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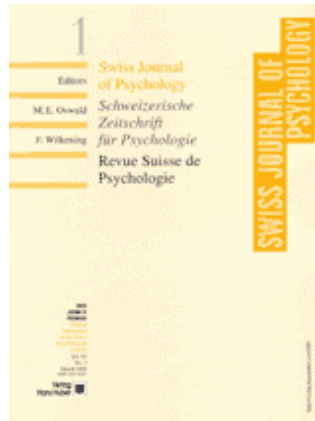
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Non diagnostic information and the effects of context evaluation in the moderation of False Consensus

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The hypothesis that non-diagnostic information about consensus may reduce False Consensus (FC) was tested in a $2 \times 2 \times 2$ between-subjects design. Eighty nine participants were told that they were to be assessed on their judgement expertise in impression formation. First, half of the participants were led to believe that, during a vigilance task they had performed, they had been exposed to consensus information about the opinion of their peers towards a specific target person. The other half received no information. Subjects had then to complete two questionnaires. An attitude questionnaire assessed subjects' attitude towards the target (favourable or not favourable), deduced from their predictions of the target's answers. In a consensus questionnaire the subjects had to make percentage estimates. The order for completing the two questionnaires was counterbalanced. Finally, subjects were asked to indicate their personal confidence as to their consensus estimates. Results provided direct evidence for a decrease in FC when subjects were informed about their exposure to consensus information, and an increase in FC when they were not informed. Decrease in FC is linked to situational characteristics which cause subjects to question the reliability of their estimates and to take into account data that are not solely related to the self.

Key words: False Consensus Effect, social judgement, social judgeability, evaluation, availability, compliance, confidence, minority and majority status, selective exposure

Individuals generally perceive their own characteristics, opinions, and preferences as relatively commonplace and typical (Ross, Greene & House, 1977). The stability of this phenomenon is such that it has been widely described and produces, at judgement level, the False Consensus effect (FC; for a review see Marks & Miller, 1987, Verlhac, in press). One example of FC is that individuals opposed to the legalisation of hashish estimate that a large per-

centage of people agree with them while those favourable towards the legalisation of the drug suppose that only a small percentage of people hold that opinion.

The explanations for FC and its underlying cognitive and/or motivational processes are numerous and sometimes contradictory. This makes it difficult for FC specialists to isolate all the mediators of judgement. Despite their diversity, however, FC studies do coincide with work on social cognition; they link both cognitive and motivational mechanisms to selective processing and to more or less objective treatments of social information provided to subjects or inferred by subjects themselves. In line with this perspective, FC studies reveal that people perform

1 The author expresses his appreciation to Stephan Kraitso-wits and anonymous reviewers for their comments on earlier versions of this article.

subjective processing of any information given, be it case-based or sample-based. For example, subjects may either correct their impressions without receiving diagnostic information (Devine, 1989; Gilbert & Osborne, 1989), judge the diagnostic information provided as not believable (Hoch, 1987), or simply consider the non-diagnostic information as relevant to them. These results have many causes.

For example, a motivational approach to FC shows that recall of the content of sample-based information concerning subjects' social environments (Goethals, 1986) reduces the uncertainty associated with their position (Agostinelli Sherman, Presson & Chassin, 1992), maintains positive self-esteem and also strengthens their social support and self-validity (Brown, 1986; Goethals, Allison & Frost, 1979; Miller, Gross & Holtz, 1991). Thus, subjects only retain or spontaneously use consensus information relevant to their motives and ignore information which is not personally relevant in these ways.

Cognitive explanations make reference to several other mechanisms. The selective exposure hypothesis is based on the idea that subjects are generally surrounded by peers who are not only similar to them but also share the same social practices thus making knowledge of social practices more readily available or accessible from memory. The consequence of this is that subjects overestimate the popularity of their peers' social practices when confronted with a larger sample of the population (Bosveld, Koomen & Van der Pligt, 1994; 1996). A second hypothesis is that it is heuristic availability which makes subjects perceive a high probability of occurrence from their point of view. In fact, it is because their attitude is more accessible from memory than from any other source that subjects overestimate the popularity of their attitudes (Marks & Duval, 1991; Tversky & Kahneman, 1973). Also, because subjects pay a lot of attention to their personal attitudes – which can be seen as a self-based stock of information – this makes these attitudes more salient than other sources (Krosnick, 1989).

The implication of these research hypotheses is that, for cognitive and/or motivational reasons, an FC impression is simply a subject's most immediately accessible answer. The FC answer occurs because subjects are frequently exposed to information that supports their impression of social consensus more or less directly. The works mentioned above also suggest that the properties of the information provided to subjects have an essential role in stimulating both cognitive and motivational mechanisms underlying FC. Thus one can argue that the level of FC depends on the properties of the information made available to subjects. For example, information that is easy to recall from memory limits the influence that subjects' motives exert on their consensus judgements (Goethals,

1986). In this case, FC is low because the subjects cannot deny the obvious.

Work on the selective exposure hypothesis also shows that FC disappears when the subjects' way of life brings them into frequent contact with heterogeneous populations or social circles in which there is a low probability of meeting people similar to themselves (Byzman, Yinon & Vizgardiski, 1993; Yinon, Mayraz & Fox, 1994). Cognitive approaches have also demonstrated a FC decrease when subjects believe that the consensus information they are given is representative of a large sample of the population (Zuckerman & Mann, 1979; Zuckerman, Mann & Bernieri, 1982). It seems that such diagnostic and salient information (Kulik & Taylor, 1980) allows individuals to estimate their self-validity and therefore possibly to modify the formation of their impression of a consensus (Marks & Miller, 1987). Work based on the attentional focus hypothesis (Mullen, Chapman & Peaugh, 1990) suggests that, no matter which method is used to focus the attention of the subjects, drawing attention to data that does not support the subjects' point of view decreases "ego-centered" tendencies (Marks & Miller, 1987). For example, to reduce self-saliency compared to the "other" point of view, Marks & Duval (1991), and also Mullen & Hu (1989), offered subjects a large rather than a small number of judgement choices. Mullen, Driskell & Smith (1989) asked subjects to make consensus judgements after, rather than before, having made their personal choice. Verliac & Milhabet (1997) gave their subjects an other-centered task rather than a self-centered task. In each of these studies, subjects were given access to data that was (or at least was perceived as) diagnostic or salient. In all these cases, self-attention is distracted and subjects are able to exert control (Bargh, 1989) over information not related to the self.

The authors cited above give considerable emphasis to the salient and diagnostic properties of the self-based, case-based and sample-based information provided to or inferred by subjects. The implication is that it is the content of the information that brings into play the cognitive and/or motivational processes underlying a decrease in FC. Correspondingly, non-diagnostic information should not contribute to a decrease in FC. The research of Leyens et al. on stereotypes and the formation of impressions (Leyens, Yzerbyt & Schadron, 1992; Yzerbyt, Schadron, Leyens & Rocher, 1994; Schadron, Yzerbyt, Leyens & Rocher, 1994), however, shows that the diagnostic properties of the information provided to subjects do not directly affect their judgement. For example, despite the absence of diagnostic information, subjects validate their stereotypes about a target person by relying on their feeling of having been informed about the target; correspondingly they invalidate their stereotypical impression

when they feel that they were not well informed about the target (e.g., Leyens et al., 1992; Yzerbyt et al., 1994). Thus, subjects who knew the social membership of a target and thought that a subliminal priming method gave them personal information about this target (Schadron et al., 1994; Yzerbyt et al., 1994) made stereotypical judgements about the target. They did not question the subliminal priming method and reckoned that they were well enough informed to make the stereotypical judgement. Conversely, subjects who knew the social membership of a target but were aware that they had not been given enough time to read personal information about the target did not base their judgement on their stereotypical knowledge about the target (Schadron et al., 1994; Yzerbyt et al., 1994). In fact, subjects preferred to say "I do not know" rather than act on prejudice. One can assume that subjects in this case were not confident in the origins of their stereotypical impression and that they thought that the method used to inform them about the target was not relevant (i.e., they were not given enough time to read the personal information about the target). In other words, social judgeability theories (Leyens et al., 1992; Yzerbyt et al., 1994) suggest that, whatever the diagnostic properties of the information given to subjects, their final judgement and prejudicial validation depends on the context in which judgement is made and also depends on conditions in which the context either does or does not improve a subject's prejudicial confidence. More precisely, the links that subjects establish between the context of judgement and the non-diagnostic information with which they are provided, determine their confidence in their consensus impression and contribute to informational processing. Thus, FC decrease is likely when the judgement context replaces missing diagnostic information about consensus and so strengthens subjects' doubt about the content-information with which they are provided (e.g., subjects were aware that they did not have enough time to read the consensus feedback delivered on the screen of their computer).

Other authors have previously shown that the consensus judgement context mediates information processing and judgement regulation. Smith & Whitehead (1988), have shown that social projection (i.e., the attribution of undesirable self-descriptive traits to others) is high when subjects, during failure (self-based information), have to make consensus judgements privately, but that social projection is low when subjects respond publicly. In the latter case, exposure to an audience appears to exert control or assess the subjects' objectivity and reveal their partiality. Because of this, attentional processes (Marks & Miller, 1987) and/or self-presentational motives (Baumeister, 1982) inhibit subjects from projecting themselves and thus decrease their perception of the predominance of failure.

Zuckerman et al. (1982) have also shown that observers,

when predicting consensus about actor-choices (case-based information) only take into account the actor's behaviour when they anticipate being evaluated. The anticipated feedback about their consensus judgement engaged motivational and/or cognitive processes that decreased self-validation and increased the focus on other points of view.

Results from the studies by Leyens (Leyens et al., 1992; Yzerbyt, et al., 1994) as well as those of Smith & Whitehead (1988) and Zuckerman et al. (1982) therefore suggest that making a judgement in a public and/or evaluative context can mitigate the absence of diagnostic information. This judgement context can also help subjects to process information that is available (e.g., actor's behaviour, personal failure) and can determine, via cognitive and/or motivational processes, the subjects' judgements and their personal confidence in their judgement of the consensus position.

Correspondingly, the evaluative and public character of the judgement context accounts for the non-diagnostic properties of consensus information as well as the non-relevant properties of the method used to provide the consensus information (i.e., it is obvious that the consensus content was provided too rapidly). Thus, among subjects engaged in an evaluative judgement context (constant level of variation), only those who were informed about their exposure to (non-diagnostic) information about consensus will, by asking themselves about the contents of the information (too quickly delivered on the screen of their computer) restrain their confidence and reduce their consensus estimates. One hypothesis would therefore be that there is an interaction between the subjects' attitudes (either favourable or unfavourable) towards a target person and the level of consensus feedback given to the subjects (either informed or not informed about their exposure to non-diagnostic information). Thus, FC should be low or, more precisely subjects should no longer base their consensus judgements on their attitudes towards a target if they are informed about their exposure to (non-diagnostic) consensus feedback. Conversely, FC should be high or, in other terms, subjects should base their consensus estimates on their attitudes towards a target if they are not informed about their exposure to (non-diagnostic) information about consensus. Furthermore, the confidence of subjects as to their consensus estimates should have a mediating role on the percentage estimated when they are informed about consensus. Lastly, the confidence of subjects should be lower when they are informed than when they are not. These were the hypotheses we tested with the following experiment.

Method

Subjects

Eighty-nine first-year psychology students (69 women and 20 men, of approximately 20 years of age) volunteered to participate in individual sessions. The study was presented as research on social perception and impression formation. Participants were told to be as accurate as possible because the experimenter wanted to assess their ability to make judgements. In this way but without emphasising the fact that they would be graded the experimenter made salient an evaluative context.

Overview

The participants were asked to perform a series of decision tasks and lexical tasks (vigilance task) while reading information supposedly describing a target person of the same sex and age as themselves. Upon completion, half the participants were informed that, during the task, they had received, without warning, consensus feed-back. The other half were not given this information (first independent variable). All participants were then requested to complete two questionnaires consisting of nine items. The attitude questionnaire required subjects to predict the target person's answers for each of these items. The favourable or unfavourable attitude of the subject towards the target was deduced from these predictions (second independent variable). The consensus questionnaire required the subjects to estimate for each of the nine items the percentage of students favourable or not towards the target person. The order of completion of the two questionnaires was counterbalanced (third independent variable), following Mullen, Driskell, & Smith's (1989) suggestion that FC is lower when attitude judgements are performed before consensus estimates (Order 1) than after such estimates (Order 2). Finally, all respondents were asked to indicate their personal confidence in their consensus estimates.

The vigilance task

Participants were first asked to read the details of a target person (surname, first name, age and place of residence). They learned that the target was a first-year psychology student (same sex and age as themselves) facing failure at university. Further information about the target's personal characteristics was also given. The experimenter, however, told the participants that while reading this information, they would have to perform on their computer a vigilance decision task so as to match the rich and stimulating context of daily life. The task consisted first of all in

reading twenty sentences supposedly informing them about the target person, and then to decide if these sentences were written in the passive form or in the active form. In fact, the sentences were of neutral value and had no relationship whatsoever with the target's personality, the sentences being about the daily life of the university (e.g., students are listened to by the professor).

The consensus feed-back

During the vigilance task, two icons without meaning (see Fig. 1 below) were alternately presented for a very short span of time (216 ms).

The participants had enough time to notice these icons but did not have time to identify their content. None of the participants had been forewarned about their exposure to these icons. Only at the end of the vigilance task were half of the subjects informed that the computer had presented consensus information. The other half received no information as to the consensus feedback. The first half learned that they had been given information about the percentage of first-year psychology students who had agreed between themselves on a way to describe the target student in question. Then, the experimenter indicated to these subjects that he realised that they could not be absolutely sure of the exact content of the consensus feed-back, but that it was important to know that this information had been presented to them. At the end of the experiment, the experimenter ensured that these subjects did not have any doubts as to the information given and that it was believable². As to the students in the other condition, they obtained no further information.

- 2 At the end of the experiment, the subjects were requested to answer "yes" or "no" to three questions posed orally (did they see any icons?, could they identify the icons' content? What kind of information did they contain?: a percentage? Nothing? Or "I do not know"). All the subjects said they had seen the icons on the computer screen. All of them admitted that they were unable to identify the exact contents of the icons. Subjects informed about their exposure to consensus information thought that the icons were the consensus feedback mentioned by the experimenter. Uninformed subjects, for their part, did not know what the icons represented. It must be said that the informed subjects did not believe that the contents of the icons was diagnostic and they did not think that they had been unconsciously influenced by any subliminal stimulus. Conversely, they believed in the existing consensus but underlined their ignorance on the subject.

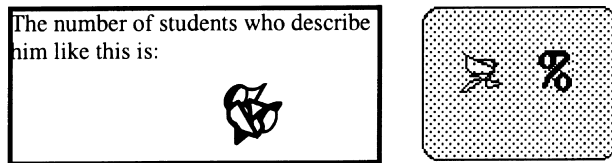


Figure 1: Icons presented on the computer's screen.

The questionnaires

The participants filled in two questionnaires. The same nine expressions of judgement formed the content of both questionnaires. The nine statements were in no way related to the 20 sentences presented during the vigilance task. The statements were generated from a poll of students. They were strongly intercorrelated and were appropriate descriptions of student faced with failure at university. The statements were either positive ("I prefer a job that requires a high degree of concentration") or negative ("Most of the time I prefer to sit and dream rather than do anything else").

Attitude towards the target

In the attitude questionnaire, the participants were asked to predict, for each of the nine statements, if they were "True" or "False" with respect to the target "him/her-self". For example, the participants had to indicate if it was "True" or if it was "False" that the target said: "Most of the time I prefer to sit and dream rather than do anything else". The attitude of the subjects (favourable or not favourable) towards the target was deduced from their answers to the first questionnaire. Participants who attributed to the target at least 6 statements with negative connotations were classified as having an unfavourable attitude toward the target. These participants might for example indicate as "True" that the target said "Most of the time I prefer to sit and dream rather than do anything else", and that it was "False" that the target said "I like to read and work on articles relevant to my studies". An unfavourable opinion could therefore be reflected in either expecting the target to make an undesirable statement or not to make a desirable one.

Correspondingly, participants who attributed to the target at least 6 statements with positive connotations were classified favourable to the target. They indicated for example that it was "True" that the target said: "I like to read and work on articles relevant to my studies" or that it was "False" that the target said: "Most of the time I prefer to sit and dream rather than do anything else". In other words, a favourable attitude towards the target is reflected in ex-

pecting desirable sentences denying undesirable sentences.

Participants who did not give at least 6 positively or 6 negatively connoted answers were removed from the design (10 subjects were removed on this basis). The subjects who did not meet this criterion provided an ambivalent portrait of the target, granting nearly as many desirable (4 or 5) as undesirable statements (5 or 4). Internal consistency (Cronbach's α) of the nine questions for the attitude questionnaire was .69.

Consensus questionnaire

In the consensus questionnaire, the participants were asked to estimate the percentage students (i.e., from a similar department and same year of study as themselves) likely to attribute each of the nine statements to the target. For example, they were asked to estimate the percentage of their peers who would accord to the target person the following statement: "I like to read and work on articles relevant to my studies" and the percentage of those who would expect the target not to make this same statement. The sum of these two percentages had to equal 100. The internal consistency (Cronbach's α) of the set of nine questions for the consensus questionnaire was .89.

The averages of the estimated percentages for the nine sentences making up the consensus questionnaire were computed in order to obtain an unfavourable (negative) attitude score toward the target. To obtain this score, it was necessary to reverse the percentages obtained for the positive sentences of the questionnaire and then combine them with the percentages obtained for negative items. FC is then determined by considering the main effect of subjects' attitudes on their consensus judgements. There is False Consensus effect when subjects unfavourable toward the target estimate that a large percentage of their peers are also unfavourable towards the target and when favourable subjects towards the target simultaneously estimate that only a small percentage of their peers are unfavourable towards the target. A symmetrical result will then be obtained when one computes a positive judgement score towards the target.

Judgement confidence

The confidence of the subjects in their consensus judgements was rated on a continuous scale ranging from 0 (not at all confident) to 10 (totally confident). The higher the confidence score, the more confident the subject is about his or her consensus estimate.

Design

The consensus estimates were entered into a 2 (Informed, not informed about consensus) \times 2 (favourable, not favourable towards the target) \times 2 (order of questionnaire completion; order 1: attitude request before consensus estimates, order 2: consensus estimates before attitude request) between-subjects design and were submitted to analysis of variance (ANOVA).

Because the observed variance of homogeneity differed between experimental conditions, consensus estimates were transformed according to their ranks. These ranks were then examined by ANOVA. These transformations were made for the consensus estimates but not for the subjects' confidence judgements. Compared to a classic non-parametric analysis this method is robust (Conover, 1971) and enhances the homogeneity of variances between experimental conditions without significantly modifying the results. Moreover, this method allows interaction analysis. Indeed, the interpretation of ANOVA based on ranks does not differ from analysis of variance performed upon untransformed data. This method, however, can be costly as it has the major disadvantage of imposing an equal number of subjects between all experimental conditions. In the present case it was necessary to remove 15 subjects from the design (12 favourable subjects and 3 unfavourable subjects to the target) thus retaining 64 subjects from among the 89 who initially participated in the research. The average ranks and the standard deviations are in the body of the text and are accompanied by original percentages. The original percentages which were substituted by their ranks are in table 1 presented below.

Results

Consensus judgements

The order of completing the two questionnaires had no significant effect on the consensus estimates, $F(1,56) = 0.43$, $p = .51$, and there was no interaction of this factor with subjects' attitude towards the target, $F(1,56) = 0.0$, $p = .97$, nor with consensus feedback, $F(1,56) = 1.5$, $p = .22$. In other words, questionnaire order did not affect the amplitude of FC.

There was significant main effect of subjects' attitude towards the target, $F(1,56) = 7.04$, $p < .01$. Unfavourable subjects estimate that their opinion represents the majority ($M_{\text{ranks}} = 38.21$; $SD = 13.33$ and percentage estimated $M = 56.09$; $N = 32$), while favourable subjects believe the contrary ($M_{\text{ranks}} = 26.78$; $SD = 21.43$ and percentage estimated $M = 39.48$; $N = 32$). Thus there was a robust False Consensus effect. The interaction between the con-

Table 1: Estimated percentages of students unfavourable towards the target person (SD in brackets; $n = 8$ by condition). FC size is indicated

	Informed subjects	Non informed subjects
Order 1		
Unfavourable	50.40 (18.55)	59.04 (8.19)
Favourable	45.86 (31.25)	34.65 (20.87)
FC size	4.54	24.39*
Order 2		
Unfavourable	52.93 (18.96)	62.03 (11.57)
Favourable	47.39 (33.48)	30.01 (17.21)
FC size	5.54	32.02**

Order 1 = Attitude request before consensus estimates; * $p < .03$; ** $p < .005$

sensus feedback given to subjects and subjects' attitudes towards the target was significant, $F(1,56) = 3.9$, $p < .05$. Figure 2 represents the consensus estimates of those unfavourable towards the target.

Subjects who were not informed about consensus and who were unfavourable towards the target estimated their attitude as representing the majority ($M_{\text{ranks}} = 42.09$; $SD = 8.98$ and percentage estimated $M = 60.52$) while favourable subjects thought the opposite ($M_{\text{ranks}} = 22.15$; $SD = 17.47$ and percentage estimated $M = 32.33$), $F(1,56) = 10.7$, $p < .0005$. In other words, FC was higher when subjects had no information about consensus.

Consensus estimates from informed subjects who were unfavourable towards the target ($M_{\text{ranks}} = 34.34$; $SD = 15.94$ and percentage estimated $M = 51.66$), were not significantly different from the estimates given by those subjects favourable towards the target ($M_{\text{ranks}} = 31.4$; $SD = 24.46$ and percentage estimated $M = 46.63$), $F(1,56) = 0.2$, $p = .63$. Therefore, FC was lower when subjects had (non diagnostic) information about consensus. Thus, as expected, the subjects exposed to non-diagnostic information about consensus no longer based their consensus judgements on their initial attitude towards the target.

Judgement confidence

Confidence scores were examined in a $2 \times 2 \times 2$ between-subjects ANOVA. The main effect of subjects' attitude towards the target was significant, $F(1,56) = 3.99$, $p < .05$. Subjects favourable towards the target were less confident in their estimates ($M = 2.60$; $SD = 3.20$; $N = 32$), than subjects who were unfavourable ($M = 4.20$; $SD = 3.20$; $N = 32$). Unexpectedly, subjects informed about consensus

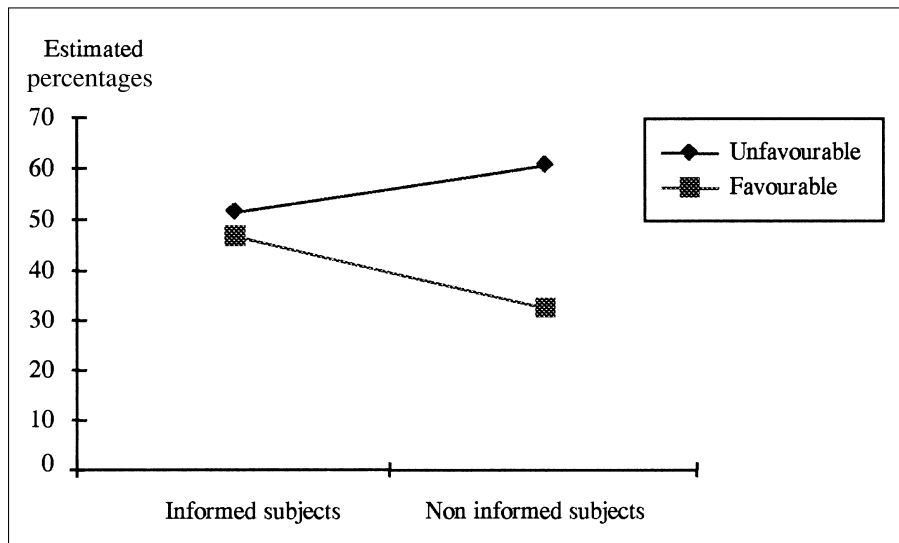


Figure 2: Estimated percentage of subjects unfavourable towards the target.

were no less confident in their estimates than non-informed subjects, $F(1,56) = 0.60$, ns. However, the interaction between consensus feedback given to the subjects and the subjects' attitude towards the target was significant, $F(1,56) = 6.77$, $p < .01$. When they had no information about consensus, subjects favourable towards the target were less confident in their judgement than unfavourable subjects, $F(1,56) = 10.58$, $p < .001$. In contrast, when they were informed about consensus, favourable subjects did not differ from unfavourable subjects in their level of confidence, $F(1,56) = 0.18$, $P = .67$. Table 2 indicates the 2×2 interaction effect on subjects' confidence scores.

Subjects unfavourable towards the target were less confident in their estimates when they were informed about the consensus ($M = 3.05$), than when they were not ($M = 5.35$); $F(1,56) = 4.05$, $p < .05$. Subjects favourable towards the target displayed an opposite pattern, although this did not reach significance, $F(1,56) = 2.78$, $p = .10$.

The latter effects suggest that, when compared to non-informed subjects, the mere exposure to non-diagnostic consensus feed-back modifies subjects' levels of confidence. The confidence level of favourable subjects towards the target increases while it decreases for unfavourable subjects.

In order to explore these relationships the correlation between the subjects' consensus estimates and their confidence scores was calculated. These two scores were strongly correlated ($r^2 = .59$, $p < .0001$). In other words, the more confident subjects are the higher their consensus estimates will be. These relationships must be taken into account in order to understand the results described above. One must first of all test the possible mediating role of subjects' confidence in their estimates (regression analy-

ses) and then examine the impact of the supposed mediator (confidence) on the estimates when independent variables (consensus feed-back \times subjects attitude) are entered into a covariance analysis (ANCOVA). For this purpose, we undertook a regression analyses with the subjects' confidence scores introduced as an independent variable and the consensus estimates as a dependent measure. A first analysis including all subjects' measures showed that the regressor (confidence) contributes significantly to the consensus estimates, $\beta = .68$, $p = .0001$, and therefore constitutes an important mediator to the consensus judgement. Table 3 shows the results of the regression analyses for each of the experimental conditions.

For the favourable subjects there was a strong relationship between the estimated percentage of unfavourable peers and the confidence scores for both informed and non-informed subjects. For the unfavourable subjects the pattern, however, was different. For these latter the relationship between the estimated percentage of peers unfavourable towards the target and the confidence scores was higher when they were informed about consensus; in contrast, there was no relationship between the two measures when they were not informed about consensus. These results suggest a possible mediating role of

Table 2: Mean scores of confidence on estimates (SD in brackets; $n = 16$ by condition). The higher the scores, the more the confidence

	Informed subjects	Non informed subjects
Unfavourable	3.05 (2.78)	5.35 (3.25)
Favourable	3.54 (3.72)	1.64 (2.59)

Table 3: Standardized regression weights for subjects' confidence scores on the estimated percentage of students unfavourable towards the target

	Informed subjects	Non informed subjects
Unfavourable	.54*	.37
Favourable	.93**	.80**

* $p < .03$; ** $p < .0002$

subjects' confidence on their consensus estimates; it reduces the interaction effect between subject attitude and consensus feed-back on the estimates. We carried out this 2×2 analysis of covariance with the confidence scores as the independent variable and the consensus estimates as the dependent measure. This analysis revealed that the effects of independent variables on the consensus estimates decreased when these factors were added to the analysis together with the mediator (Bosveld et al., 1996; Baron & Kenny, 1986). The ANCOVA helps us to show that the 2×2 interaction observed for the two measures (confidence and consensus scores) is no longer significant when the confidence scores are entered to the analysis as an independent variable, $F(1,59) = 0.15$, ns. To be more precise, by controlling subjects' confidence scores, the interaction effect on estimates of the two independent variables (subjects attitude \times consensus feed-back) decreases. An increase or decrease in FC is therefore related to subjects' confidence. What is more, the ANCOVA analysis shows that the mediating role of subjects' confidence in the estimates differs across different levels of subjects' attitudes toward the target, $F(1,59) = 5.42$, $p < .02$. This last result helps us to show that the subjects' attitude towards the target delineates the underlying effects of their confidence on consensus estimates.

Discussion

FC theorists (Marks & Miller, 1987) suggest that the evaluative properties of the context in which a judgement is made, together with salient or diagnostic characteristics of any consensus information provided to subjects, operate to modify the extent of False Consensus effects. The results of the present study complement the conclusions of those studies reviewed earlier. Indeed, the links that subjects establish between the context in which their judgement made and the non-diagnostic information about consensus with which they are provided, contribute to the way they process information and moderate their consensus estimates. Among subjects engaged in an evaluative context of judgement only those informed about their exposure to

(non-diagnostic) information moderate their estimates. When informed about their exposure to consensus information, subjects both favourable and unfavourable towards the target are less inclined to perceive their personal attitude as typical or common. Conversely, subjects who are not informed about their exposure to (non-diagnostic) information do not modify their usual consensus estimates. In this latter case, FC remains high even when subjects are asked to be as accurate as possible and when their degree of judgement expertise is explicitly open to the experimenter's evaluation. In other words, the evaluative context for judgement helps subjects to moderate their estimates when they think that they have been exposed, without their knowing, to consensus information. This non-diagnostic information may have a real priming effect to judgement regulation to the same degree as case-based information (Smith & Whitehead, 1988; Zuckerman et al. 1982). The context of judgement, because it is strongly evaluative, makes the use of this non diagnostic information relevant.

It is necessary, however, to qualify this last statement. In the present study, the evaluative context was induced as a constant factor. Thus it is possible that the context of judgement does not have the expected effect on moderation of consensus estimates. The validity of this conclusion will depend on further research into the possible effects of evaluative and non-evaluative contexts on estimates. Nevertheless, it can be said that subjects are not insensitive to the conditions under which they perform (Monteil, 1993) and that the evaluative connotation of a situation has, in itself, general effects on the psychological state of subjects (Pyszczinski & Greenberg, 1987) and their processing of information (e.g., causing them to take into account or ignore consensus information).

Thus it is necessary to turn to the processes supposedly underlying the reduction of False Consensus effects. Both cognitive explanations and motivational mechanisms can be invoked. In our view, subjects who think that they have read consensus information without knowing its content will question the relevance or the efficacy of the method used to inform them. The subjects were aware that they did not have enough time to read the consensus feedback and therefore could not themselves form a valid opinion about consensus. Furthermore, by focusing the subjects on existing information, their attitude becomes less salient than is usually the case (Mullen et al., 1989) and they feel that they are not able to give exact estimates. Being aware of their lack of precision, subjects moderate their estimates and no longer base their judgements on their own attitude towards the target. Conversely, even when they have to be as accurate as possible, subjects who do not focus their attention on existing information will not perceive the necessity for redirecting their attention which

thus remains “self-based” rather than “sample-based”. Such a process is closely tied to subjects’ levels of confidence about their consensus estimates. The confidence of the subjects may have a mediating role on consensus estimates and consequently on increase or decrease in FC. Not only do informed subjects modify their confidence in their estimates (when compared to non-informed subjects) but level of confidence does not vary as a function of their attitude towards the target, while that of non-informed groups does differ in this way. In this latter case, subjects favourable towards the target are less confident in their estimates than those who are not. It is worth noting that the first group of subjects are in the minority while the second represent the majority³. The minority or majority status of the subjects’ attitudes may explain these differences in degree of certainty of estimates. Subjects who are favourable towards the target, though they are generally surrounded by peers who are similar to them (i.e., selective exposure), have a higher probability of encountering others who are unfavourable rather than favourable towards the target (Bosveld et al., 1994). Subjects do not ignore these two contradictory sources of information and have difficulties integrating them during their consensus estimates (Bosveld et al., 1996). This could be the source of their lack of confidence in their own consensus estimates. Conversely, subjects unfavourable towards the target, who represent the majority, have no contradictory information to integrate into their consensus judgements. This perhaps contributes to their feeling of accuracy or confidence in their estimates, relatively to the minority subjects.

One can further explain the FC decrease of informed subjects in terms of the mediating role of their confidence level. Indeed, once informed that they have been exposed to consensus information, those subjects (reflecting the majority) unfavourable towards the target lose confidence in their estimates while favourable subjects (belonging to a minority) increase their level confidence to the same degree. In our view subjects who are part of the majority, without assuming that their group may be a minority, are brought to question their confidence in their estimates and to take into account the minority point of view, to investigate possibly already existing data that counter their consensus impressions. Such a process is possible because the experimenter is explicitly assessing the accuracy of their

estimates and supposedly knows, and provides, the correct answer. In this case, cognitive or attentional as well as motivational factors are acting on the social regulation of judgement. In other words, subjects are disposed to comply with the experimenter’s demands and to examine or at least to infer, though they are ignorant of the content, the data provided that is possibly in conflict with their own consensus impressions. For subjects favourable towards the target (the minority), one can assume that they question the relevance of their estimates and, without supposing that their group may be a minority, moderate their estimates. Indeed, favourable subjects already have discrepant information in mind (Bosveld et al., 1996), and the evaluative characteristics of the situation created by the experimenter’s demands have made it necessary to take this into account in making their estimates. Their level of confidence may then increase because they have succeeded in integrating these contradictory sources of information into their own estimates (Bosveld et al., 1994; 1996).

The results of the research lead us to conclude that it is possible to modify or to correct the subjects’ first impressions or consensus estimates, without providing them with any diagnostic information. It is enough that the context in which the subjects are placed brings them to question the reliability of their estimates and to take into account or focus on data that is not related only to the self. Finally, we offer the idea that, by expanding FC research perspectives to general studies on social judgement, FC can be seen in fact as dependant on a judgement which, as with all judgement, is dependent for its expression upon the conditions in which it occurs and this moves it beyond individual prejudice.

References

- Agostinelli, G., Sherman, S.J., Presson, C.C. & Chassin L. (1992). Self protection and self-enhancement biases in estimates of population prevalence. *Personality and Social Psychology Bulletin*, 18, 631–642.
- Bargh, J. A. (1989). Conditional automaticity: Varieties of automatic influence in social perception and cognition. In J.S. Uleman & J. A. Bargh (Eds.), *Unintended thought*. New-York, Guilford.
- Baron, R. M. & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Baumeister R.F. (1982). A self-presentational view of social phenomena. *Psychological Bulletin*, 91, 3–26.
- Byzman, A., Yinon, Y. & Vizgardiski, N. (1993). False consensus among middle-eastern and western israeli students. *Journal of Social Psychology*, 133, 539–546.

3 In the present study, 55.69 per cent of subjects were not favorable towards the target. Furthermore, Verhac (1997) noted that 56 per cent of first-year psychology students participating in the experiment did not have a favourable opinion towards a target person faced with failure, while 70 per cent of second-year psychology students responding to a poll were also unfavourable to the same target.

- Bosveld, W., Koomen, W. & Van der Pligt, J.P. (1994). Selective exposure and the false consensus effect: The availability of similar and dissimilar others. *British Journal of Social Psychology*, 33, 457–466.
- Bosveld, W., Koomen, W. & Van der Pligt, J.P. (1996). Estimating group size: Effects of category membership, differential construal and selective exposure. *European Journal of Social Psychology*, 26, 523–535.
- Brown, J.D. (1986). Evaluations of self and others. Self-enhancement biases in social judgement. *Social Cognition*, 4, 353–376.
- Conover, W.J. (1971). *Practical nonparametric statistics*. New York: Wiley.
- Devine, P.G. (1989). Stereotypes and prejudice: their automatic and controlled components. *Journal of Personality and Social Psychology*, 56, 5–18.
- Gilbert, D. T. & Osborne, R. E. (1989). Thinking backward: some curable and incurable consequences of cognitive busyness. *Journal of Personality and Social Psychology*, 57, 940–949.
- Goethals, G. R. (1986). Fabricating and ignoring social reality: Self serving estimates of consensus. In J. Olson, C.P. Herman & M.P. Zanna (Eds.), *Relative deprivation and social comparison: The ontario symposium on social cognition*. New York, Hillsdale (NJ), Erlbaum, 4, 137–157.
- Goethals, G. R., Allison, S. J. & Frost, M. (1979). Perception of the magnitude and diversity of social support. *Journal of Experimental Social Psychology*, 15, 570–581.
- Hoch, S.J. (1987). Perceived consensus and predictive accuracy: The pros and cons of projection. *Journal of Personality and Social Psychology*, 53, 221–234.
- Krosnick, J.A. (1989). Attitude importance and attitude accessibility. *Personality and Social Psychology Bulletin*, 15, 297–308.
- Kulik, J.A. & Taylor, S.E. (1980). Premature consensus on consensus? Effects of sample-based versus self-based consensus information. *Journal of Personality and Social Psychology*, 38, 871–878.
- Leyens, J.P., Yzerbyt, V.Y. & Schadron, G. (1992). The social judgeability approach to stereotypes. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology*. New York, Wiley, Vol. 3, p. 91–120.
- Marks, G. & Duval, S. (1991). Availability of alternative positions and estimates of consensus. *British Journal of Social Psychology*, 30, 179–183.
- Marks, G. & Miller, N. (1987). Ten years of research on the false-consensus effect: An empirical and theoretical review. *Psychological Bulletin*, 102, 72–90.
- Miller, N., Gross, S. & Holtz, R. (1991). Social projection and attitudinal certainty. In J. Suls et T.A. Wills, (Eds.), *Social comparison: Contemporary theory and research*. New Jersey, Hillsdale, Lawrence Erlbaum Associate Publishers, 177–209.
- Monteil, (1993). *Soi et le contexte*. Paris, Armand Colin.
- Mullen, B., Chapman, J.G. & Peaugh, S. (1990). Focus of attention in groups: A self-attention perspective. *The Journal of Social Psychology*, 129, 807–817.
- Mullen, B., Driskell, J.E. & Smith, C. (1989). Availability and social projection: The effects of sequence measurement and wording of question on estimates of consensus. *Personality and Social Psychology Bulletin*, 15, 84–90.
- Mullen B. & Hu L. (1989). Social projection as a function of cognitive mechanisms: Two meta-analytic integrations. *British Journal of Social Psychology*, 27, 333–356.
- Pyszczynski T. & Greenberg, J. (1987). Toward an integration of cognitive and motivational perspective on social inference: A biased hypothesis-testing model. In L. Berkowitz, (Ed.), *Advances in Experimental Social Psychology*. San Diego, Academic press (Vol. 20), 177–209.
- Ross, L., Greene, D. & House, P. (1977). The false consensus effect: An egocentric bias in perception and attribution processes. *Journal of Experimental Social Psychology*, 13, 279–301.
- Schadron, G., Yzerbyt, V.Y. Leyens, J.P. & Rocher, S. (1994). Jugeabilité sociale et stéréotypes: l'estimation de l'origine d'une impression comme déterminant de l'impact des stéréotypes dans le jugement social. *Revue Internationale de Psychologie Sociale*, 7, 53–71.
- Smith, S.H. & Whitehead, G.I. (1988). The public and private use of consensus-raising excuses. *Journal of Personality*, 56, 355–371.
- Tversky, A. & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology*, 5, 207–232.
- Verhliac, J.F. (in press). L'Effet de Faux Consensus: une revue empirique et théorique. *L'Année Psychologique*.
- Verhliac J.F. & Milhabet I. (1997). Effet de Faux Consensus et focalisation de l'attention. *Congrès de la Société Française de Psychologie*, Nice.
- Yinon Y., Mayraz A. & Fox S. (1994). Age and the false consensus effect. *The Journal of Social Psychology*, 134, 717–725.
- Yzerbyt, V.Y., Schadron, G., Leyens, J.P. & Rocher, S. (1994). Social judgeability: The impact of meta-information and cues on the use of stereotypes. *Journal of Personality and Social Psychology*, 66, 48–55.
- Zuckerman, M. & Mann, R.W. (1979). The other way around: Effects of causal attributions on estimates of consensus, distinctiveness, and consistency. *Journal of Experimental Social Psychology*, 15, 582–597.
- Zuckerman, M., Mann, R.W. & Bernieri, F.J. (1982). Determinants of consensus estimates: Attribution, salience, and representativeness. *Journal of Personality and Social Psychology*, 42, 839–852.

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