responses, but they would exhibit a perceptual conversion.

The activation of this representation of unity is a function of the majority nature of the source and of the type of stimulus. That is, it requires that the task in the influence situation leads subjects to believe that only one point of view must predominate, that only one response must be correct, because the judgments are interdependent (Pérez and Mugny, 1989, 1991), because a norm of objectivity is operating (cf. Moscovici, 1976; Karci, 1989; Papastamou, Mugny, and Kaiser, 1980), or simply because the type of judgment makes it possible to determine exactly what is the correct response (cf. Goethals, 1972; Crano, 1989, his chapter).

On the other hand, the representation of multiplicity, relating to a divergent functioning of thinking, would account for the indirect changes occurring in response to minority sources in various influence situations. Such would be the case when a norm or originality predominates (cf. Massé and Volpato, 1989; Moscovici and Lage, 1978), or when judgments are given in a multidimensional way or in a plural social space (Pérez and Mugny, 1989, 1990). This would cover the case of our minority source in such degree condition. Two reasons can be advanced for the occurrence of such



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because subjects have no possibility of communicating with the source. Such a study, however, would be highly desirable (cf. Rule and Bisanz, 1987; Pérez, Mugny, and Roux, 1989; Mugny, Maggi, Lenzi, Gianinazzi, Butera, and Pérez, 1991).

b. They can reestablish overt consensus by concurring with the source's explicit responses. This is the most commonly considered option. This strategy amounts to generating consensus without any process of uniformity with respect to the object; that is, without a constructive redefinition of its properties by the targets. Attention is centered on the relation with the source, whether this be one of submission (Milgram, 1974), attraction, identification (Kelman, 1958). This strategy for reestablishing consensus cannot constitute a solution with respect to minority sources because these do not define the most consensual position; they constitute forms of out-group. Nor can it operate in relation to majority sources when these are devoid of normative and informational power. In effect, as we have seen with the "cheese experiment," once the majority is discredited (the subjects knowing that the majority can be wrong, that it can be the victim of an illusion, etc.), this outcome becomes less likely. The question which arises is as follows: how can subjects validate their judgments when confronted with majorities or minorities if each in their own fashion has been discredited? We have already described, with reference to studies on unanimity in the manner in which processes of validation could operate in relation to minority sources. Now we focus on discredited majority sources, and we must consider a third solution, one already envisaged by Allen and Wilder (1980): the target reconstructs reality.

c. It is necessary to recognize that the target can also become engaged in a cognitive activity of redefining the properties of the object (whether this involves a perceptual stimulus or a social judgment), so as to accommodate to the majority point of view. By this means, the majority error is converted into a new reality which satisfies, at a latent level, the imperatives of the representation of unity. The nature of this influence is such as to release a particular cognitive activity with respect to the properties of the object with the aim of reestablishing a latent uniformity between the targets' own responses and the overt responses of the majority to which subjects have not been able to adhere overtly. This restores belief in the unity of the object, temporarily shaken by the majority's disturbance of the consensus.

If it is allowed that this third strategy, which has been the focus of very little research beyond the level of anecdotal observation (cf. Asch, 1956), may be related to some of the conditions accompanying the preceding strategy (cf. Mackie, 1987; Mugny, 1984), our general hypothesis is that consensus (case b) and *uniformity* (case c) constitute two quite distinct processes, largely independent of one another. When, therefore, does each occur? First, it is necessary that in the two cases the representation of unity be made psychologically salient by associating the nature of the influence relationship, in particular the majority identity of the source, with the expectation within the debate of a consensual response linked to knowledge

(for example, objective rather than subjective, cf. Gorenflo and Crano, 1989).

Second, it is necessary to recognize that a majority identity renders social comparison with the source salient (Moscovici, 1980). Influence can take the form of an explicit expression of consensus, in so far as the social comparison between source and target is favorable to the source. In this case, influence, as is typically the case in studies of majority influence, will be limited to an overt level, since this form of approach behavior reestablishes consensus and defuses the conflict. As for uniformity, our conclusions are derived from reasoning about the inverse case: influence takes the form of a reconstruction of the object when social comparison between target and source, unfavorable to the latter, rules out the expression of overt consensus while at the same time the representation of unity remains salient. Influence under these conditions is expressed not directly but indirectly.

In the experiment on the "cheese effect" we played with the nature of the stimulus. In front of the majority, an ambiguous stimulus (85 degrees) produced more search for consensus, while a totally unambiguous stimulus (90 degrees) imposed a process of uniformity. In the study we are going to present next, we only employed completely unambiguous perceptual stimuli so as to hold constant the strong degree of consensus in the anticipated response. We were concerned to exclude the possibility that direct majority responses could be due to the properties of the stimulus itself, something which the use of different angles (90 degrees and 85 degrees) did not allow us to control in the preceding experiment.

We attempted to induce a search for consensus via categorization of the majority, assuming that common category membership would be more likely to lead to the reestablishment of consensus (and this at an overt level) than to the construction of uniformity of the object (at a latent level). This outcome is possible through self-categorization (cf. Turner and Oakes, 1989), but it would be blocked in the case of an out-group majority with which one would not identify. Confronted with such a source, targets could then become engaged in a process of uniformity, and thus change at a latent level, without having conceded anything at the manifest level. Apart from this, we directly induced belief in either the unity or the plurality of responses, assuming that the above effects will only be observed when a principle of universality in perception is believed to cut across the categorical differences which otherwise exist.

On the basis of the preceding argument interaction effects between the two variables were predicted, the direction of effects varying according to the level of influence considered. We anticipated that within the framework of a representation of unity, the salience of one common category member-

ship would lead more strongly to the reestablishment of consensus (thus at a manifest level), and that the salience of a differentiating category would, in contrast, lead to a construction of the uniformity of the object at a latent level.

### The "Race" Experiment

One hundred eight subjects with a median age of twenty-two, of whom two-thirds were women and all were white, participated in the experiment which lasted about three quarters of an hour. They answered in groups of six to eight. The material and the procedure for this experiment are similar to those of the preceding experiment (Branstatter et al., 1991) in all respects but one: the angles used in the experimental phase are all 90 degrees. The experiment was presented as bearing on either the universality or variation of perception across races, by suggesting to subjects that scientific work has demonstrated the existence of either a single form of perceptual apparatus or instead forms that vary across races. In the unity conditions the experimenter asserted "it appears evident today that there are no differences in perception between races, and that the visual apparatus is the same for all human beings. In brief, each individual perceives things in a manner that is independent of his or her race." In the plurality conditions, the experimenter claimed "it appears evident today that there are differences in perception between the races and that the visual apparatus is not the same for all human beings. In brief, each individual perceives things in a manner that varies according to his or her race."

Subjects were then exposed to pressure from a majority source (88 percent in all experimental conditions) either of the white race (in-group) or the black race (out-group). The results to be reported were derived from identical measures to the "cheese experiment" except for a test of embedded figures (inspired by the task used by Nemeth and Wachtler, 1983), in which subjects must twice determine which of four very complex figures contain a standard figure. Each time, two of the complex figures contain this standard figure. We regarded their performance as providing us with information about their degree of cognitive activation.

First of all it should be noted that the racial membership of the source was correctly perceived, a white race source being described as having a more white identity than a black race source. In addition, if subjects were as a whole disinclined to attribute the sources' responses to racial characteristics, they were nonetheless more inclined to do this with respect to a black than a white source, and more so in the conditions involving interracial differences in perception than in those in which universality of perceptual processes was claimed. In effect, the two experimental inductions were con-

rectly decoded. Let us note next that a white source attracted more negative descriptions than a black source. Thus they were rated as less agreeable ( $p < .01$ ), more rigid ( $p < .04$ ), and as having less accurate vision ( $p < .02$ ).

The effects of the two independent variables accumulate when subjects express the degree to which the responses of the source either help or disturb them. White sources disturb them more ( $m = 3.35$ ;  $p < .07$ ), and do this more so ( $m = 3.80$ ) than black sources ( $m = 3.35$ ;  $p < .07$ ), and do this more so when it is claimed that the perceptual process is the same for all humans ( $m = 3.85$ ) than when it is claimed that there are interracial differences ( $m = 3.38$ ;  $p < .07$ ). The most disturbing source is therefore one with a white identity under the condition of similarity ( $m = 3.98$ ), while a source with a black identity when perceptual differences are proposed is rated the most helpful ( $m = 3.02$ ).

Let us now consider the estimates of the six 90 degree angles in the influence phase in which the source alleges that it is 50 degrees. The data are characterized by an interaction effect ( $p < .04$ ). As table 10.2 shows, a single condition differed from the others, that in which the white majority responded in a context of similarity. In this condition, a smaller angle was estimated. Thus, there was more direct influence here than by the black source under otherwise similar circumstances ( $p < .02$ ) or by the white source under the presupposition of racial differences in perception ( $p < .01$ ).

As regards indirect effects, reflected in estimates of the weight of the cheese, these also give rise to an interaction ( $p < .04$ ). As predicted, these are most marked for the black source when similarity across races is assumed (cf. table 10.2). Indirect influence here is significantly greater than for the black source when racial dissimilarity is assumed. This latter combination produced the least influence ( $p < .02$ ), and less than the white source when dissimilarity was assumed ( $p < .08$ ).

For the hidden figures task, we simply subtracted the number of figures wrongly identified (a maximum of four) from the number correctly identified (also a maximum of four). First there was an effect for racial membership of the source. A black source induced better cognitive functioning

Table 10.2 Mean Estimates of 90 Degree Angles, Mean Changes In Weight Estimates (- Means more Influence), and Embedded Figures Test Performance (Number of Correct Figures Minus Number of Incorrect Figures)

	White Majority		Black Majority	
	Similarity	Difference	Similarity	Difference
Angles	80.89	88.73	88.98	87.28
Cheese weight	+33.47	-27.83	-187.32	+296.13
Hidden figures	-0.48	+0.55	+1.04	+0.43

Several indices suggest that subjects confronted with an intragroup majority will be preoccupied with reestablishing a consensual relation with their fellows, to the detriment of the accuracy of their perceptual estimates of the correct angle. For one thing, they felt more uncomfortable under such circumstances. The responses of a majority from their own group disturbed them more; they judged the majority more disagreeable and incorrect, and more stress provoking (Maass, 1987; Nemeth, 1986). This did not prevent these same subjects from conforming more strongly and overtly; they protested, but they consented. However, this was only the case if subjects were led to believe in the universality of perception. Clearly, majorities were only effective, even at the manifest level, in the condition where they appeared coercive. In contrast, the out-group majority concerned the targets less in terms of the latter's relation with the source, because they had no fear of being assimilated (Lemaine, 1975). They focused their attention more upon the object and perhaps on a search for indices capable of informing a more adequate vision. The best proof seemed to us to be that subjects faced with an out-group had a higher number of correct responses on the hidden figures task than those confronted with an in-group.

In Nemeth's (1986) terms, we are able to confirm that an intragroup context encourages a convergent mode of thinking oriented towards accounting for the majority response to the detriment of attention given to the characteristics of the task presented. In other words, it encourages a convergent form of functioning corresponding to the restoration of consensus. In an out-group context, subjects are more likely to become engaged in a divergent form of thinking in which overt opposition to the source's response does not prevent careful attention to the tasks, thus allowing a superior performance in the hidden figures task. This divergent process induced by the out-group culminates in the effect of constructivism (reduction in weight estimates) in which the new properties of the object ensure a uniformity of judgments, without targets having overtly adopted the majority point of view.

Consistent with our hypothesis concerning the representation of unity, one way of reestablishing this representation consists in redefining the object to make it conform to the interpretation given by the majority. It appears that two conditions must be fulfilled if this phenomenon of majority conversion is to be observed. One condition is that unity cannot be realized via the route of overt consensus because this ends with heterogeneity of points of view, this last strategy being the case with respect to an in-group but not an out-group. The other is that subjects believe the existence of a single and unique response is a requirement of being right, and thus that they are convinced of the unity of the object, of its necessary uniformity. This has already been demonstrated in the preceding experiment (Branstatter et al.,

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Table 10.3 Mean Changes (in Grams) of the "Cheese" Weights (- Indicates a Positive Influence as a Function of Subjects' Belief That There Is or Is Not a Single Correct Response

	Similarity	Difference
<i>Subjects thinking there is a single correct response</i>		
White majority	+201.44	-56.08
Black majority	-121.29	+373.01
<i>Subjects thinking there is not only one correct response</i>		
White majority	-123.11	+6.06
Black majority	-41.17	+176.54

with more correct responses ( $F(1/104) = 7.759, p < .01$ ). An interaction effect also appeared here ( $F(1/104) = 11.061, p < .01$ ). On this measure, the white source in the similarity condition induced significantly poorer performances than either a black source under the same condition ( $t(104) = 4.326, p < .001$ ) or a white source in the condition of assumed interracial differences ( $t(104) = 3.197, p < .01$ ).

On the basis of a complementary analysis, we divided our sample into two groups according to whether they thought there was (or was not) a single correct response to the task. Table 10.3 indicated for these two categories of subject, and as a function of experimental condition, mean changes in estimates of the weight of the "cheese." The results indicate a modest second-order interaction ( $p < .10$ ), and decomposition of the interaction effect reveals that the first order interaction had its greatest effect in subjects who thought there was a single correct solution. For these subjects a black source under conditions of similarity induced a greater influence than a black source under conditions of difference ( $p < .01$ ), but also more than a white source in the similarity condition ( $p < .05$ ). As regards a white majority, this achieved more influence than a black majority source in the difference condition ( $p < .08$ ), but did not differ significantly from a white majority source in the similarity condition. For those subjects who did not believe in the existence of a single correct response, there were no significant effects.

Thus, we now know a little bit more about the factors responsible for targets either reestablishing consensus without modifying their perception of the object or reestablishing uniformity at a latent level without concealing any manifest influence when confronted with majority dissension. First and most important, these contrasting dynamics can appear in a single context, in this case the one asserting the universality of perception (similarity across racial groups). This is the condition in which the representation of unity is explicitly induced. In this context, an intragroup majority induces a consensus effect which takes the form of greater manifest influence, while it is the out-group majority which is responsible for the latent uniformity effect.

psychological dynamics: To appreciate this, one must consider another form of complementarity between these sources.

In effect, when one confronts subjects with information and supplies sufficient reasons for not taking it into account, a source described as majority can continue to exert influence in the domain of "facts" in which a single unanimous collective judgment is expected and when the judgment to be decided is considered as objective. Under the same conditions, minorities seem to be more effective in the domain of "opinions" or when judgments are legitimately subjective and diverse, which is to say within the context of a norm of preference. Thus, it is possible to draw conclusions about the most suitable type of source when the issue is to change beliefs that are scientifically contradicted by experts, or when the issue is one of changing opinions in a direction that would be more advantageous for the development of society.

Nonetheless, influence is not solely a function of credibility. The value of the source's judgment—which makes the others' judgment a frame of reference for the social psychological construction of a new reality—will in reality be determined by what might be considered a complex naive or common sense epistemology, according to which following the judgment of the majority sometimes constitutes the only way to be correct, the only means to be in the right, while on other occasions the only guarantee is to do other than the majority (which is not to do as the minority).

These two cases, however, have the same precondition: to influence latent judgments it is necessary to strip the source of its credibility and free it from the dynamics of identification and self-categorization. While this has the effect for minorities of removing the usual logic of resistance while they confront, for majorities this takes on the appearance of a high price they are willing to pay in order to convince. In the terms of the Elaboration Likelihood Model (Petty and Cacioppo, 1986) one might say that it leads to deep change by a central route, except that this is not accessed by the force of the argument but by the fact that the source is stripped of heuristics which it would otherwise be inclined to use in some way (Chaiken, 1987; Cialdini, 1987).

Finally, these influences do not seem to rest on the informational value of the source's response any more than they do on its power or its normative force. The rationality of influence appears here most strongly in the process of validation itself, rather than in the validity imputed to the responses. Individuals are not in the habit of ignoring majority judgments, nor are they accustomed to the possibility that a stimulus which they consider to be objective could allow more than one correct response requiring unanimity. The constructivist process which flows from this allows reestablishment of the validity of judgments shaken by the erroneous judgments of a legitimate

1991), because the search for consensus occurs in the context of an ambiguous stimulus, allowing variations in responses that are more or less correct, and because the latent creation of uniformity (via the majority) occurs in the context of a totally unambiguous stimulus. In the present experiment, we were also able to make a complementary analysis which showed that it is primarily subjects who are persuaded of the existence of a correct response, and not those who doubt this, who become most involved in this process of uniformity of the object.

Finally, in the out-group source condition, in which interracial differences were asserted, subjects not only refused to concur openly with the source. They also modified their responses at a latent level in the direction of an increased differentiation from the position deriving from the source. It is in this context of intergroup differentiation, where differences of response from the out-group are congruent with the categorization, that the subjects have actively reconstructed a differentiation at a latent level. They are unable to express their differentiation at a manifest level, being limited by evidence and the "good form" of the right angle. This effect is similar to the "latent polarization" or "counter conversion" reported by Moscovici and Dunin (1982) and Personnaz and Personnaz (1987). Has one activated a modern form of racism (Dovidio and Gaertner, 1986), given that beyond their overtly egalitarian values, subjects have reintroduced differences even if these are symbolic? Another interpretation would be that the desire of subjects to respond to the source expresses a wish to influence it. Further experiments will perhaps allow us to distinguish between these possibilities. Be that as it may, reciprocal influence constitutes another possible means for individuals to reconstruct normative uniformity when this has been put into doubt in a context of unity.

### Conclusions

The set of studies we have reported here allow us to draw some more general conclusions about processes of social influence. First of all, it must be conceded that majority and minority influence are complementary. Several researchers have argued that they are different processes, that they operate at different levels; one involves the most public level of judgment while the other operates in the sphere of private opinions. There is not the least paradox here in asserting that a minority can, to a greater extent than a majority, influence private or unconscious judgments at a much deeper psychological level within the individual. However, while not contradictory this initial intuition, our results require recognition that majorities can likewise have deeper effects, but under quite different conditions from those which apply for minorities and on the basis of radically different social

source, via either consensus or uniformity according to the availability of heuristics. For the future, these effects, which were unanticipated in classic analyses of social influence, will enable us to study and explore the strength of beliefs, or at least to establish more explicitly the logic of social thought which causes adherence to false ideas (cf. Boudon, 1990; Moscovici, 1992).

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