Contributions to the Social Identity Approach to Conformity and Intragroup Differentiation

António José Miguel Cameira

PhD dissertation supervised by

Prof. Dr. José M. Marques and Prof. Dr. Michael A. Hogg

Faculty of Psychology and Educational Sciences

University of Porto

2005

Dedicated to my father

Acknowledgements

This work would never be possible without the support of Profs. José Marques and Michael Hogg. Prof. José Marques introduced me to Social Psychology and was an endless source of knowledge in his classes, talks, writings and opinions; he also provided me experiences that gave meaning to this knowledge. The educational opportunities he provided me are countless. Prof. Michael Hogg's writings and talks were fundamental for my education. He sponsored me beyond expectations, providing opportunities and experience, namely, during my staying in the University of Queensland under his supervision. For these reasons, I am deeply indebted to them both.

I also wish to acknowledge the contributions of Profs. Nyla Branscombe and Dominic Abrams to my socio-psychological education with their illuminating talks, writings and personal conversations. For similar reasons, I also wish to thank Profs. Fabio Lorenzi-Cioldi, Jorge Vala, and Maria Benedita Monteiro. Thanks also to Prof. Gabrielle Poeschl for helping to create the conditions for me to work.

The discussions with my colleagues Isabel Pinto and Rui Serôdio were important moments to clarify points of view, and improve down-to-earth but critical experimental procedures. I wish to thank them for their companionship along the production of this work.

Finally, I wish to thank my family, especially Claudia, my mother and my kids, for their support in this process. I am sure that without their moral support, the present work would not be possible.

This PhD was financially supported by the Faculty of Psychology and Educational Sciences, the Centre of Psychology of the University of Porto, and Project PRAXIS XXI/P/PSI/13192/98 of the Portuguese Foundation for Science and Technology

Resumo

Contributos para uma abordagem de identidade social à conformidade e à diferenciação intragrupal

No presente trabalho, pretendemos obter evidência para o carácter implícito da influência informacional de referência (e.g., Hogg & Turner, 1987; Turner, 1987; 1991) e da diferenciação normativa intragrupal visando o estabelecimento de uma identidade social positiva, a Dinâmica de Grupos Subjectiva (e.g., Marques, Páez & Abrams, 1998; Marques, Abrams & Serôdio, 2001). No primeiro estudo empírico, examinamos a conformidade às normas implícitas dos grupos em função da sua credibilidade. Na primeira experiência, os participantes (n = 26), depois de observarem a selecção de imagens de um júri de peritos, caracterizada por uma norma implícita, avaliaram outras imagens semelhantes ou às aprovadas ou às rejeitadas pelo júri. Os resultados sugerem que a norma implícita do júri afectou as avaliações subsequentes dos participantes. A segunda experiência (n = 35) mostrou que apenas os estudantes das áreas de Letras mas não os de Ciências, estereotipicamente considerados, respectivamente, credível e não credível na apreciação estética, se conformaram mais à norma implícita do endogrupo que à do exogrupo. Na terceira experiência, os participantes (n = 37), foram categorizados num de dois grupos artificiais, respectivamente, credível e não credível na tarefa. Os resultados mostraram que a conformidade explícita, a identificação ao grupo e a percepção de credibilidade dos grupos estavam correlacionadas, particularmente quando o grupo era credível. Na quarta experiência (n = 57) replicámos os resultados anteriores, e verificámos ainda que a conformidade explícita e a implícita diferiam em magnitude mas não nas normas endossadas. Globalmente, os resultados são consistentes com o modelo da Influência Informacional da Referência. O segundo estudo examina a possibilidade de diferenciação normativa implícita. Na primeira experiência, os participantes (n = 31) categorizados em dois grupos artificiais, sobreavaliaram os membros do endogrupo relativamente aos do exogrupo não os membros que adoptavam as normas implícitas do endogrupo sobre os que adoptavam as do exogrupo. Na segunda experiência (n = 25), focada nas normas, obtivemos uma sobreavaliação dos membros que adoptaram a norma endogrupal implícita relativamente aos que adoptaram a norma exogrupal. Os resultados das duas experiências são discutidos à luz do modelo da Dinâmica de Grupos Subjectiva.

Résumé

Contributions à l'approche d'identité sociale à la conformité et à la différentiation intragroupe

Dans le présent travail, on vise obtenir évidence pour le caractère implicite de l'influence informationnelle de référence (e.g., Hogg & Turner, 1987; Turner, 1987; 1991) et de la différentiation normative intragroupe destinée à réussir une identité sociale positive, la Dynamique des Groupes Subjective (e.g., Marques, Páez & Abrams, 1998; Marques, Abrams & Serôdio, 2001). Dans la première étude, on examine la conformité endogroupale implicite en fonction de sa crédibilité. Dans la première expérience, les participants (n = 26), après avoir observé la sélection d'images d'un jury de experts, caractérisée par une norme implicite, ont jugé des images similaires ou aux approuvées ou aux rejetées par le jury. Les résultats suggèrent que la norme implicite du jury a affecté les jugements subséquents des participants. La seconde expérience (n = 35) a montré que les étudiants d'Humanités, mais non ceux de Sciences, stéréotypiquement considérés, respectivement, crédibles et non crédibles à l'appréciation esthétique, se sont conformé plus à la norme implicite de l'endogroupe qu'à celle de l'exogroupe. Dans la troisième expérience, les participants (n = 37), ont été catégorisés en un de deux groupes artificiels, respectivement, crédible et non crédible à la tâche. Les résultats ont montrés que la conformité explicite, l'identification au groupe et la perception de crédibilité des groupes étaient associées, particulièrement quand le groupe était crédible. Dans la quatrième expérience (n = 57) on a répliqués les résultats antérieurs et on a encore vérifié que la conformité explicite et celle implicite différait en intensité mais non aux normes soutenues. Globalement, les résultats sont consistent avec le modèle de l'Influence Informationnelle de Référence. La seconde étude examine la possibilité de différentiation normative implicite. Dans la première expérience, les participants (n = 31) catégorisés en deux groupes artificiels, ont surévalué des membres endogroupales relativement aux membres exogroupales mais pas les membres qui adoptaient la norme implicite de l'endogroupe sur ceux qui adoptaient celle de l'exogroupe. Dans la seconde expérience (n = 25), on a obtenue une surévaluation des membres qui adoptaient la norme implicite endogroupale relativement à ceux qui adoptaient la norme exogroupale. Les résultats des deux expériences sont discutés en base du modèle de la Dynamique des Groupes Subjective.

Abstract

Contributions to the Social Identity Approach to Conformity and Intragroup Differentiation

In the present work, we aim to obtain evidence for the implicit character of referent informational influence (e.g., Hogg & Turner, 1987; Turner, 1987; 1991) and of normative intragroup differentiation aimed to achieve a positive social identity, Subjective Group Dynamics (e.g., Marques, Páez & Abrams, 1998; Marques, Abrams & Serôdio, 2001). In the first study, we examined conformity to implicit group norms as a function of their credibility. In the first experiment, participants (n = 26), after observing the selection of abstract pictures made by a jury of experts, characterized by an implicit norm, judged other pictures similar to either the ones approved or rejected by the jury. The results suggest that the implicit norm of the jury affected participants' subsequent evaluations. The second experience (n = 35) showed that Arts students, but not Sciences students, stereotypically considered, respectively, credible or non-credible in esthetical appreciation, conformed more to the implicit norm of the in-group than to that of the out-group. In the third experience, participants (n = 37), were categorized in one of two group artificial groups, respectively, credible and non-credible in the task. The results showed that explicit conformity, group identification and perception of groups' credibility were correlated, particularly when the group was credible. In the fourth experience (n = 57), we replicated the previous findings, and confirmed that explicit and implicit conformity differed in degree but not in the endorsed norms. In the whole, the results are consistent with the Referent Informational Influence model. The second study focused on the possibility of implicit normative differentiation. In the first experiment, participants (n = 31) categorized in two artificial groups upgraded in-group over out-group members, but not members that endorsed the implicit norm of the in-group over those that endorsed that of the outgroup. In the second experience (n = 25), focused on the norms, we found an upgrading of members that adopted the implicit in-group norm relatively to members that adopted the equivalent out-group norm. The results of the two experiments are discussed at the light of Subjective Group Dynamics.

INDEX

INDEX OF TABLES

INDEX OF FIGURES

INTRODUCTION

Sometimes, groups make their norms explicit and formal so that members know exactly what it is expected from them. Other times, norms are *simply there*, and members cannot articulate immediately the codes by which they regulate. In the present work, we explore the relations of social identity processes to these implicit forms of group behavior.

The social identity approach developed from the principles of Social Identity Theory (e.g., Tajfel & Turner, 1986) and Self-Categorization Theory (Turner, Hogg, Oakes, Reicher & Wetherell, 1988), and constitutes, presently, an influential perspective in Social Psychology (e.g., Abrams & Hogg, 1999; Spears, Oakes, Ellemers & Haslam, 1997; Hogg, 2001b; 2001c; 2003; Hogg & Abrams, 2003; Robinson, 1996). Recently, some social identity processes were examined using research methods that circumvent participants' conscious control. The associations between the self and the in-group representations (e.g., Onorato & Turner, 2004; Smith & Henry, 1996) or between positive attributes and the in-group and its members (e.g., Otten & Wentura, 1999; Perdue, Dovidio, Gurtman & Tyler, 1990) are examples of this research. The results obtained, suggesting that social identity processes operate also at an implicit level, reaffirm the role of social identity in the determination of individual behavior. In the present work, we extend the application of non-controlled methods to examine in-group conformity and normative intragroup differentiation.

Group influence and intragroup differentiation are important fields of research in Social Psychology. Group influence relates to phenomena such as conformity, polarization, leadership or minority influence. Normative intragroup differentiation relates to aspects such as social attractiveness, popularity and deviance. Traditional approaches to these phenomena have favored interindividual relations occurring within small interactive groups rather than group-based relations. The focus on the individual rather than on the group has led, in the case of group influence, to the distinction between personal motives to conform generating different forms of acceptance of norms. Group influence is associated to others' coercion and pressures to comply with the group standards rather than to normative references of collective behavior. In the case of intragroup differentiation, the traditional approach has focused on the dynamics of small groups such as work and sport teams, committees, task forces, etc.

The social identity approach has provided a new look on the above phenomena emphasizing the distinct characteristics of group behavior as regards interpersonal behavior. This perspective stresses the importance of group identity for members namely its impact on their self-definition and esteem. Group processes are considered in the larger context of intergroup relations. In this perspective, group influence operates as a single process rather than several processes. The social identity perspective also provided insights on intragroup differentiation processes, particularly on those related with members' contributions to a clear and positive social identity. Phenomena such as social attraction to prototypical group members or extreme derogation of in-group deviant members are viewed as intrinsically related to categorization and identification processes.

The Structure of the Present Work

We begin with an extended reference to the social identity approach, which constitutes the theoretical background of our empirical studies. Chapter 1 is thus dedicated to reviewing the principles and concepts of Social Identity Theory and Self-Categorization Theory. We begin with a brief reference to the metatheoretical underpinnings of the social identity approach. We then focus on major aspects of Social Identity Theory, namely, the relationship between social categorization, social identity and social comparison processes, and the need for positive group differentiation. Within Self-Categorization Theory, we shall address the hierarchical model of the self and the concept of prototypicality. We then address the dynamic relationship between the self and the social context, the salience mechanisms and the activation of self-categories. We conclude the chapter with a detailed reference to the phenomenological outcome of social self-categorization, depersonalization.

Given that we address two distinct fields of research, we decided to address each field separately in every respect. We shall present first the review of relevant literature concerning group influence followed by the respective empirical study, and then, we shall present the same contents concerning intragroup differentiation. In Chapter 2, we refer to classic investigations on conformity to provide the background in which the traditional approach to group influence developed (Asch, 1951; Festinger, Schachter & Back, 1950; Sherif, 1936). A critical review of this traditional perspective is provided:

the distinction between informational and normative influence (Deutsch & Gerard, 1955), the dependence versus independence of the individual as regards the group, and the particular conceptions of uncertainty and credibility. We then review the social identity approach to group influence processes forming the Referent Informational Influence model (e.g., Hogg & Turner, 1988; Turner, 1991). The Referent Informational Influence model postulates that uncertainty and consensual validation are intimately related to self-categorization and views conformity as the assimilation of the self to the in-group representation. A core difference from the traditional view is that group influence is conceived as a single process encompassing both normative and informational components. We shall review the major principles of the model and its explanation of group processes such as minority influence or group polarization.

In Chapter 3, we review previous research on social identity using non-controlled methods. After a comparison of these methodologies, we present our first study beginning with the methodology used in our experiments. The method consists of the implicit learning of group norms and its unnoticed influence in the receiver's judgments of related stimuli. We shall then present our four-experiment study addressing the issue of implicit group conformity. The study confronts two hypotheses concerning the nature of group influence: The traditional hypothesis arguing for two forms of group influence and the social identity hypothesis arguing for a single process of group influence. First, we tested the idea that informational influences are implicitly accepted. To achieve this goal, in the first experiment, participants are exposed to the imperceptible criterion of a jury of experts before reporting their own preferences for identical abstract pictures. In the second experiment, we tested our hypotheses by assessing conformity to the implicit esthetical norms of credible or non-credible in-group and out-group sources, using natural groups. In the third experiment, we used artificial groups and manipulated the ascribed credibility of the in-group in the esthetical task. This experiment was aimed to check on the cognitive-motivational mechanisms that underlie controlled in-group conformity, namely, its relationships with in-group identification and perceived credibility. The fourth experiment aims to replicate the previous results and to address directly the differences between implicit and explicit group conformity. As a whole, the results supported our hypothesis that normative influences, similar to informational influences, are implicitly accepted

suggesting that group influence consists of a single process, as claimed by social identity approaches to social influence.

Chapter 4 is dedicated to intragroup differentiation. We briefly introduce the topic with a mention to classical experiments such as Festinger, Schachter and colleagues' on group reactions to deviance (e.g., Festinger, 1950; Festinger et al, 1950; Schachter, 1951), Hollander's on idiosyncratic credit (e.g., 1958; 1960), or Moscovici and colleagues' on reactions to minorities (e.g., Moscovici, 1976; 1985, Moscovici et al, 1969; 1972). We then concentrate on the models issuing from a social identity perspective. We review the research of Hogg and colleagues on differentiation based on members' prototypicality, in social attractiveness (e.g., Hogg & Hains, 1991) and leadership endorsement (e.g., Hains, Hogg & Duck, 1997). Finally, we address the research of Marques and colleagues on the black-sheep effect (e.g., Marques & Páez, 1994) and the Subjective Group Dynamics model (Marques, Páez & Abrams, 1998) whose analysis of intragroup differentiation processes takes into account the need for a positive social identity. Finally, we present our second empirical study aiming to check on the implicit character of implicit normative differentiation. The study addresses the idea that members may be differentiated as a function of their implicit normative or deviant behavior and that this differentiation is more extreme in the in-group than in the out-group, as predicted by the Subjective Group Dynamics model. The first experiment showed a marked tendency to differentiate between groups rather than differentiation between members that endorse in-group implicit norms and members that endorse out-group norms. In the second experiment, several changes to the procedure and material were introduced to induce participants' focus on the norms. The results showed that members endorsing implicit in-group norms were upgraded relatively to those endorsing out-group norms. However, there was mixed evidence relative to participants' sensitivity to the initial intergroup context, which precluded a full test of the general hypothesis. The study ends with the discussion of possible reasons for the obtained results.

In the final chapter, we recapitulate our major results and their respective theoretical implications. We highlight the aspects that need further clarification and propose some guidelines for future research.

CHAPTER 1

THE SOCIAL IDENTITY APPROACH

The concept of social identity was introduced by Tajfel (1972) when studying the relationships between social categorization and intergroup behavior (e.g., Tajfel, 1969; 1970; Tajfel, Flament, Billig & Bundy, 1971; Tajfel, Sheikh & Gardner, 1964; Tajfel & Wilkes, 1963). Social Identity Theory (Tajfel, 1978; Tajfel & Turner, 1979) results from this initial research. Together with Self-Categorization Theory (Turner, Hogg, Oakes, Reicher & Wetherell, 1987) which is a development of its principles, it represents a distinct approach to group processes in Social Psychology (e.g., Abrams & Hogg, 1988; Hogg, 2001b). The social identity approach is the theoretical background of our empirical work; therefore, in the first chapter, we shall review its major concepts and principles.

Metatheoretical Conceptions

Group processes have been studied in Social Psychology under two paradigms: the individualistic and the interactionist paradigms (cf. Turner & Oakes, 1986). In the individualistic paradigm,

> "[…] the individual is the sole psychological and/or social reality, that the distinctive reality of the group and society is fiction or fallacy, that nothing 'emerges' in social interaction, […] that social psychology is merely the application of general (i.e. individual) psychological principles to the more complex stimulus conditions of the social environment." (Turner & Oakes, 1986, p. 238)

A representative author of this paradigm, Floyd Allport (1924), claimed that, "there is no psychology of groups which is not essentially and entirely a psychology of individuals". In this perspective, the group is a 'nominal fallacy' useful to apprehend collective action. Group actions are not more than the sum of the individual actions of the members. This conception emphasizes individuals' unique characteristics that differentiate them from other individuals (cf. Turner, Oakes, Haslam & McGarty, 1994). The emphasis on the individual is patent on conceptions of the self as a relatively stable structure, such as that of Markus and colleagues (Markus, 1977; Markus &

Kunda, 1986). The emphasis on the individual is also visible on approaches to social phenomena focusing the interpersonal dimension of social relationships (for critic perspectives, cf., e.g., Doise, 1986; Hogg, 1992; Hogg & Abrams, 1988).

The interactionist paradigm. The interactionist paradigm emphasizes the dynamic nature of the self and the idea that individuals' self-conception, and, consequently, their opinions, judgments and behavior change in the course of social interaction. The content of the mind is the product of social interaction, a socialization process during which individuals internalize symbols, meanings, values and norms (cf., e.g., Mead, 1934). Thinking and meaningful action are possible only to the use of these tools, the social contents of the mind. As Vigotsky (1925) emphasized,

> "All higher mental functions are the essence of internalized relations of a social order, a basis for the social structure of the individual. Their composition, genetic structure, method of action – in a word, their entire nature – is social; even in being transformed into mental processes, they remain quasisocial. Man as an individual maintains the functions of socializing." (p.106)

It is, thus, impossible to dissociate individuals from the social groups to which they belong.

> "Individuals in their multiplicity cannot be opposed to or in reality distinguished from society: individuals are society and society is the natural form of being of human individuals. […] The fallacy that the individual may be opposed to society arises from a legitimate but different contrast between a particular individual and others, resulting in the idea of uniqueness or individuality […] There is no such thing as the pre-social, asocial, purely biological, 'as if isolated' individual except as analytic, fictional abstraction." (Asch, 1952, p. 239)

The object of Social Psychology. For the interactionist paradigm, the object of Social Psychology is not that of the individual Psychology or that of Sociology, but the mental representations and processes produced by social interaction.

> "The task of Social Psychology, as a part of psychology (the science of the individual mental processes), is *not* to provide social explanations of

> behavior (this can be left to sociology, politics, etc.), *nor* to provide 'psychological explanations' of, i.e. 'to psychologize' social behavior, but *to explain the psychological aspects of society*. This equates with understanding the structures and processes whereby society is psychologically represented in and mediated by individuals' minds."(Turner & Oakes, 1986, pp. 239-240)

More specifically, the object of Social Psychology is the "socially mediated cognition, phenomenologically experienced as the perception of a shared, public, objective world", the "psychological representations of the interaction, interactors, setting etc. shared by the interactors", and the "intersubjective world of shared social meanings." (Turner & Oakes, 1986, p. 240).

Concepts of group. The two metatheories result in different conceptions of group. According to Turner (1987), the two conceptions derive from a fundamentally different meaning attributed to interdependence. In the interaccionist approach, from Lewin (1947) to Sherif (1967), or Asch (1952), interdependence is considered "in the sense of 'functional unity', or 'dynamic system', or 'mutual psychological field'" (Turner, 1987, p. 20). Interdependence refers thus to the proprieties of the group, as a functional whole, and their effect on the members.

In the individualistic metatheory, group interdependence refers to individuals' dependence on others to satisfy their individual needs.

> "In recent years the emphasis has been on forms of interdependence related to or assumed to be related to the satisfaction of individuals' needs or, which is the same thing theoretically, the achievement of rewarding outcomes, i.e., *motivational* interdependence. By motivational interdependence is meant the idea that actions and characteristics of others relevant to the satisfaction of one's needs are functionally related by the structure of the situation to actions and characteristics of one's own relevant to their needs. Thus, at one extreme, people may co-operate to achieve some otherwise unattainable goal; at the other, they may associate simply because they find each other's company mutually rewarding." (Turner, 1987, p. 20)

In the individualistic conception of interdependence, the group is the result of the interpersonal relationships among members (e.g., Hogg, 1992; 1993; Hogg & Turner, 1985a; 1985b; 1987; Turner, 1984; Turner et al, 1987).

> "The group whole, the social norm, is assumed to be exactly the sum of its parts, the members' individual opinions – there is no gain or loss in collective wisdom […] A group is merely the product of interpersonal relations and processes or, more precisely, the same thing as relatively stable relations of interpersonal co-operation, attraction and influence between people" (Turner, 1987, p. 25).

In contrast, for the interactionist approach, the group is a meaningful entity relatively independent from its individual components, possessing different proprieties from individuals (Asch, 1952; Lewin, 1947; Sherif, 1967). Both Social Identity Theory and Self-Category Theory reject the individualistic metatheory and assume the principles of the interactionist approach to social phenomena.

Social Identity Theory

Social Identity Theory (e.g., Tajfel & Turner, 1979; 1986; Tajfel, 1978[1]; 1981; 1982; Turner, 1975) proposes three basic processes to understand group behavior: social categorization, social identification and social comparison (cf. Tajfel, 1978; Tajfel, 1982; Tajfel & Turner, 1979).

Social Categorization

Categorization is a pervasive phenomenon that fulfills a basic individual need: the perception of clear and predictable environments (cf. Bruner, 1957). It simplifies and systematizes the environment, ordering it in a manner that makes sense for the individual, thus helping to structure its causal understanding (Tajfel, 1978).

Inductive and deductive aspects of categorization. To achieve a clear perception of the environment, the cognitive system processes stimuli inferentially. Two aspects of inferential processing are crucial to achieve a simplification of the environment: the

[1] In the present chapter, the reference Tajfel (1978) stands for Tajfel's Introduction and three chapters in the edited book "Differentiation between social groups".

inductive and the *deductive* aspects. The inductive aspect consists in recognizing shared attributes in a number of objects in order to form a category. The deductive aspect consists in associating the category attributes to the attributes recognized in an object.

The inferential processing of stimuli implies the modification of the environment because it is based on the omission, as well as, over- attribution of features to the objects and events so that they may be integrated in the pre-existing structures. In Bruner's (1957) terms, "perceptual categorization of an object or events permits one to 'go beyond' the proprieties of the object or event" (p. 129). By making the environment a predictable world, categorization allows action to can take place expediently, without a prior time- and energy-consuming interpretation of the objects and circumstances involved (cf. Tajfel, 1972).

As an illustration of the deductive transformation of stimuli, Tajfel and Wilkes (1963) asked their participants to judge the length of each line in various series of eight lines whose length progressed geometrically. The series were either classified, i.e., labeled A or B, so that the shorter lines belonged to category A and the longer ones belonged to category B; classified randomly, i.e., the categories A and B assigned to each line were not correlated to the lines' length; or unclassified. The results showed that participants in the criteria categorization condition exaggerated the differences in length between the two categories. Moreover, these participants also tended to judge the lines within each category to be more similar to one another, than the participants in the other conditions did. Tajfel and Wilkes (1963) dubbed the accentuation of intra-categorical similarities and of inter-categorical differences, the *accentuation effect*.

The Accentuation Effect in Social Categories

The categorization of physical objects and the categorization of people in continuous dimensions – defining attributes such as traits or personality characteristics – follow identical rules (e.g., Doise, 1976). However, the structuring of social environment differs, in several aspects, from the categorization of the physical environment (cf. Deschamps, 1984; Doise, Deschamps & Meyer, 1978; Doise & Sinclair, 1973; Eiser & Stroebe, 1972; Tajfel, Sheik & Gardner, 1964).

For instance, there is often higher involvement of the perceiver in social categorization (cf. Tajfel, 1969; 1970; 1972). Burris and Branscombe (2005) provide a recent illustration of the effect of self-relevance on the accentuation of intercategorical differences. The authors found that the distances between the city of the respondent and another city in the same country (U.S.A.) were estimated as smaller than that to a city situated in a neighboring country (Canada or Mexico), even when the former distances were objectively larger than the latter. Similar to any categorization, the notion of countries entails an accentuation effect of the distance between the cities of different countries, what the authors dubbed the *border effect*. Most significantly, the authors also found that when estimating the distances between two cities located in two foreign countries (Mexico and El Salvador), the border effect disappeared. As the authors concluded, "crossing the psychological boundary between self and not-self creates a visual illusion that distorts on-line distance estimates" (p. 305).

The accentuation of intercategorical similarities is also affected by the involvement of self. For instance, Simon (1993) claims that when the in-group is relevant for the self, individuals are more to accentuate the similarities within the in-group than within out-groups. The author and his colleagues (e.g., Simon & Brown, 1987; Simon & Mummendey, 1990; Simon & Pettigrew, 1990) found that the minority group members accentuate the similarities within the in-group whereas majority group members accentuate the similarities within the out-group (cf. Chapter 4). The results are explained by the higher relevance of the minority in-group membership for the self as regards that of the majority (cf. Brewer, 1991, 1993).

In sum, the involvement of the self in social categorization confer it distinct characteristics as regards categorization of objects. Social values also play a major role in the structuring of social environment (e.g., Maass & Schaller, 1991; Oakes, Haslam & Turner, 1994; Tajfel & Forgas, 1981), although the categorization of objects is also affected by the social value ascribed to them (e.g., Bruner & Goodman, 1947).

The Value Dimension of Social Categorization

As Tajfel and Forgas (1981) put it, "no social domain of any importance is classified in a completely value-free manner, as currently prevalent cognitive-individualistic research would lead us to believe" (p. 126). Social categories are always,

to some extent, charged with an evaluative connotation. In fact, the evaluative dimension seems to precede the descriptive dimension in the formation of categories. As Tajfel and Forgas (1981) claim, "categorizations of people, groups of people and social events in terms of value differentials are probably one of the earliest and most basic forms of social categorization" (p. 119). For instance, Tajfel and Jahoda (1966) asked British 6-7 years old children to indicate among plastic squares of different sizes, which matched the surface of America, France, Germany, and Soviet Union; then, the authors asked the same children to indicate their preferences for each of these four countries. Children were more consensual in preferring America and France to Germany and Soviet Union than to say that America and Soviet Union are larger than France and Germany. In sum, the four countries were distinguished based on the associated value more than through their objective attribute. As the authors claimed, a consensus on the relative value of the nations is likely to confer as much legitimacy to the differentiation between the four countries, as a descriptive attribute such as size. As Tajfel (1969, p. 87) remarks, "[…] 'bad' and 'good' even 'liked' or 'disliked' become incontrovertible statements of fact not different in their mode of assimilation from, for example, 'large' or 'small'".

Above, we mentioned the effects of self-involvement in social perception. We shall now address how social categories affect self-perception by becoming meaningful aspects of individual identity. The categorized perception of the social environment and the value associated to social categories affects both how individuals perceive others as belonging to social categories *and* how they perceive themselves in relation to others. As Tajfel (1972) puts it, the categorization of social environment provides a system that creates and defines the particular place of the individual in the society, his/her social identities.

Social Identity and Social Comparison

Social identity consists of those aspects of "an individual's self-image that derive from social categories to which he perceives himself as belonging" (Tajfel & Turner, 1979, p. 40). If it is true that, "the image or concept that an individual has of himself or herself is infinitely more complex, both in its contents and its derivations, than social identity as defined and circumscribed here" (Tajfel, 1978, p. 63), it is also

true that some aspects of that image are the result of membership of certain social groups and categories, and that some of these aspects will determine individual's behavior in the course of his/her life.

Cognitive, evaluative and emotional components of social identity. Social identity comprises three components,

> "[…] a *cognitive* component, in the sense of knowledge that one belongs to a group; an *evaluative* one, in the sense that the notion of group and/or of one's membership of it may have a positive or negative value connotation; and an *emotional* component in the sense that the cognitive and evaluative aspects of the group and one's membership of it may be accompanied by emotions (such as hatred, like or dislike) directed towards one's own group and towards others which stand in certain relations to it." (Tajfel, 1978, p. 28)

Both the cognitive and evaluative dimensions of social identity are established in comparison to out-groups. In fact, social identifications "are to a very large extent relational and comparative: they define the individual as similar to or different from, as "better" or "worse" than, members of other groups" (Tajfel & Turner, 1979, p. 40). Intergroup comparisons are thus an inevitable outcome of social identity.

Intergroup and Interpersonal Comparisons

Intergroup comparison is similar to social comparison as described by Festinger (1954). However, in intergroup comparison, individuals compare with others not as individuals but as members of groups (cf. Tajfel, 1978). The hypothesis of a drive to evaluate one's abilities is seen in terms of individuals need to evaluate themselves as members of a group. Furthermore, intergroup comparison resembles interpersonal comparison only in what refers to comparison of abilities, not opinions (cf. Turner, 1975). According to Festinger (1954), individuals are motivated to ascertain the accuracy of their opinions, but when comparing abilities, they are motivated to achieve positive positions. As Turner (1975) remarks, more than achieving a precise position of the in-group as regards the out-group, individuals are motivated to achieve a positive social comparison, "the important comparative dimensions for social identity parallel those of abilities rather than opinions, i.e., they are value-laden […] the need to evaluate

himself in society is more correctly expressed as a need to make a favorable or positive evaluation of the individual in society." (p. 9).

Intergroup and Interpersonal Behavior

The behavioral outcome of social identity is intergroup behavior. Tajfel (1978) defines intergroup behavior as "all behavior of two or more individuals towards each other [that] is determined by their membership of different social groups or categories." (p. 41). For Tajfel (1978), during a limited social interaction, intergroup behavior appears combined with interpersonal behavior in a varying degree depending on individuals' perception of the situation. The author proposes a *continuum of interindividual behavior – intergroup behavior*, in which the interpersonal pole refers to 'any social encounter between two or more people in which all the interaction that takes place is determined by the personal relationships between the individuals and their respective individual characteristics'; and the intergroup pole refers to 'all behavior of two or more individuals towards each other determined by their group membership of different social group or categories' (p. 41). The variability of social interactions along the continuum predicts that, with few exceptions, social situations fall between the two extremes and, depending on the pole they tend to, the situation may be classified as having more an intergroup or an interpersonal character.

Variability–uniformity continuum. Intergroup behavior is characterized by less variability in the relations with other persons.

> "The nearer is a social situation (as interpreted by members of a group) to the intergroup extreme of the interpersonal-intergroup continuum, the more uniformity will the individual members of the groups concerned show in their behavior towards members of out-groups. Conversely, the nearer is the situation to the interpersonal end, the more variability will be shown in behavior towards members of out-groups" (Tajfel, 1978, p. 44-45)

The uniformity of intergroup behavior is associated with the perceptual accentuation of the differences between in-group and out-group and of the similarities among their respective members (cf. above). "The nearer is a social situation to the intergroup extreme, the stronger tendency will there be for members of the in-group to

treat members of the out-group as undifferentiated items in an unified social category, i.e., independently of the individual differences between them." (Tajfel, 1978, p. 45).

Social Categorization and Intergroup Differentiation

Social identification implies that members compare with other groups motivated to achieve a distinct and positive position of the in-group. A consequence of the need for positive group differentiation is the establishment of competitive intergroup relations. In their seminal study, Tajfel, Flament, Billig and Bundy (1971) showed that this process emerged even in minimal laboratory conditions whose goal was "to establish minimal conditions in which an individual will, in his behavior, distinguish between in-group and out-group" (Tajfel, 1978, p. 77).

Tajfel and colleagues (1971; Experiment 1) categorized the participants allegedly as a function of their over- or under-estimation of number of projected dots. Subsequently, without being given the opportunity to interact among them, participants, individually and anonymously, awarded amounts of money to three pairs of recipients based solely on their group membership.

The analysis of the intergroup choices in matrices presenting members of the two groups showed that participants awarded significantly more points to in-group than to out-group recipients. The mere categorization of the participants was enough to produce a discriminatory intergroup behavior. The result is more significant when compared with the results of the same group choices in which both the recipients were either in-group or out-group members. In these sequences, participants used a more fair strategy.

In Experiment 2, participants were randomly assigned to one of the two groups, based on their alleged preference for the abstract paintings of Klee and Kandinsky. The results showed that, similar to the intergroup choices in the previous experiment, the majority of the participants favored in-group recipients. As the authors put it,

> "[…] in a situation devoid of the usual trappings of in-group membership and of all the vagaries of interacting with the out-group, the Ss still act in terms of their group membership and of in-group categorization. Their actions are unambiguously directed at favoring the members of their in-group as

> against the members of the out-group. This happens despite the fact that an alternative strategy – acting in terms of the greatest common good – is clearly open to them at a relatively small cost of advantages that would accrue to members of the in-group." (p. 173)

Although fairness was also an important strategy, suggesting that participants' responses were affected by an equalitarian social norm, the achievement of positive in-group differentiation was a major directive for their responses. The tendency to favor the in-group over the out-group in evaluations and behavior was later dubbed *in-group bias*, "the laboratory analog of real-world ethnocentrism" (Tajfel & Turner, 1979, p. 38). As the authors remarked, "not only are incompatible group interests not always sufficient to generate conflict [but] these conditions are not always necessary for the development of competition and discrimination between groups" (p. 38).

Tajfel and colleagues' (1971) results are of major importance in the development of Social Identity Theory (cf. Tajfel, 1972; Tajfel & Turner, 1979). They are at the origin of a whole line of research aimed to understand the minimal conditions for group behavior (e.g., Diehl, 1990). Early relevant research addressed the assumption of interpersonal similarities and differences in minimal groups (cf., e.g., Allen & Wilder, 1975; Billig & Tajfel, 1973; Diehl, 1988) or the involvement of the self in intergroup differentiation (cf. Turner, 1975; 1978). More recently, Otten, Mummendey and Blanz (1996), found that when allocating negative outcomes (lists of meaningless syllables to memorize), did not discriminated out-group members in the same way as when allocating positive outcomes (money). Participants in the negative outcome conditions used fairer intergroup strategies, except when the value of group membership was threatened; in this case, participants reacted favoring the in-group over the out-group in the allocation of both positive and negative outcomes.

Strategies for Positive Group Differentiation

Tajfel and colleagues' (1971) experiments depicted the strategies adopted in laboratory groups. In the real world, the strategies for positive group differentiation vary as a function of the status of the in-group and might not involve competitive intergroup relations. The social values ascribed to each group in the social system, affects the way the respective members experience their social identity (Tajfel, 1972; Tajfel & Turner,

1979). Whereas high-status groups contribute to a positive identity of their members, low-status group contribute to a negative identity with the correspondent effects on members' self-esteem (cf. Branscombe, 1998; Branscombe & Wann, 1994; Ellemers, van Knippenberg, de Vries & Wilke, 1988; Mullen, Brown & Smith, 1992). Therefore, members of high-status and low-status groups engage in different strategies of positive group differentiation.

Beliefs on social stratification. The strategies members of high-status and low-status groups adopt may be collective or individual, generating or not intergroup behavior, depending on the beliefs on social stratification. These beliefs may be represented in a *social mobility–social change continuum* (cf. Tajfel, 1978; 1981). The more social stratification is perceived nearer the social mobility extreme, the more individuals perceive group boundaries illegitimate and/or unstable and thus flexible and permeable. Conversely, the more social stratification is perceived nearer the social change extreme, the more the boundaries are perceived as legitimate and stable and, thus, rigid and impenetrable. We shall elaborate more in these different strategies aimed to achieve positive social identity.

Strategies of Low-Status Group Members. The belief on a flexible social stratification is more predictive of individual strategies in low-status group members because they may attempt to differentiate from the group and move to higher status groups. Conversely, the belief on a impenetrable social stratification is more predictive of intergroup behavior because the low-status group member will tend to develop the idea that,

> "[…] he cannot move on his own into another group in order to improve or change his position or his conditions of life; and that therefore the only way for him to change these conditions […] is together with his group as a whole, as a member of it rather than as someone who leaves it, or, who can act in a variety of relevant situations as an individual independently of his group membership." (Tajfel, 1978, p. 53)

When social stratification is assumed impenetrable, several collective strategies may emerge, such as, social creativity in the creation or re-recreation of valued attributes of the group. Social creativity may entail: the enhancement of the group

characteristics so that they "become more like the superior group"; the reinterpretation of the inferior characteristics of the group "so that they not appear as inferior but acquire a positively valued distinctiveness from the superior group"; and/or, the creation and diffusion of "new 'ideologies', new group characteristics which have a positively valued distinctiveness from the superior group" (Tajfel, 1978, p. 94; cf. also, Ellemers, van Knippenberg, de Vries & Wilke, 1988; Lemaine, Kastersztein & Personnaz, 1978; Turner & Brown, 1978).

Strategies of High-Status Group Members. High status group may resort to social creativity in order to reestablish the group superiority. This strategy occurs, for instance, when the threat to the group superiority is internal, i.e., members feel that their group superiority is unwarranted, based on "unfair advantages, various forms of injustice, exploitation, illegitimate use of force, etc." (Tajfel, 1978, p. 89). In this conflict of values, members may engage in collective strategies to restore the group superiority (e.g., Mummendey & Schreiber, 1983; 1984; Mummendey & Simon, 1989; Turner & Brown, 1978).

Internal conflicts of values deriving from the perception of in-group illegitimate superiority may also lead to leave the group either psychologically or materially. Groups may also accept the fact that they exploited other groups to achieve their status. For instance, research on collective guilt suggests that members of advantaged groups, feeling that their advantage is built on the exploitation or victimization of other social groups, may present collective and public apologies to the victimized out-group and compensate it for the past damages (cf. Branscombe & Doosje, 2004; Branscombe, Slugoski & Kappen, 2004).

Social Identity Theory launched the bases for the social identity approach both at the cognitive and motivational levels and focused on the macro-social aspects of intergroup behavior. Self-Categorization Theory contributed to the social identity approach elaborating on the cognitive processes of social categorization and on the implications of these processes in intragroup phenomena. We shall focus now on the assumptions of Self-Categorization Theory.

Self-Categorization Theory

Building on the concepts and ideas outlined by Social Identity Theory, Self-Categorization Theory (Turner et al, 1987) specified the cognitive processes by which relevant social categories affect individuals' self-concept and how this relates to various forms of intragroup behavior (e.g. Hogg, 2000; Hogg & Turner, 1987; Turner, 1991).

The Hierarchical Model of the Self

Self-Categorization Theory is essentially a theory of structure and function of the self-concept. According to the theory, the self-concept comprises many components, cognitive representations of the self, or self-categorizations. Self-categorizations are hierarchically organized in three basic levels of abstraction. The most inclusive level includes all kinds of human social groups, "the common features shared with other members of the human species in contrast to other forms of life". The intermediate level of in-group / out-group categorization is "based on social similarities and differences between human beings that define one as a member of certain social groups and not others", and includes distinctions such as between male and female, races, nationalities, occupations, etc. Finally, the lowest level of differentiation is established "between oneself, as a unique individual, and other in-group members that define one as a specific individual person" (Turner et al, 1987, p. 45). This latter level includes all the idiosyncratic features of the person that distinguishes him or her from other persons.

Relationships among Self-Categorizations

Self-categorizations are articulated with each other in the vertical and in the horizontal dimensions. One of the implications of the hierarchical model is that inclusive classes provide the frame of comparison to establish the differences among subordinate categories. Consistently, personal self-categorizations are defined in the context of the in-group, that is, the variation within the in-group provides the frame of reference to establish the differences between self and others. Thus, personal self-categorizations, i.e., identities that differentiate the self from the in-group defining attributes may also vary, depending on the group context.

Functional antagonism. In the vertical dimension, the theory postulates a functional antagonism between levels of self-categorization: the more one level is

activated, the more the other level is inhibited. Self-perception may thus be represented by a continuum.

> "Social self-perception tends to vary along a continuum from the perception of the self as a unique person (maximum intra-personal identity and maximum difference perceived between self and in-group members) to the perception of the self as an in-group category (maximum similarity to in-group members and difference from out-group members)." (Turner et al, 1987, p. 49)

Prototypicality and meta-contrast. The hierarchical model of self-categorization has also implications in what concerns the horizontal dimension. Specifically, the theory postulates that categories are formed in reference to categories of the same level following the *meta-contrast principle*:

> "Within any given frame of reference (in any situation comprising some definite pool of psychologically significant stimuli), any collection of stimuli is more likely to be categorized as an entity (i.e., grouped as identical) to the degree that the differences between those stimuli on relevant dimensions of comparison (intra-class differences) are perceived as less than the differences between that collection and other stimuli (inter-class differences)." (Turner et al, 1987, p. 47)

The category *meta-contrast ratio* is obtained by dividing the average difference perceived between members of the category and the other stimuli (the mean inter-category difference) by the average difference perceived between members within the category (the mean intra-category difference). The higher the mean inter-category difference and the lower the mean intra-category difference, the higher will be the category meta-contrast ratio.

The meta-contrast ratio of a category member is called *prototypicality*. The concept is similar to that of Rosch's (1978) categorical prototypicality and is defined as the extent into which a constituent part is perceived as representative of the category. Members' prototypicality is obtained dividing the mean perceived difference between the target member and the out-group members by the mean perceived difference between the target member and the other in-group members. The higher the member's

prototypicality, the more similar s/he is to the other category members and the more different from members of other categories. The higher the member's prototypicality the more s/he is representative of his/her group.

The Salience of Group Memberships

The theory bases on Bruner's (1957) functional account of category activation to describe the conditions in which self-categorizations are activated.

Accessibility and fit. Categorical salience is produced by two mechanisms: accessibility and fit. *Accessibility* refers to the category's readiness to be activated. The more accessible a category, the fewer attributes a stimulus requires to be recognized as belonging to the category. Therefore, highly accessible categories are more likely to affect persistently individuals' perception of self and others. Category's readiness or accessibility depends on the expectations concerning the environment, which, in turn, depend on individuals' experience, and on individuals' current motives. *Fit* is the extent into which the stimulus characteristics match the features of a given category. The more characteristics matching the category a stimulus has, the more likely it will be recognized as belonging to the category.

The interaction of accessibility and fit is responsible for the activation of the category more adequate to perceive the current situation. As Oakes (1987) puts it, "Whilst accessibility thus ensures that perception is appropriately selective gearing categorization to the demands imposed by changing motives and circumstances, fit – the match between actual stimulus characteristics and category specifications – ties it firmly to reality." (p. 128).

Comparative fit and normative fit. In the context of social categories, Oakes (1987) distinguishes between comparative and normative fit. Comparative fit is the cognitive-structural aspect of fit. Similar to Rosch's (1978) concept of 'cue validity', it is defined by the extent to which the defining attributes of a category are common to category members but not shared by members of the other categories. Normative fit is the extent into which a member presents the behavior expected in his/her category.

> "[…] perceived *structural fit* always depends upon the contrast of differences between categories with differences within categories for individuals

> and behavior currently under consideration. Similarly, the *normative fit* between a given characteristic or action and a given categorization depends on the intergroup comparison being made and on context: what is normatively relevant to one category membership in one context may be irrelevant, or relevant to a different membership, in another context." (Oakes, 1987, p. 131)

As an illustration of the distinction between comparative and normative fit, Oakes, Turner and Haslam (1991) found that participants perceived a male target as possessing more the male stereotypical attributes when included in a three male group that disagreed with a three female group than when the target disagreed with a group of two males and three females, a five female group, or when he disagreed together with two females with another three female group. The results suggest that the target was perceived to be more typical of his gender category, when he had both comparative and normative fit than when his behavior was not consistent with the gender categorization (disagreeing with out-group members is more expected than disagreeing with in-group members and out-group members).

Flexibility versus stability of the self-concept. By establishing that the self-concept is also determined by contextual aspects, the theory emphasizes its flexible nature (cf. Oakes, 1987; Turner et al, 1994). This view contrasts to other views arguing for the stable nature of the self. For instance, Markus (1977) proposes that there are cognitive structures, self-schemata, which ensure some stability in the way individuals self-conceive. Self-schemata are "cognitive generalizations about the self, derived from past experience, that organize and guide the processing of self-related information". Self-schemata represent the background knowledge about the self, obtained by the observation of one's repeated responses to particular stimulus. They allow one to make inferences from little information about one's feelings and behavior. With this self-knowledge, we make inferences from little information and interpret complex sequences of events (cf. also, Markus & Kunda, 1986).

On their turn, Turner and colleagues (e.g., Turner, Oakes, Haslam & McGarty, 1994; Onorato & Turner, 2004) reject the notion of a central structure responsible for the relative stability of thought and behavior. The authors admit that personal characteristics are determining in the activation of self-categorizations, "the concepts of

perceiver readiness and normative fit – reflecting an individual's motives, desires, memories, knowledge, habits and so forth – provide definite internal psychological constraints on self-category variation" (Turner et al, 1944, pp. 459-60). However, the alleged stability of the self derives more from the relative invariability of the social contexts in which individual normally interact than from the predominance of personal aspects. The relatively stable set of roles occupied by individuals in their social network, and the recurrent social contexts in which individuals move, lead to the frequent activation of some self-categories in detriment of others. However, this is due to the stability of the social context rather than to the stability of cognitive structures.

Depersonalization

Depersonalization is the phenomenological outcome of social self-categorization. An inclusive level of self-categorization implies that there is a perceptual amplification of the similarities between the self and the categorical attributes (the prototype) and a perceptual reduction of the differences from these attributes (cf., e.g., Haslam & Turner, 1992; Simon, Pantaleo & Mummendey, 1995).

> "Just as categorizing others causes us to perceive others stereotypically, categorization of the self causes us to perceive ourselves stereotypically. It is in this way that the individual comes to describe the self in terms of the group's defining characteristics, experience the feelings and emotions of the group, and to acquire the goals and needs of other group members." (Hogg & Turner, 1987, p. 149)

Depersonalization and deindividuation. Depersonalization is conceptually different from deindividuation, which corresponds to a psychological process of reduced self-awareness (e.g., Diener, 1980; Prentice-Dunn & Rogers, 1982). Self-awareness includes attention to aspects, such as one's attitudes and norms and increases the capacity for self-regulation. Deindividuation is thus associated with anti-normative and disinhibited behavior (but, cf. Reicher, 1987).

> "[Depersonalization] is not a loss of individual identity, nor a loss or submergence of the self in the group, and nor any kind of regression to a more primitive or unconscious form of identity. It is the change from the personal to

> the social level of identity, a change in the nature and content of the self-concept corresponding to the functioning of self-perception at a more inclusive level of abstraction." (Turner et al, 1987, p. 51)

The salience of a self-category does not imply self-attention in the same way that self-attention does not necessarily imply a shift to the personal self. As Abrams and colleagues (e.g., Abrams, 1994; 1999; Abrams & Masser, 1998) argue, the two processes correspond to different and independent dimensions of the self. The shift to a social self-categorization and depersonalization is an adaptive response to changes in the context (e.g., Turner et al, 1994), and individuals are generally not aware of the process. However, this does not mean that we cannot be self-conscious when acting as group members. Planned and strategic group behavior, for instance, requires a focus on the collective rather than on the personal self (Abrams, 1999).

Social Attraction

A consequence of depersonalized perception of self and others are the positive feelings towards other in-group members, a phenomenon that Hogg and colleagues (e.g., Hogg, 1987; 1992; 1993; Hogg & Turner, 1985a; 1985b) dubbed social attraction: "a complex of positive feelings, a positive attitude, towards fellow group members, which is accentuated under circumstances that enhance one's sense of belonging to the group" (Hogg, 1992, p. 100).

Social attraction and interpersonal attraction. Social attraction is different from interpersonal attraction, although both entail positive feelings towards other individuals. Personal attraction is specific of interpersonal relationships. It is a positive feeling generated by distinct personal traits and other personal characteristics that do not relate to any significant social category. In contrast, social attraction is a positive feeling that emerges among individuals that define themselves as members of the same group. In fact, as Hogg (1992) put it, social attraction "is actually attraction to the group as that group is embodied by specific group members, so that the object of positive attitude and feelings is not actually the unique individual person, but the prototype that s/he embodies." (p. 100). As Hogg (1992) remarks, personal and social attraction may coexist. For instance, in small interactive groups (as groups of friends or work teams),

in which members interact repeatedly, people may feel attracted to each other based on common group membership *and* based on each other's distinctive traits.

Group cohesiveness. The above distinction is important to analyze group cohesiveness. Traditionally, group cohesiveness was measured by the number of friendships and other interpersonal relationships among members (e.g., Lott & Lott, 1955; Festinger, Schachter & Back, 1950). In contrast, Hogg (e.g., 1987; 1992) argues that group cohesiveness is generated by attraction to the group as a whole, not by interpersonal attraction among members. Group cohesiveness is a group propriety, which is related with social identity. This view explains why large social groups as nations, parties or religious sects may also be evaluated in terms of cohesiveness.

Empirical evidence. Hogg and Turner (1985a) provided empirical support for the distinction between interpersonal and social attraction. The authors categorized or not participants allegedly according to their similarity with other members in personality traits that were mostly attractive or unattractive. The results showed that, independently of the attractiveness of the traits that defined the groups, participants were more attracted to in-group than to out-group members. Most significantly, categorized participants considered themselves similar to in-group attractive members but not to equivalent out-group attractive members, whereas non-categorized participants considered themselves similar to both in-group and out-group attractive members (cf. also, Hogg, Cooper-Shaw & Holzworth, 1993; Hogg & Hardie, 991; Hogg, Hardie & Reynolds, 1995).

In sum, social attraction is motivated by a salient common group membership leading to the depersonalized perception of self and others. People feel attracted to each other because they have a general feeling of sharing the same social and moral standards, the same assumptions about social reality, about the values that should rule one's life, etc. Social attraction is thus an outcome of self-categorization and of depersonalized perception of self and others. We shall elaborate more on social attraction in Chapter 4 while addressing the issue of intragroup differentiation.

Motives for Self-Categorization

What motives lead individuals to self-categorize? As seen above, individuals attempt to achieve positive social differentiation of the in-group as regards out-groups (Tajfel, 1978). Individuals strive for a clear perception of the in-group boundaries *and* for a positive intergroup comparison. The motives invoked for self-categorization are thus associated with the need for self-enhancement (e.g., Abrams & Hogg, 1988; Hogg & Abrams, 1990) and with the need for uncertainty reduction (e.g., Hogg & Abrams, 1993; Hogg, 2000). Brewer (1991; 1993) proposes another relevant motive for self-categorization the achievement of optimal distinctiveness.

Self-esteem motive. The first hypothesis raised was the motivation for positive self-esteem. According to Abrams and Hogg (1988; Hogg & Abrams, 1990), the self-esteem hypothesis has two corollaries: Low self-esteem can motivate people to identify with groups that raise self-esteem, or it can improve the evaluation of groups to which they belong. However, the relationship between self-esteem and self-categorization or social identification has proven difficult to establish empirically (Abrams & Hogg, 1988; Hogg & Abrams, 1990, 1993). Social identification is only one of the ways in which positive self-esteem can be achieved and despite the attempts to operationalized self-esteem associated with the collective self separated from self-esteem associated with the personal self (e.g., Crocker & Luhtanen, 1990), it has been difficult to measure the distinct impact of collective self-esteem in self-categorization (e.g., Rubin & Hewstone, 1998).

Uncertainty Reduction Motive

The uncertainty reduction hypothesis refers to the epistemic need for perceptual clarity. This need refers to subjective certainty, about one's perceptions and beliefs (cf. Festinger, 1950; 1954) and about one's position in the social environment (Tajfel & Turner, 1979). Certainty about ourselves in each situation enables us to know how to think, feel and behave. According to the uncertainty-reduction model (Hogg, 2000; 2001; Grieve & Hogg, 1999; Hogg & Mullin, 1999), self-categorization and depersonalization entails that "individuality and concomitant unshared cognitions, feelings, and behaviors are replaced by an in-group prototype that prescribes shared

cognitions, feelings, and behaviors" (p. 92). Through self-categorization, we become certain about our cognitions, feelings, and behaviors.

Empirical evidence. As evidence for the uncertainty reduction hypothesis, Grieve and Hogg (1999) found that participants reported less uncertainty, than in the pre-test, when they were categorized into minimal groups and allocating points to in-group and out-group members in Tajfel and colleagues' (1971) matrices. Participants in the non-categorized condition did not show such uncertainty reduction (cf. also, Mullin & Hogg, 1998).

Hogg and Mullin (1999) further manipulated uncertainty orthogonally to topic relevance and categorization. Specifically, participants were asked to give their opinion about topics highly relevant to the self such as, career, family and success, or low relevant to the self such as, using always the same toothpaste brand, and were given the idea that those opinions could be either more or less correct or subjective. The authors found higher in-group identification in high importance than low importance condition and more need for in-group validation of their opinions in high uncertainty than in low uncertainty conditions, particularly, in high importance conditions.

Optimal Distinctiveness Motive

Brewer (1991; 1993) proposes that individuals identify with groups because they wish to avoid isolation and stigmatization, and to maintain social ties with other individuals (the need for assimilation and belonging). However, they also wish to maintain some level of distinctiveness to avoid anonymity and depersonalization (the need for differentiation; e.g., Codol, 1984; Snyder & Fromkin, 1980). The existence of these two opposed needs of self-assimilation to and differentiation from others determines that individuals will identify more with groups that satisfy both needs in simultaneous. Optimal social identity corresponds to a balance between inclusion and differentiation, where the need for assimilation is satisfied within the group, and the need for distinctiveness is satisfied through intergroup comparisons. A corollary of this hypothesis is that optimal distinctiveness is achieved in mid-size groups but not in large or in too small groups. As evidence for this idea, Lau (1989) obtained a U-shaped relationship between the demographic density of Black individuals in the United States, and their reported identification with the Black race. In parts of the country where the

number of Afro-Americans is very low, a raise of density is associated with an increase of identification. Conversely, where density of Afro-Americans is very high, the increase of density corresponds to a decrease of identification.

Conclusion

In this chapter, we briefly reviewed Social Identity Theory and Self-Categorization Theory. Both theories issue from a metatheoretical background that stresses the social dimension of cognitive and emotional processes. A basic distinction is established between group and interpersonal behavior ensuing from social and personal identities, respectively.

The categorized perception of the social environment, the comparisons between social categories, and the resulting evaluations and associated emotions are the underpinnings of social identities. Social identities are as important as personal identities in determining individuals' attitudes, judgments, and behavior.

Social identities, or social self-categories, are activated in a dynamic interaction between the individual's and contextual characteristics. The self-concept is thus a flexible structure that shifts from personal to social self-categories. Depersonalization is the perceptual outcome of the shift to a social self-concept. This shift implicates that thinking, feeling, and judging are regulated against the defining standards and norms of the salient in-group, the group prototype. Social self-categorization implies that individuals are more attracted to in-group than to out-group members independently of their attractiveness at an interpersonal level.

The motives for social identification are likely to be related to different individual needs, such as the need for a clear perception of reality and the reduction of uncertainty about it, the need for associated positive self-esteem and the balance between the needs for assimilation and individuality.

The social identity approach, including Social Identity Theory and Self-Categorization Theory, presents an alternative view on several phenomena, among which, group influence, the subject of the next chapter.

CHAPTER 2

GROUP INFLUENCE AND CONFORMITY

In this chapter, we shall focus first on early contributes and on the traditional approach to group influence. After a perspective on the metatheoretical underpinnings of the traditional approach, we shall focus on the social identity perspective on the topic.

The literature on group influence has two major references: the studies of Sherif (1936) on the formation of social norms and Asch's (1951) study on conformity. Festinger's (1950) theory of Informal Social Communication is among the former attempts to theorize on group influence. These early references were the basis for Deutsch and Gerard's (1955) distinction between informational and normative influences, an important model in the traditional literature on group influence. Two other fields of research are central in group influence literature: minority influence and group polarization. We shall begin by briefly reviewing these theories and research.

Sherif's (1936) Studies on the Formation of Norms

In his studies, Sherif (1936) investigates the processes through which norms become an objective reference for individuals' perceptions and judgments.

> "Once frames of reference are established and incorporated in the individual, they enter as important factors to determine or modify his reactions to the situations that he will face later – social, and even non social at times, especially if the stimulus field is not well structured." (Sherif, 1936, p. 86)

Sherif (1936) used the autokinetic effect, a perceptual illusion in which a stationary light appears to move erratically in the darkness. In this situation, there is no objective reference to estimate the light movement. In several sessions occurring in successive days, participants were asked to make, alone, an estimate of the movement from the point in which the light appeared to the point in which it disappeared. The results showed that participants developed a standard estimate, a *personal norm,* and that their subsequent judgments oscillated around this norm. As Sherif remarks, when no references are available to base their judgments, individuals establish their own

standards, “the general psychological tendency to experience things in relation to some frame of reference” (p. 81).

In subsequent group sessions, participants made their judgments in groups of two or three. The results showed that participants’ estimates gradually converged to a common estimate, the *group norm*, in a process of reciprocal influence that evolved with the participants’ interactions. For the other half of participants, the order of sessions was reversed. First, they were included in groups and then, in subsequent sessions, they made their judgments alone. These participants quickly developed a group norm, which was kept, with negligible variations, in the subsequent individual sessions.

Variations of the procedure. The variations to Sherif’s paradigmatic study are innumerous attempting to check several aspects of group influence. We shall mention only a few that are representative for the present purposes. For instance, Sherif (1936) asked a confederate to maintained his position in the exchange of estimates. Because of his reluctance to change, the other participants gradually converged to the confederate’s estimate indicating that the group norm is not the simple average of individuals’ personal norms. Other variations tested the endurance of the group norms. Rohrer, Baron, Hoffman and Swander (1954; see also Bovard, 1948) replicated Sherif’s (1936) procedure in two moments, the latter one year after the former. In the second moment, judgments were always made individually. The results showed that group norms had preponderance over personal norms on these later judgments. In another variation of the procedure, McNeil and Sherif (1976) showed that the persistence of a norm depends on its arbitrariness. In group sessions, participants made their estimates with three confederates that made either moderate or extreme estimates. Participants in the extreme estimates condition, initially conformed to the group but gradually, abandoned the group norm, moderating their estimates.

In sum, Sherif and colleagues’ studies revealed that social phenomena, such as norms, have characteristics of their own that cannot be explained by individual processes. Norms are the product of social interaction rather than the average of individual opinions. Some individual have more influence than others do; however to be influential, their opinions have to be considered acceptable by the group. Norms have

lasting effects on the members' opinions because, as Sherif puts it, they "[…] have a reality of their own, independent of this or that individual member of society; and this immediate reality may be verified easily by the resistance one meets when he deviates considerably from the well-established norms of his time" (1936, p. 58).

Asch's (1951) Studies on Conformity

In Asch's (1951) experiments, participants were placed in a situation in which the group consensus differed from their own perceptions aiming to "study the social and personal conditions leading individuals to resist or submit to collective pressures when these are contrary to reality" (Asch, 1951, p. 231). Specifically, the group consisting of a naïve participant and seven confederates was instructed to compare a stimulus line with three other lines with different length in 18 trials. Only one line had the same length as the stimulus line. Participants were told to voice their judgments of which line of the set of three had the same length as the stimulus line, in order so that the naïve participant responded always in last. Confederates were instructed to emit unanimously erroneous judgments. Conformity was measured by the amount of participant's incorrect judgments. In the end of the session, participants were interviewed, checking on their opinion about the reasons for yielding or not to the group. In a control condition, participants made their judgments alone.

The results showed that whereas in the control condition, participants gave, in average, less than one error in all trials, in the group condition, 32% of participants made judgments consistent with the majority's erroneous judgments in half or more than half of trials. One fourth of participants made correct judgments in all trials.

The post-hoc interviews revealed that participants conformed for different reasons. A small number of participants reported, what was called *perceptive deformation*, i.e., they perceived the group's consensus as correct. The majority of conformers reported lack of confidence on their own judgments as regards the group consensus (*judgment deformation*). The remaining conformers reported that they were conscious that they were responding erroneously but could not bear to appear different from the group (*action deformation*).

Experimental variations. Asch (1956) conducted several variations concerning the support to non-conformity. In one case, the author instructed one confederate placed in the fourth position of the group to respond always correctly. The frequency of errors decreased to 5.5%. In another variation, one confederate was instructed to respond first correctly and, in the middle of the session, to join the group consensus. The errors' proportion rose to 28.5%. In a third variation, a confederate was instructed to leave the majority, near the end of the experiment, and start making correct judgments. Conformity decreased to 8.7%. In a fourth variation, one confederate was instructed to respond in an intermediate point between the majority's judgments and correct judgments. Errors' frequency decreased and most errors were moderate. In another condition of the experiment, in which confederates made extreme errors unanimously, most errors were extreme.

Asch (1956) also varied the size of the majority to 2, 3, 4, 8, 16 confederates. With two confederates, conformity rises to 12.8%. Majorities of 4, 8 and 16 did not induce conformity more than a majority of 3. In another variation, conditions were reversed. With one confederate only, conformity is negligible. One confederate was instructed to give extreme errors in a majority of 16 naïve participants. The majority rejected and mocked at his responses.

Asch's (1951) seminal study is paradigmatic in conformity research and originated innumerous variations. The reinterpretation of the results (cf. Moscovici & Faucheux, 1972) originated another line of research, minority influence, which we shall address below in the text.

Theory of Informal Social Communication

Festinger's (1950) theory of Informal Social Communication is a leading theory of group influence and an important reference of the traditional approach. The theory focuses on the pressures the group exerts on its members towards uniformity of opinions within the group. Pressures towards uniformity have two functions: to ascertain social reality and to facilitate group locomotion.

Social Reality

Festinger (1950) claims that individuals search validity for their opinions, beliefs and attitudes. *Subjective validity*, that is, confidence in one's opinions, beliefs and attitudes, is obtained in different ways depending on the reality about which they are formed. The author proposes a continuum of opinions and beliefs varying from complete to none dependence on others. In the *physical reality* pole of the continuum, beliefs are validated by individuals' own means and they are not subject to social influence. On the *social reality* pole of the continuum, the subjective validity of beliefs, attitudes or opinions is dependent on the agreement with others: "An opinion, a belief, an attitude is 'correct', 'valid', and 'proper' to the extent that it is anchored in a group of people with similar beliefs, opinions and attitudes" (Festinger, 1950, p. 119).

There are two fundamental aspects in Festinger's (1950) theory, concerning the function of groups in the validation of social reality. First, the validation of beliefs on social reality is obtained only among similar individuals, the individual's reference group: "It is clearly not necessary for the validity of someone's opinion that everyone else in the world think the way he does. It is only necessary that the members of that group to which he refers this opinion or attitude think the way he does." (pp. 119-120). Second, the dependence on the group decreases as the possibility of the physical reality test increases. The more tests of physical reality the individual can make, the less important is the agreement with similar others to validate beliefs.

Group Locomotion

Festinger (1950) hypothesizes that the pressures towards uniformity operate similarly, independent of their origin: social reality or group locomotion. The function of group locomotion refers to the idea that pressures towards uniformity are motivated by the perception that uniformity is indispensable for the group to achieve some goal (group locomotion means the group movement towards some goal). The author hypothesizes that the magnitude of group pressures increases as the members (a) consider that the movement of the group will be facilitated by uniformity and that (b) they are interdependent to reach that goal.

The Achievement of Uniformity

Festinger (1950) considers that uniformity may be achieved by three ways: the change of the deviant's opinion, the change of the group's opinion, and the rejection of the deviant. However, the theory concerns mainly the achievement of group consensus through the coercion exerted on deviants to achieve uniformity of opinions. Pressures towards uniformity increase with (1) the degree of discrepancy or disagreement within the group, (2) the degree of relevance of the discrepancy to the functioning of the group, and (3) the group cohesiveness. The latter is an essential aspect of Festinger's (1950) theory of group influence. The author hypothesizes that the higher conformity found in cohesive groups relatively to non-cohesive groups is the result of stronger pressures to uniformity. In their field study, Festinger, Schachter and Back (1950) obtained supporting evidence for this assumption. The authors measured the cohesiveness of each building occupants and their agreement with a recently formed local Association. Each occupant was questioned about the three persons with whom s/he had more contact. This information was used to make a cohesiveness index of each building, that is, the attraction to members of their own building was compared with the attraction to members of other buildings. The attitudes towards the Association were relatively homogeneous within each building but differed between buildings. The results showed a close relationship between the building's cohesiveness and the favorability towards the Association. The authors also measured the proportion of deviant members defined as occupants that did not participated in the building collective activities and had negative attitudes towards the Association. The cohesiveness index was negatively correlated with the proportion of deviants.

Back (1951) established the causal relationship between conformity to the group norm and group cohesiveness by manipulating the latter variable in laboratory groups. The author told pairs of unacquainted participants that they had been competent or non-competent in the performance of a previous task, that they would receive or not a bonus for a good story, or that they were similar to or dissimilar from each other, to induce pairs' cohesiveness or non-cohesiveness, respectively, by three different means. Before forming the pairs, each participant had written a story about three characters that, without participants' knowledge, varied slightly between participants. The pairs then compared and discussed their stories and finally wrote their final version. The influence

within the pairs was measured by the amount of verbal interaction and by the changes from the first to the final version of the stories. The results showed that there were more mutual influences and changes on their initial stories in cohesive than in non-cohesive pairs. Members of non-cohesive pairs resisted more to partners' attempt of influence. The three forms of inducing cohesiveness did not produced significantly different results but led to slightly different patterns of interaction.

Moscovici's (1976) critical analysis. Several of Festinger's (1950) postulates were later questioned. For instance, Moscovici (1976; cf. also, Turner, 1991) argues that the distinction between two realities, physical and social, entails the assumption that the individual means to obtain subjective validity has the preponderance over the social means; other's opinions are but a substitute to apprehend reality when individual means fail. The notion of social reality also conveys the idea that individuals *depend* on groups to validate their beliefs. The idea of informational dependence (see also, Jones & Gerard, 1967), drawing a clear distinction between two entities, individuals and groups, reinforces the individualistic standpoint of the theory (cf. also Turner, 1991, for a similar analysis). Moscovici (1976) also remarks that social influence, conceived as pressures on deviants towards the group opinion, conveys the idea that the sole goal of social influence is to reinforce the majority beliefs. As seen below, the author argues that social influence, when exerted by minorities, may also function as a mechanism of social innovation.

We briefly reviewed Sherif's (1936), Asch's (1951) pioneering experiments and Festinger's (1950) theory of group influence. We shall now review Deutsch and Gerard's (1955) model, which provided the conceptual bases for the traditional distinction between components or forms of group influence.

The Distinction between Normative and Informational Influences

An influential development in the theory of group influence was Deutsch and Gerard's (1955) model. The authors distinguish two forms of group influence, informational and normative influences. According to the authors, despite their co-occurrence, the two forms are conceptually separable. For instance, the influence operating in Sherif's (1936) experiments is essentially of the informational kind,

whereas the influence operating in Asch's (1951) experiments is essential of the normative kind.

Normative influence is defined as the result of the tendency to conform to the others' expectations. Conforming to others' expectations induces others to feel positively about us. In this process, conformity is motivated by the desire to please others, to gain social approval and avoid rejection. It is the type of conformity more associated with groups. It increases with the interdependence of members to achieve some common goal and with others' surveillance.

Informational influence occurs when it is considered evidence about objective reality. Individuals use others as a measuring tool that produces reliable information about reality (similar to Festinger's test of social reality). In this process, the motivation is to form an accurate view about reality and to act effectively. Conformity increases with uncertainty about one's ability to perceive correctly the stimulus or with the ambiguity of the stimulus per se. Opposite to normative influence, it has private acceptance and is internalized. In Deutsch & Gerard's (1955) model, informational influence is considered the true influence.

Deutsch and Gerard's (1955) Experiment

To test their theoretical distinction, Deutsch and Gerard (1955) designed a series of variations to the Asch's (1951) experimental paradigm. The first hypothesis was that conformity would increase when participants strove for a common goal in competition with other groups (*group* condition), as compared to when there were no common goal and competition context (*non-group* condition). The second hypothesis was that conformity would increase when three confederates were present (*public* condition), as compared to when participants were isolated (*anonymous* condition). The third hypothesis was that conformity would increase when the stimulus lines were removed before the presentation of the critical line (*memory* condition), as compared to when stimulus and critical line were presented in simultaneous (*visual* condition).

The results confirmed the hypotheses. The *group* vs. *non-group* result was attributed to the fact that a common goal enhances the cohesiveness of the group and consequently increases the importance of the individual's association with the group.

The *public* vs. *anonymous* result was attributed to the physical presence of other respondents in public conditions acting as a pressure to conform. The third *memory* vs. *visual* result was explained by uncertainty. In the two former results, normative influences predominated whereas in the latter result, informational influence predominated.

Limitations of the experiment. As Turner (1991) points out, the evidence obtained by Deutsch and Gerard (1955) do not actually support the assumptions of their model. What is obtained is more or less conformity to group consensus but there is no evidence for the underlying motivations or the kind of conformity produced in the different contexts. For instance, the model assumes that in public and group contexts individuals conform because they are motivated to meet others' expectations whereas in uncertain contexts they conform because they are motivated to achieve certainty. However, the results do not inform about the underlying motivations of the participants. The model also assumes that conformity in group or in public contexts is temporary whereas conformity under uncertainty has a more lasting effect. However, results do not inform about the different impact of the group in these conditions.

Furthermore, some of the results are inconsistent with the model. For instance, the results showing that the difference between errors in the memory and in the visual condition increased from the group to the aggregate conditions, even if responding anonymously, indicates that normative influences were also operative when the participants were highly uncertain about the stimuli and even if they did not feel the pressures of the group. Deutsch and Gerard (1955) also found that the error rate of participants in their anonymous condition was higher than the error rate of participants in a control condition, in which participants did not previously hear the confederates' incorrect consensus. This result suggests that participants privately accepted the group's information even when this information was incorrect. This result emerged even though no additional information was presented that could enhance the credibility of the confederates beside the one spontaneously ascribed to them by participants. These aspects reveal the inconsistencies between the model proposed and the evidence presented.

Minority Influence

Another influential theory of group influence was that of minority influence. The minority influence theory (cf. Moscovici, 1976) challenged the dominant views on group influence. According to the dominant model, represented on Asch's (1951) experimental paradigm and Festinger's (1950) theory, individuals tend to conform to majorities, which provide large consensus and reduce uncertainty. This notion entails that the function of group norms is primarily the maintenance of the status quo. Minority influence research showed that the influence of groups is also responsible for social change.

According to the theory of minority influence, whereas the influence of majority affects only public behavior, dubbed *direct influence* or compliance, the influence of minorities affects individuals' core beliefs more deeply, extending its effect to private thoughts, a form influence dubbed *indirect influence* or conversion (e.g., Moscovici, 1980; 1985). In their classic experiment, Moscovici, Lage and Naffrechoux (1969) provided evidence for this distinction. The authors asked participants to judge the color of a series of slides showing disks of blue color. Participants were included in groups of six with two confederates that, on the critical trials, consistently named "green" the color of the disks. Results show that, contrary to the control group where only 0.25% of the responses were "green" (only one in average), in the experimental group, 8.42 % of the responses were green (more than four responses in average). About one third of the participants changed their responses in nearly half of the groups, suggesting that the proportion of individuals influenced by minorities is similar to that of majorities (cf. Asch, 1951).

However, the above results represented the direct influence of the minority. To assess its indirect influence, Moscovici, Lage and Naffrechoux (1969) used an indirect method in the second part of their experiment. In a allegedly different experiment, participants were asked to repeatedly judge in private the green or blue color of color disks ranging from clearly blue to clearly green. Given that the judgmental task was related but not the same as the task where influence was exerted, the effects on the responses could be attributed to indirect influence. The results showed that the threshold of green color perception was higher in the experimental than in the control group. That

is, participants that were exposed to the minority opinion were more likely to name green the intermediary blue-green disks than participants that were not exposed to the minority opinion. Moreover, participants that did not yield to the minority's direct influence were more likely to yield to its indirect influence than those that had yielded to the minority's direct influence.

Minority influence: Normative or informational? The theory is not clear on whether minority influence entails normative or informational influence. For instance, Mugny and Papastamou (1980) presented evidence for the idea that when the majority members' attention is focused on the (minority) source's characteristics, influence decreases as regards to when they are focused only in their arguments. In addition, evidence suggests that consistent minorities exert more influence than inconsistent minorities (e.g., Mugny, 1982). As Maass and Clark (1984) argue, consistent positions are associated with informational influence because they convey the impression of confidence and certainty leading to the attributions of credibility and competence to the source. Together, these results indicate that minorities exert mainly informational influence.

However, other research shows that the perception of minority as holding idiosyncratic opinions decreases substantially their persuasiveness (cf. Papastamou, 1986; Moscovici & Lage, 1976). These results indicate that minority influence depends also on the perception of a consensual point of view, and consequently, of a normative opinion (cf. Mugny & Pérez, 1991). As Moscovici (1976) put it, minority voices "call attention to the existence of a coherent point of view, to something powerful and, of course, to a norm. In a word, it forcefully indicates the nomic quality of an individual or group" (p. 139).

The processing of indirect influence. According to the theory (cf. Moscovici & Personnaz, 1991), minorities' indirect influence results from a combination of systematic information processing and unintentional acceptance. Whereas majorities' sources are, from the outset, validated by consensus and do not motivate a systematic analysis of their arguments and opinions, minorities, because they do not benefit from consensual validation, induce a thorough analysis of the message content. According to Moscovici and Personnaz (1991), the cognitive conflict generated by the influential

message, is solved differently depending on whether the source is a majority or a minority. In the case of a majority source, individuals solve the conflict immediately by complying with the source. When the source is a minority, no such solution is available because the source has no normative impact over receivers. Consequently, individuals feel uncertain and unable to decide whether to yield or not to the source. According to the authors, the conflict is solved unconsciously by adopting the source's opinion. As Moscovici (1980) put it,

> "The more intense the pressure, the greater the effects obtained [by the majority] on the direct, overt level, in short, on the level of the most superficial acceptance, and [by the minority] on the indirect, latent level, leading on the whole to an acceptance that may be so deep that the subject is not even aware of it." (p. 216)

Tests to the Conversion Model

The assumptions about the difference nature of minority influence as regards majority influence have not obtained consistent empirical support (e.g., Doms & van Avermaet, 1980; 1985; Kruglansky & Mackie, 1990; Mackie, 1987; Martin, 1995, 1998; Sorrentino, King & Leo, 1980; Wolf, 1985). Both majorities and minorities seem to be able, in certain circumstances, to exert their influence through normative *and* informational influences. In fact, several models emphasize the similarities rather than the differences between minority and majority influences and reject the idea of two modes of processing group influence (cf. Latané & Wolf, 1981; Tanford & Penrod, 1984; Kruglansky & Mackie, 1990). Recently, Wood, Lundgren, Ouellete, Busceme and Blackstone (1994) used different methods to meta-analyze minority vs. majority studies, including direct and indirect methods of assessing private acceptance. The authors concluded that whereas according to some methods, majority and minority sources generated approximately the same amount of private indirect change, with other methods of analysis, minority influence generated substantially more private indirect change than majority influence, suggesting that the effect "proved fragile and easily muted by a variety of not well-understood moderating factors" (Wood et al, 1994, p.336).

Despite the above-mentioned theoretical problems, research on minority influence showed that the influence of groups is more complex than was traditionally depicted (cf. Levine, 1980; Wood, 1999). It challenged the traditional assumption that individuals are motivated to reduce uncertainty about reality at all costs even if pressing deviant members towards the group consensus (Festinger, 1950).

Another phenomenon associated with the influence of groups is group polarization. Consistent with the distinction between two processes of group influence, the traditional explanations of group polarization emphasize either the normative or the informational aspects of conformity.

Group Polarization

Group polarization can be defined as the tendency for group discussion to strengthen the prevailing response tendency within a group. More precisely, if we compare individuals' opinions after group discussion to their opinions before group discussion, "the average postgroup response will tend to be more extreme in the same direction as the average of the pregroup responses" (Myers & Lamm, 1976, p. 603). Polarization increases when there is a need for the group to reach a consensus, as compared to when there is no need for consensus, and to when people are merely exposed to others' opinions. The magnitude of polarization is negligible when there is no initial dominant position, i.e., when the average opinion is neither negative nor positive. As such, the direction and magnitude of the shift may be predicted by the prediscussion average. In any case, the prediscussion and postdiscussion average opinions are generally highly correlated (cf. Myers, 1982).

Value theory. One of the traditional explanations of group polarization, called *value theory* (cf. Turner, 1991), emphasizes the social value ascribed to one pole over the other, so that people polarize in the more socially desirable direction. For instance, Baron and Roper (1976), in an experiment using Sherif's (1936) paradigm, found larger estimations when the experimenter previously defined large estimations as a sign of intelligence. The model stresses the social comparison nature of group polarization. Individuals adopt moderate initial opinions because they underestimate the positions of other members of the group. After finding that others hold more extreme positions than their own, they polarize in order to recover their personal self-esteem.

Persuasive arguments theory. Another model of group polarization, the *persuasive arguments theory*, explains the phenomenon through informational processes (e.g., Burnstein & Vinokur, 1973; 1975; 1977). The basic assumption is that when asked to express their opinion in some issue, individuals draw on *pro* and *con* arguments to form their opinion. *Pro* and *con* arguments derive from a cultural pool shared by most individuals. The more arguments favor one direction, the more opinions shift in that direction. Group discussion results in extreme opinions because individuals exchange their respective arguments and reinforce the validity of their initial opinions. For instance, Burnstein and Vinokur (1975) found that individuals polarized only when they had not been experimentally distracted and could think on others' arguments. The authors argue that distraction prevented the possibility of considering the new arguments as a reinforcement of their initial position. The model also focus on the persuasive characteristics of the arguments - the more the arguments are original, consistent and valid, the larger the polarization they produce.

Problems in the traditional approaches. Both models of group polarization have not obtained clear empirical support. The two alternative explanations of the phenomenon have invalidated each other because evidence for one model generally invalidates the other model. For instance, Burnstein and Vinokur (1973) obtained polarization in a situation where social comparison was prevented: participants polarized after arguing, by request of the experimenter, against their own initial positions. Also, merely reading the arguments substituted group discussion in polarizing participants' initial positions. In turn, Blascovich, Ginsburg and Veach (1975) showed that the exchange of arguments is not necessary for group polarization. The authors asked participants to make 20 successive bets of *blackjack*, alone or in group. In the group condition, they could discuss or not discuss the bets after each hand. There was a shift to riskier bets in the group relative to the individual conditions, but the extent of the risk was not higher from the discussion to the non-discussion condition. Group discussion added nothing to the comparison between own and others bets.

Theoretical critiques. The two models have also been contested in theoretical grounds. In what regards value theory, one problem is that polarization is considered an individual strategy of self-presentation and the interactive context of the group is not accounted for. As Whetherell (1987) contends, the ascription of one of the two opposed

positions is seen as issuing from abstract social values rather than an emergent norm of the group. In what regards persuasive arguments theory, the assumptions about arguments' persuasiveness are conceptually biased. Persuasiveness is defined as an inherent quality of the arguments rather than an attribute obtained in the context of the group. As Whetherell (1987) remarks, "Properties of arguments such as validity, triviality, or even originality do not exist in the abstract […] A message from a group one supports and identifies with will be perceived quite differently than similar messages from a rival out-group to which one is strongly opposed" (p. 148).

The explanations of group polarization are centered either in individual strategies to convey a positive self-image or in the informational influence of others in reinforcing a personal opinion. However, the group context in which polarization occurs is never accounted for in these explanations. Moreover, the evidence presented suggests the operation of a single process of influence encompassing social comparison and informational aspects.

We shall now focus on commonalties of the above reviewed perspectives on group influence, and address some of the limitations of the traditional approach as a whole.

The Traditional Model of Social Influence

As seen above, the distinction of different forms of group influence has been a prevailing tendency in traditional research (e.g., Cialdini & Trost, 1998; Wood, 1999). This tendency is visible in the explanation of conformity, minority influence or group polarization phenomena. Turner (1991) dubbed this theoretical tradition, 'the dual-process model'[2].

The dual-process model. Deutsch and Gerard (1955) distinction between processes of conformity is paradigmatic of the dual-process model. In their model,

[2] The dual-process model is congruent with other theories: Kelley's (1952) distinction between the comparative and normative functions of reference groups; Thibaut and Strickland's (1956) distinction between *task set* where others' are 'mediators of fact' and *group set* where the individual is motivated to achieve and maintain membership; Jones and Gerard's (1967) distinction between *informational dependence* leading to *comparative appraisal* (i.e., self-evaluation through comparison with others), and *outcome dependence* leading to *reflected appraisal* (i.e., inferences about others evaluate the self based on their reactions).

informational influence is considered true influence leading to private acceptance and internalization, and to lasting opinion and attitude change. This influence is informational in essence: messages are influential to the extent that they provide evidence on reality; the others are informative to the extent that they are reliable and credible sources; the underlying motive is the desire to be correct and attain subjective validity to beliefs.

The process has the following causal structure: the ambiguous nature of the stimulus makes it difficult to do direct tests to physical reality leading to subjective uncertainty; uncertainty generates dependence on others to obtain valid information; informational dependence causes receptiveness to influence, people conform to other's opinions considered as evidence about reality (e.g., Festinger, 1950; Jones & Gerard, 1967). The classic examples are Sherif's (1936) studies. These studies represent the typical situation of informational influence leading to internalization (cf. Allen, 1965).

Normative influence corresponds to the type of influence, in which individuals conform in appearance, but not necessarily in private, to others' expectations. It is, specifically, a group process, of conformity to social pressures, based on others' power to reward and punish. It is motivated by a desire of acceptance and approval. The individual is more concerned with the consequences of their actions in terms of how the group will react, than with the content of the action per se; it is 'conformity' in the sense of submission to the group pressure but, in essence, it is tactic and instrumental more than irrational and emotional (e.g., Deutsch & Gerard, 1955; Thibault & Strickland, 1956). Some specific 'conformers' may have an irrational and emotional urge to belong, but in general, group attraction is based on interdependence to achieve shared goals. Conformity is assumed functional for the group to achieve its goals.

The causal structure initiates in others' power to reward and punish (for instance, accepting or rejecting the individual in the group), which generates the need of social approval and the fear to be different; therefore, under conditions of surveillance, in which, one may be identified and being held liable for non-conformity, the individual tends to meet the expectations, producing conformity to the group norm; dependence on others, gives them the power to control the individual's public behavior (e.g., Jones & Gerard, 1967; Kelman, 1958). The base of influence is not the need to validate beliefs,

but a social relation of power and the need to be socially accepted. The classic example is Asch's (1951) conformity paradigm, in which participants give erroneous responses in order to agree with the group.

Multi-process models. The dual-process model expands to three or more components. Kelman (1958) distinguishes three influence processes: *compliance*, which is based on others' power to mediate rewards and costs; *identification*, which is based in attraction to others and may lead to acceptance of others' values, provided the relationship is maintained; *internalization*, which corresponds to informational influence of the dual-process model. French and Raven (1959) distinguish five influence processes, reflecting different forms of dependence and power: *power to reward* (capacity to mediate the distribution of positive and negative outcomes), *coercive power* (capacity to apply punishments to those that not obey to requirements), *reference power* (influence based in identification, attraction or respect for the power holder), *expert power* (power deriving from the assumption that the power holder possesses superior capacity and knowledge) and *legitimate power* (authority deriving from the power holder legitimate right to demand obedience).

The differences between dual-process and multi-process models relate to the degree of specification of the types of dependence and to the characteristics of the influence process rather than to the conception of influence. All models see influence as a process involving power and dependence and all models make distinctions between normative and informational processes. The general tendency is to distinguish between strictly social (normative) and cognitive (informational) motives.

Objections to the Traditional Model of Influence

Normative and informational processes are rarely separable in empirical results. Several variables, such as, group interdependence, cohesiveness, and unanimity, exert their effects in conformity by both processes. The first type of objections to the traditional model is metatheoretical. The distinction between 'normative' and 'informational' influences, is individualistic by nature because it tends to equate the former as group pressure, compliance or non-informative conformity (a passive and irrational process) and implies a continuous 'conformity conflict' between the (correct) individual and the (incorrect) group (cf. Turner, 1991). Informational influence, similar

to Festinger's (1950) test of social reality, is seen as a secondary process, a surrogate to individual tests to reality. Contrarily to Sherif's (1936) approach, influence is not seen as a group process, but the average of individual movements to each other, in the exchange of their private knowledge. In sum, individual perception is seen as primary, valid, and normal, whereas social influence is indirect, coercive and useful only when the former fails.

Second, for Turner (1991), the model has failed in (1) dealing with minority influence, (2) providing a simple explanation to group polarization, and (3) accounting for some results of Asch's (1951) paradigm of conformity.

On the first aspect, the traditional model bases on the principle that influence was always exerted by the majority. For Moscovici & Faucheux (1972; cf. also, Moscovici, 1976), the traditional model suffers from a conformist bias adopting the majority point of view, and assuming that all conformity implies conformity or deviance. The function of social influence is to shape the individual to the social system, to its roles and norms. This model is unable to explain social change and the influence of marginal groups, subversive elites or oppressed minorities.

As for the second aspect, the traditional conception of group norm as the average of the individual opinions is irreconcilable with the phenomenon of group polarization. Indeed, evidence consistently shows that the group norm is often *more* extreme than the average of individual opinions in the same direction (Myers & Lamm, 1976). To explain the phenomenon, traditional theories have argued either for the existence of socially valued positions (e.g., Baron & Roper, 1976), or for the existence of a cultural pool of pro and con arguments (e.g., Burnstein & Vinokur, 1977). However, none of the two models is able to account for the phenomenon in all its dimensions.

Finally, concerning the third objection, Turner (1991) considers that Asch's (1951) paradigm refutes the hypothesis that subjective uncertainty reflects the ambiguity of stimuli. As the author argues, uncertainty arises from disagreement, or anticipated disagreement, with similar others (cf. also Moscovici, 1976). Stimulus ambiguity produces subjective uncertainty, which leads to informational dependence from others, to mutual influence and to the formation of shared norms. Perceptual

ambiguity originates uncertainty to the extent that individuals expect similar others to perceive a stimulus as ambiguous as they do.

The Social Identity Approach to Social Influence

The concept of self-categorization allows a more simple and holistic explanation of social influence phenomena, such as conformity, minority influence and polarization. The Self-Categorization Theory approach to social influence phenomena is based on the idea that social interaction induces the formation of psychological groups.

Psychological group formation. For Self-Categorization Theory, the shift to a categorized perception of the social environment corresponds to the formation of psychological groups (cf. Turner, 1984). In the process of group formation, individuals change from personal to group behavior and relate to others not as unique individuals but as in-group or out-group members. Psychological group formation is in the origin of social relations rather than its consequence. Groups may emerge from social interactions but, this is not a necessary condition and in some circumstances, it may even not be sufficient (cf. Turner, 1984). In a social categorization perspective, the group is defined as "a collection of people that share the same social identification or define themselves in terms of the same social category membership" (Turner, 1984, p. 530). This definition applies to small, interactive groups of friends or work teams, as well as to large social categories such as nationalities, races, gender and age groups.

Referent Informational Influence

Self-categorization is the basic process of conformity and other social influence phenomena (cf. Turner, 1987; Hogg & Turner, 1987). Perceiving the self and others as members of their respective categories implies thinking and action in accordance with the attributes associated with the category. In Self-Categorization Theory, categories' attributes correspond to group norms in the same way as to perceive oneself as embodying the categories' attributes is equivalent to perceive oneself as a normative member of the in-group (cf. Hogg & Turner, 1987). This process is dubbed Referent Informational Influence and is described in three stages (cf. also Turner, 1982):

> "First, individuals categorize and define themselves as members of a distinct social category or assign themselves a social identity; second, they form

> or learn the stereotypic norms of that category. They ascertain that certain ways of behaving, perceiving and believing are criterial attributes of category membership; that certain appropriate, expected or desirable behaviors are used to define the category as distinct from other categories, and, finally, they assign these norms to themselves and thus their behavior becomes more normative (conformist) as their category membership becomes salient." (Hogg & Turner, 1987, p. 149)

The theory's central assumption is that agreement with identical others in relevant aspects in a given situation creates *subjective validity*,

> "Subjective validity (Festinger, 1950; Kelley, 1967), one's confidence in the objective validity of one's opinions, attitudes, beliefs, etc. (also termed subjective certainty, competence, correctness, etc.) is a direct function of the extent to which similar people (in relevant aspects) in the same stimulus situation are perceived, expected, or believed to agree with one's own response." (Turner, 1987, p. 73)

Conversely, *subjective uncertainty* "is a direct function of the extent to which similar others are not perceived, expected, or believed to respond similarly to oneself in the same stimulus situation" (Turner, 1987, p. 73). Through consensual validation, uncertainty about reality is reduced (cf. McGarty, Turner, Oakes & Haslam, 1993). Moreover, consensus tends to lead to external attributions and to the reification of beliefs (Kelley, 1967; cf. also, Asch, 1952; Moscovici, 1976; Sherif, 1936). As Hogg and Turner (1987) put it, "social consensus or agreement leads to the external attribution of the shared response – that is, it is perceived to reflect some external public invariance in the object of perception and is thus perceived to be 'objectively' valid, correct, appropriate, required, demanded, etc." (p. 149).

Conformity as Assimilation to In-Group Representations

Referent Informational Influence refers to conformity to a representation of the in-group rather than to actual behavior of in-group members.

> "While overt behavior provides cues concerning the normative tendency of a group or social category, the self-categorization process ensures that what

> one conforms to is a cognitive representation of the in-group norm, not necessarily the overt behavior of in-group members." (Hogg & Turner, 1987, p. 150)

Hogg and Turner (1987) examined the above idea adapting the procedure designed by Asch (1951). In their experiment, the stimuli were not lines whose relative length had to be judged but personality traits to be judged on social approval scales. In addition, participants were previously categorized into two groups purportedly based on similarity of answers to a previous test. Participants were informed that their group's judgments of the traits tended to the 'social approval' half of the scale, whereas the out-group tended to the 'social disapproval' half of the scale. This information intended to generate a distinctive group norm based on the participants' natural position because all stimuli traits were socially approved, as determined by a pre-test. Finally, participants were informed that they were answering together with four other individuals belonging either to the in-group or to the out-group depending on the conditions. Participants were isolated from the other members communicating (or not) with each other via the experimenter.

There were 12 trials in alternated public and private responses, i.e., participants heard the other participants' responses and thought their own was conveyed to them, in public trials, or did not receive feedback from the other participants and merely wrote down their own response, in private trials. Furthermore, the feedback of others in public trials was for half of the subjects consistent with the groups' norm (i.e., social approval in the in-group and social disapproval in the out-group), or inconsistent (i.e., social disapproval in the in-group and social approval in the out-group). The results showed that, in consistent conditions, participants' private judgments tended more to the social approval end of the scale when the source was the in-group than when it was the out-group. This result suggests that whereas in-group sources affect individuals' private opinions and judgments, out-group sources do not have such an effect. As Hogg and Turner (1987) put it, "the categorization of the self and others as identical, in the context of a stimulus situation which is perceived to be shared or identical, is precondition for effective social influence." (p. 148).

Prototypicality and influence. The idea that conformity is conformity to a representation of the group and not necessarily to group members' overt behavior implies that the more in-group members are representative the more they are influential (cf. below, Hogg, 2001a; van Knippenberg, Lossie & Wilke, 1994; van Knippenberg & Wilke, 1992).

> "The behavior of this individual or subgroup (the prototype) is by definition the most 'informative' in the double sense of both conveying the relevant or appropriate in-group norms, and thus confirming the valid, correct, appropriate behavior. The fundamental point is that information is persuasive (creates conformity) by virtue of being normative – the yardstick of valid and correct perception, judgment, opinion, etc." (Hogg & Turner, 1987, p. 150)

The influence of prototypical in-group members is based on the group distinct position that they stand for, close to other in-group members *and* distant from out-group members. Their influence, as prototypical members, thus entails an extremization of other members' opinions.

Informational and *Normative Nature of Group Influence*

The theory rejects the traditional distinction between normative and informational influences. Reality is socially constructed so that any information is, above all, intrinsically normative. In-group's norms, beliefs, points of view, etc. are simultaneously normative and informative because its influence is mediated by perceptions of adequacy and correction.

> "The theory explains the 'informational value' of a response (not the direct informational content but the degree to which that content is perceived to provide evidence about is attributed to reality, i.e., its perceived validity or correctness) as a direct reflection of the degree to which it is prototypical of an in-group consensus (i.e., a norm) and the subjectively 'normative' aspect of a response, the feeling that one ought to so act, as deriving from its perceived correctness." (Turner, 1987, p. 76)

A message is ascribed informational credit only when receiver and source perceive the situation similarly.

> "What is perceived as evidence about reality, as having informational value, is a function of the shared in-group norm, of the degree to which some response is attributed externally to an entity. In-group norms are assumed to be subjectively prescriptive, producive of the feeling that one ought to see, think, or act in a certain way, because they provide information that particular responses are valid and appropriate. The informational value/validity of a response and the degree to which it is in-group normative /consensual are hypothesized to be subjectively equivalent." (Turner & Oakes, 1989, p. 254)

Social Influence Phenomena from a Social Identity Perspective

Based on the above postulates, the Referent Informational Influence model presents a distinct interpretation of several social influence phenomena, such as, the impact of experts, compliance and public conformity, minority influence or group polarization.

Experts and credible sources. Traditional research provided considerable evidence on the informational power of credible sources: the more the source of influence is considered credible or competent, the more it is perceived as conveying objectively correct information, and the more the receiver accepts its messages (e.g., Croner & Willis, 1961; Crutchfield, 1955; Di Vesta, 1959). Particularly compelling are the results supporting the idea that only credible sources are able to exert influence when the advocated opinion is highly discrepant from the one sustained by the individual (e.g., Aronson, Turner & Carlsmith, 1963; Bochner & Insko, 1966).

The problem is that the social background, in which the attributions of credibility, competence, expertise, etc. are made, has been disregarded. As Turner (2005) puts it, "One group's expert is another's crank. One does not accept influence from experts because of the information they provide (if one is not an expert, how can one judge its quality?), but accepts the information as valid because one defines them as an expert" (p. 3). As such, sources' credibility, their persuasiveness, and the conformity they can produce may only be understood in the social context in which these influence processes operate.

> "The influence of experts is not due to the fact that they possess demonstrably correct information. Their information is perceived as valid because they are socially designated as 'experts', the legitimate representatives of normative cultural institutions and values […] Facts and experts are socially designated as such and, like rational demonstration, presuppose cultural consensus about rules, procedures, technologies, categories and 'taken-for-granted' knowledge." (Turner, 1991, p. 151-2)

To the perceiver, credible, competent, expert sources transmit valid information because they have accumulated *normative* knowledge about it. An analysis of credibility, competence or expertise must take into account that these are not intrinsic proprieties of the source person but that these attributions arise in specific social contexts. The social dimension of credibility is inconsistent with a differentiation between informational and normative components of group influence.

Compliance as Submission to an Out-Group. The influence of in-group opinions and beliefs may not to be automatically internalized. However, as Turner and Oakes (1989, p. 254) put it, "The readiness to commit oneself behaviorally before full internalization has taken place should not be confounded with compliance." In Referent Informational Influence, compliance is associated with out-groups and the power and control over sought resources. "Out-groups produce compliance, i.e., it is people with whom one does not expect to agree, whom one cannot be influenced by, that must resort to coercion, force, and power to change behavior." (Turner & Oakes, 1989, p. 254). Therefore, contrarily to the traditional perspective, compliance does not refer to group normative influence. "Compliance and 'group pressure' are assumed to reflect not 'normative' influence from an in-group, but 'counternormative' influence from a psychological out-group, people with whom one would not expect to agree." (Turner, 1987, p. 76).

Recently, Turner (2005) specified that compliance should not be confused with control or coercion. The efficacy of group pressures on members and the extent into which they may result in internalization depends on whether the members attribute authority to the group. The way in which coercion may be perceived as legitimate or illegitimate, that is, going against individuals' will or interests depends on their

definition of the situation. If they perceive the source as sharing the same essential norms it will perceived as an intragroup situation; if they perceive the source as essentially different from them the situation will be perceived as of the intergroup kind.

Public and private conformity. The theory rejects the traditional dichotomy between conformity in private and public contexts and its association with internalization and compliance. According to the theory, the social self is not restricted to the public self and the private self is not restricted to the personal self (cf. Turner, 1991). That would be to recognize that the private self is non-social and that individuals' private beliefs are unique. However, public contexts are likely to activate social self-categories so that the perceived validity of the group norm in those contexts is increased. As Turner (1987) put it,

> "[…] that greater conformity occurs in public than private makes sense given that public settings represent 'shared social fields', settings where both social and stimulus identity are maximized and apparent. [conversely] an effect of privatization may be to reduce the influence of others by leading to the perception of personal differences" (p. 77).

Abrams, Wetherell, Cochrane, Hogg and Turner's (1990) experiment provides an example of how a public setting may induce in-group conformity without the corresponding influence of private acceptance. The authors used the Asch's (1951) paradigm with the following two variations: (a) the three confederates were presented either as students from the psychology department (in-group condition) or students from the ancient history department (out-group condition); (b) in an additional condition of private responses, the naïve participant (acting as experimenter's assistant) heard and noted down the answers of the confederates and finally its own (that he was not required to report verbally to the others).

The results show that participants made more errors when the confederates were in-group members than when they were out-group members in the public conditions of responses. In the private conditions of responses, there were no differences in conformity as a function of the induced source's group membership. As the authors explained, these results do not invalidate the idea that in-group influences are accepted in private. Due to the nature of the task and its irrelevance for the in-group vs. out-group

distinction, participants in the private conditions disregarded the initial categorization and differentiated themselves from the confederates. As mentioned before, Self-Categorization Theory predicts that the specific context (in this case, determined by the task to be performed) is critical to the categories that individuals invoke and consequently to the group into which they self-include.

Minority influence. For Self-Categorization Theory, the influence of minorities is not essentially different from that of majorities. Both types of groups can exert direct and indirect influence depending on the way they are perceived. If the minority message assumes the core values of the majority, majority members perceive an intragroup context, in which minority is a subgroup and they will considered its opinions and arguments. If the minority rejects the core values of the majority, its position will be perceived as competitive inducing an intergroup context, and its opinions will not be considered (e.g., David & Turner, 1992). As Turner (1991) puts it,

> "Minority conversion depends upon the minority being a distinctive, consistent, consensual subgroup, not 'individualized', 'psychologized', or categorized as out-group members, and presenting a coherent, alternative norm that is congruent with the high-order norms and values of the in-group." (p. 170)

Mugny and Pérez's (1991; cf. also Pérez & Mugny, 1998) perspective on minority influence shares the assumption that minority influence is related with categorization and identification processes. As these authors argue, "minority influence increases when the meanings attached to the source lead to psychosocial identification that is compatible with a positive personal identity" (p. 14). However, Mugny and Pérez's (1991) perspective differ from the Self-Categorization perspective concerning the relationship between minority's in-group or out-group status and their ability to produce direct and indirect influence. According to Mugny and Pérez (1991), minorities categorized as in-group have either high or low direct influence, depending on whether identification with the minority implies a positive or negative identity whereas minorities categorized as out-groups do not exert direct influence but they may exert indirect influence if they are perceived as credible sources.

Group polarization as conformity to prototypical members. As seen above, previous theories of group polarization did not presented an encompassing explanation

of the phenomenon. The theories emphasize either social comparison or informational motives. Self-Categorization Theory proposes an explanation that is based on a single process of influence. Specifically, the theory conceives group polarization as conformity to prototypical group positions (cf. e.g., Abrams, Wetherell, Cochrane, Hogg & Turner, 1990; McGarty, Turner, Hogg, David & Whetherell, 1992; Whetherell, 1987). Polarization represents assimilation to in-group positions *and* differentiation from out-group positions: the convergence to the member(s) that hold(s) positions simultaneously more similar to those of other in-group members *and* more distant from out-group positions. It is the need for distinctiveness, which leads members to shift to an extreme position in the direction opposed to that of the out-group.

In this perspective, there is a cognitive basis for the idea that extreme positions are more attractive than moderate positions, as argued by the theory of value (e.g., Lamm & Myers, 1978; Baron & Roper, 1976). Extreme positions are more attractive because they contribute to the differentiation of the in-group from the out-group. The evidence obtained for persuasive arguments theory is also accounted for (e.g., Burnstein & Vinokur, 1973; 1975; 1977): prototypical members are more able than non-prototypical members are to persuade other members to change their opinions (cf. van Knippenberg, Lossie & Wilke, 1994; van Knippenberg & Wilke, 1992). Prototypical positions are thus both more attractive and influential leading other members to extremize their opinions.

Conclusion

Traditional approaches established theoretical distinctions in group influence based on the effects of public versus private contexts, or task versus group orientations. Often, group norms are depicted as arbitrary, subjective and uninformed opinions deviating from objective standards and conformity to the group is associated with public compliance rather than with internalization. When group norms and consensus are viewed as providing subjective validity to members' opinions and attitudes, the group is viewed as an external device to which individuals resort to when personal testing is difficult. The nature of the constructs that are manipulated to produce informational influence, such as the recipient's uncertainty, the source's credibility or the objectivity of the task are rarely questioned.

Traditional explanations of group polarization are based on distinct influence processes: whereas one model favors social comparison processes, the other model favors informational processes. However, none model accounts for the phenomenon in the whole. Also, the minority influence model focused on the distinction between group influences. Although opposing to some traditional assumptions about conformity, the model stresses the existence of two forms of conformity: majority influence is associated with compliance and minority influence with internalization. The model also claims that minorities are more able than majorities to exert indirect influence, that is, the unconscious conversion to their positions. This claim has not obtained consistent empirical support. Nevertheless, the minority influence phenomenon has revealed some of the inconsistencies of the dominant model namely its assumption about the function of group influence in the preservation of social stability.

Self-Categorization Theory provides an integrated account of social influence phenomena. Central to the theory is the concept of social categorization. Social categorization is a pervasive process that has effects on social perception and self-conception. By accentuating the similarities between the members of a category and the differences between categories, individuals form a stereotype of each category in which the characteristics common to the members of the category and differences to members of other categories are accentuated. The assignment of the self to one of those categories leads to a change in the self-concept so that individuals perceive themselves not as unique individuals but as undifferentiated members of the category. They conform to the norms of the in-group, the attributes of the group representation, resulting in stereotyped judgments, opinions, and behavior.

In this perspective, group influence is both normative and informative. It does not depend on other members' surveillance because the in-group opinion is the reference for private opinions. Individuals conform to the group norm because it conveys the more adequate and objective account of reality. As such, in-group influence is a single process, which is responsible for both majority and minority, direct or indirect, influence. The extent into which a group is able to exert influence on members, directly or indirectly, depends more on how much it represents for members' identity than on its relative size.

The social identity approach to social influence has further support in research on group polarization. The shift to polarized positions subsequent to group discussion is explainable by the higher attractiveness and persuasion of prototypical members, because these members contribute to the distinctiveness of the group as regards the out-group.

CHAPTER 3

SOCIAL IDENTITY, IMPLICIT PROCESSING AND GROUP INFLUENCE

Recent research has focused on automatic processes[3] associated with social identity. Automatic processes "develop out of frequent and consistent experience in an environmental domain" (Wegner & Bargh, 1998, p. 463). Unlike controlled processes, automatic processes have the advantage of not requiring attention and not being hindered by the overload of the working memory (cf. Kahneman, 1973; Posner & Snyder, 1975).

An automatic response in a usual situation is the prevailing response when conscious processes do not intervene to modify the response (cf. Schneider & Shiffrin, 1977; Shiffrin & Schneider, 1977). Some automatic processes are not even controllable, that is, once there are enough cues to initiate them, they run until completion (e.g., Bargh, 1989; 1994; 1996). Thus, only vital and highly adaptive processes become automatic (e.g., Bargh, 1989; 1994; 1996; Bargh & Ferguson, 2000; Bruner, 1992; Vigotsky, 1925). The findings showing that social identity processes operate at an implicit level indicate their crucial role in the determination of individual behavior.

Implicit Social Identity Processes

Research on implicit social identity processes has focused in two major issues: the association between the in-group representation and the self-representation; and the automaticity of the in-group bias.

The Association between Self and In-Group Representations

The social identity approach postulates that the collective self is as much part of the self-concept as the personal self (e.g., Simon, 1997; Turner et al, 1987; 1994). As such, there should be strong associations between the attributes of an in-group stereotype and the self-concept. For instance, Smith and Henry (1996) first asked participants to rate 90 traits as a function of their description of themselves, and,

[3] As pointed out by Greenwald and Banaji (1995), the pair of terms *implicit-explicit* is used in some literatures, whereas the pairs *automatic-controlled*, or even *unconscious-conscious* and *indirect-direct*, are used in other literatures. Like these authors, we assume that the first terms and the second terms of the pairs, respectively, are equivalent. Therefore, the terms *implicit* and *automatic*, as well as the terms *explicit* and *controlled* will be used interchangeably.

depending on participants' significant group membership, of Liberal arts and engineering majors' students, or Greeks fraternity/sorority members. Then they were asked to respond to the same test in a reaction time test. They should press the button 'yes' or 'no' when the trait word appeared in the computer screen, depending on whether the trait described themselves or not.

The authors found that participants were faster in pressing the 'yes' button to indicate that trait-words were self-descriptive, and also made less errors, when traits matched the stereotype of the in-group (as indicated by their initial ratings in the conventional measure) than when they did not matched this stereotype. Moreover, the effect is not found when the similarity/dissimilarity of self to the out-group stereotype is accounted for. The fact that traits on which the self and in-group are similar are readily accessible for self-description confirms the Self-Categorization assumption that social identities are important components of the self-concept (cf. also, Smith, Coats & Walling, 1999).

In the previous experiment, it was assumed that the stereotypic self-descriptors were made salient by the initial task. To confirm the idea that the shifts on self-perception correspond to shifts on the social context (e.g., Turner et al, 1987; 1994), Onorato and Turner (2004) used a modified version of Markus' (1977). In Markus' (1977) original procedure, participants were classified as a function of their responses to a questionnaire in which they had to rate themselves in three scales referring to trait description items related to the dependence vs. independence dimension (leader / follower, individualist / conformist, independent /dependent). The participants that rated themselves in the independent pole of the scale were classified as Schematics Independents; participants that rated themselves in the dependent pole were classified as Schematics Dependents; and participants that rated themselves in the middle of the scale were classified as Aschematic. In a second session, participants were presented with several trait-words (some of which related with the independence / dependence dimension) on a screen and had to push the yes or no button depending on whether they found that the trait presented was or not self-descriptor. The results showed that dependent participants responded faster to say that dependent trait-words were self-descriptors than independent trait-words, and the opposite for the Independent participants.

To prove that, consistent with self-categorization principles, in some situations social identity has a more powerful effect on information processing than personal self-aspects, Onorato and Turner (2004) formed groups of participants of the same sex and same type – Independent, Dependent, or Aschematic. Participants were to reach a consensus on the degree to which some independent / dependent traits were more typical of men or women thus priming participants with a situation that made salient the stereotypical attributes of their own and the other gender group. They then completed a modified version of the Markus' (1977) latency task. Specifically, participants were asked to respond whether the trait (independent, dependent, masculine or feminine) appearing in the screen was descriptor of him/her as compared to the other gender group ('Us' or 'Them').

The results showed that irrespectively of their personal schema type (Independent, Dependent or Aschematic), both male and female participants were faster to respond stereotypically than non-stereotypically confirming the idea that social group memberships are as important to self-definition as personal traits.

Implicit In-Group Bias

In the origin of in-group bias is the need for a positive social identity (e.g., Tajfel, 1978). The recurrence of in-group biases is reflected in the stronger association of positive attributes to in-group and stronger association of negative attributes to out-groups.

For instance, Perdue, Dovidio, Gurtman and Tyler (1990) found that nonsense syllables unobtrusively paired with in-group designating pronouns, such as *we* or *us*, were rated as more pleasant than syllables paired with out-group designators, such as, *they* or *them*. Moreover, the subliminal exposition to in-group designators decreased the reaction time in the classification of positive adjectives whereas the exposition to out-group designators facilitated the classification of negative adjectives. Finally, the subliminal exposition to in-group designators facilitated the classification of positive person descriptors as compared to a neutral subliminal prime. The results suggest that the use of in-group or out-group pronoun designators in the speech prompts automatic positive or negative attitudes towards in-group and out-group targets, respectively.

Other research (Otten & Wentura, 1999) showed that group membership even when defined through minimal conditions in the laboratory automatically entails positive feelings towards the in-group. Otten and Wentura (1999) found that after being categorized through a typical minimal group procedure, participants' classification of adjectives was affected by prior subliminal exposure to in-group and out-group labels. They made more errors in classifying negative adjectives when primed with the in-group label and in classifying positive adjectives when primed with the out-group label than in the reversed conditions. The results suggest that in-group and its members are automatically associated to positive and pleasant feelings and/or the out-group and its members are associated with negative unpleasant feelings.

Implicit Out-Group Derogation

Consistent with the above-described results, Cameira, Serôdio, Pinto and Marques (2002) obtained out-group derogation as an implicit response to a salient intergroup situation. In their experiment, the authors manipulated the group membership of the experimenter as regard the participants and checked the implicit influence of this variable in subsequent choices. Specifically, small groups of Psychology or Social Work students interacted with an experimenter that ostensibly presented herself as Psychologist or Social Worker conducting a survey on Community Intervention. After responding to a questionnaire aimed to increase the salience of their group membership, participants were asked to choose between two teams to work with in a second phase of the alleged study. The teams were composed by three members whose faces, depicted in the questionnaire sheet, and were either similar or different from the first experimenters' face (similarity of the team members' face to the experimenter's face had been tested earlier). After making their choice, participants were asked to mark among several hypotheses the reasons of their choices.

The predictions were that participants would choose more the similar than the different team when the experimenter was an in-group member. The results did not meet the predictions but revealed that participants chose the different team more when the experimenter was an out-group member than when the experimenter was an in-group member. This effect increased with in-group identification. The authors interpreted these results in terms of group contexts: whereas the out-group experimenter

condition portrayed an intergroup context, the in-group experimenter condition portrayed an intra-group context. Hence, judgments and evaluations based on group membership were more likely in the former than in the latter context. Participants attributed to chance or to the attractiveness of the chosen team the reasons of their preference. The results suggest that the implicitly learned association biased the choices of high-identified participants in the intergroup context.

Implicit Prejudice

Research on implicit prejudice provides innumerous examples of automatic in-group bias or out-group derogation. Most important, this research has shown that implicit (non-controlled) attitudes towards discriminated groups are often not correlated with explicit (controlled) attitudes. This absence of correlation between the two variables has been interpreted as the result of a conscious need to show socially desirable non-prejudiced responses affecting solely the controllable measure (e.g., Dovidio, Kawakami, Johnson, Johnson & Howard, 1997; Fazio, Jackson, Dunton & Williams, 1995; Greenwald & Banaji, 1995).

For instance, Devine (1989) compared the automatic and controlled attitudes of White individuals towards Blacks. First, the author showed that both prejudiced and non-prejudiced individuals (as determined by their responses to the Modern Racism Scale) were knowledgeable of the negative attributes commonly ascribed to Black individuals. Subsequently, all participants rated a story character in several aggressiveness-related traits after being subliminally primed with words stereotypical of the Black group and with neutral words. The results showed that both prejudiced and non-prejudiced participants rated the story character as more aggressive when primed with Black-related words than when primed with neutral words. Finally, participants were asked to list their thoughts about the Blacks racial group under anonymous conditions. Results show that prejudiced participants had a marked tendency to generate stereotype-congruent responses whereas non-prejudiced individuals showed the opposite response pattern, that is, they generate beliefs that contradicted the stereotype of Blacks. In addition, most prejudiced participants referred to the aggressiveness or violence topic whereas only a minority of non-prejudiced participants did.

The author concluded that both prejudiced and non-prejudiced individuals are aware of the stereotype of Blacks and are automatically affected by it. However, whereas the prejudiced individuals have an explicit attitude congruent with the stereotype, non-prejudiced individuals, consciously oppose to this implicit influence, responding counter-stereotypically.

Other research suggests that implicit and explicit attitudes may also be correlated when there are no normative reasons to conceal prejudice. Greenwald, McGhee and Schwartz (1998) designed the Implicit Association Test drawing on the automatic activation of the attitude towards a social group upon the presentation of a stimulus item associated with the group. Typically, the procedure has several phases that include the classification, in their respective labels, of clearly positive or negative adjectives as "good" or "unpleasant" and of words related with two opposing social groups. Greenwald and colleagues (1998; Experiment 2) compared the IAT results of Korean American and Japanese American participants (ethnic groups with a history of antagonism). As expected, the Japanese participants were slower to react when their ethnic group label was associated with the "unpleasant" label (and the Korean with the "pleasant" label) than in the reversed situation. The opposed pattern of results was obtained with the Korean participants. The participants also answered to a series of questions measuring their involvement in the Japanese or Korean social networks, respectively. The authors found that the results of the explicit measure were positively correlated with the IAT results.

A replica of the above study Greenwald and colleagues (1998; Experiment 3) using the Blacks vs. White labels and related stimulus words (typical Black and White names), revealed a stronger association, among White participants, between the Blacks group and its negative evaluation and lower correlation with the explicit measure than in the Korean and Japanese groups. As the authors conclude, these results indicate the existence of more concealed hostility between Whites and Blacks as compared with the concealed hostility between Koreans and Japanese, which is consistent with existence of social norms aimed to protect Blacks from Whites' prejudice, and that these norms have some acceptance among Whites.

In sum, the above-described findings indicate that the activation of positive attitudes towards in-group members and/or negative attitudes towards out-group members tend to be automatic processes. In our empirical research, we attempted to extend the application of non-controlled methodologies to other social identity processes. Specifically, in the first four-experiment study, we examined conformity to the implicit group norms.

Study 1

Conformity to Implicit Group Norms

As we argued in Chapter 2, the traditional approach distinguishes between normative and informational influences in group influence. This dichotomy entails the assumption that informational influence is the true influence, inducing an enduring change of opinion (internalization). Thus, it has private acceptance. In contrast, it is assumed that normative influence induces only a temporary change of opinion (compliance) and requires conscious control, because it is imposed or self-imposed. Individuals conform publicly because they wish to show other members their compliance to norms.

In contrast with the traditional perspective, the social identity perspective assumes that in-group sources are both informative and normative so that, when group membership is a salient aspect in the context, normative and informational influences cannot be separated. In salient intergroup contexts, the theory predicts no differences between public and private conformity. The predictions of Referent Informational Influence have indirect empirical support in previous experiments showing that individuals assume the behaviors of the social categories they are assigned to (e.g., Barlow, 1981; Minard, 1952; Zimbardo, 1975) or the categories that are more consistent with the current context (e.g., Hornstein, 1972; Horwitz, 1954).

Direct tests of the theory have also obtained support for the idea that individuals conform to the norms of salient in-groups (Abrams et al, 1990; Hogg & Turner, 1987). For instance, Hogg and Turner (1987) tested the model adapting the procedure designed by Asch (1951). Participants, previously categorized into two groups purportedly based on similarity of answers to a previous test, judged personality traits on social approval scales. Intending to generate a distinctive group norm, participants were informed that their group's judgments of the traits tended to the 'social approval' half of the scale, whereas the out-group tended to the 'social disapproval' half of the scale. In fact, the in-group norm corresponded to participants' natural position, because all stimuli traits were socially approved, as determined by a pre-test. Finally, participants were informed that they were answering together with four other individuals belonging either to the in-

group or to the out-group depending on the conditions. Participants were isolated from the other members communicating with each other via the experimenter.

The judgment trials alternated public and private responses, i.e., participants heard the other participants' responses and thought their own was conveyed to them, in public trials, or did not receive feedback from the other participants and merely wrote down their own response, in private trials. The feedback of other members in public trials was for half of the subjects consistent with the groups' norm (i.e., social approval in the in-group and social disapproval in the out-group), or inconsistent (i.e., social disapproval in the in-group and social approval in the out-group). The results showed that, in consistent conditions, participants' private judgments tended more to the social approval end of the scale when the source was the in-group than when it was the out-group. This result suggests that whereas in-group sources affect individuals' private opinions and judgments, out-group sources do not have such an effect.

The above research focused on the comparison between public and private conformity (cf. also, Abrams et al, 1990) to show that Referent Informational Influence depends on the salience and relevance of in-group in the current context and not merely on the physical presence of other members (although the physical presence of in-group members may bring group membership more salient, cf. Turner, 1987). In the present study, we examine the indirect influence of in-groups.

The relevance of measuring conformity with a non-controlled methodology was pointed out by minority influence theory. In this research, indirect influence is assessed with non-controlled methods in which participants' change of opinion is measured in items indirectly related with the topic of influence or with a time lag between the target's response and source's influence (e.g. Clark, 1988; Moscovici & Lage, 1976; Moscovici, Lage & Naffrechoux, 1969; Pérez & Mugny, 1987). Indirect influence is associated with conversion, that is, the assimilation of the minority group message whereas direct influence is associated with compliance (Moscovici, 1985; Moscovici & Personnaz, 1991).

On the other hand, previous research has shown that in-group bias does not depend on the deliberate intention to favor the in-group or derogate the out-group. Results show that when group memberships are salient they automatically influence

individuals' self-perceptions (Onorato & Turner, 2004; Smith & Henry, 1996), the classification of positive and negative adjectives (Greenwald et al, 1998; Otten & Wentura, 1999; Perdue et al, 1990), the judgment of a story character (Devine, 1989) or the choice of a work team (Cameira et al, 2002). We may thus expect conformity to in-group or out-group norms to be affected by the tendency to favor the in-group over the out-group.

Group credibility is a major variable in conformity research intrinsically associated with informational influence (e.g., Allen, 1965; Crutchfield, 1955; Coleman, Blake & Mouton, 1958; Croner & Willis, 1961; Di Vesta, 1959; Fisher & Lubin, 1958; Kelley & Lamb, 1957; Samelson, 1957). In social identity terms, group credibility is associated with the importance or relevance of a group membership in a task context (cf. Abrams et al, 1990). Group credibility was thus controlled for, or manipulated our four-experiment study designed to examine conformity to implicit group norms.

Overview of the Study

In the first experiment, we checked on the assumption that informational influences are implicitly accepted, by exposing participants to the implicit norm of a jury of experts in fine arts before assessing their esthetical preferences. In the following experiment, the influence sources were the implicit esthetical norms of both Arts and Sciences students (stereotypically considered credible and non-credible, respectively, in esthetical matters). Depending on the group membership of the participant, the credible source was either an in-group or an out-group. In the third experiment, the credible and non-credible attributes group sources were manipulated and their respective norms were explicit. This experiment was aimed to check on concomitants of conformity related with social identification. Finally, the last experiment replicates the previous results and compares explicit conformity to implicit conformity to credible and non-credible in-groups and outgroups.

Experiment 1

Acceptance of a Credible Source's Implicit Norm

The first experiment was intended to show that the opinion of a credible source is implicitly followed. Participants are asked to observe two series of pictures that were

allegedly approved or rejected by a jury of experts on fine art. The difference between the two series was imperceptible as confirmed by a pre-test. We expect that, in subsequent judgments, participants will prefer pictures similar to the approved ones to those similar to the rejected ones. Our prediction is based on research showing that regularities in the stimulus field are implicitly learned, and affect subsequent related responses (e.g., Reber, 1989; Berry, 1997; Stadler & Frensch, 1998). Given that participants are unaware of the jury criterion, their preference for approved pictures represent an automatic acceptance of the influence.

To test for participants' awareness of the difference between the two types of pictures, we used the two tests most used in implicit learning experiments (cf. St. John & Shanks, 1997): written report and recognition. The written report is the most used strategy to control awareness, and depends exclusively on explicit knowledge because individuals must be able to state the regularities of the stimuli. Conversely, recognition does not depend exclusively on explicit knowledge because implicit memory may also contribute to recognition (cf., e.g., Reed & Johnson, 1998).

Method

Participants and design. Twenty-six students enrolled in an introductory course of Human Resources at a private university of Porto (18 male and six female; ages ranging from 18 to 39 years old, M = 24.83, SD = 5.40) volunteered to participate. There was a single intra-participants factor, Norm (Approved Pictures vs. Rejected Pictures).

Procedure

The experiment was presented as a study on the features that make pictures pleasant or unpleasant, attractive or unattractive. Allegedly, for that purpose, a set of abstract black and white pictures had been randomly created by computer, and then submitted to the appraisal of a "jury of experts in fine arts, teachers, critics and artistic professionals like painters and sculptors". Allegedly, the most approved pictures were then separated from the most rejected pictures to create two series. After receiving this information, the participants were asked to observe a sample of 10 approved pictures and 10 rejected pictures. The experiment proceeded in four sessions of 6-7 participants,

which sat facing a screen where the pictures were projected always ensuring an even distance to the screen.

Learning phase. The pictures were rectangular abstract compositions consisting of black dots and lines with a general appearance similar to the samples shown in the two following pages (cf. Figure 1). Despite their resemblance, the pictures were all different from each other, except that one half of the pictures contained one vertical salience in the right top side of the picture and the other half contained one horizontal salience in the left side of the picture. Depending on the balance condition, one type was labeled "Approved" and the other type was labeled "Rejected". Each picture was displayed for one second and separated from the next picture by a blank screen for one second.

The material used was pre-tested in order to ensure that there were no biases intrinsic to the material (cf. Appendix 1). The results of the pre-test showed that participants were unable to recognize and recall the distinction between the two types; the pictures of both types were similarly attractive; and the pictures to be judged and the pictures to be recognized had a similar level of difficulty to be recognized.

Implicit learning research found that the motivation to search for a regularity hidden in the stimulus field obstructs the learning process leading to poorer implicit learning (Reber, 1976). Participants tend to make incorrect inductions about the stimuli and to respond according to incorrect rules (cf. also Danks & Gans, 1975; Reber et al, 1980). In the present experiment, given its scenario, we could expect participants to attempt to find out the distinctive features between the two series of pictures and obstruct implicit learning. Indeed, a first version of the present experiment suggested the existence of that phenomenon (cf. Appendix 2). For these reasons, we manipulated the level of attentional resources assigned to the pictures in the learning phase by introducing a distraction. A piece of music, familiar to participants, was played audibly in the background, with the justification that that was the normal procedure of the experiment[4]. To control for the uneven effect of the music on the two types, we

[4] The choice of an auditory distraction is based on evidence showing that implicit learning remains unaffected by the introduction of a secondary task of different nature (e.g., Cohen, Ivry & Keele, 1990; Reed & Johnson, 1994; Stadler, 1995). Given that our task is visual-perceptive, the use of an auditory distraction obstructs participants' search of the distinctive features of the pictures without interfering with the learning process.

balanced the labeling of the pictures' series. In two of the sessions, the vertical type was labeled Approved and the horizontal type labeled Rejected. In the other two sessions, the vertical type was labeled Rejected and the horizontal type was labeled Approved.

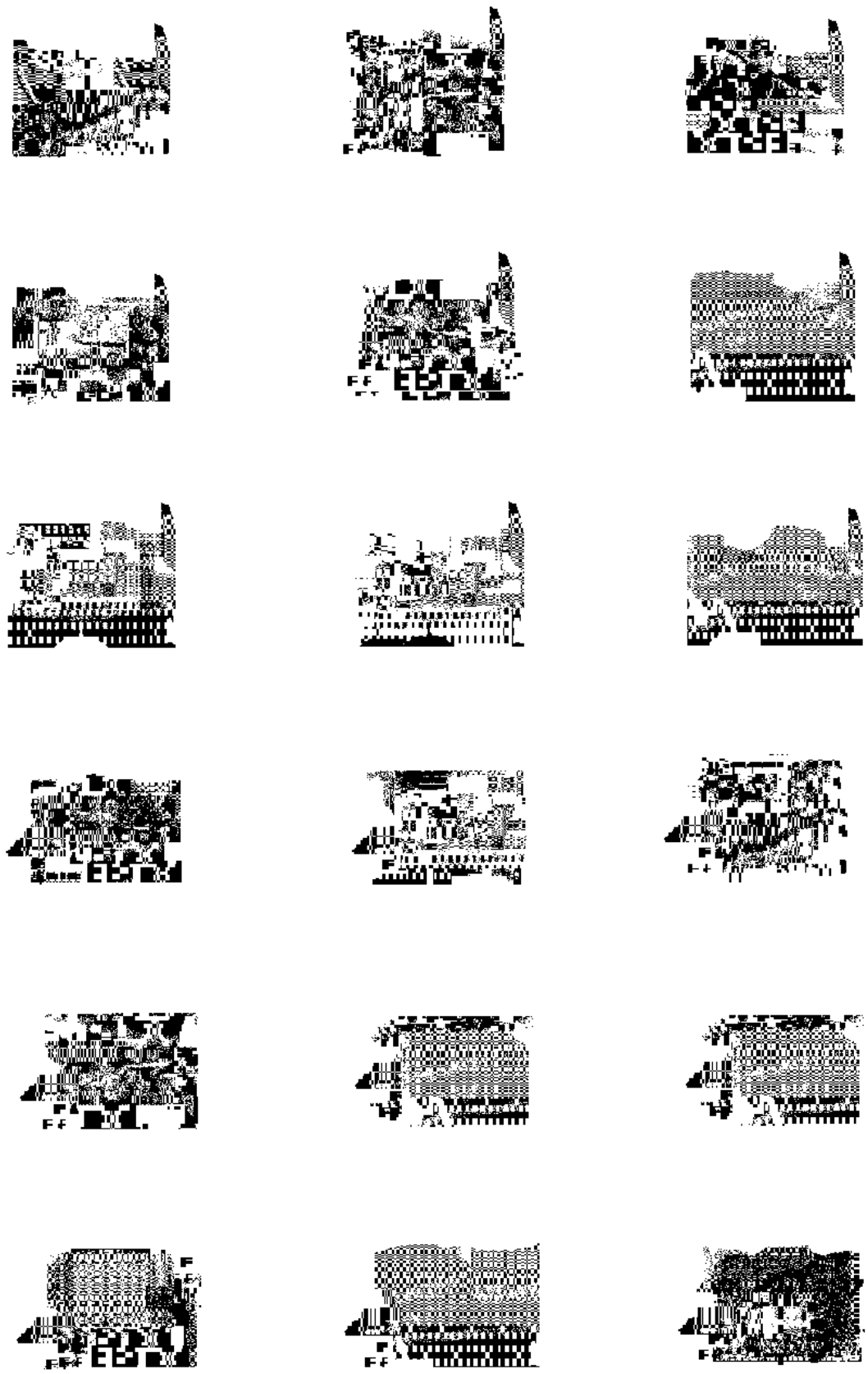

Figure 1. Examples of the two types of pictures used in the experiments. The top six pictures are examples of the vertical type and bottom six pictures are examples of the horizontal type.

Tests of awareness. After observing the sample of pictures, participants were told that the experimenters wished to known whether they were able to distinguish between approved and rejected pictures. This corresponded to the recognition test of awareness. Participants were asked to observe twenty unlabelled pictures that allegedly had been extracted from the lot of approved and rejected pictures judged by the jury. After observing each picture for five seconds, participants reported whether it had been approved or rejected by the jury. The experimenter controlled the presentation of each picture after ensuring that the participants have finished with the previous one, although mentioning the need for "a somewhat fast rhythm". The number of pictures correctly classified represented the extent to which the respondent was aware of the series' distinctive details. Twenty, or close to twenty, correctly classified pictures meant that the respondent had a correct criterion for the classification and was aware of the details. None or close to none correctly classified pictures meant that the respondent based on an incorrect criterion. Ten or close to ten correctly classified pictures meant that the respondent did not used any criterion and answered by chance.

After this task, participants answered to the question "Have you found any distinction between the approved and the rejected pictures?" and, in the affirmative case, they were asked to describe the distinction(s). This task corresponded to the 'written report' test of awareness.

Judgment task. Subsequently, participants were told that, in the present research, the experimenters wanted to know "the opinion of common people about this particular kind of pictures". Participants were then asked to judge twenty pictures that allegedly had been produced recently and had never been judged. There were 10 vertical and 10 horizontal pictures and their order of presentation was randomized. Participants observed each picture for 5 seconds and then reported their judgment in a 7-point scale (1= Do not like it; 7= Like it very much).

After this task, participants were debriefed and thanked for their participation. In the debriefing, two participants verbally reported the distinction between the approved and rejected pictures. The experimenter made sure that they had reported the distinction in the questionnaire in order to discard their data from the analysis.

Results

Recognition and recall. The data of two participants that found the graphic details of the pictures were removed from the analysis. We computed a recognition index by summing the number of pictures correctly recognized (minimum=0; maximum = 20). The mean recognition rate is not different from chance, $M = 9.41$, $SD = 2.89$, $t(23) < 1$, suggesting that participants were unaware of the distinction between the two series of pictures.

No.	Approved Pictures	Rejected Pictures
	Balance 1	
1	More undefined and irregular	More geometrical
2	More creative	-
6	Darker	Lighter
	Balance 2	
15	More detailed	Less denser, less esthetically organized
17	Lighter	Darker
18	**More interesting, with abstract background**	**They all have an *F*; meaningless**
19	Darker	More blank spaces, some represent letters
20	More variety of color and curves	More black or white color
21	Less larger with more variations of the pattern	Larger with a more uniform pattern
22	Less organized pattern	More organized patterns
23	Less "noise" density	Opposed to the approved ones
24	Better esthetics and straight drawings	No esthetics, no straight drawings

Table 1. Reports on the distinction between the two series of pictures grouped by balance condition (Experiment 1). The responses in bold characters refer pictures' details resembling the actual distinction.

The analysis of the 12 reports of the participants that reported having found a distinction between approved pictures and rejected pictures revealed that one participant mentioned a distinction close to the actual one (cf. Table 1 – participant # 18). However, the fact that the participant only classified correctly 12 pictures suggests that the distinction was not used systematically in the subsequent tasks. The three participants reporting differences in the general tonality of the two types of pictures had opposite opinions indicating that this difference was not objective. Indeed, the differences reported by the participants match previous findings showing that, when believing that there is an hidden structure in the stimuli, participants tend to formulate rules based on their most obvious features (e.g., Reber, 1976).

Conformity. We averaged the ratings of approved and rejected pictures into two new variables of preference for approved pictures and preference for rejected pictures, respectively (Norm). In the context of the task, we assumed that conformity to the credible source's opinion is represented by the preference of accepted pictures as regard rejected pictures. Therefore, we conducted a Norm x Balance ANOVA, in which Norm was a within-participants factor. The analysis revealed a significant main effect of Norm, $F(1, 22) = 4.61$, $p = .043$, $\eta^2 = .17$; all others effects, highest, $F(1, 22) = 2.30$, *ns*. As predicted, participants showed higher preference for the approved pictures than for the rejected pictures, $M = 4.03$, $SD = .67$ and $M = 3.78$, $SD = .59$[5].

Conformity and recognition. To check on the effect of awareness in the participants' conformity we divided participants by median-split of the recognition index and created a new two-level variable. 'Good recognizers' recognized an average of 12.86 pictures and 'bad recognizers', an average of 8.00 pictures. We then conducted an ANOVA with the new variable as a between-participants factor and Norm as within-participants factor. The interaction of the two factors was non-significant indicating that the judgments of 'good recognizers' did not differed from those of 'bad recognizers', $F(1, 22) < 1$.

[5] We conducted the same analysis removing the data of participant #18 that reported a distinction similar to the actual one. Results still show a preference for approved pictures, $M = 4.00$ and $M = 3.74$, $F(1, 22) = 4.46$, $p = .046$, $\eta^2 = .17$.

Discussion

Confirming the hypothesis, the results suggest that individuals tend to regulate their judgments by those of credible sources. After being exposed to pictures that had been approved or rejected by a jury of experts, participants preferred pictures that were similar to approved ones. Consistent with long lasting evidence showing that people follow the opinion of credible sources our results indicate that this acceptance does not depend on the capacity to articulate that opinion. It must be stressed that the context created in the experiment favored an automatic reliance on the jury's opinion. Participants were asked to make judgments on several very similar pictures, thus, involving the implicit demand to differentiate among the pictures in terms of preference. Although, esthetical judgments are generally perceived as subjective, the previous mention of a jury, and of approved and rejected pictures, may have led to the inference that that was an objective task. Judgments perceived as objective prompts a search for external validation rather than reliance on internal standards (e.g., Insko, Drenan, Solomon, Smith & Wade, 1983) especially when external sources are considered competent (e.g., Aronson, Turner & Carlsmith, 1963; Bochner & Insko, 1966; Di Vesta, 1959; Samelson, 1957). Moreover, the similitude of the pictures is likely to induce the perception of lack of agreement in the judgments and consequently more uncertainty (cf., e.g., Hogg & Turner, 1987; Turner, 1991). Uncertainty also induces the search for external information to anchor one's judgments (cf., e.g., Allen, 1965; Coleman, Blake & Mouton, 1958; Croner & Willis, 1961; Crutchfield, 1955; Fisher & Lubin, 1958; Kelley & Lamb, 1957; Sherif, 1936).

Other results show that the knowledge of the jury's criterion, even if implicit, did not contribute for the judgments. The fact that virtually all participants were unable to articulate the differences between the two kinds of pictures, and that their respective level of recognition did not affected their judgments suggests that these latter were not consciously processed. The traditional assumption that informational influence is accepted in a relatively automatic way is thus confirmed.

Experiment 2

Conformity to Implicit Norms as a Function of Source's Credibility and Group Membership

The results of the previous experiment suggest that individuals automatically accept informational influences. In the present experiment, we test the general hypothesis that automatic conformity applies also to normative influences. In this experiment, the credible source is either an in-group or an out-group. Our first prediction is that implicit conformity to the credible source occurs only when the source is an in-group. However, in the present experimental context, credibility is also a relevant attribute of the source given the task participants are to perform. Our second prediction is thus that non-credible group members will not conform to any of the groups. We assume that, in a situation in which credibility is relevant, non-conformity to a credible out-group source is the result of normative influences.

We took advantage of the fact that students enrolled in the Psychology course issue from either Arts or Sciences high-school areas and that this fact corresponds to a significant social categorization among sophomores. Compatible with the nature of the experimental task, esthetic aptitude is a stereotypical attribute that differentiates the two groups: Arts students are normally considered more knowledgeable than Sciences students in esthetics matters. To confirm this idea, using an unobtrusive method, we conducted two pilot studies in the same population of the main experiment. The first pilot study was aimed to establish which personality traits were associated with credible appreciations of the abstract pictures used in the experiment; the second pilot study was aimed to examine the association of those personality traits to Arts and Sciences students and, indirectly, the ascription of credibility in the task to both groups.

Pilot Study 1

Forty Psychology and Educational Sciences undergraduate students (28 female and 12 male; ages ranging from 18 to 24 years old), after observing a reproduction of two of the pictures we used in our experiments (cf. Figure 1), were asked to write, at least, five traits of "the people that could have a credible opinion about this kind of

pictures". Respondents produced 73 different traits, 32 of which with more than one mention.

Three categories were formed by aggregating traits with a similar semantic meaning. 'Creative' (frequency = 26) was aggregated with 'Creative mind' (frequency = 2); 'Artistic' (frequency = 10) was aggregated with 'Art knowledgeable' (frequency = 5) and with 'Esthetic' (frequency = 1); 'Sensitive' (frequency = 8) was aggregated with 'Subjective' (frequency = 8). The categories received the name of the most frequent trait. The analysis of the frequencies of the categories and remaining traits, revealed an accentuated decrease between the fifth more mentioned trait, Abstract (frequency = 15) and the sixth more mentioned trait (frequency = 8). We thus decided to select the following traits: creative (28), imaginative (19), artistic (16), sensitive (16), and abstract (15).

The five selected traits (named 'Relevant traits') were embedded in a longer list of 14 traits including five traits with an opposed meaning (named 'Opposed traits'), 'realistic', 'practical', 'objective', 'rational', and 'concrete', and four filler-traits, 'fond of nature', 'athletic', 'lazy' and 'active'. The 14 trait-list was pre-tested to ensure that Relevant and Opposed traits had identical values for Psychology undergraduates. We then proceed with the next pilot study.

Pilot Study 2

Fifty-two undergraduate students attending an introductory course to Psychology (44 female and 8 male; age range 18-28 years old, M = 19.02, SD = 1.73) and ensuing either from the high-school Arts area (23) or from the high-school Sciences area (29), were asked to answer a questionnaire about the characteristics of Psychology sophomores. Half of the respondents were asked to first think about students ensuing from the high-school Arts area and then to mark into what extent they possessed, in their opinion, each of the 14 traits, in 7-point scales (1=nothing at all; 7=very much). Then they were asked to think about students ensuing from the high-school Sciences area and to rate those students on the same 14 traits. For the other half of the respondents the target groups order was reversed: they were asked to rate first Science area students and then Arts area students.

Results

We first averaged the ratings of the Relevant traits relative to Sciences students (Cronbach's α = .75) and to Arts students (Cronbach's α = .75) into two new variables, Sciences Relevant traits and Arts Relevant traits. Then, we averaged the ratings of the opposed traits relative to Sciences students (Cronbach's α = .80) and to Arts students (Cronbach's α = .74) into two new variables, Sciences Opposed traits and Arts Opposed traits. We then conducted an Area x Order x Target Group (Arts vs. Sciences) x Traits (Relevant vs. Opposed) ANOVA, in which Target Group and Traits were within-participants factors.

The Traits x Target Group interaction revealed significant, $F(1, 48) = 188.52$, $p < .001$, $\eta^2 = .80$. Indeed, Arts students were rated higher in relevant traits than Sciences students, $M = 5.11$, $SD = .77$ and $M = 3.31$, $SD = .80$, respectively, $F(1, 51) = 112.34$, $p < .001$, $\eta^2 = .69$, and were rated lower in opposed traits, $M = 3.56$, $SD = .76$ and $M = 5.65$, $SD = .77$, $F(1, 51) = 151.12$, $p < .001$, $\eta^2 = .75$.

The analysis of differences across Traits also revealed significant: Arts students were rated higher in relevant than in opposed traits, $F(1, 51) = 104.61$, $p < .001$, $\eta^2 = .67$, and Sciences students were rated higher in opposed than in Relevant traits, $F(1, 51) = 182.44$, $p < .001$, $\eta^2 = .78$. There was no interaction with Area, $F(1, 50) = 1.61$, *ns*, $\eta^2 = .007$, showing that the respondents rated the target groups similarly independently of their respective membership group (cf. Figure 2)[6].

In the whole, the results supported our initial idea; we may assume thus that, in the main experiment, Arts students are perceived as a more credible source than are Sciences students.

---

[6] The analysis also revealed a significant main effect of Traits, $F(1, 50) = 26.68$, $p < .001$, $\eta^2 = .35$, showing that the respondents, evaluated both groups as possessing the opposed traits more than the relevant traits, $M = 4.21$, $SD = .48$ and $M = 4.60$, $SD = .46$, respectively. There were no effects of Target Group or Area, $F(1, 50) = 1.62$, *ns*, $F(1, 50) = 1.31$, *ns*, respectively. The main effect of Traits was qualified by an interaction with Area, $F(1, 50) = 4.22$, $p = .05$, $\eta^2 = .08$, showing that although Sciences students judged both target groups higher in the opposed items than in the relevant items, $M = 4.23$, $SD = .41$ and $M = 4.48$, respectively,$SD = .45$, $t(28) = 2.61$, $p = .01$, Arts Students judgments were more extremized, $M = 4.19$, $SD = .59$ and $M = 4.76$, $SD = .42$, respectively, , $t(22) = 4.32$, $p < .001$. Finally, an interaction of Area and Target Group, $F(1, 50) = 25.71$, $p < .001$, $\eta^2 = .34$, revealed that Sciences students rated their own group higher than the out-group, $M = 4.60$, $SD = .45$ and $M = 4.11$, $SD = .45$, respectively, $t(28) = 4.63$, $p < .001$, and the same occurred among Arts students, $M = 4.33$, $SD = .48$ and $M = 4.62$, $SD = .50$, respectively, $t(22) = 2.61$, $p = .02$.

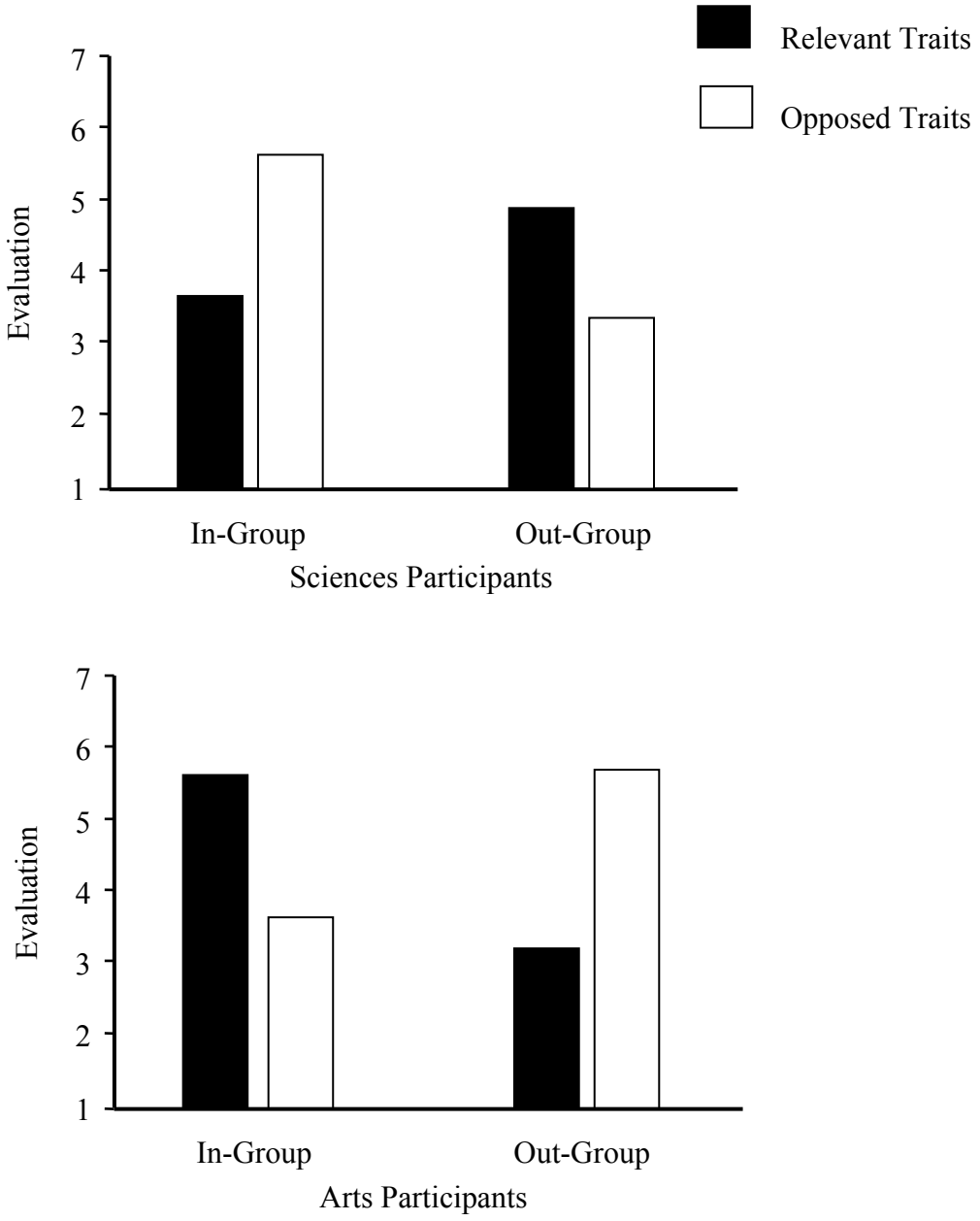

Figure 2. In-group and out-group evaluations in relevant and opposed traits as a function of respondents' high-school area (Pilot study 2).

Main Experiment

Method

Participants and design. Thirty-five students of a Psychology introductory course (29 female and 6 male; ages ranging from 17 to 20 years old, M = 18.30, SD = .80) volunteered to participate. Eighteen ensued from the high-school Arts area, and the remaining 17 participants ensued from the high-school Sciences area. We employed a 2(Group: Sciences vs. Arts) x 2(Norm: In-group vs. Out-group) mixed design in which Norm was a within-subject factor.

Procedure. The procedure was similar to the procedure of the previous experiment with the following exceptions. As they arrived to the laboratory, participants were asked their high-school area and then indicated to sit at one table of the two existing in the room. Three or four Sciences students sat at one table, and three or four Arts students sat at the other table. This procedure was aimed to make their group membership salient. Each group sat around a large table facing a computer screen where the pictures were displayed. The two groups were sitting so that they could see only the screen on their table. The experiment was presented as part of a study on the esthetical preferences of students ensuing from the Sciences and the Arts school areas. In the learning phase, pictures were labeled Sciences or Arts depending on whether they allegedly were preferred by large samples of students of each respective area. The distractive piece of music, used in the previous experiment, was played in the background with the excuse that that was the normal procedure of the experiment.

Results

Recognition and recall. As in the previous experiments, we computed a recognition index by summing the pictures correctly recognized (minimum = 0; maximum = 20). The one-way ANOVA of Group on the recognition index was non-significant, $F(1, 34) < 1$, and the mean recognition was not different from chance, M = 10.07, SD = .65, $t(34) < 1$.

In the written report, fifteen participants declared having found a distinction between the two types of pictures, but none reported the actual graphic details. Furthermore, one participant reported a distinction, vertical as opposed to horizontal

pictures (cf. participant # 1 in Table 2), which resembled the actual difference between the pictures but her recognition index indicates that she classified the pictures at chance (10.75). Therefore, her data were kept in the analysis. The reports mention features of the pictures, e.g., dark vs. light or compact vs. sparse, that were not consensual across balance conditions (cf. Table 2).

No.	Group	Sciences Pictures	Arts Pictures
		Balance 1	
1	**Scie**	**More horizontal lines**	**More vertical lines**
5	Arts	Very dense	More abstract and bigger
16	Scie	Darker and more geometrical	Lighter and less geometrical
17	Scie	More rigid and cubic	Have waves with softer lines
18	Scie	More abstract	More objective
19	Scie	More abstract	Less abstract
21	Arts	More abstract	More concrete with landscapes
		Balance 2	
10	Scie	More consistent	-
11	Scie	Abstract, indefinable	More objective
12	Arts	More compact, closer	-
13	Arts	More abstract and geometrical	-
14	Arts	More detailed, with no affective associations	-
22	Arts	-	Human figures, less defined and less filled
23	Arts	Darker	Lighter
28	Scie	More subjective	-

Table 2. Reports on the distinction between the two series of pictures ordered by balance condition and participants' group (Experiment 2). The responses in bold characters refer pictures' details resembling the actual distinction. Note: Scie = Sciences.

Conformity. We averaged the ratings of the pictures into two new variables of conformity to in-group norms and conformity to out-group norms (Norm). As in the previous experiment, we began by examining the two new variables jointly for two reasons: the first reason is that conformity in the present intergroup context is represented by preference for one group preferred pictures and rejection of the other group preferred pictures; the second reason is that the two kinds of pictures to be judged were intermingled (it is more likely that the two types of pictures affect each other's judgments). We, thus, conducted a Group x Norm ANOVA, with Norm as within-participants factor. Consistent with our predictions, a Group x Norm interaction, $F(1, 33) = 6.28$, $p = .017$, $\eta^2 = .16$, revealed that whereas Arts participants preferred in-group pictures to out-group pictures, $M = 4.01$, $SD = .64$ and $M = 3.69$, $SD = .60$, respectively, $F(1, 33) = 10.10$, $p = .003$, Sciences participants did not preferred one type of pictures to the other, $M = 3.74$, $SD = .76$ and $M = 3.79$, $SD = .90$, respectively, $F(1, 33) < 1$. All the other effects were non-significant, highest, $F(1, 33) = 3.70$, *ns* (cf. Figure 3).

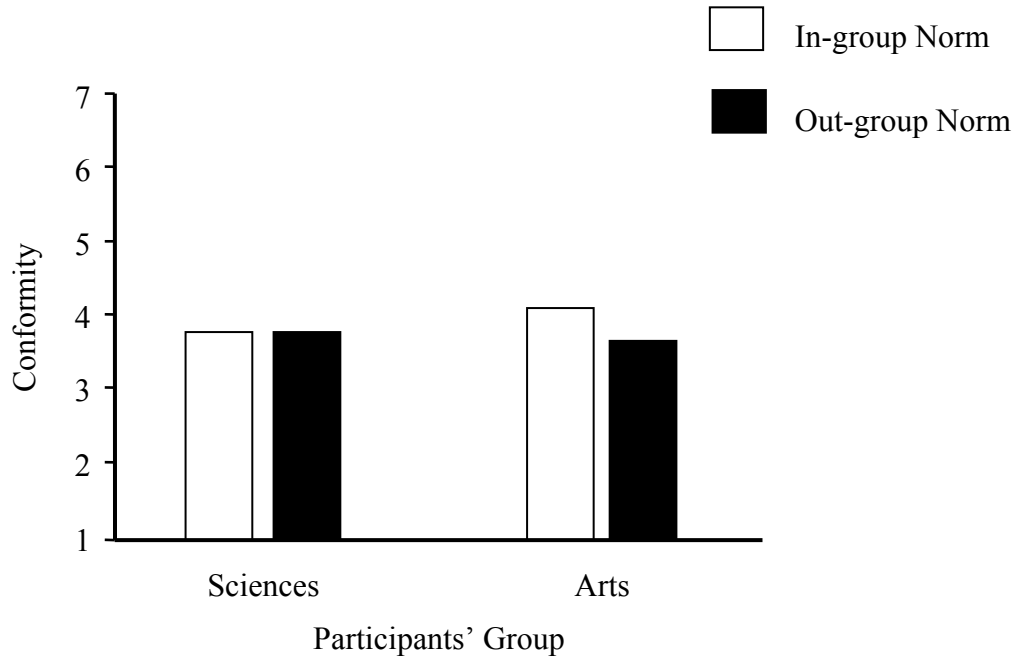

Figure 3. Means of conformity to in-group and out-group norms as a function of participants' group (Experiment 2).

The scores of preference for each kind of pictures, analyzed separately, did not differed as a function of Group, $F(1, 34) = 1.19$, *ns*, and $F(1, 34) < 1$, for in-group and out-group pictures, respectively. The difference of mean ratings of in-group and out-group pictures from the middle of the scale (testing preference or rejection of pictures in absolute terms), showed a single effect in Arts participants' rejection of out-group pictures, $t(17) = 2.16$, $p = .05$; all other effects, highest, $t(16) = 1.37$, *ns.*

Conformity and recognition. Similar to the previous experiment, we examined the relationship between conformity and recognition dividing the participants into 'good' and 'bad' recognizers by median-split of the recognition index, $M = 9.51$, $SD = .39$ and $M = 10.60$, $SD = .30$, respectively. We then entered the new variable as a between-participants factor in the Group X Norm ANOVA. There were no significant effects involving the new variable, highest, $F(1, 31) = 2.61$, *ns*. These results suggest that the level of recognition of the group norms did not affected significantly participants' judgments.

Discussion

The results supported our predictions. Whereas Arts participants' judgments were affected by the implicit norms, Sciences participants were not. In the case of Arts participants, in-group influence led to the rejection of out-group norm not to a significant adoption of the in-group norm. However, given the fact that in-group and out-group pictures were evaluated in random order, it seems reasonable to assume that these participants' judgments were influenced by their group membership. In contrast, Sciences participants appeared to be unaffected by both group norms. We did not introduce measures indicating whether non-conformity was due to lack of relevance of their group membership in the current context (understandable given its lack of competence in the task), to an automatic rejection of out-groups' norms, or to the concurrence of both reasons. The experiment missed these identification measures as well as a check of participants' perception of groups' credibility in the task. The two next experiments were aimed to fulfill these lacunae.

Nevertheless, the present results are hardly explainable by the traditional model of group influence. The model maintains that individuals tend to internalize informational influences and to comply with normative influences (e.g., Deutsch &

Gerard, 1955; Kelman, 1958). Assuming that internalization corresponds to automatic conformity and compliance to controlled conformity (cf. e.g., Moscovici, 1980; 1985), why did our Arts participants differentiate between the two groups implicit norms, especially if the credibility of the in-group in the task was not call in? If Arts participants preferred Arts to Sciences' norms, because they were sensitive to their different informational influence, why were Sciences participants *not* sensitive to the same difference? In contrast, the results are consistent with the assumptions of Referent Informational Influence (Hogg & Turner, 1987; Turner, 1987; 1991), which assumes that the group informational influence is inseparable from the normative component. The norm is internalized depending on the importance of group membership, and its relevance in the current situation.

The Referent Informational Influence model holds that individuals routinely rely on the standards of meaningful in-groups to make sense of situations, reducing uncertainty, to form opinions and attitudes, and to regulate their actions. Our results, showing that Arts students were sensitive to in-group and out-group implicit preferences even if the credibility of the in-group was not salient, support this idea.

Experiment 3

Conformity to Explicit Norms as a Function of Source's Credibility and Source's Group Membership

Although confirming our predictions, the previous experiment did not elucidate on the motives underlying participants' conformity or non-conformity. Furthermore, in the previous study, we used natural groups whose stereotypes were opposed in what concerns the attributes of credibility relevant for the task. We assumed that the nature of task would invoke these attributes, but we did not assessed participants' perceptions of groups' credibility. The present experiment is aimed to cover some of these lacunae by using artificial groups and by measuring variables associated to conformity.

To ensure that all participants had the same information about the groups and that credibility was a salient aspect of the experiment, we designed an experiment, in which participants, after being randomly categorized into artificial groups (cf. above, Tajfel et al, 1971), were told that their group was either more or less competent than the out-group in the task that they were to perform subsequently. Participants were asked, at the end of the experiment, about perceptions about the in-group and the out-group competence in the task. We expected that participants categorized in the non-competent group, given the importance of this dimension in the situation, would misrepresent the experimenter's information so that the out-group would not be perceived as more competent than was the in-group. This prediction is consistent with the idea that correctness is not an objective attribute of reality and credibility is not an objective attribute of sources but the result of social agreements (cf. Moscovici, 1976; Turner, 1991).

In this experiment, we also measured participants' identification with the in-group and with the out-group. This assessment had two goals: the first goal was to check if members of non-competent group identify more with the in-group than with the out-group (due to the attractiveness of the out-group, out-group identification was a possibility that should be checked); the second goal was to check on the relationship among identification, perceived credibility and conformity. Specifically, we hypothesized the three variables to be highly correlated.

Finally, we examined participants' explicit conformity to the group by calling participants' attention to the distinctive norms of the two groups before the learning phase. We could thus compare the results with those of the previous experiment in which conformity was implicit.

Our final predictions for the present experiment are the same of the previous one. We expect conformity to in-group norms and rejection of out-group norms in the case of competent group members and non-conformity to any of the norms in the case of non-competent members. Consistent with the Referent Informational Influence model, we expect thus that the tendencies of explicit conformity would be identical to those of implicit conformity. According to the model, group influence is single process with a direct *and* indirect impact in members' opinions (cf. David & Turner, 1992; Turner, 1991). However, calling participants' attention to the distinctive norms of the in-group enhances the prescriptiveness of those norms (e.g., Cialdini, Kallgren & Reno, 1991; Marques et al, 1998a; 1998b) and induces the need for a distinctive representation of the in-group (cf. Hogg & Turner, 1987; Turner et al, 1987; Turner, 1991). We thus expect more clear patterns of conformity than those obtained in the previous experiment. That is, we do not expect explicit norms to increase simply conformity to the in-group. That would indicate that controlled conformity concerns only to normative influences. Instead, we expect control to increase Referent Informational Influence. In the case of the competent group, given that the in-group provides a satisfactory social identification, control increases in-group conformity and the rejection of the out-group norms. In the case of the non-competent group, which does not provide a relevant reference in the current context, control will not change the tendency to non-conformity.

Method

Participants and Design. Thirty-seven undergraduate students enrolled in a Social Work course (28 females and 9 male; ages ranging between 20 and 41; M = 24.76; SD = 4.39) volunteered to participate in the experiment. The design was a 2(Group: Competent vs. Non-competent) X 2(Norm: In-group vs. Out-group) in which Group was a between-participant factor and Norm a within-participant factor.

Procedure. The experiment was conducted in two sessions. The first session was aimed to prepare a convincing context for the subsequent categorization of participants

into two groups. Participants were told that: “Recent research has found the existence of an important dimension of personality that can be detected by a simple perceptive test. In the present session, you will complete this test. We will not say more about this personality dimension now except that it is the origin of two very distinct perceptive types. Your results will be communicated to you in the next session as well as an explanation of this personality dimension.” The bogus test that participants were asked to complete, consisted in the observation of briefly presented ambiguous pictures, after which participants had to describe the first figure they saw in each picture [7].

One week later, participants were randomly distributed by three sessions of 11-13 participants each. As they arrived, they were asked to sit facing one of two screens existent in the room. The two groups were disposed in the room back to back, so that they could not see each other. Participants were then given the feedback of their results. Half of the participants were randomly assigned to the Proficient type and the other half was assigned to the Progressive type. Participants also read the characteristics of both perceptive types: Proficient were described as “creative, imaginative, artistic, sensitive and abstract” and Progressive were described as “realistic, objective, practical, concrete, and rational”. We used the traits obtained in Pilot Study 2 to ensure that the description of one of the artificial groups matched the characteristics valued in the esthetic judgment of the pictures and that the description of the other group matched the characteristics with the opposed meaning.

To reinforce the credibility of the Proficient type in the task, participants were also told that, “The two perceptive types differ in several aspects. Differences in various aptitudes are currently being investigated. The present investigation is aimed to study the esthetic taste of Proficient and Progressive. Previous results have shown that the esthetic taste of the Proficient persons is, in general, of high quality, similar to that of experts in fine art, whereas the taste of Progressive persons is, in general, of low esthetic quality.” Participants observed a graph of bars depicted in their booklets reinforcing the idea of Proficient’s superior esthetic taste as opposed to Progressive’s inferior esthetic taste.

[7] The procedure to create artificial groups was based on Marques and colleagues (2001a; Experiments 2 - 3).

The subsequent procedure was identical to the one of the previous experiment with the following exception: To ensure that participants became aware of the group norms, when introducing the learning task, the experimenter noticed that: "Interestingly, the pictures preferred by Proficients present always this detail (the graphic detail was pointed out in a sample picture displayed on the screen), and the pictures preferred by Progressives present always this other detail (the other graphic detail was pointed out in another sample picture displayed on the screen)."

Finally, participants were asked to register their group membership and to answer a brief questionnaire including the following questions: "To what extent do you think that Proficients are competent in the just finished task?" and "To what extent do you think that Progressives are competent in the just finished task?". Participants also answered the following six questions aimed to measure their identification with in-group and out-group. The questions were extracted from recent research on social identity (e.g., Hogg & Hains, 1996; Marques, Abrams & Serodio, 2001), and included, "To what extent do (would) you like to have your (the other) perceptive type?", "To what extent do you feel similar to the characteristics of your (the other) perceptive type?", "To what extent do you define yourself as Proficient / Progressive?" All items were answered in 7-point scales with labeled ends (1 = Absolutely nothing; 7 = Very much). In the end of the session, participants were thoroughly debriefed, ensuring that every participant clearly understood that the perceptive test and perceptive types were false.

Results

Group identification. All participants were aware of their group membership and of the norms of the two groups. The items referring to in-group identification were averaged into a single index of in-group identification (*Cronbach's alpha* = .80), M = 6.46, SD = 1.31. The items related with identification to the out-group could not be averaged (*Cronbach's alpha* = .57). Therefore, we retained the item "To what extent do you feel similar to the characteristics of the other perceptive type?" because it had the highest inter-item correlation, r = .50 (all the others, highest, r = .37). We subsequently conducted a Group (Competent vs. Non-competent) X Identification (In-group vs. Out-group) ANOVA with the latter as within-participants factor. The results show that all

participants identified more with the in-group than with the out-group, M = 6.46, SD = 1.31 and M = 3.03, SD = 1.30, respectively, $F(1, 35) = 167.48$, $p < .001$, $\eta^2 = .83$. The significant interaction with Group, $F(1, 35) = 28.90$, $p < .001$, $\eta^2 = .45$, indicates that members of the competent group identified more with the in-group relatively to the out-group, respectively, M = 7.25, SD = .97 and M = 2.55, SD = 1.00, respectively, $F(1, 35) = 182.57$, $p < .001$, than members of the non-competent group, respectively, M = 5.53, SD = 1.00 and M = 3.59, SD = 1.42, respectively, $F(1, 35) = 26.47$, $p < .001$.

Perceived competence of the groups. To examine the differences in perceived competence of the two groups, we conducted a Group (Competent vs. Non-competent) X Perceived Competence (In-group vs. Out-group) ANOVA, with the latter as within-participants factor. The results showed a main effect of Perceived competence, M = 5.30, SD = 1.15 and M = 4.46, SD = 1.63, respectively, $F(1, 35) = 6.08$, $p = .02$, η^2 = .15. The Group x Perceived competence interaction, $F(1, 35) = 21.73$, $p < .001$, $\eta^2 = 38$, revealed that, whereas members of the competent group perceived the in-group as more competent than the out-group, respectively, M = 5.70, SD = .86 and M = 3.60, SD = .43, respectively, $F(1, 35) = 27.64$, $p < .001$, members of the non-competent group did not perceive one group more competent than the other, M = 4.82, SD = 1.29 and M = 5.47, SD = 1.23, respectively, $F(1, 35) = 2.23$, *ns.*

Conformity. We averaged the ratings of the pictures into two new variables of conformity to in-group norm and conformity to out-group norm (Norm). As in the previous experiments, we began by conducting a Group x Norm ANOVA, with Norm as a within-participants factor. The analysis revealed a main effect of Norm, $F(1, 35) = 18.89$, $p < .001$, $\eta^2 = .35$, qualified by an interaction with Group, $F(1, 35) = 18.90$, $p < .001$, $\eta^2 = .35$. In general, participants preferred in-group pictures to out-group pictures, M = 4.71, SD = .80 and M = 3.87, SD = 1.04, respectively. As expected, the Group x Norm interaction indicates that in-group conformity was significant among the participants who had been categorized in the competent group, M = 4.99, SD = .72 and M = 3.43, SD = .86, respectively, $F(1, 35) = 41.12$, $p < .001$, but not among those who had been categorized in the non-competent group, M = 4.39, SD = 1.02 and M = 4.39, SD = .79, respectively, $F(1, 35) < 1$.

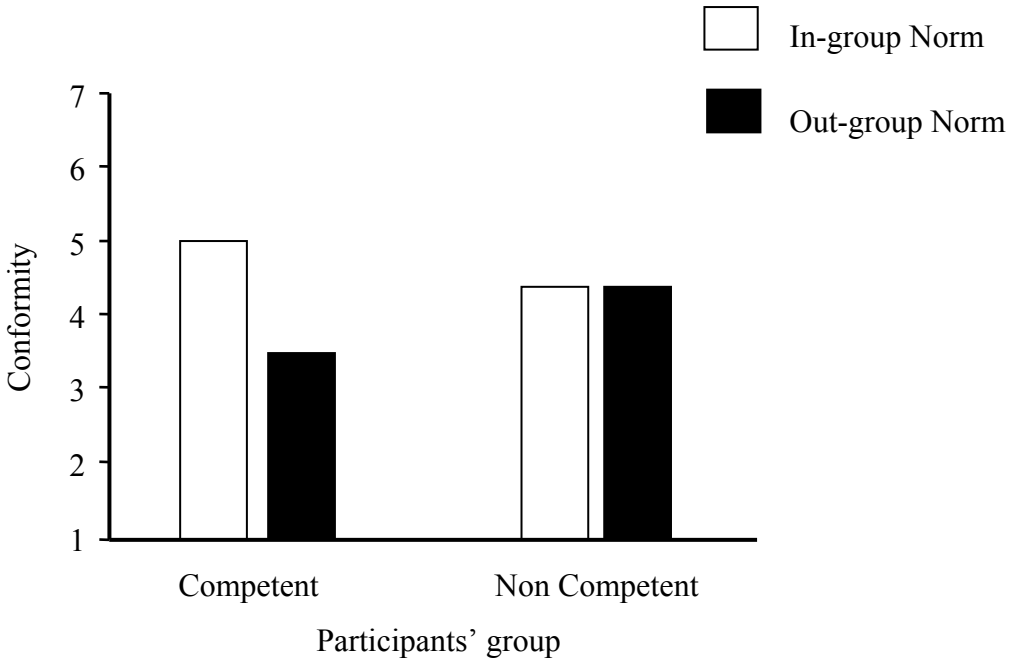

Figure 4. Means of conformity to in-group and out-group norms as a function of groups' competence in the task (Experiment 3).

Competent group members conformed more to in-group norms than non-competent group members, $F(1, 35) = 5.93$, $p = .02$. Conversely, non-competent group members conformed more to out-group norms than competent group members, $F(1, 35) = 9.63$, $p = .004$ (cf. Figure 4). Comparing the rates of in-group and out-group pictures with the middle of the scale, competent participants preferred in-group pictures, $t\ (19) = 6.18$, $p < .001$, and rejected out-group pictures, $t(19) = 2.97$, $p = .008$, whereas non-competent participants did not preferred or rejected in-group or out-group pictures, highest $t\ (16) = 2.03$, *ns*.

Conformity, identification and perceived groups' competence. To examine the relationships between the three variables we first computed three indexes. The index of Relative In-Group Competence was obtained by subtracting the score of perceived competence of the out-group from the score of perceived competence of the in-group so that the more positive the more the participant perceives the in-group as superior to the out-group. The index of Relative In-group Identification was obtained by subtracting

identification from the out-group from identification to the in-group so that the more positive the more the participant identified to the in-group relatively to the out-group. Finally, the index of Relative In-group Conformity was obtained by subtracting out-group conformity from in-group conformity so that the more positive the more the participant conforms to the in-group relatively to the out-group.

Relative In-group Conformity was significantly correlated to Relative In-group Identification, $r = .57$, $p < .001$, and to Relative In-Group Competence, $r = .36$, $p = .03$. Relative In-group Identification was marginally correlated to Relative In-Group Competence, $r = .28$, $p = .09$. We also correlated the three indexes within each Group condition. Relative In-group Conformity was correlated to Relative In-group Identification in the competent group condition, $r = .52$, $p = .02$, $n = 20$; other correlations, highest, $r = .28$, *ns.*

Discussion

The results support the idea that informational influence is inseparable from normative influence and that both aspects concur to conform to in-group norms: identification is associated with conformity directly, thus increasing normative influences, and indirectly because it relates to the perceptions about the validity of group norms, thus increasing informational influences.

However, the results also indicate that the above relationship is stronger when in-group credibility is externally recognized. When group's credibility is questioned by external sources the relationship among in-group identification, perceived competence and conformity decreases. Several aspects may have contributed for this result namely the conflict between opposed motives. This conflict is also reflected in the perceptions of in-group and out-group competence. Indeed, even if the ascriptions of credibility came from a neutral or impartial source, the experimenter, non-competent members distorted the information and perceptually leveled the two groups. The perception of leveled credibility is consistent with their non-preference for one of the two group norms.

If compared with the results of Experiment 2, competent group members displayed more in-group conformity as well as rejection of out-group norms. The fact

that the same did not occurred in non-competent group members suggests that explicit norms do not boost exclusively normative influences. The larger influence of explicit in-group norms as regards implicit norms seems to depend mainly on its perceived validity, not of self-imposed pressure to comply.

It could be argued that there were some noticeable differences between Experiments 2 and 3 preventing the comparison of their respective results. In the next experiment, we search further validation of our hypotheses by comparing directly the implicit and explicit influence of competent and non-competent groups.

Experiment 4

Effects of Sources' Credibility and Group Membership on Conformity to Explicit and Implicit Norms

In the present experiment, we categorized the participants in two artificial groups with different competence in the task, using the same procedure as in Experiment 3, and added a condition in which participants were unaware of the groups' norms. Our predictions are the same of the previous experiments: competent group members will conform to in-group norms and non-competent group members will not conform to any of the group norms, that is, there will be no differences between the patterns of implicit and explicit conformity. As argued before, explicit norms are more prescriptive (Marques et al, 1998) and enhance the need for positive distinctiveness (Turner et al, 1988). Consequently, we expect an increase of in-group conformity from the implicit to the explicit condition in the case of competent group members for whom the in-group is a valid reference. In what concerns the relationships of in-group identification, perceived competence with conformity we expect positive correlations, at least, when norms are explicit and the group is competent.

Method

Participants were 57 high-school pupils (37 female and 20 male; M = 16.61, SD = 2.65) that volunteered to participate. We used a 2(Norm Type: Explicit vs. Implicit) x 2(Group: Competent vs. Non-competent) x 2(Norm: In-group vs. Out-group) design, in which the latter factor was within-participants. The procedure was the same as in the previous experiment with the exception that, whereas participants in the explicit norm condition were called attention to the distinctive graphic details of the two groups' preferred pictures, participants in the implicit norm condition were not informed of the details.

Results

Identification. All participants recalled their correct perceptive type. To inspect on the participants' in-group identification we averaged the three items on identification to the in-group into an index of in-group identification (*Cronbach's alpha* = .85), and averaged the items on identification to the out-group into an index of out-group

identification (*Cronbach's alpha* = .82). We then conducted a Group x Norm Type x Identification (to the in-group vs. to the out-group) ANOVA in which Identification was a within-participants factor. The analysis yielded a single significant effect of the within-participants factor, $F(1, 53) = 45.91$, $p < .001$, $\eta^2 = .46$; all the other effects, highest, $F(1, 53) = 2.90$, *ns*, $\eta^2 = .05$. Participants identified more with the in-group than with the out-group independently of the fact that they belonged to the credible or to the not credible group, $M = 5.28$, $SD = 1.27$ and $M = 3.37$, $SD = 1.34$, respectively.

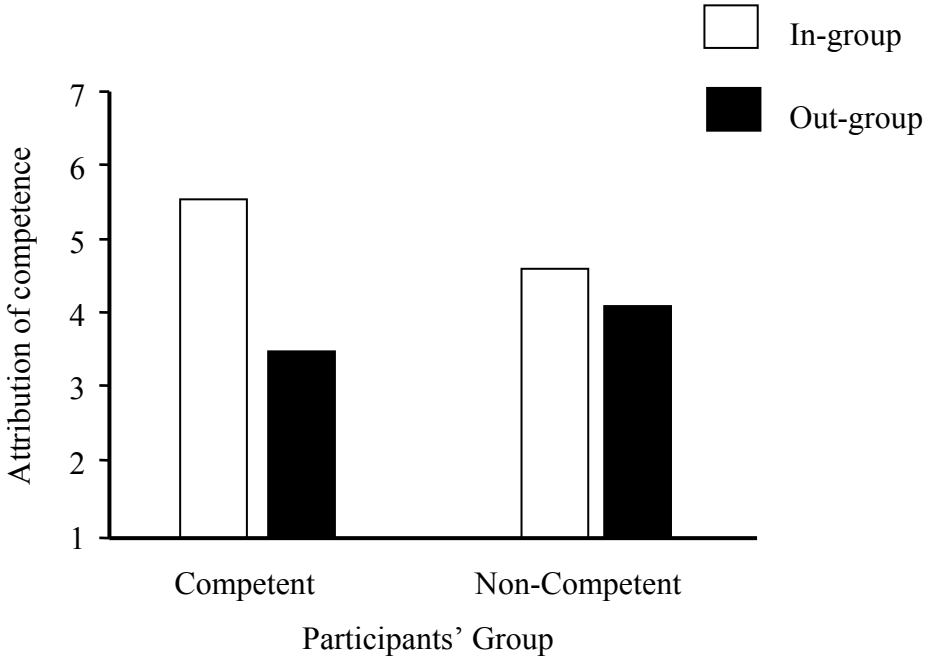

Figure 5. Means of attribution of competence in the task for in-group and out-group as a function of the categorization in the competent or in the non-competent group (Experiment 4).

Perceived groups' competence. We then inspected the responses to the two items that measured the perceived competence of the two groups in the task. A Norm Type x Group x Perceived Competence (of the in-group vs. of the out-group) ANOVA, in which Perceived Competence was a within-participants factor, revealed a significant effect of Group, $F(1, 53) = 10.82$, $p = .002$, $\eta^2 = .17$. All the other effects were non-significant, highest, $F(1, 53) = 3.70$, *ns*. Whereas competent participants evaluated the in-group as more competent in the task than the out-group, $F(1, 55) = 14.44$, $p < .001$, $\eta^2 = .21$, $M = 5.42$, $SD = 1.31$ and $M = 3.68$, $SD = 1.33$, respectively, non-competent

participants did not evaluate the in-group as more competent than the out-group, $F(1, 55) < 1$, $M = 4.77$, $SD = 1.61$ and $M = 4.31$, $SD = 1.59$, respectively (cf. Figure 5).

Recognition and recall. We computed a recognition index by summing the number of pictures correctly recognized (minimum = 0; maximum = 20). The Norm Type x Group ANOVA on the recognition index yielded a significant main effect of Norm Type, $F(1, 56) = 67.31$, $p < .001$, $\eta^2 = .56$. Other effects were all non-significant, highest effect, $F(1, 56) = 3.46$, *ns*. In the implicit condition, recognition was not different from chance, $t(28) < 1$, $M = 10.14$, $SD = 2.59$, whereas in the explicit condition, recognition was superior, $t(27) = 9.87$, $p < .001$, $M = 17.54$, $SD = 4.04$.

In the implicit condition, 23 participants reported having found a distinction between the two series of the pictures but none was able to articulate the actual difference, or a distinction close to the actual difference. Five participants reported that Proficient pictures were lighter than Progressive pictures, but three were in one balance condition and two were in the other balance condition (cf. Table 3). One participant reported that the Progressive pictures were darker than the Proficient pictures. In the explicit condition, all participants mentioned the graphic details except for eight participants that, as revealed in the debriefing, thought they should mentioned other features apart from the details.

No.	Group	Proficient Pictures	Progressive Pictures
		Balance 1	
16	Progr	More creative but hardly comprehensible	More comprehensible
17	Progr	Very complicated	More comprehensible
18	Progr	Clearer more blank spaces	Darker
19	Progr	Composed by smaller objects	Composed by larger objects
21	Progr	With smaller characters	With larger characters
25	Progr	Lighter with more blank spaces	Darker
27	Progr	Funnier and more elaborated	More simple
20	Profic	More declarative and comprehensible	Harder to understand
22	Profic	More explicit, show creativity	More practical (abstract)
23	Profic	Explicative, interesting, enhance the beauty of the pictures and of reality	More practical, simple and abstract
28	Profic	With beautiful figures with imagination	More practical and uglier
		Balance 2	
5	Progr	More round and complex	More abstract and simpler
6	Progr	Simpler	More complex
7	Progr	More complicated and artistic	Simpler
9	Progr	Black dots are more concentrated	More white spaces
12	Progr	More abstract	With some figures like animals, etc.
13	Progr	Lighter	Darker
14	Progr	Lighter with more dots	Darker with more squares
1	Profic	-	More realistic with real forms
3	Profic	-	Smaller
4	Profic	More varied texture	Less varied texture
10	Profic	More irrational, e.g., with waves, oscillations	Less irrational
11	Profic	Lighter	Darker

Table 3. Reports on the distinction between the two series of pictures in the implicit norm condition ordered by balance condition and participants' group (Experiment 4). Note: Profic = Proficient; Progr = Progressive.

Conformity. We first averaged the ratings of the pictures into two new variables of conformity to the in-group norm and conformity to the out-group norm (Norm). Then we conducted a Norm Type x Group x Norm ANOVA, with Norm as a within-participants factor. According to our hypothesis, we expected a main effect of Norm, showing that participants conformed more to in-group than to out-group norms, and a Group x Norm interaction showing that this effect was significant only in participants categorized in the competent group.

		In-Group Pictures	Out-Group Pictures	*t-test*
Implicit	Competent Group	4.20[a]	3.70 [a]	2.21
		0.85	*0.67*	*.04*
	Non-competent Group	4.25 [a]	3.85 [a]	1.72
		0.82	*0.98*	*ns*
Explicit	Competent Group	4.75 [a]	3.25 [a]	3.38
		1.08	*0.86*	*.005*
	Non-competent Group	3.66 [b]	3.54 [a]	< 1
		0.92	*0.91*	-
Sub-totals	Competent Group	4.47 [a]	3.48 [a]	3.77
		0.99	*0.79*	*.001*
	Non-competent Group	3.96 [b]	3.69 [a]	1.52
		0.91	*0.94*	*ns*
	Implicit	4.23 [a]	3.77 [a]	2.84
		0.82	*0.81*	*.008*
	Explicit	4.24 [a]	3.38 [a]	2.90
		1.13	*0.88*	*.007*
Total		4.23	3.58	3.90
		0.98	*0.86*	*< .001*

Table 4. Means of conformity to in-group and out-group norms (standard deviation in italics) as a function of groups' competence and type of norm, and t-test of differences (significance in italics). Pairs of means in column with different superscripts are different at $p < .05$, using t-tests (Experiment 4).

The analysis revealed a main effect of Norm, $F(1, 53) = 21.85$, $p < .001$, $\eta^2 = .29$, qualified by an interaction with Group, $F(1, 53) = 7.39$, $p = .009$, $\eta^2 = .12$. In general, participants conformed more to the in-group than to the out-group norms (cf. Table 4). As expected, the Group x Norm interaction indicates that this effect was significant among the participants categorized in the competent group, $F(1, 55) = 26.16$, $p < .001$, $\eta^2 = .32$, but not among those categorized in the non-competent group, $F(1, 55) = 1.59$, *ns*, $\eta^2 = .02$.

Also consistent with our predictions, the Norm Type x Norm interaction was non-significant, $F(1, 53) = 1.74$, *ns*, $\eta^2 = .03$, suggesting that conformity to the in-group norm did not depend on participants' awareness of the norms. Specifically, participants conformed more to the in-group than to the out-group norm, both in the explicit condition, $F(1, 55) = 16.73$, $p < .001$, $\eta^2 = .22$, and in the implicit condition, $F(1, 55) = 4.93$, $p = .03$, $\eta^2 = .06$.

The overall interaction was significant, $F(1, 53) = 5.65$, $p = .021$, $\eta^2 = .10$, indicating that the Group x Norm interaction was significant in the explicit condition, $F(2, 53) = 16.41$, $p < .001$, $\eta^2 = .36$, and marginally significant in the implicit condition, $F(2, 53) = 2.98$, $p < .06$, $\eta^2 = .07$. However, the Group x Norm interaction, within the implicit and explicit conditions, respectively, depicts identical patterns of responses that differ only in magnitude (cf. Table 4 and Figure 6). In the explicit condition, competent participants preferred in-group to out-group pictures $F(1, 53) = 32.63$, $p < .001$, more than non-competent participants, $F(1, 53) < 1$. Similarly, in the implicit condition, competent participants preferred in-group to out-group pictures, $F(1, 53) = 3.87$, $p = .05$, more than non-competent participants, $F(1, 53) = 2.09$, *ns* (cf. Figure 9). All the other results were non-significant, highest $F(1, 53) = 1.62$, *ns*.

Comparing conformity to in-group and out-group norms separately across conditions shows that conformity to the in-group norm was generally higher among competent than non-competent participants, but this effect revealed significant only in explicit conditions. In contrast, conformity to the out-group norm did not differed as a function of either Norm Type or Group. (cf. Table 4).

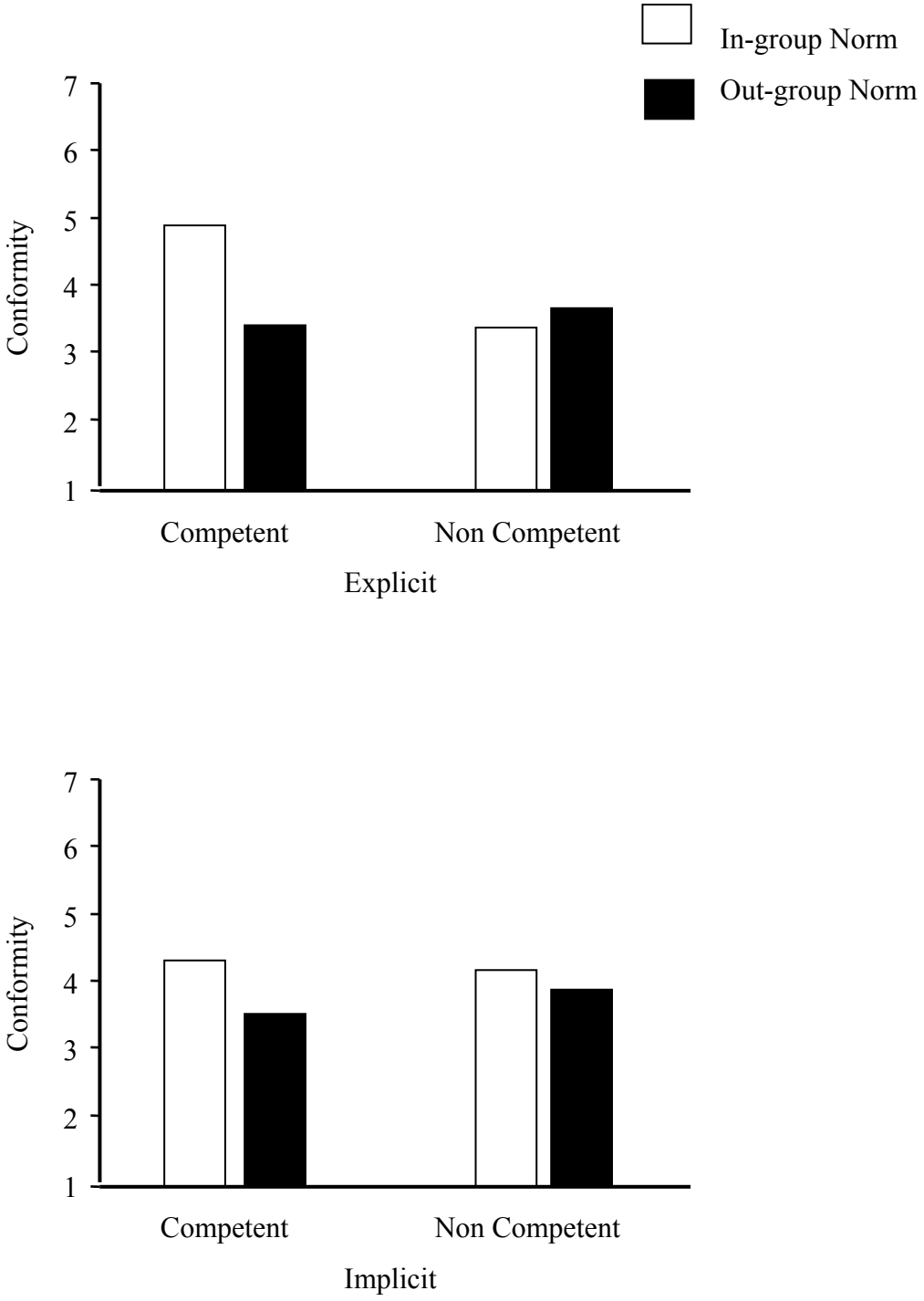

Figure 6. Means of conformity to the in-group and out-group norm as a function of groups' competence in the task in the explicit and implicit norm conditions (Experiment 4).

The tests of difference from the middle of the scale revealed that only competent participants in the explicit condition preferred in-group pictures and rejected out-group pictures, $t(14) = 2.69$, $p = .02$ and $t(14) = 3.39$, $p = .004$, respectively; other results, highest, $t(12) = 1.83$, *ns*.

Conformity and recognition. To check on the relationship between awareness of norms and conformity in the implicit norm condition, we divided participants of this condition into 'good' and 'bad' recognizers by median-split of the recognition index, $M = 12.42$, $SD = 2.11$ and $M = 8.53$, $SD = 1.42$, respectively, creating a new two-level variable, Recognition. We then performed a Group x Recognition x Norm ANOVA, which yielded a significant Norm x Recognition interaction, $F(1, 25) = 4.61$, $p = .04$. The decomposition of the interaction revealed that whereas 'bad' recognizers did not differentiate between in-group and out-group pictures, $M = 4.07$, $SD = .95$ and $M = 3.83$, $SD = .79$, respectively, $F(1, 27) = 1.95$, *ns*, 'good' recognizers preferred in-group to out-group pictures, $M = 4.44$, $SD = .52$ and $M = 3.68$, $SD = .91$, respectively, $F(1, 27) = 13.93$, $p = .001$. This effect was not qualified by a full interaction, $F(1, 25) = 1.68$, *ns*.

Norm Type	Group		Perceived Competence	Conformity
Implicit	Competent *n* = 16	Identification	.16	.11
		Perceived Competence	-	-.07
	Non-competent *n* = 13	Identification	.82**	.46
		Perceived Competence	-	.52
Explicit	Competent *n* = 15	Identification	.46	.55*
		Perceived Competence	-	.78**
	Non-competent *n* = 13	Identification	.47	-.07
		Perceived Competence	-	-.42

Table 5. Correlations between Relative In-Group Identification, Relative Perceived Competence and Relative In-Group Conformity within each between-participants cell (Experiment 4). Note: * $p < .05$; ** $p < .001$ (two-tailed)

Conformity, identification and perceived groups' competence. To examine the relationships between these three variables, we proceeded as in the previous experiment, by first computing three indexes: Relative In-Group Conformity, Relative In-Group Identification and Relative In-Group Competence. All correlations revealed significant: Relative In-Group Conformity was correlated to Relative In-Group Identification, r = .27, p = .05 and to Relative In-Group Competence, r = .36, p = .006; Relative In-Group Identification was correlated to Relative In-Group Competence, r = .49, p < .001. We then performed the same correlations within each between-participants cell (cf. Table 5).

Consistent with the previous experiment, Relative In-group Conformity was correlated to Relative In-group Identification in the explicit / competent group condition. In the present study, conformity was also highly correlated to perceived competence. Even though non-significant, the correlations of perceived competence among non-competent group members, positive with identification and negative with conformity, provide a hint on the dilemmas of low status group members. Conversely, correlations in the implicit / non-competent group condition are more consistent with our hypotheses. Nevertheless, conformity is not significantly correlated with the other variables.

Discussion

The results replicate our findings showing that participants' preferential conformity to in-group over out-group norms was independent of their awareness of the groups' norms. Similar to our previous results, this effect emerged only when the in-group entailed a valid reference in the context. The results also showed that this effect was significantly larger when participants were aware than when they were unaware of the groups' preferences indicating that conscious motives and beliefs about the validity of in-group norms increases conformity. Clarification of the norms increases their prescriptiveness and, consequently, members' normative behavior (e.g., Cialdini et al, 1991; Marques et al, 1998a). The motives related with the need for cognitive clarity of the in-group (e.g., Turner et al, 1987) and the need for a positive identity (e.g., Tajfel, 1978) are likely to play also a significant role in this process.

However, increased conformity to explicit norms cannot be attributable to the exclusive operation of normative influences; otherwise, results would show an analogous increase of in-group conformity among non-competent members. The results indicate that, although the influence of group norms depends decisively on individuals' awareness of the norms, the traditional assumption that normative influences depend more than informational influences on individual control (e.g., Moscovici, 1980; 1985) seems unfounded. Instead, the results are consistent with the Referent Informational Influence model, which postulates that, when group membership is meaningful, group norms are processed as a whole encompassing both normative and informational components.

The results also show an overall positive correlation among perceived in-group credibility, in-group identification and in-group conformity. However, this relationship between conformity and the other variables prevails only in explicit norms conditions, and, similar to Experiment 3, only when the in-group is credible. One possible interpretation for the low correlations in the implicit norm conditions is that whereas conformity is implicit, identification and perceived competence are explicit, thus, likely to reflect conscious motives. Nevertheless, it should be noticed that the results of non-competent participants were consistent with our hypothesis.

Conclusion

Consistent with recent findings showing that social identity processes operate at an implicit level (e.g., Cameira et al, 2002; Devine, 1989; Greenwald et al, 1998; Otten & Wentura, 1999; Perdue et al, 1990), our results suggest that in-group influence operates also at an implicit level. The analysis of implicit conformity seemed also relevant to question the traditional theoretical distinction between normative and informational influences. Our results showing that when the credible source was perceived as belonging to an out-group participants did not conformed more to its norm than to that of a non credible in-group, suggest that normative influence is as automatically effective as informational influence. The results support the Referent Informational Influence model of conformity (Hogg & Turner, 1987; McGarty et al, 1992; Turner, 1987; 1991).

In the second study, we shall examine the operation of implicit processes in normative differentiation. The next chapter is dedicated to review relevant literature on intragroup differentiation processes that are related with social identity.

CHAPTER 4

SOCIAL IDENTITY AND NORMATIVE DIFFERENTIATION

Not all members conform to the influence of the group and its norms. The extent into which members conform or deviate from group norms is a major cause for intragroup differentiation, dubbed *normative differentiation* in the remaining of the chapter[8]. Normative differentiation was early investigated in the context of small group dynamics (e.g., Cartwright & Zander, 1968) and in the context of minority influence (e.g., Moscovici, 1976; 1985). We shall briefly review these traditional approaches to normative differentiation.

Traditional Research on Normative Differentiation

Classical references in the study of reactions to group deviance in small groups are Schachter's (1951) and Festinger, Schachter and Back (1950) experiments. Theoretically, Festinger's (1950) theory of informal social communication is also a significant benchmark of this field. We have already tackled some of Festinger's (1950) principles in the previous chapter; therefore, we shall briefly review the hypotheses more relevant for the present topic and proceed with subsequent developments.

Group Pressures towards Uniformity

Festinger (1950) presents several postulates regarding group deviance and the group pressures towards uniformity. The author proposes that three group variables are related to the magnitude of pressures to uniformity: the perceived opinion discrepancy among group members, the relevance of the issue to the group function, and group cohesiveness. Two other variables related with the deviant members are predicted to increase pressures to uniformity: The perception of deviants as group members or the desire that they will be group members, and the perception that communication pressure will change their opinion. The theory also assumes that opinion change in deviant members is a function of the magnitude of the group pressure, their desire to remain in the group and the perceived support for their opinion in other groups.

[8] We use the term proposed by Marques, Abrams, Páez and Martinez-Taboada (1998b)

In his classical experiment, Schachter (1951) provided empirical support for some of Festinger's (1950) postulates. The author asked participants to participate in a group discussion, allegedly, aimed to form a club. There were 32 groups in four experimental conditions: high or low group cohesiveness and relevance or irrelevance of the issue of discussion. The participants were asked to discuss the treatment that should be given to Johnny Rocco, a juvenile delinquent. The case was presented in a sympathetic way to induce participants' favoring of a kindhearted treatment as opposed to punishment. Clubs were formed of five to seven participants and three confederates: the *mode*, which agreed with the group during all the discussion; the *slider*, which initially disagreed with the group, defending a harsh punishment of the delinquent, but allowing to be gradually persuaded by the group; and the *deviant*, which disagreed with the group during all the discussion, defending a harsh punishment of the delinquent.

Relevance was manipulated by the relevance of the discussion topic to the purpose of the club. For half of the participants, the purpose of the club was either editorial, to advise national magazines on articles and policy, or case study, to advise a group of lawyers, judges and social workers on the treatment of delinquents. For the other half of the participants, the club was aimed to form a local theatre company or a local radio station. The discussion of the juvenile delinquent case was made relevant for the former two clubs but not for the two latter clubs. *Cohesiveness* was manipulated by the attractiveness of the club to the members. The case-study club was formed by participants that previously showed high interest in joining the club, and the editorial club was formed by participants that previously showed high interest in joining the case-study club. The theatre club was formed by participants that previously showed high interest in the theatre activity, and the radio club was formed by participants that previously showed high interest in joining the theatre club.

The analysis of communications during the discussion revealed that communications to deviants increased linearly during the discussion and were stronger in the high relevance and high cohesiveness conditions than in the low relevance and low cohesion conditions. In the high cohesiveness / high relevance condition, there was a slight decline by the end of the discussion. Communications to sliders increased in the beginning of the discussion; when sliders shifted to the group position, communication decreased steadily until the end of the discussion. Finally, communications to modes

were insignificant during all the discussion. The results also show that, among the confederates, modes received more sociometric choices than sliders and these latter more than deviants did. A similar pattern emerged in the assignment to three committee positions in the club: modes received more nominations to the position with an intermediate prestige; sliders received nominations to either the most prestigious or the least prestigious of the three positions; finally, deviants received most nominations for the less prestigious position except in the low cohesiveness and low relevant condition.

The results obtained by Schachter's (1950; cf. also, Festinger & Thibaut, 1951) confirmed those of Festinger et al's (1950) field study concerning the unpopularity of members that deviate from the group standards and do not contribute to the group, especially in cohesive groups. As referred in the previous chapter, Festinger (1950) postulates that groups allot time and energy communicating with members that deviate from the group consensus and, ultimately, reject them because deviant members jeopardize the validity of the group consensus about social reality and the possibility that the group reaches its goals. In contrast, normative members uphold the validity of group consensus and contribute for group locomotion. Normative members endorse the group opinions and goals, consequently, they are more attractive and are assigned to more prestigious positions than are deviant members. Normative members also change their opinions less than deviant members, and communicate more to deviants members than to other normative members (Festinger, Gerard, Hymovitch, Kelley & Raven, 1952).

Differential Reactions to Deviance

Israel (1956) and Collins and Raven (1969) presented relevant contributes to the study of group reactions to deviance. Israel (1956) pointed out that, reactions to deviance could not be reduced to a general negative reaction. The author distinguished between *inclusive* reactions, including attempts to change the deviant's opinion, and *exclusive* reactions, including isolation or expulsion of the deviant from the group (cf. also Orcutt, 1973). Israel (1956) also argued that individuals do not always seek corroborating support for their beliefs. Often individuals are motivated to evaluate the objectivity of their opinions and choose to compare with opinions different from them. Collins and Raven (1969) also contemplated the instances in which individuals are

motivated to re-evaluate their own opinions upon disagreement with others. The authors distinguish between different strategies aimed to deal with disagreement: Individuals may change their own opinions; attempt to persuade the other; minimize the importance of the disagreement; rejecting or derogating the other; and distinguish the other as a person from his or her opinions.

Status and Deviance

Another perspective, which tackles the issue of group deviance, is that of Hollander (e.g., 1958; 1960). Hollander (1958) argues that members acquire status in the group by the accumulation of positive impressions in other members, what the author dubbed 'idiosyncratic credit'. These credits result from positive contributes of the member to the group in the form of competent performance, guiding the group in successful directions, etc. Idiosyncratic credit allows the member to show nonconformity to the group consensus and to be influential to change the group norms. As Hollander (1960) argues, 'A person gains credits, i.e., rises in status, by showing competence and conforming to the expectancies applicable to him at the time. Eventually his credits allow him to nonconform with greater impunity' (p. 365). The model was applied to understand how leaders are able to change the group norms without the resistance from the followers (e.g., Hollander, 1985).

An important specification of the model is that for a competent member to earn idiosyncratic credit for nonconformity is that s/he must previous show conformity to the norms of the group. In an experiment aimed to confirm the model, Hollander (1960) formed groups of six participants that were to work in 15 trials on a complex matrix in order to obtain the maximum payoff for the group. Each group had to agree previously on the rules for the procedure in the trials. One confederate deviate from the group in following conditions: he contested and opposed, or not, the group in this preliminary phase; and later in the experiment, he contested and violated, or not, the rules established by the group to the procedure. In all conditions, the confederate proved to be highly competent in the task thus contributing for maximizing the group payoff.

The results showed that groups accepted the (competent) opinion of the confederate the most when he conformed to the group before and during the trials and accepted it the least when he contested the group in the two moments. More

importantly, the group was more influenced by the member's opinion when he violated the rules *but* had previously agreed with the group, than when he opposed to the group in the preliminary phase and conformed to the rules during the trials. Hollander's (1958; 1960) model was subjected to several tests that refined its predictions relatively to the deviant's status or existence of formal punitions (e.g., Wahrman, 1970) or the degree of non conformity of the deviant (e.g., Wiggins, Dill & Schwartz, 1965).

Positive Differentiation of Minorities

Another field of research that is relevant for the issue of normative differentiation is that of minority influence. As described in the previous chapter, minorities can produce opinion change as effectively as majorities (e.g., Moscovici & Lage, 1972; Moscovici, Lage & Naffrechoux, 1969; Mugny, 1982; Mugny & Pérez, 1991; Nemeth & Wachtler, 1974). Although it is assumed that, in general, they provoke negative feelings in majority members, "a minority is bound to be rejected and disliked" (Moscovici, 1976, p. 199), minorities' opinions and arguments, conveyed in particular modes of communication, are positively considered and evaluated by majorities' members. As Moscovici (1976) proposes, whereas majority influence is accepted because majority sources are attractive and therefore liked, minority influence is accepted because minority sources are admired and recognized for their assurance. For Moscovici (1976), attractiveness and influence are two independent aspects that are correlated in the case of majorities and uncorrelated in the case of minorities.

For instance, in the second part of Moscovici, Lage and Naffrechoux's (1969) experience, in which two confederates consistently diverged from the majority of four naïve participants (cf. previous chapter), the authors asked participants to judge the other five members regarding their competence, assurance, preference to integrate a future experiment and capacity to lead the group in a future experiment. The results showed that the judgments of the deviant/minority members did not differed from those of the majority in all respects except in assurance, in which the first of the pair of deviants scored higher than did all the other members.

Nemeth and Wachtler (1973) simulated a trial with a five person-jury, in which one confederate (to be deviant in the forthcoming interaction) either chose to sit in the head chair or was assigned to the head chair at the beginning of the session. The

confederate was able to change the group consensus in the first but not in the second condition. In a post-experimental questionnaire, the 'willful' deviant (but not the 'forced' one) was judged as more consistent, more independent, more strong-willed, to have induced them to think more and reassess their own positions than the other members of the group. The deviant was also considered less perceptive, less warm, less reasonable and fair, and was less liked than the other members were.

The minority influence research (see also, Levine & Ranelli, 1978; Nemeth & Wachtler, 1974) showed that deviant members are evaluated negatively in dimensions traditionally used to measure differentiation within majorities, such as, sociometric choices, appointment to leading positions, but they may be positively evaluated in dimensions relevant for the change of consensus, such as, respect, independence, certainty or influence.

We have succinctly reviewed traditional approaches to normative differentiation, which addressed processes occurring in small interactive groups. We shall now focus on social identity models of intragroup differentiation, whose principles apply to large social groups as well as to small interactive groups.

Social Identity Approaches to Normative Differentiation

As seen in Chapter 1, the social identity approach tends to stress the role of *intergroup differentiation* and *intragroup assimilation*, rather than *intragroup differentiation* (e.g., Doise, Deschamps & Meyer, 1978; Eiser & Stroebe, 1972; Tajfel, 1959; cf. Chapter 1). However, several aspects mediate the perception of differentiation within in-group or out-group, such as, the relative status of the groups, and the relevance and valence of the comparative dimension (cf. Simon, 1992). For instance, Simon and Pettigrew (1990) manipulated the size of the in-group as regards the out-group in artificially created groups and found that participants perceived more *in*-group variability in the case of *majorities* and more *out*-group variability in the case of *minorities*. Participants also perceived the behavior of minority out-group or in-group members to be more predictable than that of majority members (cf. also, Simon & Brown, 1987; Simon & Mummendey, 1990). These results are consistent with the idea that minorities reveal stronger in-group identification than majorities, resulting in a higher level of self-stereotyping (e.g., Brewer, 1991; 1993; Mullen, 1991). Other

research related to group status (e.g., Lorenzi-Cioldi, 1998; Lorenzi-Cioldi, Eagly & Stewart, 1995) and power (e.g., Fiske & Dépret, 1996; Stevens & Fiske, 2000) revealed that low status or powerless group members tend to self-stereotype more than high status and powerful group members.

The above evidence opposes the prevailing idea that the tendency to differentiate among in-group members and to homogenize out-group members leads the processing of information on groups (e.g., Ostrom, Prior & Simpson, 1981; Quattrone & Jones, 1980) and in the formation of group representations (e.g., Linville, Fischer & Salovey, 1989; Judd & Park, 1988; Park, Judd & Ryan, 1991). As Simon (1992) pointed out, the perception of relative group homogeneity is socially mediated and, as such, a 'hypothetically variable process' that is not reducible to a general cognitive process.

More important for our present concerns, the above results indicate that social identity plays a decisive role in the differentiation within the in-group (cf. also, Simon, Pantaleo & Mummendey, 1995). Indeed, research on several intragroup phenomena has revealed that social identity processes are also relevant in the intragroup context (cf. Hogg & Hardie, 1991; 1992; Marques, Yzerbyt & Leyens, 1988; Marques & Yzerbyt, 1988). As Hogg (1996) pointed out, the social identity view on intragroup processes distinguishes from the traditional view because it is based on distinct assumptions, namely:

> "(1) A group is a collection of people who categorize themselves in terms of the same social categorization; (2) interpersonal processes are conceptually separate from group processes; (3) the intergroup social comparative context is an integral feature of the analysis; and (4) a complete explanation requires articulation of cognitive and social processes." (p. 71)

One of the former social identity approaches to intragroup differentiation was that of Hogg and colleagues (e.g., Hogg, Cooper-Shaw & Holzworth, 1993; Hogg & Hardie, 1991; 1992). These authors investigated the effect of members' prototypicality in their social attractiveness (cf. also, Hogg, Hardie & Reynolds, 1995; for reviews, see Hogg, 1996a; 1996b). The effects of prototypicality on leadership endorsement were also the focus of extensive research (e.g., Fielding & Hogg, 1997; Hains, Hogg & Duck, 1997; Hogg, Hains & Mason, 1998; for a review, see Hogg, 2001a). Differentiation

based on prototypicality matches the scope of the present analysis because, for Self-Categorization Theory, the group prototype corresponds to the defining norm of the group (cf. Chapter 1).

Intragroup Differentiation as a Function of Members' Prototypicality

As seen above, Self-Categorization Theory sustains that individuals are motivated to hold a clear perception of their social environment. Individuals feel confident when others' behavior is consistent with their representations of the respective groups. Certainty about one's representations of the social world corresponds to certainty about one's own position in the world and to certainty about others' behavior; the perception that others' behavior is predictable from the recognition of their group membership (cf. Hogg, 2000; 2001; Turner et al, 1987).

Prototypicality and Attractiveness

Whereas typical in-group or out-group members affirm the validity of people's beliefs on the social world, atypical in-group or out-group members invalidate them and generate uncertainty. A consequence of this need to reduce to uncertainty is that members' social attractiveness varies with their prototypicality, i.e., members will be the more socially attractive the more they represent the group both by being similar to other in-group members and by differentiating from out-group members (cf. Hogg, 1992; 1996; Whetherell, 1987). Hogg, Cooper-Shaw and Holzworth (1993) measured the prototypicality of the self and other members, self-involvement in the group in work teams of an Australian organization. The authors also collected the respondents' sociometric choices based on the group or on friendship. The authors found that respondents that ascribed more importance to the group were not considered particularly attractive, on an interpersonal basis; conversely, those that did not feel the group highly important, attracted more choices based on friendship. In general, group-based attraction for other members was more related with their prototypicality than with their personal attractiveness, whereas interpersonal attraction was not related with group variables.

Categorical salience and identification. Higher attraction to prototypical members is associated with the distinction between interpersonal and social attraction,

an issue addressed in Chapter 1 (cf. Hogg, 1987; 1992; 1993; Hogg & Turner 1985a; 1985b). As social attraction is intimately related with the salience of common group membership, the positive differentiation of prototypical members should occur in salient group contexts rather than in salient interpersonal contexts and should be more evident in members highly identified to the group. To inspect these hypotheses, Hogg and Hardie (1991) asked the members of an Australian football team to rank their teammates in terms of prototypicality, social attraction and personal attraction following instructions that made salient their group membership or their interpersonal relationships. The results revealed that the members' prototypicality was more associated with liking and popularity under salient team instructions, than in conditions that rendered individuality and interpersonal relationships salient. In addition, judgers who identified more strongly with the team differentiated more among other members based on prototypicality than did less identified judgers. Hogg and Hardie (1992) also confirmed the hypothesis that group salience determines the preference for prototypical members, using the autokinetic paradigm with four-person groups. In the groups that converged more in their judgments of estimates, that is, those in which the in-group category was more salient, participants reported more attraction for more prototypical members than for less prototypical members.

Hogg, Hardie and Reynolds (1995) manipulated the dimensions in which the participant and the target member were similar. The experiment was presented as a study on consumer behavior and participants were first categorized in one of two groups of consumer style, 'Visual' or 'Tactile', as function of their responses to a bogus projective test. After testing an alleged new product, participants were led to believe that they would continue the testing with another partner (interpersonal condition) or a four-person group (group condition). They were then asked to form an impression on their partner or a member of the group. The participant and the target member could be similar in two dimensions (preferences in appearance and flavor of the product): one dimension was stereotypical of the in-group and the other of the out-group. Participants were similar to the target in either one or other dimensions, in both or neither.

The results showed that the more strongly participants identified with their group the more they favorably evaluated the in-group target when the target was similar in the in-group stereotypical dimension, thus being in-group prototypical. This relationship

decreased with prototypical dissimilar targets and with targets similar in the dimension stereotypical of the out-group. In addition, participants made more favorable ratings of in-group prototypical targets in the group than in the interpersonal condition. The results also showed that the preference for prototypical members was mediated by the accentuation of perceived similarity in the prototypical dimension. As the authors argue, in group contexts, the relationship between similarity and attraction or favorability is determined by the relevance of similarity for the salient categorization.

Prototypicality and Leadership Endorsement

Members' prototypicality is also determining of their potential for leadership and leadership appointment is, in fact, a form of intragroup differentiation. The social identity theory of leadership (e.g., Hogg, 2001a) proposes three processes concurring to increase the influence of prototypical leaders: prototypicality, social attraction, and attributional processes. As seen above, prototypical group members are more socially attractive than are non-prototypical members (e.g., Hogg & Hardie, 1991; 1992; Hogg et al, 1993; 1995). Prototypical members are also influential to polarize group positions away from out-group positions thus contributing for group distinctiveness (cf. e.g., Abrams et al, 1990; McGarty et al, 1992; Whetherell, 1987). Prototypical members are more persuasive than are non-prototypical members: their arguments are more recalled and they induce more opinion change than those of non-prototypical members (cf. van Knippenberg, Lossie & Wilke, 1994; van Knippenberg & Wilke, 1992). Furthermore, the positive characteristics of prototypical members encourage dispositional attributions of charismatic leadership. As Hogg (2001) puts it,

> "The consequence is a tendency to construct a charismatic leadership personality for that person that, to some extent, separates that person from the rest of the group and reinforces the perception of status-based structural differentiation within the group into leader(s) and followers." (p. 190)

Endurance of prototypical leaders. The leader's prototypicality also determines the endurance of his or her leadership (Hogg, 2001a). By occupying an influential position in the group, the leader is more effective in changing the group norms, thus obtaining increased group prototypicality and consequently more influence. Contextual shifts cause shifts of the group position as regards out-groups and, consequently,

changes in the characteristics of prototypical members. Contextual changes bear an important impact on how leaders are perceived by followers. Specifically, they may be seen as less group prototypical and, consequently, to be less influential. Leaders may then try to manipulate their own prototypical position by activating or encouraging, in the followers, feelings of threat that external groups or internal factions may represent to the group, thus, reinforcing the prominence of the leader's position.

Empirical evidence. Empirical research supports the above assumptions (e.g., Fielding & Hogg, 1997; Hains, Hogg & Duck, 1997; Hogg, Hains & Mason, 1998; Platow & van Knippenberg, 2001; for reviews, cf. Hogg, 2001a). For instance, Hains, Hogg and Duck (1997) conducted a study with minimal groups in which participants anticipated a small discussion group. Three variables were manipulated: salience of the group, prototypicality and congruence of the appointed leader with a leader schema. Results showed that participants endorsed more the prototypical than the non-prototypical leader, in the salient group condition, whereas, participants in the low salience condition endorsed the two leaders similarly.

The above experiment was also aimed to compare the impact of prototypicality with that of leadership-schemas in the leadership endorsement. The congruence of leaders with the followers' implicit theories or schemas about leadership has proven to determine their acceptance (e.g., Lord, Foti & De Vater, 1984). Hains and colleagues (1997) found that the congruence to a leader schema was not predictive of leadership endorsement in the high salience condition. In the whole, results suggest that when the in-group is highly relevant, the extent into which leaders are representative of their group is a predominant criterion of their endorsement.

More recently, Platow and van Knippenberg (2001) investigated the effects of leader's prototypicality and intergroup fairness on endorsement. Among members who identified less with the group the norm of fairness prevailed, whereas among high-identifiers leaders' prototypicality prevailed. In addition, high-identifiers endorsed *non*-prototypical leaders when they displayed an in-group favoring unfair behavior.

Differentiation as a Function of Members' Contributes for Positive Social Identity

Another social identity approach to intragroup differentiation focuses on members' reactions to other members that deviate from group norms, Marques and colleagues' Subjective Group Dynamics model (e.g., Marques, Abrams, Páez & Hogg, 2001b; Marques, Abrams, Páez & Martinez-Taboada, 1998b). Before addressing the model, we shall first briefly review the empirical work on the *black-sheep effect* from which the model derives.

The Black-Sheep Effect

The black-sheep effect consists in the evaluative upgrading of in-group likable members and downgrading of unlikable in-group members relatively to equivalent out-group members (e.g., Marques, 1990; Marques, Yzerbyt & Leyens, 1988; Marques & Yzerbyt, 1988; for reviews, cf. Marques & Páez, 1994). Besides the extreme evaluation of in-group members, the black-sheep effect involves in-group bias, that is, the in-group, as a whole, is more positively evaluated than is the out-group. The co-occurrence of these effects suggests that the derogation of in-group deviants is a form of in-group favoritism (e.g., Marques & Páez, 1994). The intergroup dimension of the black-sheep effect distinguishes it from the traditional approach to reactions to deviance.

On the other hand, the effect is partially inconsistent with the conventional in-group bias described in Social Identity Theory. Whereas the upgrading of in-group likable members relatively to comparable out-group members stands for conventional in-group bias, the downgrading of unlikable in-group members relatively to comparable out-group members is at odds with the prediction that in-group members are favored over out-group members. As Marques and Páez (1994) argue, the extreme downgrading of unlikable in-group members reflects the negative contribute of these members for the overall image of the in-group and "the attempt to insure a positive identity when such identity is threatened from inside one's in-group" (p. 38). Therefore, it indirectly stands for the need of positive in-group differentiation predicted by Social Identity Theory (see above our Chapter 1).

Several experiments illustrate the effect. For instance, Marques and Yzerbyt (1988) asked Law students to evaluate the discursive ability of a Law (in-group

member) and/or Philosophy (out-group member) student that performed either a good or a bad speech. The results show that the in-group bad performer was rated more negatively than the out-group bad performer and the in-group good performer was rated more positively than the out-group good performer. The results also showed that both Law and Philosophy students evaluated their group as superior in discursive ability. Moreover, the effect emerged both when participants evaluated either an in-group *or* an out-group member (intragroup context), and when participants evaluated in-group *and* out-group members (intergroup context).

In another experiment, Marques, Yzerbyt and Leyens (1988) asked Belgian students to evaluate either other Belgian students (in-group members) or North African students (out-group members) that either lent or did not lend their notes to fellow students (normative and deviant members) or either put amusement behind study (normative member) or study behind amusement (deviant member). In the former condition the norm was perceived as a general norm, that is, applicable to all students, whereas, in the latter condition, the norm was exclusive, that is, applicable only to the in-group (it was not expected among out-group members). The results showed that in-group deviants were worst evaluated than equivalent out-group members and in-group normative members were better evaluated than equivalent out-group members were but only when the norm was relevant for in-group positive differentiation and its violation endangered the value of in-group identity (cf. also Marques, 1990).

The above results led to the conclusion that the extreme negative reactions to unlikable members correspond to a motivated group strategy aimed to protect social identity and thus ensuring the validity of its standards (e.g., Marques & Páez, 1994). However, contrary to the traditional approach (e.g., Festinger, 1950; Festinger, Schachter & Back, 1950) in which reactions to deviance and pressures towards uniformity are conceived in the interpersonal context of interactive groups, the black-sheep effect corresponds to a cognitive-motivational process in which individuals subjectively validate the value of the in-group. This process applies to both interactive groups (e.g., shameful behavior of a family member) and large social categories in which derogation may not imply direct interaction with the deviant member (e.g., extremized negative opinions about corrupt own party leaders, dishonorable performances of own team, national athletes or artists, etc).

Subjective Group Dynamics

The idea that the black-sheep effect represents a strategy to uphold the validity of the in-group standards was developed in the Subjective Group Dynamics model (e.g., Marques et al; 1998a; 1998b; 2001). Subjective group dynamics is described as "a process by which people maximize and sustain descriptive intergroup differentiation while *simultaneously* maximizing and sustaining the relative validity of prescriptive in-group norms through intragroup differentiation" (Marques et al, 2001b). The model includes a two-step process of intergroup and intragroup judgments (cf. Figure 1).

> "The phenomenon can be explained in terms of a 'denotative' meta-contrast, and corresponds to the intergroup level, which represents the classical process of intergroup differentiation and social discrimination. But when an intragroup distinction becomes salient and threatens intergroup differentiation, subjects will derogate in-group members who do not comply with the in-group standards. This corresponds to the intragroup level." (Marques, Páez & Abrams, 1998b, p. 139-40)

As may be seen in Figure 7, the model includes a distinction between denotative (or descriptive) and prescriptive norms. This distinction is an essential aspect of the model. Whereas denotative norms operate at the intergroup level to establish in-group distinctiveness, prescriptive norms operate at the intragroup level.

Denotative and prescriptive norms. Contrarily to the Self-Categorization perspective, in which group norms are assumed to be generally prescriptive for group membership, so that the more members conform to group norms the more they are group prototypical, Marques, Páez and Abrams (1998a; cf. also, Marques et al, 1998b; Marques et al, 2001b) distinguish between *denotative* and *prescriptive* group norms.

The authors define denotative norm as "a descriptive principle of intergroup differentiation, or cognitive clarity concomitant with social categorization" (Marques et al, 1998a, p. 129). Group denotative norms define the group prototype so that conformity to denotative norms would lead to group prototypicality. In contrast, prescriptive norms are defined as standards "on which members anchor their judgments about other in-group members in order to ascertain, not intergroup distinctiveness, but

rather the legitimacy of the in-group's superiority" (Marques et al, 1998a, p. 129). Whereas conformity to denotative norms indicates one's group membership, conformity to prescriptive norms contributes to the positive value of group identity.

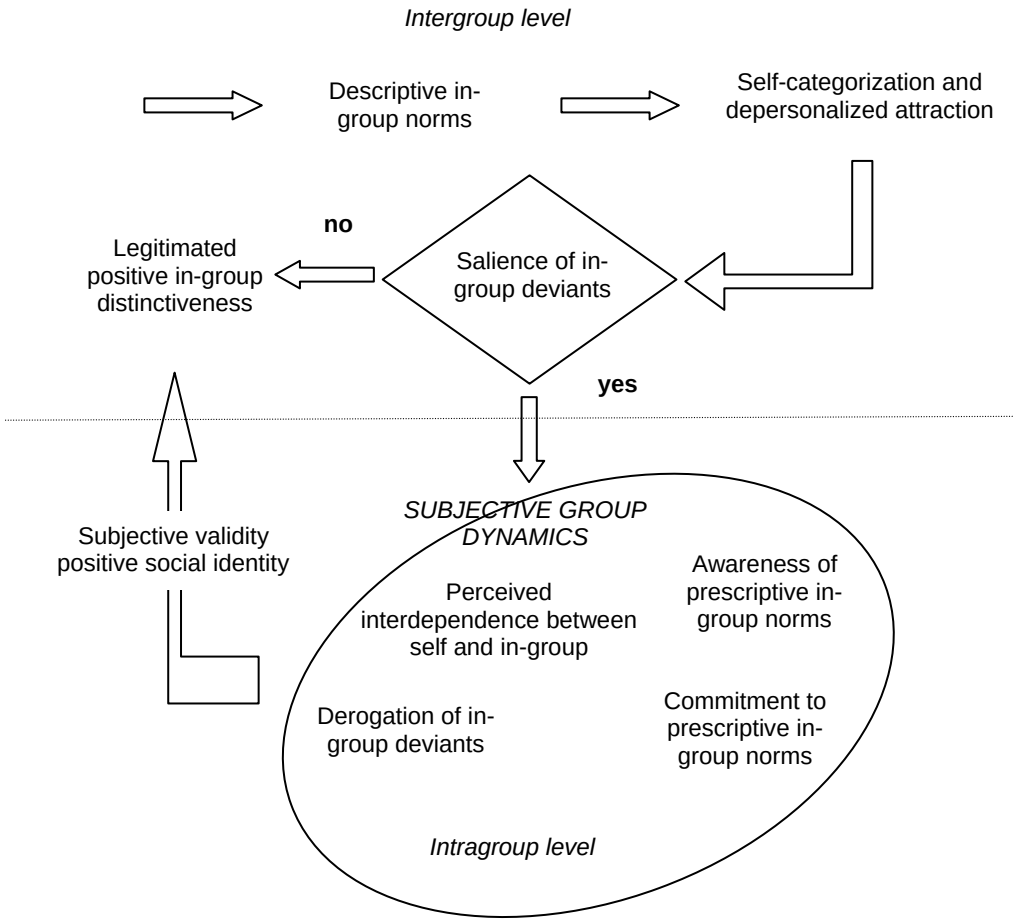

Figure 7. Subjective group dynamics model. In J. M. Marques, D. Abrams, D. Páez & M. A. Hogg (2001) (p. 414). Social categorization, social identification, and rejection of deviant group members. In M. A. Hogg & R. S. Tindale, (Eds.), *Blackwell handbook of social psychology: Group processes*. Oxford, UK: Blackwell

Awareness of the norms. Marques and colleagues (2001b) also distinguish denotative and prescriptive norms in terms of awareness. Whereas denotative norms are implicit, and conformity is likely to be relatively automatic, prescriptive norms are explicit and conformity is likely to be deliberate. As the authors argue, generally, members align their behaviors to match certain standards in a relatively informal way.

Therefore, group members often are not fully aware of the existence of norms until the norm is violated.

The different characteristics of denotative and prescriptive norms entails that their violation is differently considered. In-group members that conform to prescriptive norms uphold the value of the group whereas members that deviate from these norms undermine this value. This idea is consistent with results obtained by Marques and colleagues (1998b) concerning reactions to deviance from high-salient and low-salient norms. The authors conducted an experiment allegedly about decision making in juries. In a first session, participants examined a murder case involving six suspects and asked to rank the suspects according to their responsibility in the crime. They were also informed that there were two patterns of decision making that could be diagnosed through their responses. In the second session, participants received their results informing them as being typical of one of the decision patterns. The salience of the norms was manipulated in the following way. In the high-salience condition, participants were told that to belong to a pattern people should present a specific ranking of responsibility. The in-group typical ranking (in-group norm) matched exactly the participant's ranking whereas the out-group typical ranking (out-group norm) was the opposite of the participant's sequence. The participants then read the answers given by five individuals belonging either to same or other pattern. The responses of four individuals matched their own pattern and those of the fifth individual were close to the out-group norm. In the low-salience condition, participants were simply shown the members' responses and no information was given regarding the group norms.

The authors found that participants upheld in-group normative members and downgrade in-group deviant members, significantly more than equivalent out-group members, only when norms were high salient. When norms were low salient, participants did not differentiate between normative and deviant members and showed an overall preference for in-group members in detriment of out-group members. In another experiment using the same general procedure, Marques and colleagues (1998b) further found that the extremized intragroup differentiation found within the in-group when norms were perceived to be prescriptive, was accentuated when participants believed their judgments of members were to be seen by a typical in-group member and were attenuated when they believed the examiner was a typical out-group member.

Together, these results suggest that group norms become prescriptive as members become more aware of their importance for in-group identity, leading to strategic evaluation of in-group members.

Relevance of the prescriptive norm. Deviance from prescriptive norms leads to subjective group dynamics if the norm is perceived to be meaningful for a positive group identity. For instance, Marques, Abrams and Serôdio (2001a) first ensure that students were generally supportive of student initiation practices. Then, they asked Psychology and Law students to state their opinion on a continuum of seven statements from totally support to totally rejection of student initiation practices, and to indicate the position above which they would disagree. They were then showed a bogus distribution of responses of a sample of Psychology or Law students that either validated or undermined the generic norm. Then, they were asked to evaluate Psychology or Law students (depending on their own course, in-group or out-group members) that agreed with their own opinion (what the authors dubbed, subjective normative members) and another in-group or out-group member whose opinion was above their rejection threshold (subjective deviant member). The results showed that when the norm was validated, deviant members were derogated and normative members were upgraded but evaluations did not vary with the targets' group membership. However, when the norm was undermined, in-group deviant members were more derogated than similar out-group members were, and normative members were more upgraded than similar in-group members were. As the authors affirm, when the norm was generally upheld, deviant behavior was likely to affect the norm validity and consequently the value of in-group identity (cf. also, Marques 1990).

Relevance of group membership. Extremized differentiation among in-group members depends not only of the relevance of the norm, but also of the relevance of group membership either circumstantially or as a chronic self-defining attribute. Branscombe, Wann, Noel and Coleman (1993) showed that when the group is not meaningful, individuals extremize their evaluations of normative and deviant members more in the out-group than in the in-group. Participants were asked to evaluate the author of an article about a basketball game between participants' own university team and a rival university team. The author was either a fan of the participants' in-group or out-group team and was either a loyal fan (supporting the team in all occasions) or

disloyal (supporting the team only when it succeeded). In the game reported in the article, the in-group team either lost or won the game representing a threat or not to the group identity.

The results showed that participants extremized their evaluations of the out-group loyal and disloyal authors as regards the in-group authors when their level of in-group identification was low. High identifiers presented the reversed pattern of evaluation: they extremized their evaluations of the in-group loyal and disloyal author relatively to the comparable out-group authors. The extremized evaluations of loyal and disloyal in-group targets were more evident when the in-group team had lost the game in the report. As Branscombe and colleagues (1993) claim, when the target's actions have few or no implications for the judger's identity, out-group extremization occurs, whereas when the target represents a threat to the judger both contextually and because this identity is a meaningful reference, the judgments of in-group members are extremized as regards those of out-group members.

The results above, taken as a whole, suggest that the importance of the dimension in which members evaluate deviant members and the importance of the group for them are determinant of the motivation to protect the group. More evidence for this idea comes from results indicating that prototypical deviant members are more rejected than their non-prototypical counterparts (Serôdio & Marques, 2005). Specifically, members that deviate from norms that are important to define a positive group identity (prescriptive norms) are more derogated when these members are denotatively more typical of the group than when they are atypical. Conversely, group members that endorse prescriptive norms are more upgraded when they are perceived as more typical of their group than when they are not. In a similar vein, Pinto and Marques (2005) showed that 'full members' (i.e., members that have long joined the group, and learned and assimilated in-group norms) are more derogated when they deviate from prescriptive norms than 'novices' (i.e., members that are just entering the group and have not assimilated in-group norms). Taken as a whole, these results suggest that the more members are descriptive of the group as a whole the more they will be rejected when they deviate from prescriptive norms. In other words, the more members are perceived as representative of the group, the more they have the responsibility to convey a positive image of the group, the more their deviant behavior endangers the

positivity of the group, and the more it is difficult for the group to differentiate from the deviant behavior, by recategorizing them as out-group members (Marques et al, 1998a; 1998b).

Derogation of deviants and increased identification. The aim of the subjective group dynamics process occurring at the intragroup level is to reestablish a positive group identity and to obtain again subjective validity for the in-group norms undermined by deviant behavior. This would imply a reinforcement of in-group identification *after* the derogation of the deviant member. Marques and colleagues (1998a) presented supporting evidence for this hypothesis. Using the same general procedure described above, the authors, after categorizing participants into two decision-making patterns as regards a murder case, measured their identification to the in-group before and after they evaluate in-group or out-group normative and deviant members. Results showed that participants reported more in-group identification after than before the judgments and that normative differentiation predicted post in-group identification. In other words, the more they distinguished between normative and deviant in-group members the more they subsequently identified with the group.

The Development of Sensitivity to In-Group Deviance

Extreme intragroup differentiation as a strategy to uphold the validity of in-group norms seems to appear later in individuals' development. Support for this idea comes from evidence presented by Abrams, Rutland, Cameron and Marques (2003b), suggesting that older children are more sensitive than are younger children, to the implications of in-group deviance. Specifically, the authors compared evaluations of 6-7 years old to 10-11 years old children of same Summer School (in-group) and other Summer School (out-group) children, that either praised their own Summer School (normative member) or praised the other Summer School (deviant member). The results show that whereas younger children showed simple in-group bias, favoring in-group over out-group members, but did not differentiate between normative and deviant target members, older children also showed in-group bias while differentiating between in-group normative and deviant members.

However, the result showing that younger children were less sensitive to deviance than older children must be pondered against the differential importance that a

norm such as that of loyalty has for younger and older children. As the authors recognize, “It is conceivable that in the case of strongly socially prescribed norms (e.g., gender- or age-related behavioral norms), younger children might be more adept at recognizing deviance and its implications” (p. 172). Notwithstanding, Abrams, Rutland and Cameron (2003a) obtained similar results with norms whose relevance for participants was assumedly independent of their age strata – the norm of supporting national against foreign football team. Taken as a whole, evidence indicates that, contrarily to in-group bias, intragroup differentiation depends on an increased consciousness of social norms and the negative impact that in-group deviance may have on group identity.

In sum, the research on the black-sheep effect and on the Subjective Group Dynamics model distinguishes from the traditional approach to reactions to deviance by its focus on social identity processes. Subjective Group Dynamics model also distinguishes from Self-Categorization Theory because it focuses on the role of norms to establish a positive social identity additionally to clear-cut group boundaries. A consequence of this focus is that the model postulates that intragroup norms may be salient in intergroup contexts, without the re-categorization of the social situation as function of these norms. Whereas for Self-Categorization Theory a salient norm defines the significant categorization in the contexts, for the Subjective Group Dynamics model group norms have, at least, two functions: One function is the differentiation between social categories (denotative or descriptive norms) and the other is the establishment of a positive group identity (prescriptive norms). Other research on group norms is consistent with this distinction.

Emotional Consequences of Own Normative and Deviant Behavior

The distinction between in-group descriptive and prescriptive norms (cf. also, Cialdini, Kallgren & Reno, 1991) was addressed by Christensen and colleagues (2004) in terms of the emotions induced by conformity to or deviance from these norms. In one experiment, the authors manipulated the descriptive or prescriptive nature of the violated or endorsed norm, and the salience or non-salience of the group to which the norm referred. The experiment was presented as a study on the causes for good and bad performance. The task consisted in obtaining the best performance in a Rubik’s Cube

puzzle. Each participant worked in two separate desks with one confederate that simulated to be unable to perform the task successfully. Participants then read the instructions before reporting their feelings on the task. They were recalled that they had worked separately from the partner (the data of participants that offered help to the confederate were not included) and, depending on conditions, they were informed that most people did or did not offered help (violation or conformity of descriptive norm) or that they had not supported the idea of helping others or that they had supported the idea of not cheating (violation or conformity of prescriptive norms). These were the instructions of the non-group condition. In the salient in-group condition, the instructions were the same but instead of 'most people', they referred to 'most students of the participant's university'.

As expected, the results indicated a general tendency to feel more positive emotions after conforming to, than after deviating from, the norm. This difference was significant only when the norm referred to a salient in-group revealing its relation with social identity processes. Moreover, the difference was significant only when the norm was prescriptive suggesting its higher meaning for the value of group identity as regards that of descriptive norms. The results also reinforced the relation between the reported emotions and group identity by revealing an interaction with level of in-group identification. Whereas high identifiers reported more positive emotions when they had conformed to the in-group prescriptive norm than they had deviated from it, the reports of low identifiers do not show such effect. The results of the descriptive in-group norm condition revealed no such effects (cf. also, Costarelli, 2005).

The above results suggest that a salient group membership entails the need to present in-group prescriptive but not the need to present in-group descriptive behavior. The results are consistent with the Subjective Group Dynamics' postulate that deviance from in-group prescriptive norms threatens the value of the group identity.

The effect of the context on norms prescriptiveness. In the experiments described above, Marques and colleagues' (1998b) results suggest that descriptive norms may become incidentally prescriptive. In some contexts, irrelevant descriptive norms may become important to assert the group identity. Specifically, the authors found that participants reacted more extremely to a deviant from a norm when it was perceived as

important for the in-group definition, than when it was perceived as an undifferentiating attribute of the group. Christensen and colleagues (2004; Exp. 2) obtained results consistent with these, in the following conditions: in one situation, a norm described the in-group and the out-group behavior; in another situation, the same norm was descriptive only of the in-group, as opposed to another norm that described the out-group. In the latter situation, the descriptive norm became prescriptive to differentiate the group from the out-group.

Participants completed an initial bogus task, selecting the most needed items to survive after a plane crash. The responses allegedly revealed different survival strategies. In one condition, participants were told that students of their own University and those of another rival University had opposed task strategies and that their own strategy was typical of the in-group. Another condition was similar to the previous one but participants were told that their own strategy was typical of the other University students. In another condition, participants were told that the student of both Universities used the same strategy and their own strategy was identical to it. In the fourth condition, participants were told that their responses differed from the one used by the students of both Universities. There were thus four experimental conditions: conformity or deviance from differentiating or non-differentiating descriptive norms.

The results showed that participants reported more positive emotions when they conformed than when they deviated from the norm. The effect was significant only when the norm was differentiating and increased from low to high-identified participants. These results again support the Subjective Group Dynamics model's assumption that the prescriptive character of group norms derives from its role in upholding the positive distinctiveness of group identity.

Conclusion

In this Chapter, we reviewed research and theory on intragroup differentiation related to group norms. We began with a reference to traditional research relevant for this field focusing mainly in small group processes. In contrast with this research, the social identity approach focuses on the role of social categorization and social identification in differentiation within groups.

We reviewed two social identity approaches of intragroup differentiation. One approach emphasizes individuals' need for cognitive clarity and the positive differentiation of prototypical members, which contribute for the distinctiveness of the in-group. Differentiation based on prototypicality applies to perceptions of members' social attractiveness (e.g., Hogg et al, 1993; 1995) or endorsement to leadership positions (e.g., Hogg, 2001a).

The other approach emphasizes individuals' need for positive social identity. According to the Subjective Group Dynamics model (e.g., Marques et al; 1998a; 1998b; 2001), group norms accomplish two functions: the description of the expected group behavior and the maintenance of the group positive value. The former are denotative norms whereas the latter are prescriptive norms. Normative differentiation within the in-group is more likely to emerge as function of prescriptive norms than as function of descriptive norms. Moreover, differentiation between in-group normative and deviant members is more extreme than that between the equivalent out-group members, suggesting the importance of prescriptive norms for group identity.

The model postulates that the salience of group prescriptive norms does not imply the decreased salience of the intergroup context. Members may be aware of their group membership *while* differentiating between in-group members that conform and those that deviate from the group norms. The findings of research on the emotions induced by own normative and deviant behavior (Christensen et al, 2004), are consistent with the model.

Study 2

Implicit Normative Differentiation of Group Members

In our second study, we explore the hypothesis that, in intergroup contexts, individuals differentiate between members that conform and those that deviate from the implicit group norms. We base our predictions on the Subjective Group Dynamics model (e.g., Marques et al, 1998a; 2001b). According to the model, normative differentiation within the in-group is a strategy aimed to protect a positive social identity. Individuals upgrade in-group normative members that contribute for a positive group identity, and downgrade deviant members that undermine this identity. Normative differentiation is thus more extremized in the in-group than in the out-group. Consistent with these assumptions, the model holds that derogation of in-group deviants does not correspond to a re-categorization of the deviant member as a function of the violated norm (Marques et al, 1998b). Normative differentiation occurs *simultaneously* with intergroup differentiation: The derogation of in-group deviants occurs when both group membership *and* group norms are salient in the context.

Marques and colleagues' Experiment 3 (1998b) provides evidence for the above idea. The experiment was presented as part of a larger research on jury decision-making. After ranking the characters involved in murder case according to their responsibility in the crime, participants were informed about the existence of two decision-making patterns. In the next session, participants were categorized into one of these two patterns. Participants were then asked to analyze the rankings of five other persons. However, before this task, half of the participants were informed that previous studies demonstrated that members of the participant's decision pattern made the same ranking as the participant's and that for the opposed decision-making pattern the typical ranking was opposed to that of the participant (salient norm condition). The other half of participants was not informed about the group norms (non-salient norm condition). Participants observed then the rankings of five other persons. In the in-group condition, four persons presented exactly the same ranking as the participant's (in-group normative members) and one person presented the opposed ranking (in-group deviant member). In the out-group condition, four persons presented the ranking opposed to participant's

(out-group normative members) and one person presented the same ranking (out-group deviant member).

The results showed that participants evaluated the in-group, as a whole, more positively than they evaluated the out-group. In the non-salient norm condition, the evaluation of members reflected the same in-group favoritism and in-group members were better evaluated than were out-group members independently of being normative or deviant. However, in the salient norm condition, the in-group normative member was upgraded relatively to the out-group normative member and the in-group deviant member was downgraded relatively to the out-group correspondent member. These results suggest that extremized normative differentiation involves the salience of both categorization and of the in-group norm. When solely the categorization is salient, conventional in-group bias emerges with the typical accentuation of intergroup differences and intragroup similarities of salient intergroup contexts (e.g., Doise, Deschamps & Meyer, 1978; Simon, 1992).

Previous evidence showed that in-group favoritism is an implicit response in salient intergroup contexts (cf. Cameira et al, 2002; Devine, 1989; Dovidio et al, 1997; Fazio et al, 1995; Greenwald & Banaji, 1995; Otten & Wentura, 1999; Perdue et al, 1990). In the present study, we aim to check on whether intragroup normative differentiation possesses the same implicit features, that is, if participants upgrade members that conform over those that deviate from implicit group norms. Consistent with the Subjective Group Dynamics model, we expect differentiation between normative and deviant members to be extremized within the in-group relatively to the out-group, revealing the need to protect in-group identity. Despite the discontinuity between the first and the present study in dependent variables, for the sake of clarity, we numbered the two experiments, Experiments 5 and 6, respectively.

Experiment 5

Method

Participants and design. Thirty-one high school pupils (23 females and 8 males; ages ranging from 17 to 21 years old, M = 17.65, SD = .88) volunteered to participate. The design was a 2(Group: In-group targets vs. Out-group targets) x 2(Member:

Normative vs. Deviant) mixed design, in which Member is a within-subject factor and Group is a between-participants factor.

Procedure. The initial phases of the procedure were identical to those of Experiment 4. Specifically, one week after responding to the bogus Perceptive Proficiency Test, participants received their results indicating that they possessed a Deductive perceptive style, as opposed to an Inferent perceptive style. The report of results included also some lines of vague information about the characteristics of each of the two styles. The participants read, "In deductive reasoning, perception flows from the interaction with the world around, their subjectivity, their values and expectations; Inferents internalize external stimuli in a global way and the self-concept is accentuated by a general vision of the world."[9] Participants were then told that the two groups differed in several dimensions, namely, their esthetical preferences.

Participants were then asked to observe the pictures preferred by a sample of persons possessing the Inferent style and by a sample of persons possessing the Deductives, which had been collected in a previous study. The pictures (the same used in the previous experiments, cf. Figure 1) were labeled Inferent or Deductive as a function of the group that preferred them. All the Inferent pictures possessed the horizontal graphic detail, and all the Deductive pictures possessed the vertical graphic detail.

After seeing the pictures, participants were told that the present study investigated the differences between the two styles in what concerns the way they made impressions of other people. They were then asked to make an impression of two persons, based solely on these persons' preferences for the abstract pictures, Persons A and B. The two targets were presented as belonging both either to the Deductive group (in-group targets condition) or to the Inferent group (out-group targets condition). Participants then observed five pictures allegedly preferred by Person A. All the pictures possessed the graphic detail characteristic of Person A's own group (normative member). In the in-group condition, the target's choices matched participants' in-group norm whereas in the out-group condition, the choices matched participants' out-group norm. Participants then answered to two questions concerning Person A: "What

[9] The description of the groups was based on Marques and colleagues (2001a; Experiments 2 -3).

impression did this person made on you?", answered in a 7-point labeled ends scale in which 1=Very bad impression and 7=Very good impression, and "To what extent do you agree with this person?" answered in 7-point labeled ends scales in which 1=Nothing at all and 7=Very much. Participants were then asked to evaluate the same person in eight traits – kind, creative, intelligent, dynamic, generous, loyal, interesting, and nice – in 7-point labeled ends scales in which 1=Nothing at all and 7=Very much[10]. Participants were then asked to observe the five pictures preferred by Person B, which possessed the graphic detail characteristic of the target's out-group (deviant member). In the in-group condition, the target's choices matched participants' out-group norm whereas in the out-group condition, the target's choices matched participants' in-group norm. Participants were asked to answer to eleven questions concerning Person B, the same as those concerning Person A. The preferences of persons A and B were reversed for half of the participants to balance the order in which participants rated normative and deviant members.

Finally, participants were asked to perform the recognition task used in the previous experiments, that is, classify 20 unlabeled pictures, 10 possessing the vertical detail and 10 possessing the horizontal detail, as a function of, in their opinion, they had been preferred by the sample of Deductive or that of Inferents. Participants were also asked to describe the regularities eventually found in Deductive and Inferent pictures. After confirming their own perceptive style, participants responded to the in-group and out-group identification items, 'I (would like) like to belong to my (the other) perceptive style', 'I consider myself similar to my (the other) perceptive style profile', and 'I feel strong ties with my (the other) perceptive style', in 7-point scales with labeled ends (1=Nothing; 7= Very much). During the debriefing, two participants revealed having found the distinction between the two kinds of pictures. Their answering sheets were traced to be excluded from the analysis.

Results

Identification. All participants recalled their correct perceptive type. The three items of in-group identification were not correlated, highest $r = .23$. All the three items, similarity, liking, and feeling ties with the in-group, presented means above the middle

[10] The traits used to evaluate targets were adapted from Marques and colleagues (1998b).

of the scale, lowest M = 5.44, SD = .96, indicating a generally high level of in-group identification, which did not varied between conditions, highest $F(1, 30) = 1.15$, *ns*. The items of out-group identification were more correlated (*Cronbach's alpha* = .77) and were averaged into a single out-group identification index, M = 3.00, SD = .82, which did not vary between conditions, $F(1, 30) = 1.67$, *ns*.

Recognition and recall. The analysis of the reports concerning the regularities found in the pictures revealed that none participant correctly recognized the graphic details (cf. Table 6). The recognition index, obtained by summing the number of pictures correctly classified (minimum=0; maximum = 20), indicated that the average recognition did not differ from chance level, M = 9.81, SD = 3.18, $t(30) < 1$. Recognition did not vary between conditions, $F(1, 30) = 8.95$, *ns*.

No.	Deductive Pictures	Inferent Pictures
1	Sharper, with some meaning	More confuse, meaningless
3	More open spaces	More concentrated in color and area
5	Clearer and meaningful	Less clear, one part of the picture is alike to the other
6	More concentrated, denser black lines	More white spaces
7	More dynamic, combination of colors is not so significant, more interesting	Less dynamic, interesting, white is significant, more distributed squares
8	More white spaces, nicer	Darker
11	More filled with black areas	More filled with white areas
13	Darker, white spaces on the top	Clearer, white spaces on the bottom
14	Darker, concentrated black spaces	Clearer, more white spaces
15	More filled with black	Clearer, more white spaces
16	More familiar, alike to our world	More abstract
17	More creative, less white spaces	Many white spaces, clearer
18	Clearer, more spaced drawings	Darker, more closed
19	More dynamic, more distinguished and contrasted. Separable elements	Differentiation among elements is more confuse
20	More open, more expanded and spaced	More objective, and concrete, more filled in
21	More dynamic, better understood, more interesting	Broader
22	More perceptible, more dynamic, less compact we can imagine things	More condensed, it is more difficult to understand
23	More creative, abstract	Less creative, generalized
24	Articulated with geometrical forms	More filled, clearer
25	More open white spaces	Darker and concentrated
26	More white spaces, looking wider	More filled with black, more packed
29	More complex	More simple
30	More abstract, with less geometrical forms	More linear, with few white spaces
31	More open spaces, more subjective	More concentrated, more concrete

Table 6.Reports on the distinction between the two series of pictures (Experiment 5).

Evaluation of members. We first averaged participants' ratings of normative and deviant members in eight traits, *Cronbach's alpha* = .86 and .87, respectively, to form evaluation indexes of both targets. The evaluation indexes were highly correlated with both 'impression' and 'agreement' measures, lowest $r = .65$, $p < .001$ and $r = .65$, $p = .003$, respectively, for normative and deviant members. We thus averaged the evaluation index, and the 'impression' and 'agreement' measures into a single index of Favorability regarding the members, *Cronbach's alpha* = .88 and .80, respectively, for normative and deviant members.

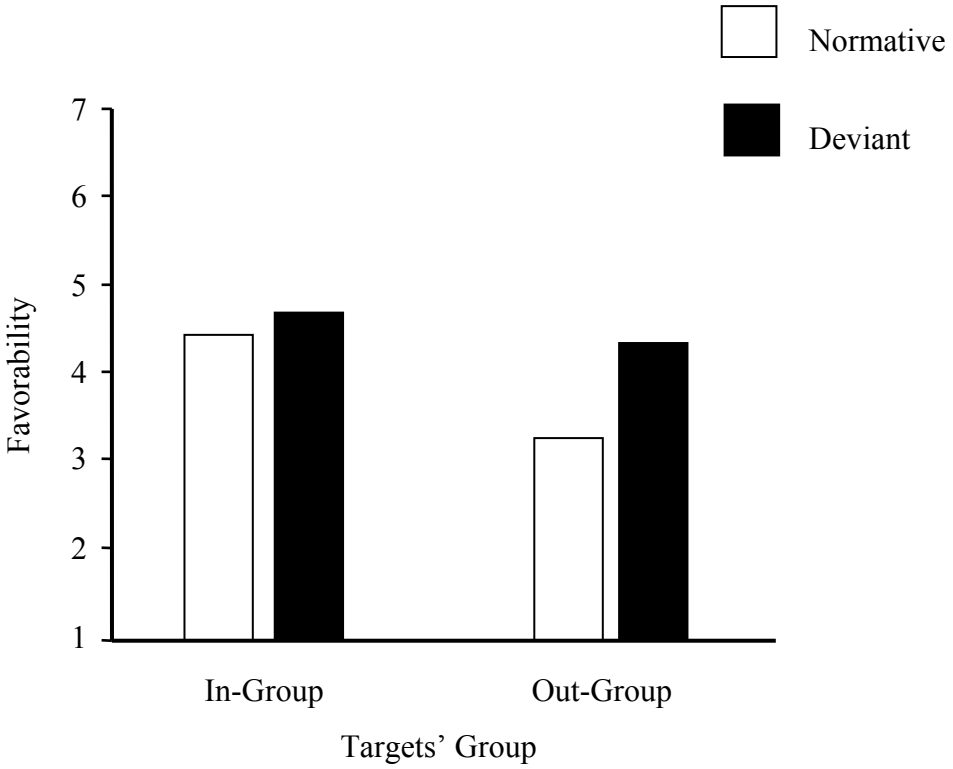

Figure 8. Evaluation of normative and deviant members as a function of group membership (Experiment 5).

A Group x Member ANOVA conducted on Favorability, with Member as within-participants factor, revealed significant effects of Group, $F(1, 29) = 13.43$, $p = .001$, $\eta^2 = .32$, and Member, $F(1, 29) = 11.11$, $p = .002$, $\eta^2 = .28$. Participants favored in-group over out-group members, $M = 4.53$, $SD = .64$ and $M = 3.71$, $SD = .59$, respectively, and deviant members over normative members, $M = 4.49$, $SD = .86$ and $M = 3.83$, $SD = 1.06$, respectively. The Group x Member interaction was significant, $F(1, 29) = 4.33$, $p = .046$, $\eta^2 = .13$. Whereas participants did not differentiated between the

normative and deviant in-group members, $F(1, 29) < 1$, $M = 4.67$, $SD = .75$ and $M = 4.40$, $SD = .97$, respectively, they rated the deviant out-group member more favorably than the normative member, $F(1, 29) = 13.36$, $p = .001$, $M = 4.29$, $SD = .97$ and $M = 3.14$, $SD = .68$, respectively. The normative in-group member was rated more favorably than was the out-group member, $F(1, 29) = 16.66$, $p < .001$, $\eta^2 = .30$, but in-group and out-group deviant members were not differently rated, $F(1, 29) = 1.54$, *ns*. In-group normative members were not differentiated from out-group deviant members, $F(1, 30) < 1$, and in-group deviant members were favored over out-group normative members, $F(1, 30) = 26.90$, $p < .001$, $\eta^2 = .48$ (cf. Figure 8).

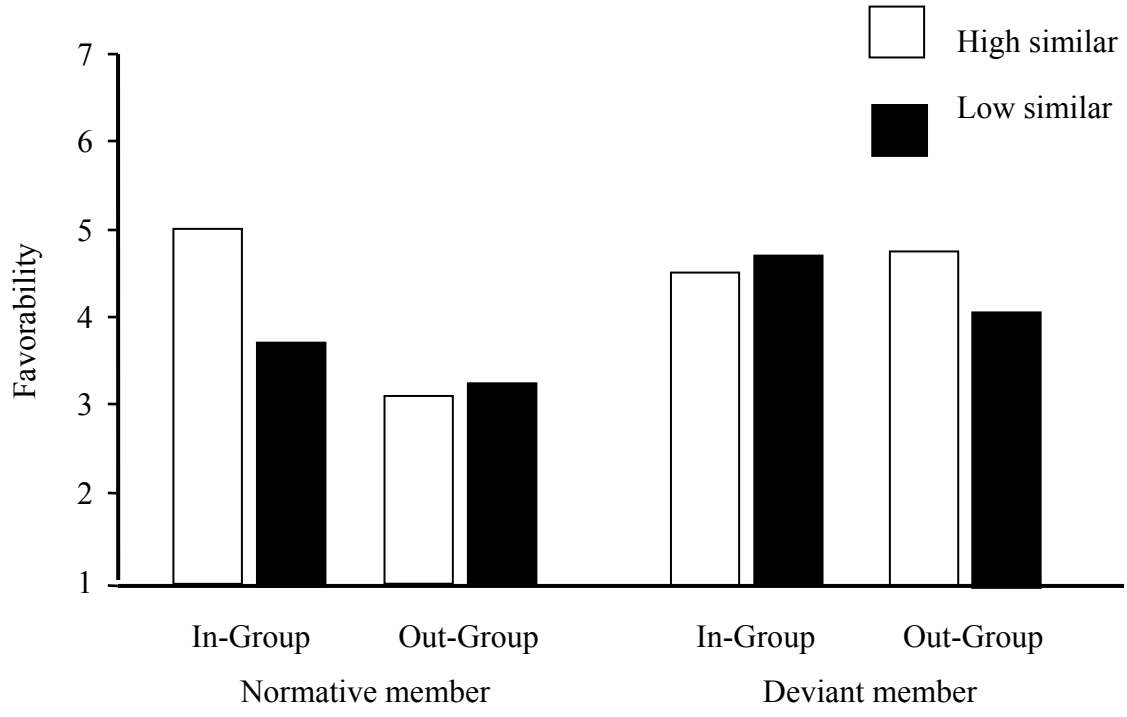

Figure 9. Evaluations of high and low similar participants as a function of group membership and normative vs. deviant status of the target (Experiment 5).

Evaluations of members and in-group similarity. To examine whether similarity to the in-group moderated the evaluations of the targets, we first divided participants by median-split of the item 'I consider myself similar to my perceptive style profile' creating a new two-level variable, Similarity. 'Low-similar' participants reported an average similarity to the in-group of 4.94 and 'high-similar' participants, 6.21. We then

conducted a Group x Member x Similarity ANOVA on Favorability. The analysis revealed a significant full interaction, $F(1, 27) = 13.63$, $p = .001$, $\eta^2 = .34$.

The decomposition of the interaction indicated that the Group x Similarity interaction was significant only relatively to normative members, $F(1, 27) = 10.93$, $p = .003$, $\eta^2 = .29$ whereas the evaluations of deviant members did not differ significantly, $F(1, 27) = 2.32$, *ns*. Further analysis showed that only in-group normative members were differently rated by high and low similar participants, respectively, $F(1, 16) = 15.01$, $p = .001$, $\eta^2 = .50$; out-group normative members were not differently rated by the two types of participants, $F(1, 13) < 1$ *ns* (cf. Figure 9). In addition, among high-similar participants, the in-group normative members were upgraded relatively to normative out-group members, $F(1, 13) = 24.21$, $p < .001$, $\eta^2 = .67$, whereas low similar participants did not differentiated between the two targets, $F(1, 16) = 1.87$, *ns*.

Evaluations of members and recognition. To inspect the role of recognition in the ratings of the targets, we divided participants into 'good' and 'bad' recognizers by median-split of the recognition index, $M = 12.60$, $SD = 1.80$ and $M = 7.19$, $SD = 1.42$, respectively, creating a new two-level variable, Recognition. A Group x Recognition x Member ANOVA on Favorability did not revealed effects involving Recognition, all effects, $F(1, 27) < 1$.

Discussion

The results did not support the idea of implicit normative differentiation. Contrary to expected, participants differentiate more within the out-group than within the in-group, favoring the deviant over the normative out-group member. The result may have been due to the high salient categorization suggested by several other results. For instance, participants' evaluations were in-group biased, favoring in-group over out-group members as a whole. Similarity to the in-group significantly moderated this tendency. Participants that reported high similarity to the in-group favored in-group normative members more than did participants that reported less similarity to the in-group. Seemingly, participants evaluating in-group members were more concerned in differentiating the in-group *from* the out-group than in differentiating within the in-group. As such, they presented in-group bias and assimilated in-group members. Participants evaluating out-group members also presented a form of in-group bias by

positively differentiating supporters of the in-group norm from supporters of the out-group norm.

The next experiment was conducted experiment individually, not in group sessions, with a more involving scenario in order to increase the focus on the norms as regards the categorization.

Experiment 6

The results of the previous experiment did not support the hypothesis of implicit intragroup differentiation suggesting more concern of participants in differentiating the in-group from the out-group than in differentiating normative from deviant members. An explanation ventured to these results was that the salience of norms was reduced relatively to that of the categorization. In the present experiment, we introduced several changes to the procedure and material to deal with this possibility. To increase participants' (first-year Psychology students) interest in the group norms we told them that the second session was part of a study aimed to prepare educational material for kindergarten children. The stimuli used to convey the group norms were thus changed to fit the new cover story. In addition, participants completed the experiment individually and the instructions and stimuli were administered through an interactive computer program.

Method

Participants and design. Twenty-five students enrolled in an introductory course of Psychology (23 females and 2 males; ages ranging from 17 to 21 years old; M = 18.16, SD = .80) volunteered to participate. The design was again a 2(Group: In-group targets vs. Out-group targets) x 2(Member: Normative vs. Deviant) mixed design, in which Member is a within-subject factor and Group is a between-participants factor.

Procedure. The experiment occurred in two sessions. The first session, aimed to prepare a convincing context for the subsequent categorization of participants into two groups, was identical to that of the previous experiment. Three days later, participants arrived alone at a scheduled time to the laboratory. They were then handed their personal report including the results of the perceptive test with their perceptive style (Deductive or Inferent), an index showing that they possessed most of their style characteristics (90%), and the information about the characteristics of each of the two styles described in the previous experiment.

The second part of the experiment was presented as part of larger study whose results were to be used in the preparation of educational material for kindergarten children. Participants were asked to step into a soundproof box and sit at a table with a PC monitor and keyboard. They were informed that all they needed to proceed was

presented in the screen and that, except when instructed otherwise, responses were given on the keyboard. After starting the program, which would also save the participant's answers, the experimenter left the box. Participants read "Previous studies have ascertained that the two perceptive styles have different esthetic preferences even among very similar images. In one of these studies, a group of Deductives and a group of Inferents separately agreed on the best among several versions of the same picture to include in a book for kindergarten children. The versions chosen by each group were always different from the ones chosen by the other group." Participants then observed the versions purportedly preferred by Deductives and the versions preferred by Inferents.

Figure 10. The three pairs of pictures presented to participants (Experiment 6). Each pair presents only one single difference. The pair at the left differs in the position of the ball; the pair at the center differs in the girl positioned at the right of the picture; the pair at the right differs in the position of the second 'o'.

The two versions of three pictures, depicted in Figure 10, were presented sequentially for two seconds with a two-second blank interval in between the two, and labeled with group that had preferred it. Participants were then asked to write down the differences they had found between the two versions.

Subsequently, participants were informed that the present study was aimed to investigate the way the two styles made impressions of persons. They were then asked

to form an impression of two persons that had taken part of the alleged groups, based solely on the pictures they had personally chosen after the respective group arrived to consensus, Person A and Person B. The two targets were presented as belonging both either to the Deductive group (in-group targets condition) or to the Inferent group (out-group targets condition). Person A's choices, presented sequentially for two seconds each, were the three versions preferred by participant's in-group, thus, depending on whether it was presented as an in-group or out-group member, Person A was either normative or deviant, respectively. They were then asked to register from 1 to 9 the impression produced by the person, in which 1= Very bad impression and 9= Very good impression. The same procedure was used for Person B. Person B's choices were the three versions preferred by participant's out-group, thus depending on whether it was presented as an in-group or out-group member, Person B was deviant or normative, respectively. To control for order effects in the evaluations of normative and deviant members, the normative choices of Person A and Person B were balanced evenly across conditions.

Subsequently, participants were asked to register whether, in their opinion, each of the six versions, presented again for two seconds each, was preferred by Deductives or Inferents. This task corresponded to the test of recognition. Finally, participants were asked to complete a questionnaire measuring in-group and out-group identification in the same items as those of the previous experiments. In the end of session, participants were fully debriefed.

Results

Identification. All participants recalled correctly their perceptive type in the end of the experiment. To examine participants' identification, we first averaged the items of in-group identification creating an in-group identification index, *Cronbach's alpha* = .86, and averaged the items on out-group identification creating an out-group identification index, *Cronbach's alpha* = .82. We then conducted a Group x Identification (with the in-group vs. with the out-group) ANOVA, in which Identification was a within-participants factor. The analysis yielded a single significant effect of Identification, $F(1, 23) = 43.20$, $p < .001$, $\eta^2 = .65$, all the other effects, $F(1,$

23) < 1. Participants identified more with the in-group than with the out-group, respectively, *M* = 5.42, *SD* = 1.03 and *M* = 3.20, *SD* = 1.17.

No.	Group	Deductive Pictures	Inferent Pictures
1	Infer	More movement	More centered and balanced
2	Deduc	Out of focus	-
5	Infer	More disorganized	-
10	**Deduc**	**Different positions of the objects in the two versions**	-
11	Deduc	More brilliant	-
15	Deduc	-	Less defined, more confuse
17	Deduc	-	Dance: more movement
20	Infer	-	Sharper pictures
21	Infer	Clearer	-
22	Infer	More organized	-

Table 7. Reports on the distinction between the two series of pictures (Experiment 6). Responses in bold mention aspects close to the actual distinctions. Note: Deduc= Deductive; Infer= Inferent

Awareness tests. We first computed a recognition index by summing all the correctly recognized pictures, that is, the number of pictures of which the participant recognized the two versions. Thus, the index varied between 0 and 3. In average, participants recognized less than one picture, *M* = .80, *SD* = .82, and the recognition index did not vary across condition, *F*(1, 24) < 1. In what refers to recall of the distinctions, the analysis of the written reports indicate that none participant could describe any of the distinctions (cf. Table 7). One participant reported a distinction referring two of the three actual distinctions (# 10). However, the participant was not able to precise the distinctions; moreover, she could not classify correctly none of the three pairs of pictures in the recognition task indicating that the participant had only a vague notion of the distinction.

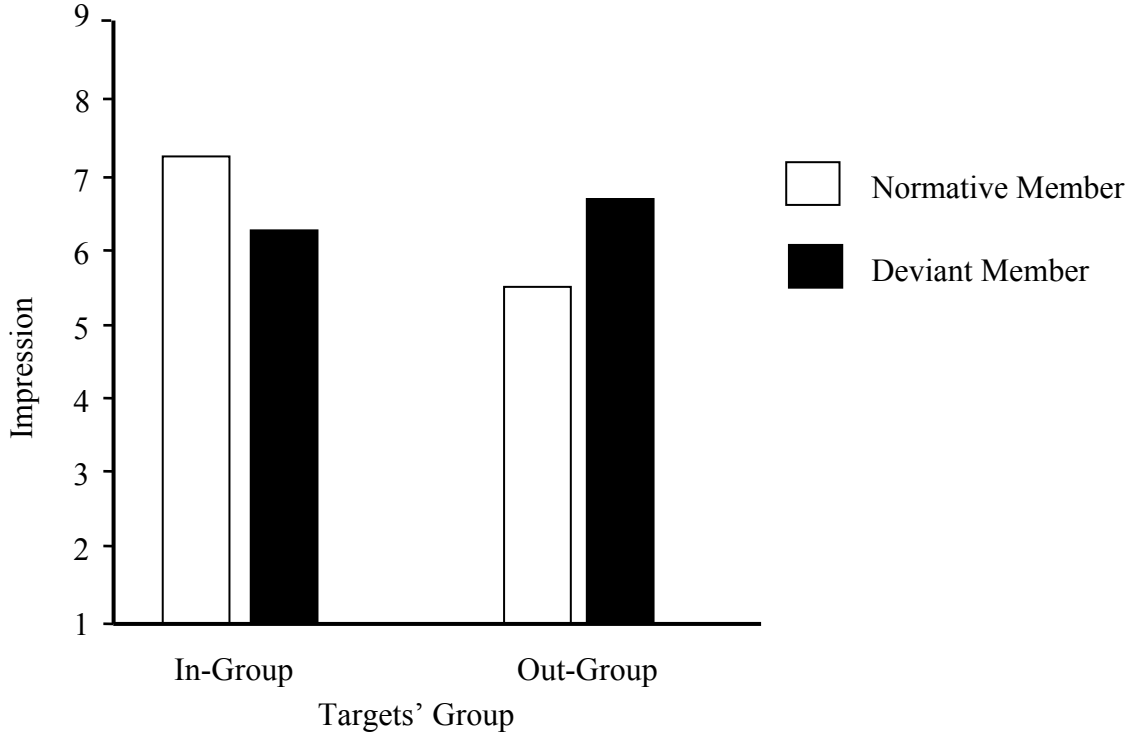

Figure 11. Impression of normative and deviant members as a function of their group membership (Experiment 6)

Impression of members. To examine the differences in the item measuring the impression of members, we conducted a Group x Member ANOVA in which represented the impression made on normative and deviant target-members. There was a single effect, the Group x Member interaction, $F(1, 23) = 16.01$, $p < .001$, $\eta^2 = .41$, highest other effect, $F(1, 23) = 1.98$, *ns*. The analysis of the interaction revealed that in-group normative targets were better evaluated than in-group deviant targets, $M = 7.23$, $SD = 1.01$ and $M = 6.15$, $SD = 1.14$, respectively, $F(1, 23) = 8.29$, $p < .008$, and out-group normative targets were worst evaluated than out-group deviant targets, $M = 5.58$, $SD = 1.31$ and $M = 6.67$, $SD = 1.37$, respectively, $F(1, 23) = 7.74$, $p < .01$ (cf. Figure 8). The in-group normative member was better evaluated than the out-group equivalent, $F(1, 24) = 12.48$, $p = .002$, $\eta^2 = .35$, and deviant in-group and out-group members were similarly evaluated, $F(1, 24) = 1.04$, *ns*. All members were evaluated significantly above the middle of the scale except for the normative out-group member, $t(11) = 1.54$, *ns*, all other members, lowest, $t(12) = 3.64$, $p = .003$ (cf. Figure 11).

Impression of members and in-group identification. To examine the impact of in-group identification on impression, we divided participants by median-split of the in-group identification index, $M = 4.81$, $SD = .73$ and $M = 6.50$, $SD = .35$, respectively for 'low' and 'high identifiers', creating a new two-level variable, Identification. We then performed a Group x Identification x Member ANOVA. There were no effects involving Identification, all effects, $F(1, 21) < 1$, suggesting that in-group identification did not played a significant role in the judgments of the targets.

Impression of members and recognition. To examine the role of recognition of the norms, we proceeded similarly, dividing participants by median-split of the recognition index into two groups, 'good' and 'bad' recognizers, with a average recognition of $M = .42$, $SD = .51$ and $M = 2.00$, $SD = .00$, respectively, creating a new two-level variable, Recognition. We then performed a Group x Recognition x Member ANOVA, which did not yield significant effects involving Recognition, highest effect, $F(1, 21) = 1.52$, *ns*, suggesting that recognition of the norms did not played a significant role in the judgments.

Discussion and Conclusions

With the changes to the experimental procedure aimed to increase the importance of the group norms, the results partially supported the hypothesis of implicit normative differentiation. Specifically, participants favored members who endorse implicit in-group norms over those who support equivalent out-group norms. However, this result cannot be interpreted as the result of Subjective Group Dynamics. The Subjective Group Dynamics model postulates that the need to protect group identity derives from the simultaneous salience of social self-categorization and of the violated group norm (cf., e.g., Marques et al, 1998a; 2001b). The simultaneous salience of group *and* norm is revealed by the extremized evaluations of in-group normative and deviant members as regards their out-group equivalents. Our results present only one aspect of the expected effect: in-group normative members were favored over out-group normative members but in-group deviants were not downgraded relatively to out-group deviants.

Other results suggest that, in the present experiment, the initial categorization was less salient than in the previous experiment. For instance, in-group targets were not

favored over out-group targets, as a whole, as in the previous experiment. Moreover, the level of in-group identification did not affected judgments, as in the previous experiment. Jointly, these two results suggest that the intergroup context before the judgments was less salient than in the previous experiment. The isolated conditions in which the tasks were completed as well as the more involving scenario seemed to have induced, as intended, an increased salience of the group norms but at costs of a decreased salience of the initial categorization. Participants seemed to be more concerned in differentiating as a function of the norms than as a function of the groups. Given the scarce indications of the initial self-categorization at the time of judgments, a re-categorization explanation could also apply to the results. The salience of the norms could have led participants to interpret implicitly the situation as the opposition between two new categories, derogating targets that endorse the in-group norm over those that endorse the out-group norm independently of their initial group membership.

GENERAL CONCLUSION

Previous research has shown that attitudes, opinions and judgments are implicitly affected by group memberships. Our aim, in the present work, was to extend this investigation on social identity implicit processes to group influence and normative intragroup differentiation. We shall now review our major results, outline some of their implications and draw some prospects for future research.

Group Influence

Group influence is a major social-psychological field of research. Classical experiments in Social Psychology, such as those of Sherif (1936) and Asch (1951), addressed the influence that group norms have in individuals' judgments. It is therefore a significant field to examine implicit processes. In addition, implicit processing is a relevant issue in the theory of group influence. Minority influence theories emphasize the distinction between direct and indirect influence (e.g., Moscovici, 1976; 1980; 1985; Mugny & Pérez, 1991; Pérez & Mugny, 1998), and compliance is often associated to deliberate behavior whereas internalization is associated to implicit assimilation (e.g., Cialdini & Trost, 1998; Kelman, 1958; Moscovici, 1976; Wood, 1999).

Sherif (1936) examined the way individuals achieve collective frames of reference, social norms, and how these norms become objective stimuli. His study is paradigmatic of a Social Psychology aiming to understand the social processes generalized to small groups and large social groups such as societies or cultures. Norms are seen as social products, which cannot be reduced to the average of the individual contributes. Social influence is considered a genuine group phenomenon not an accumulation of interpersonal influences.

Subsequent research did not pursue Sherif's wide-range purpose and became more concerned with influence phenomena that emerge in small interactive groups. Traditional social influence literature is characterized by an individualistic bias because it places the individual at the center of the influence process. For instance, Moscovici (1976) remarked that, by distinguishing social reality from physical reality, Festinger's (1950) assigns the predominance in testing reality to individuals' personal means;

others' opinions appear as an auxiliary means to obtain certainty about reality when personal means fail to reduce subjective uncertainty.

According to Turner (1991), the individualistic conception of group influence led to several 'dual-process' models of social influence. One of the most paradigmatic of these models is Deutsch and Gerard's (1955) distinction between normative and informational influence. Although the model holds that groups may also represent informational sources, it considers group influence typically normative and is intensified with the physical presence of other members. The dichotomization of group influences is reinforced in minority influence theory (Moscovici, 1976; 1985). According to this theory, whereas majorities exert only direct influence inducing mainly compliant behavior, minorities exert their influence also indirectly leading to conversion or internalization.

The social identity approach presents a different view on group influence. Contrarily to the dual-process model, the Referent Informational Influence model (Hogg & Turner, 1987; Turner, 1987; 1991; McGarty et al, 1992) conceives group influence as a single process encompassing informational and normative components. Distinctions in the conformity process such as those in terms of private vs. public settings, or of direct vs. indirect influences are theoretically superfluous because conformity represents an assimilation of the self to the group norm. The distinction based on the opposition between private and public conformity has already been addressed (Hogg & Turner, 1987; Abrams et al, 1990); thus, the distinction based on the opposition of direct vs. indirect influences (or conformity to explicit vs. implicit norms) appeared as a relevant aspect to address.

Assumed in-group membership of credible sources. We began by examining conformity to the implicit norm of a credible source. We considered this test important for two reasons: First, it would test the assumption that informational influences are automatically accepted, and second, because it would provide a basis to compare the results of the next experiments in which the group membership of the credible source was manipulated. Experiment 1 supported the idea that individuals automatically conform to the opinion of sources whose credibility is relevant in the current context. We then hypothesized that the norm of credible sources is automatically accepted

because receivers assume the in-group membership of the sources (cf. Turner, 1991). Experiments 2 and 4 confirmed this hypothesis. When the credible source was presented as an out-group source, participants did not conformed more to it than to a comparatively less credible in-group.

Implicit and explicit conformity. The results of Experiment 2 did not show, even when the in-group was a credible source, an actual preference for the in-group pictures, in absolute terms. Absolute preference, that is, the rating of the pictures significantly above the middle of the scale, represents an important leap from irresolute judgment to committed judgment. Instead, their conformity to in-group norms was preferential *relatively* to that of out-group norms. *Actual* conformity to in-group norms emerged when these norms were made explicit: In Experiment 3 and in the explicit condition of Experiment 4, participants conformed to the in-group norm both relatively to that of the out-group *and* in absolute terms, corresponding to actual assimilation to the in-group norm.

Despite *actual* assimilation to the in-group norm was processed consciously, but not unconsciously, there were no divergences between implicit conformity and explicit conformity regarding the norms preferred. The results of the non-credible group members, showing that in-group conformity did not increased from implicit to explicit conditions, confirmed the idea that increased explicit in-group conformity does not correspond solely to an increase of normative influence. Instead, this rise in conformity corresponds to the larger referent informational influence of the group, thus involving normative and informational components. This idea was also reinforced by the distorted perceptions of non-credible group members concerning the relative competence of the two groups in the task, indicating that in-group members adjusts eventual negative information about the in-group such that they perceive the in-group at the least negative light as possible and the out-group at the least positive light as possible. This normative adjustment of the informational value of the groups, confirms the idea that the two components of group influence are indistinguishable.

Source credibility. The manipulation or control for the source credibility variable in all experiments had both a practical and a theoretical value. In one hand, it was useful in Experiments 3 and 4 to generate meaning to the categorization in artificial groups.

The categorization in artificial groups, inspired in Tajfel and colleagues' (1971) procedure had the advantage of creating a situation, as the authors put it, "devoid of the usual trappings of in-group membership and of all the vagaries of interacting with the out-group" (p. 173). However, artificial categorization is effective in producing group behavior to the extent that, in the created situation, it entails some meaning to participants (e.g., Diehl, 1990; Oakes et al, 1994). The opposition between credible and non-credible groups helped us to produce such meaning, reproducing the habitual asymmetries in status of natural groups (e.g., Tajfel, 1978). On the other hand, the presence of the source credibility variable in all the experiments reinforced the metatheoretical standpoint of the referent informational influence concept: That credibility, expertise, and useful information, are not abstract concepts but concepts strongly anchored in specific social realities (cf. Turner, 1991; 2005).

Implications for research on the heuristic processing of persuasive messages. The present results may also be read at the light of persuasion literature. Previous research found that the in-group membership of the source may serve either as a heuristic to form or change an opinion and as a cue to systematically process one message. Heuristics are low-effort cognitive strategies (cf. Kahneman & Tversky, 1973) that may be used to ascertain promptly the validity of a persuasive message based on source-related cues (cf. Chaiken, 1980). For instance, Mackie, Gastardo-Conaco and Skelly (1992) reminded their participants about the in-group position on a particular issue either before or after reading a persuasive message issuing from either an in-group or an out-group source. The results showed that the in-group message generated more change of opinion than did that of the out-group. More importantly, when they were reminded of the in-group position *after* the message, participants spend the same amount of time analyzing in-group and out-group arguments, whereas when they were reminded *before*, participants spent more time reading in-group than out-group arguments. These and other results (e.g., Fleming & Petty, 2000; Haslam, McGarty & Turner, 1996; Mackie, Worth & Asunción, 1990; van Knippenberg, Lossie & Wilke, 1994; Wilder, 1990) indicate that the group membership of the source may serve as a heuristic to evaluate the credibility of a message. In-group messages induce more opinion change than do out-group messages even if their content is not systematically analyzed.

As Chaiken and colleagues (Chaiken, 1980; Chaiken, Liberman & Eagly, 1989; Chen & Chaiken, 1999) remarked, heuristics often operate automatically due to the repeated verification of the reliability of the source's messages (e.g., 'expert sources are reliable', 'if everybody approves it, it must be right'). We may thus conjecture that the results of our Experiment 1 may be interpreted as the automatic operation of a credible source heuristic. However, the results of Experiments 2 and 4 also indicate that the automatic use of a credible source heuristic applies only when an intragroup context is assumed, and the source is deemed to share the receiver's group membership. When the source is believed to belong to an out-group, the credible source heuristic is not used neither consciously not automatically.

Finally, the results of our study, suggesting that group norms may have an implicit effect on members, do not imply that members mechanically adopt in-group norms or that they do not allot time and energy to question these norms. Instead, they suggest that, when social identity is satisfactory, individuals are more receptive to in-group norms than to out-group norms (or more unreceptive to out-group than to in-group norms). Nevertheless, as the results of our last experiment show, for members to adopt unambiguously in-group norms, they must be conscious of them.

Some questions for future research. Several questions left unanswered by the present experiments deserve attention. One of these questions is the lack of relationship of in-group conformity with both the perceived credibility of groups and in-group identification in non-credible group members. Why are these correlations, even so, stronger in implicit conditions than in explicit conditions? Another potentially interesting aspect deserving to be pursued is the role of the personal self in implicit group conformity. Should a decrease of implicit group conformity be expected when the participant is described to be typical of the out-group rather than of the out-group, thus violating the assumed prototypicality of the self (e.g., Codol, 1975)? Specifically, what should we expect if participants are previously led to believe that, despite their group membership, their personal competence in the task is typical of the *out*-group? If the self is described as non-competent and the in-group as competent, should we expect'opportunistic' in-group conformity? Conversely, if the self is described as competent and the in-group as non-competent, should we expect an increase of out-group conformity? If, for social desirability reasons, this increase emerged only in

implicit conformity, that would be an instance, in which, controlled and non-controlled measures of conformity provided divergent results similar to those frequently found in research on implicit prejudice (e.g., Dovidio, Kawakami, Johnson, Johnson & Howard, 1997; Fazio, Jackson, Dunton & Williams, 1995; Greenwald & Banaji, 1995). Such divergence would reveal the salience of the personal self rather than of the collective self in conformity.

Normative Intragroup Differentiation

Normative differentiation relates directly to group influence because both have groups norms at the center of phenomena. Festinger's (1950) theory of group influence is also a theory of group reactions to deviance. Until recently, the research focused on the dynamics occurring in interactive groups, such as work and sport teams, committees, task forces, etc. However, people do not have to interact actually with deviant members to endure the negative consequences of in-group deviant behavior at a social identity level. This phenomenon was tackled by Marques and colleagues with their research on the black-sheep effect (e.g., Marques et al, 1988). The obtained data suggested that the derogation of deviant members corresponds to a group strategy to protect the value of the social identity (Marques & Páez, 1994). Members that violate cherished group norms endanger not only the external image of the group but also the validity of the violated norms (Marques et al, 1998a; 2001b). The black-sheep effect involves the extremized derogation of in-group deviants relatively to their out-group counterparts *and* the extremized upgrading of in-group normative relatively to their out-group counterparts. This phenomenon conflicts with the general tendency to assimilate group members in salient intergroup contexts (Doise, Deschamps & Meyer, 1978; Simon, 1992). However, there is repeated evidence that extremized intragroup differentiation, as a function of group prescriptive norms, is a concomitant of increased commitment to the in-group (Marques et al, 1998b; 2001a).

The goal of our second study was to examine whether the extremized reactions to in-group deviance could be automatic or whether they required conscious processing. Previous research has established the automatic nature of in-group favoritism (Devine, 1989; Dovidio et al, 1997; Perdue et al, 1990). The in-group and its members tend to be more associated with positive feelings or the out-group and its members tend to be more

associated with negative feelings (Cameira et al, 2002; Otten & Wentura, 1999). Could this tendency automatically shift to derogation when the target member is presented as deviant? Our results presented mixed evidence for this possibility.

In Experiment 5, in-group normative and deviant members were assimilated and out-group members that endorsed the in-group norm were upgraded. Several results suggested that the need for the positive differentiation of the in-group prevailed over normative intragroup differentiation. In Experiment 6, where the focus on the norms was promoted, the upgrading of members supporting the in-group norms over those that supported the out-group norm indicates an indirect form of in-group favoritism. However, the results present no definitive indications that judgers were protecting their identity as group members. The results could be interpreted as intergroup differentiation following a re-categorization rather than actual intragroup differentiation.

One possibility to unravel the above question would be to redesign the experiment to avoid its symmetry in what concerns the norms supported by target-members and their respective group membership. Specifically, the introduction of a third norm belonging neither to the in-group nor to the out-group but endorsed by both in-group and out-group deviants would inform: (1) whether our participants favored out-group deviants relatively to normative members due to their support to the in-group norm and not to their rejection of the out-group norm, and (2) whether our participants favored in-group normative members relative to deviants because the deviants supported the out-group norm. Our conjecture is that whereas differentiation within the in-group will occur when a member deviates from the in-group norm, differentiation within the out-group occurs only when a member is an in-group convert; when the norm followed by the deviant is unrelated with the perceiver's group, out-group members will be derogated as a whole. Such a design would help to clarify the intergroup vs. intergroup nature of implicit normative differentiation.

However, there is also the possibility that some forms of normative intragroup differentiation require conscious processing. Previous results have shown that in-group favoritism is a predominant response in salient intergroup contexts (Perdue e tal, 1990; Otten & Wentura, 1999). Because implicit processes are relatively inflexible processes (Schneider & Shiffrin, 1977; Bruner, 1992), they might not include sophisticated

responses such as that of in-group protection through the derogation of one (or some) of its members. Abrams and colleagues' (2001a; 2001b) studies are consistent with this idea, showing that whereas in-group favoritism is a tendency showing relatively early in the development, intragroup normative differentiation appears later when individuals are more conscious of the threat that in-group deviant behavior may represent to group identity. On the other hand, it is reasonable to assume that deviant behavior that blatantly threatens individuals' values would trigger an automatic derogatory reaction more extreme when the perpetrator is an in-group member than when it is an out-group member. This is a possibility to explore in future studies using a procedure different from the present one.

To conclude, implicit processes associated with social identity appear as a promising path for research that may contribute to a better understanding of how in-group standards are internalized and group behavior is automatized. Social behavior has traditionally been associated with strategic self-presentation and with public performance (Hogg & Abrams, 1988; Turner et al, 1987). This perspective suggests that the private self is intrinsically different from the public self (Abrams, 1994; 1996; 1999). We believe that the demonstration of the routine and automatic, not exceptional and controlled, character of the social processing of environment will contribute to approach social phenomena at a group level and not only at an interindividual level of explanation.

REFERENCES

Abrams, D. (1994). Social Self-Regulation. *Personality and Social Psychology Bulletin*, *20*, 473-83.

Abrams, D. (1996). Social identity, self as structure and self as process. In W. P. Robinson (Ed.), *Social groups and identities: Developing the legacy of Henri Tajfel* (pp. 143-167). Oxford, UK: Butterworth-Heinemann.

Abrams, D. (1999). Social identity, social cognition, and the self: The flexibility and stability of self-categorization. In Abrams, D., & Hogg, M. A (Eds.), *Social identity and social cognition*. (pp. 197-229). Oxford, UK: Blackwell

Abrams, D., & Hogg, M. A. (1990). Social identification, self-categorization and social influence. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology* (vol. 1, pp. 195- 227). London: Wiley

Abrams, D., & Hogg, M. A. (Eds.). (1999). *Social identity and social cognition*. Oxford, UK: Blackwell

Abrams, D., & Masser, B. (1998). Context and the social self-regulation of stereotyping: Perception, judgment, and behavior. In Wyer, R. S. Jr. (Ed.), *Stereotype activation and inhibition.* (pp. 53-67). Mahwah, US: Lawrence Erlbaum

Abrams, D., Rutland, A., & Cameron, L. (2003a). The development of subjective group dynamics: Children's judgments of normative and deviant in-group and out-group individuals. *Child Development, 74*, 1-17.

Abrams, D., Rutland, A., Cameron, L., & Marques, J. M. (2003b). The development of subjective group dynamics: When in-group bias gets specific. *British Journal of Developmental Psychology*, *21*, 155-176

Abrams, D., Wetherell, M. S., Cochrane, S., Hogg, M. A., & Turner, J. C. (1990). Knowing what to think by knowing what you are: Self-categorization and the nature of norm formation, conformity and group polarization. *British Journal of Social Psychology*, *29*, 97-119

Allen, V. L. (1965). Situational factors in conformity. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (vol. 2, pp. 133-175). N. Y.: Academic Press

Allen, V. L., & Wilder, D. A. (1975). Categorization, belief similarity and intergroup discrimination. *Journal of Personality and Social Psychology*, *32*, 971-977

Allport, F. H. (1924). *Social Psychology*. Boston: Houghton Mifflin.

Aronson, E., Turner, J. A., & Carlsmith, J. M. (1963). Communicator credibility and communication discrepancy as determinant of opinion change. *Journal of Abnormal and Social Psychology*, *67*, 31-36

Asch, S. E. (1951). Effects of group pressure upon the modification and distortion of judgments. In H. Guetzkow (Ed.), *Groups, leadership and men* (pp. 177-190). Pittsburgh, US: Carnegie Press

Asch, S. E. (1952). *Social Psychology*. Englewood-Cliffs, US: Prentice-Hall.

Asch, S. E. (1955). Opinions and social pressure. *Scientific American*, *193*, 31-35

Asch, S. E. (1956). Studies of independence and conformity: Minority of one against a unanimous majority. *Psychological Monographs: General and Applied*, *70*, 1-70

Bargh, J. A. (1989). Automatic and conscious processing of social information. In R. S. Wyer Jr., & T. K. Srull (Eds.), *Handbook of social cognition* (1st Ed.) (pp. 1-43). Hillsdale, US: Erlbaum

Bargh, J. A. (1994). The four equestrians of automaticity: Awareness, intention, efficiency, and control in social cognition. In R. S. Wyer Jr., & T. K. Srull (Eds.), *Handbook of social cognition* (2nd Ed.) (pp. 1-40). Hillsdale, US: Erlbaum

Bargh, J. A. (1996). Automaticity in social psychology. In E. T. Higgins & A. W. Kruglansky (Eds.), *Social psychology: Handbook of basic principles* (1st Ed.) (pp. 169-183). N. Y.: Guilford

Bargh, J. A., & Ferguson, M. J. (2000). Beyond behaviorism: On the automaticity of higher mental processes. *Psychological Bulletin*, *126*, 925-945

Barlow, J. A. (1981). Mass line leadership and thought reform in China. *American Psychologist*, *36*, 300-309

Baron, R. M., & Roper, G. (1976). Reaffirmation of social comparison views of choice shifts: Averaging and extremitization in an autokinetic situation. *Journal of Personality and Social Psychology*, *35*, 521-530

Berry, D. C. (Ed.). (1997). *How implicit is implicit learning?* Oxford, UK: University Press

Billig, M., & Tajfel, H. (1973). Social categorization and similarity in intergroup behavior. *European Journal of Social Psychology*, *3*, 27-52

Blascovitch, J. Ginsburg, G. P., & Veach, T. L. (1975). A pluralistic explanation of choice shifts in the risk dimensions. *Journal of Personality and Social Psychology*, *31*, 422-429.

Bochner, S., & Insko, C. A. (1966). Communicator discrepancy, source credibility, and opinion change. *Journal of Personality and Social Psychology*, *4*, 614-621

Bovard, E. W. (1948). Social norms and the individual. *Journal of Abnormal and Social Psychology*, *42*, 62-69

Branscombe, N. R. (1998). Thinking about one's gender-group's privileges or disadvantages: Consequences for the well-being in women and men. *British Journal of Social Psychology*, *37*, 167-184

Branscombe, N. R., & Doosje, B. (Eds.). (2004). *Collective guilt: International perspectives*. Cambridge, UK: University Press

Branscombe, N. R., Slugoski, B., & Kappen, D. M. (2004). The measurement of collective guilt: What is and what is not. In N. R. Branscombe & B. Doosje (Eds.). *Collective guilt: International perspectives* (pp. 16-34). Cambridge, UK: University Press

Branscombe, N. R., & Wann, D. L. (1994). Collective self-esteem consequences of out-group derogation when a valued social identity is on trial. *European Journal of Social Psychology*, *24*, 641-657

Branscombe, N. R., Wann, D. L., Noel, J., & Coleman, J. (1993). In-group and out-group extremity: Importance of the threatened social identity. *Personality and Social Psychology Bulletin*, *19*, 381-388

Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, *17*, 475-482

Brewer, M. B. (1993). The role of distinctiveness in social identity and group behavior. In M. A. Hogg and D. Abrams (Eds.), *Group motivation: Social psychological perspectives*. N. Y.: Harvester Wheatsheaf

Bruner, J. S. (1957). On perceptual readiness. *Psychological Review*, *64*, 123-151

Bruner, J. S. (1992). Another look at New Look 1. *American Psychologist*, 47, 780-783

Bruner, J. S., & Goodman, C. C. (1947). Value and need as organizing factors in perception. *Journal of Abnormal and Social Psychology*, *42*, 33-44

Burnstein, E., & Vinokur, A. (1973). Testing two classes of theories about group induced shifts in individual choices. *Journal of Personality and Social Psychology*, *9*, 123-137

Burnstein, E., & Vinokur, A. (1975). What a person thinks upon learning he has chosen differently from others: Nice evidence for the persuasive arguments explanation of choice shifts. *Journal of Experimental Social Psychology*, *11*, 412-426

Burnstein, E., & Vinokur, A. (1977). Persuasive argumentation and social comparison as determinants of attitude polarization. *Journal of Experimental Social Psychology*, *13*, 236-239

Burris, C. T., & Branscombe, N. R. (2005). Distorted distance estimation induced by a self-relevant national boundary. *Journal of Experimental Social Psychology*, *41*, 305-312

Cameira, M., Serôdio, R. G., Pinto, I., & Marques, J. M. (2002). Implicit effects of group membership and identification in social discrimination. [Efeitos implícitos da pertença e identificação grupais na discriminação social]. *Análise Psicológica*, *20*, 603-610

Cartwright, D., & Zander, A. (Eds.). (1968). *Group Dynamics* (3rd Ed.). N. Y.: Harper & Row

Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues to persuasion. *Journal of Personality and Social Psychology*, *39*, 752-766

Chaiken, S., Liberman, A., & Eagly, A. H. (1989). Heuristic and systematic information processing within and beyond the persuasion context. In J. S. Uleman & J. A. Bargh (Eds.), *Unintended thought* (pp. 212-252). N. Y.: Guilford

Chen, S., & Chaiken, S. (1999). The heuristic-systematic model in its broader context. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 73-96). N. Y.: Guilford

Christensen, P. N., Rothgerber, H., Wood, W., & Matz, D. C. (2004). Social norms and identity relevance: A motivational approach to normative behavior. *Personality and Social Psychology Bulletin*, *30*, 1295-1309

Cialdini, R. B., Kallgren, C. A., & Reno, R. R. (1991). A focus theory of normative conduct: A theoretical refinement and reevaluation of the role of norms in human behavior. *Advances in Experimental Social Psychology*, *21*, 201-234

Cialdini, R. B., & Trost, M. R. (1998). Social influence: Social norms, conformity, and compliance. In D. T. Gilbert, S. T. Fiske & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed.) (pp. 151-192). N. Y.: McGraw-Hill

Clark, R. D. (1988). On predicting minority influence. *European Journal of Social Psychology*, *18*, 515-526

Codol, J. P. (1975). On the so-called 'superior conformity of the self' behavior: Twenty experimental investigations. *European Journal of Social Psychology*, 5, 457-501

Codol, J. P. (1984). Social differentiation and non-differentiation. In H. Tajfel (Ed.) *The social dimension: European developments in social psychology*. Cambridge, UK: University Press

Cohen, A., Ivry, R. I., & Keele, S. W. (1990). Attention and structure in sequence learning. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *16*, 17-30

Coleman, J. F., Blake, R. R., & Mouton, J. S. (1958). Task difficulty and conformity pressures. *Journal of Abnormal and Social Psychology*, *57*, 120-122

Collins, B. E., & Raven, B. H. (1969). Group structure: Attraction, coalitions, communication and power. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology*, vol. 4. Reading, US: Addison-Wesley

Costarelli, S. (2005). Affective responses to own violations of in-group norms: The moderating role of norms salience. *European Journal of Social Psychology*, *35*, 425-435

Crocker, J., & Luhtanen, R. (1990). Collective self-esteem and in-group bias. *Journal of Personality and Social Psychology*, *58*, 60-67

Croner, M. D., & Willis, R. H. (1961). Perceived differences in task competence and asymmetry of dyadic influence. *Journal of Abnormal and Social Psychology*, *57*, 120-122

Crutchfield, R. S. (1955). Conformity and character. *American Psychologist*, *10*, 191-198

Danks, J. H., & Gans, D. L. (1975). Acquisition and utilization of a rule structure. *Journal of Experimental Psychology: Human Learning and Memory*, *1*, 201-208

David, B., & Turner, J. C. (1992). Studies in self-categorization and minority conversion. Paper presented at the *Symposium on minority influence at the Joint Meeting of the European Association of Experimental Social Psychology and Society of Experimental Social Psychology*, Louvain-la-Neuve, Belgium

Deschamps, J. C. (1984). The social psychology of intergroup relations and categorical differentiation. In H. Tajfel (Ed.), *The social dimension: European developments in social psychology*. London: Cambridge University Press

Deutsch, M & Gerard, H. B. (1955). A study of normative and informational social influences upon individual judgments. *Journal of Abnormal and Social Psychology*, *51*, 629-636

Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology*, *56*, 5-18

Di Vesta, F. J. (1959). Effects of confidence and motivation on susceptibility to international social influence. *Journal of Abnormal and Social Psychology*, *59*, 100-107

Diehl, M. (1988). Social identity and minimal groups: The effects of interpersonal attitudinal similarity on intergroup discrimination. *British Journal of Social Psychology*, *27*, 289-300

Diehl, M. (1990). The minimal group paradigm: Theoretical explanations and empirical findings. In W. Stroebe and M. Hewstone (Eds.), *European Review of Social Psychology*, *1*(pp. 263-292). N.Y: Wiley

Diener, E. (1980). Deindividuation: The absence of self-awareness and self-regulation in group members. In P. B. Paulus (Ed.), *Psychology of group influence*. Hillsdale, US: Lawrence Erlebaum

Doise, W. (1976). *L'articulation psychosociologique et les relations intergroupes*. Bruxelles: De Boeck

Doise, W. (1986). *Levels of explanation in Social Psychology*. Cambridge, UK: Cambridge University Press

Doise, W., & Sinclair, A. (1973). The categorization process in intergroup relations. *European Journal of Social Psychology*, *3*, 145-157

Doise, W., Deschamps, J. C., & Meyers, G. (1978). The accentuation of intercategory similarities. In H. Tajfel (Ed.), *Differentiation between social groups* (pp. 159-169). London: Academic Press

Doms, M., & van Avermaet, E. (1980). Majority influence, minority influence and conversion behavior: A replication. *Journal of Experimental Social Psychology*, *16*, 282-292

Doms, M., & van Avermaet, E. (1985). Social support and minority influence: The innovation effect reconsidered. In S. Moscovici, G. Mugny, and E. van Avermaet (Eds.), *Perspectives on minority influence* (pp. 53-74). Cambridge, UK: University Press

Dovidio, J., Kawakami, K., Johnson, C., Johnson, B., & Howard, A. (1997). On the nature of prejudice: Automatic and controlled processes. *Journal of Experimental Social Psychology*, *33*, 510-540

Eiser, J. R., & Stroebe, W. (1972). *Categorization and social judgment*. London: Academic Press

Ellemers, N., van Knippenberg, A., De Vries, N., & Wilke, H. (1988). Social identification and permeability of group boundaries. *European Journal of Social Psychology*, *18*, 497-514

Fazio, R. H., Jackson, J., Dunton, B., & Williams, C. (1995). Variability in automatic activation as an obstructive measure of racial attitudes: A bona fide pipeline? *Journal of Personality and Social Psychology*, *69*, 1013-1027

Festinger, L. (1950). Informal social communication. *Psychological Review, 57*, 271-282

Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, *7*, 117-40

Festinger, L., Gerard, H. B., Hymovitch, B., Kelley, H. B., & Raven, B. (1952). The influence process in the presence of extreme deviants. *Human Relations*, *5*, 327-346

Festinger, L., Schachter, S., & Back, K. (1950). *Social pressures in informal groups*. N. Y.: Harper

Festinger, L., & Thibaut, J. (1951). Interpersonal communications in small groups. *Journal of Abnormal and Social Psychology*, *46*, 92-100

Fielding, K. S., & Hogg, M. A. (1997). Social identity, self-categorization and leadership: A field study of small interactive groups. *Group Dynamics: Theory, Research and Practice*, *1*, 39-51

Fisher, S., & Lubin, A. (1958). Distance as a determinant of influence in a two-person serial interaction situation. *Journal of Abnormal and Social Psychology*, *56*, 230-238

Fiske, S. T., & Dépret, E. (1996). Control, interdependence and power: Understanding social cognition in its social context. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology* (vol. 7) (pp. 31-61). N. Y.: Wiley

Fleming, M. A., & Petty, R. E. (2000). Identity and persuasion: An elaboration likelihood approach. In D. J. Terry & M. A. Hogg (Eds.), *Attitudes, behavior and social context* (pp. 171-199). Mahwah, US: Erlbaum

French, J. R. P., & Raven, B. H. (1959). The bases of social power. In D. Cartwright (Ed.) *Studies in Social Power* (pp. 150-167). Ann Arbor, US: Institute of Social Research.

Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review*, *102*, 4-27

Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, *74*, 373-387

Grieve, P., & Hogg, M. A. (1995). Subjective uncertainty and intergroup discrimination in the minimal group situation. *Personality and Social Psychology Bulletin*, *25*, 926-940

Hains, S. C., Hogg, M. A., & Duck, J. M. (1997). Self-categorization and leadership: Effects of group prototypicality and leader stereotypicality. *Personality and Social Psychology Bulletin*, *23*, 1087-1100

Haslam, A. S., & Turner, J. C. (1992). Context-dependent variation in social stereotyping 2: The relationship between frame of reference, self-categorization and accentuation. *European Journal of Social Psychology*, *22*, 251-277

Haslam, A. S., McGarty, C., & Turner, J. C. (1996). Salient group memberships and persuasion: The role of social identity in the validation of beliefs. In J. L. Nye & A. M. Brower (Eds.), *What's social about social cognition: Research on socially shared cognition in small groups* (pp. 29-56). Thousand Oakes, US: Sage

Hogg, M. A. (1992). *The social psychology of group cohesiveness: From attraction to social identity*. London: Harvester Wheatsheaf

Hogg, M. A. (1993). Group cohesiveness: A critical review and some new directions. In W. Stroebe and M. Hewstone (Eds.), *European Review of Social Psychology*, *4* (pp. 85-111). N.Y: Wiley

Hogg, M. A. (1996). Intragroup processes, group structure and social identity. In W. P. Robinson (Ed.), *Social groups and identities* (pp. 65-94). Oxford, UK: Butterworth

Hogg, M. A. (2001a). A social identity theory of leadership. *Personality and Social Psychology Review, 5,* 184-200.

Hogg, M. A. (2001b). Social categorization, depersonalization, and group behavior. In M. A. Hogg & R. S. Tindale, (Eds.), *Blackwell handbook of social psychology: Group processes* (pp. 56-85). Oxford, UK: Blackwell.

Hogg, M. A. (2001c). Social identity and the sovereignty of the group: A psychology of belonging. In C. Sedikides & M. B. Brewer (Eds.), *Individual self, relational self, collective self* (pp. 123-143). Philadelphia, PA: Psychology Press.

Hogg, M. A. (2003). Social identity. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 462-479). N.Y.: Guilford.

Hogg, M. A., & Abrams, D. (1988). *Social identifications: A social psychology of intergroup relations and group processes*. London: Routledge

Hogg, M. A., & Abrams, D. (1990). Social motivation, self-esteem and social identity. In D. Abrams & M. A. Hogg (Eds.), *Social identity theory: Constructive and critical advances* (pp. 28-47). London: Harvester Wheatsheaf

Hogg, M. A., & Abrams, D. (1993). Towards a single-process uncertainty-reduction model of social motivation in groups. In M. A. Hogg & D. Abrams (Eds.), *Group motivation: Social Psychological Perspectives* (pp. 173-190). London: Harvester Wheatsheaf

Hogg, M. A., & Abrams, D. (2003). Intergroup behavior and social identity. In M. A. Hogg & J. Cooper (Eds.), *The Sage handbook of social psychology* (pp. 407-431). London: Sage

Hogg, M. A., Cooper-Shaw, L., & Holzworth, D. W. (1993). Group prototypicality and depersonalized attraction in small interactive groups. *Personality and Social Psychology Bulletin*, *19*, 452-465

Hogg, M. A., Hains, S. C., & Mason, I. (1998). Identification and leadership in small groups: Salience, frame of reference, and leader stereotypicality effects on leader evaluations. *Personality and Social Psychology Bulletin*, *75*, 1248-63

Hogg, M. A., & Hardie, E. A. (1991). Social attraction, personal attraction and self-categorization: A field study. *Personality and Social Psychology Bulletin*, *17*, 175-80

Hogg, M. A., & Mullin, B. A. (1999). Joining groups to reduce uncertainty: Subjective uncertainty reduction and group identification. In M. A Hogg & D. Abrams (Eds.), *Social identity and social cognition*. (pp. 249-279). Oxford, UK: Blackwell

Hogg, M. A., & Turner, J. C. (1985a). Interpersonal attraction, social identification and psychological group formation. *European Journal of Social Psychology*, *15*, 51-66

Hogg, M. A., & Turner, J. C. (1985b). When liking begets solidarity: An experiment on the role of interpersonal attraction in psychological group formation. *British Journal of Social Psychology*, *24*, 267-281

Hogg, M. A., & Turner, J. C. (1987). Social identity and conformity: A theory of referent informational influence. In W. Doise and S. Moscovici (Eds.), *Current issues in European social psychology* (vol. 2) (pp. 139-182). Cambridge, UK: University Press

Hollander, E. P. (1958). Conformity, status, and idiosyncrasy credit. *Psychological Review*, *65*, 117-127

Hollander, E. P. (1960). Competence and conformity in the acceptance of influence. *Journal of Abnormal and Social Psychology*, *61*, 365-369

Hollander, E. P. (1985). Leadership and power. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (3rd Ed.) (pp. 485-537). N. Y.: Random House

Hornstein, H. A. (1972). Promotive tension: The basis of prosocial behavior from a Lewinian perspective. *Journal of Social Issues*, *28*, 191-218

Horwitz, M. (1954). The recall of interrupted group goals: An experimental study of individual motivation in relation to group goals. *Human Relations*, *7*, 3-39

Insko, C. A., Drenan, S., Solomon, M. R. Smith, R., & Wade, T. J. (1983). Conformity as a function of the consistency of positive self-evaluation with being liked and being right. *Journal of Experimental Social Psychology*, *19*, 341-358

Israel, J. (1956). *Self-evaluation and rejection in groups: Three experimental studies and a conceptual outline*. Stockholm: Almqvist & Wiksell, 1956

Jones, E. E., & Gerard, H. B. (1967). *Foundations of social psychology*. N. Y.: Wiley

Judd, C. M., & Park, B. (1988). Out-group homogeneity: Judgments of variability at the individual and group levels. *Journal of Personality and Social Psychology*, *54*, 778-788

Kahneman, D. (1973). *Attention and effort*. Englewood Cliffs, US: Prentice-Hall

Kahneman, D., & Tversky, A. (1973). On the psychology of prediction. *Psychological Review*, *80*, 237-251

Kallgren, C. A., Reno, R. R., & Cialdini, R. B. (2000). A focus theory of normative conduct: When norms do and do not affect behavior. *Personality and Social Psychology Bulletin*, *26*, 2001-1012

Kelley, H. H. (1952). The two functions of reference groups. In G. E. Swanson, T. M. Newcomb & E. L. Hartley (Eds.), *Readings in social psychology* (pp. 410-414). N. Y.: Holt

Kelley, H. H. (1967). Attribution theory in social psychology. In D. Levine (Ed.), *Nebraska Symposium on Motivation* (pp. 192-238). Lincoln, US: University of Nebraska Press

Kelley, H. H., & Lamb, T. W. (1957). Certainty of judgment and resistance to social influence. *Journal of Abnormal and Social Psychology*, *55*, 137-139

Kelman, H. C. (1958). Compliance, identification and internalization: Three processes of attitude change. *Journal of Conflict Resolution, 2*, 51-60

Kruglansky, A. W., & Mackie, D. M. (1990). Majority and minority influence: A judgmental process analysis. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology* (vol. 1) (pp. 227-261). London: Wiley

Latané, B., & Wolf, S. (1981). The social impact of majorities and minorities. *Psychological Review*, *88*, 438-453

Lau, R. R. (1989). Individual and contextual influences on group identification. *Social Psychology Quarterly*, *37*, 822-32

Lemaine, G., Kastersztein, J., & Personnaz, B. (1978). Social differentiation. In H. Tajfel (Ed.), *Differentiation between social groups: Studies in the social psychology of intergroup relations* (pp. 269-300). London: Academic Press

Levine, J. M. (1980). Reactions to opinion deviance in small groups. In P. B. Paulus (Ed.), *Psychology of group influence*. Hillsdale, US: Erlbaum

Levine, J. M., & Ranelli, C. J. (1978). Majority reactions to shifting and stable attitudinal deviates. *European Journal of Social Psychology*, *8*, 55-70

Lewin, K. (1947). Frontiers in Group Dynamics. *Human Relations*, *1*, 5-41.

Linville, P. W., Fischer, G. W., & Salovey, P. (1989). Perceived distributions of the characteristics of in-group and out-group members: Empirical evidence on a computer simulation. *Journal of Personality and Social Psychology*, *57*, 165-88

Lord, R. G., Foti, R. J., & De Vader (1984). A test of leadership categorization theory: Internal structure, information processing, and leadership perceptions. *Organizational Behavior and Human Performance*, *34*, 343-378

Lorenzi-Cioldi, F. (1998). Group status and perceptions of homogeneity. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology* (Vol. 9) (pp. 31-73). Chichester: Wiley

Lorenzi-Cioldi, F., Eagly, A. H., & Stewart, T. (1995). Homogeneity of gender groups in memory. *Journal of Experimental Social Psychology*, *31*, 193-217

Lott, A. J., & Lott, B. E. (1965) Group cohesiveness as interpersonal attraction. *Psychological Bulletin*, *64*, 259-309

Maass, A., & Clark, R. D. (1984). Hidden impact of minorities: Fifteen years of minority influence research. *Psychological Bulletin*, *95*, 428-450

Mackie, D. M. (1987). Systematic and non-systematic processing of majority and minority persuasive communications. *Journal of Personality and Social Psychology*, *53*, 41-52

Mackie, D. M., Gastardo-Conaco, M. C., & Skelly, J. J. (1992). Knowledge of the advocated position and the processing of in-group and out-group messages. *Personality and Social Psychology Bulletin*, *18*, 145-151

Mackie, D. M., Worth, L. T., & Asunción, A. G. (1990). Processing of persuasive in-group messages. *Journal of Personality and Social Psychology*, *58*, 812-822

Markus, H. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology*, *35*, 63-78

Markus, H., & Kunda, Z. (1986). Stability and malleability of the self-concept. *Journal of Personality and Social Psychology*, *51*, 858-866

Marques, J. M. (1990). The black-sheep effect: Out-group homogeneity in social comparison settings. In D. Abrams & M. A. Hogg (Eds.), *Social identity theory: Constructive and critical advances* (pp. 131-151). London: Harvester Wheatsheaf

Marques, J. M., Abrams, D., Páez, D., & Hogg, M. A. (2001b). Social categorization, social identification, and rejection of deviant group members. In M. A. Hogg & R. S. Tindale, (Eds.), *Blackwell handbook of social psychology: Group processes* (pp. 400-424). Oxford, UK: Blackwell

Marques, J. M., Abrams, D., Páez, D., & Martinez-Taboada, C. (1998b). The role of categorization and in-group norms in judgments of groups and their members. *Journal of Personality and Social Psychology*, *75*, 976-988

Marques, J. M., Abrams, D., & Serôdio, R. G. (2001a). Being better by being right: Subjective group dynamics and derogation of in-group deviants when generic norms are undermined. *Journal of Personality and Social Psychology*, *81*, 436-447

Marques, J. M., Páez, D., & Abrams, D. (1998a). Social identity and intragroup differentiation as subjective social control. In S. Worchel, J. F. Morales, D. Páez & J. C. Deschamps (Eds.), *Social identity: International perspectives* (pp. 124-141). London: Sage

Marques, J. M., & Páez, D. (1994). The black-sheep effect: Social categorization, rejection of in-group deviates, and perception of group variability. In W. Stroebe and M. Hewstone (Eds.), *European Review of Social Psychology*, *5*(pp. 37-68). N.Y.: Wiley

Marques, J. M., & Yzerbyt, V. Y. (1988). The black-sheep effect: Judgmental extremity towards in-group members in inter- and intra-group situations. *European Journal of Social Psychology, 18*, 287-292

Marques, J. M., Yzerbyt, V. Y., & Leyens, J.-Ph. (1988). The "black-sheep" effect: Extremity of judgments towards in-group members as a function of group identification. *European Journal of Social Psychology*, *18*, 1-16

Martin, R. (1995). Majority and minority influence using the afterimage paradigm: A replication with an unambiguous blue slide. *European Journal of Social Psychology*, *25*, 373-381

Martin, R. (1998). Majority and minority influence using the afterimage paradigm: A series of attempted replications. *Journal of Experimental Social Psychology*, *34*, 1-26

McGarty, C. Turner, J. C., Hogg, M. A., David, B., & Wetherell, M. S. (1992). Group polarization as conformity to the prototypical group member. *British Journal of Social Psychology*, *31*, 1-20

McGarty, C., Haslam, S. A., Hutchinson, K. J., & Turner, J. C. (1994). The effects of salient group membership on persuasion. *Small Group Research*, *25*, 267-293

McGarty, C., Turner, J. C., Oakes, P. J., & Haslam, S. A. (1993). The creation of uncertainty in the influence process: The roles of stimulus information and disagreement with similar others. *European Journal of Social Psychology*, *23*, 17-38

McNeil, M. K., & Sherif, M. (1976). Norm change over subjects generations as a function of arbitrariness of prescribed norm. *Journal of Personality and Social Psychology*, *34*, 762-773

Mead, G. H. (1934). *Mind, self and society*. Chicago: University Press

Minard, R. D. (1952). Race relationships in the Pocahontas coalfield. *Journal of Social Issues*, *8*, 29-44

Moscovici, S. (1976). *Social influence and social change*. London: Academic Press

Moscovici, S. (1980). Toward a theory of conversion behavior. *Advances in Experimental Social Psychology*, *13*, 209-239

Moscovici, S. (1985) Social influence and conformity. In G. Lindzey & E. Aronson (Eds.) *Handbook of social psychology* (pp. 347-412). N. Y.: Random House

Moscovici, S., & Faucheux, C. (1972). Social influence, conformity bias and the study of active minorities. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology*, vol. 6 (pp. 149-202). London: Academic Press

Moscovici, S., & Lage, E. (1976). Studies in social influence III: Majority and minority influence in a group. *European Journal of Social Psychology*, *6*, 149-174

Moscovici, S., Lage, E., & Naffrechoux, M. (1969). Influence of consistent minority on the responses of a majority in a color perception task. *Sociometry*, *32*, 365-379

Moscovici, S., & Personnaz, B. (1991). Studies in social influence VI: Is Lenin orange or red? Imagery and social influence. *European Journal of Social Psychology*, *21*, 101-118

Mugny, G. (1982). *The power of minorities*. N. Y.: Academic Press

Mugny, G., & Papastamou, S. (1980). When rigidity does not fail: Individualization and psychologization as resistances to the diffusion of minority innovations. *European Journal of Social Psychology*, *10*, 43-62

Mugny, G., & Pérez, J. A. (1991). *The social psychology of minority influence.* Cambridge, UK: University Press

Mullen, B. (1991). Group composition, salience, and cognitive representations: The phenomenology of being in a group. *Journal of Experimental Social Psychology*, *27*, 297-323

Mullen, B., Brown, R., & Smith, C. (1992). In-group bias as function of salience, relevance and status: An integration. *European Journal of Social Psychology*, *22*, 97-114

Mullin, B., & Hogg, M. A. (1998). Dimensions of subjective uncertainty in social identification and minimal intergroup discrimination. *British Journal of Social Psychology*, *37*, 345-365

Mummendey, A., & Schreiber, H. J. (1983). Better or just different? Positive social identity by discrimination against or differentiation from outgroups. *European Journal of Social Psychology*, *13*, 389-97

Mummendey, A., & Schreiber, H. J. (1984). Different just means better: Some obvious and some hidden pathways to ingroup favoritism. *British Journal of Social Psychology*, *23*, 363-367

Mummendey, A., & Simon, B. (1989). Better or just different? III: The impact of comparison dimension and relative ingroup size upon intergroup discrimination. *British Journal of Social Psychology*, *28*, 1-16

Myers, D. G. (1982). Polarizing effects of social interaction. In H. Brandtstater, J. H. Davis & G. Stocker-Kreichgauer (Eds.), *Group decision-making*. London: Academic Press

Myers, D. G., & Lamm, H. (1976). The group polarization phenomenon. *Psychological Bulletin*, *83*, 602-627

Nemeth, C. J., & Wachtler, J. (1973). Consistence and modification of judgments. *Journal of Experimental Social Psychology*, *9*, 65-79

Nemeth, C. J., & Wachtler, J. (1974). Creating the perceptions of consistency and confidence: A necessary condition for minority influence. *Sociometry*, *37*, 519-540

Oakes, P. J. (1987). The salience of social categories. In J. C. Turner, M. A. Hogg, P. J. Oakes, S. D. Reicher & M. S. Wetherell (Eds.), *Rediscovering the social group: A self-categorization theory* (pp. 117-141). Oxford, UK: Blackwell

Oakes, P. J., Haslam, S. A., & Turner, J. C. (1994). *Stereotyping and social reality.* Oxford, UK: Blackwell

Oakes, P. J., Turner, J. C., & Haslam, S. A. (1991). Perceiving people as group members: The role of fit in the salience of social categorizations. *British Journal of Social Psychology*, *30*, 125- 144

Onorato, R. S., & Turner, J. C. (2004). Fluidity in the self-concept: The shift from personal to social identity. *European Journal of Social Psychology*, *34*, 257- 278

Orcutt, J. D. (1973). Societal reaction and the reaction to deviation in small groups. *Social Forces*, *52*, 259-267

Ostrom, T. M., Pryor, J. B., & Simpson, D. D. (1981). The organization of social information. In E. T. Higgins, Herman & M. P. Zanna (Eds.), *Social cognition: The Ontario Symposium* (vol. 1) (pp. 3-38). Hillsdale, US: Lawrence Erlbaum

Otten, S., & Wentura, D. (1999). About the impact of automaticity in the minimal group paradigm: Evidence from the affective priming tasks. *European Journal of Social Psychology*, *29*, 1049-1074

Otten, S., Mummendey, A., & Blanz, D. (1996). Intergroup discrimination in positive and negative outcome allocations: Impact of stimulus valence, relative group status and relative group size. *Personality and Social Psychology Bulletin*, *22*, 568-581

Papastamou, S. (1986). Psychologization and processes of minority and majority influence. *European Journal of Social Psychology*, *16*, 165-180

Park, B., Judd, C., & Ryan, C. S. (1991). Social categorization and the representation of variability information. In W. Stroebe & M. Hewstone (Eds.), European Review of Social Psychology (Vol.2, pp.211-45). Chichester: Wiley.

Perdue, C. W., Dovidio, J. F., Gurtman, M. B., & Tyler, R. B. (1990). Us and them: Social categorization and the process of intergroup bias. *Personality and Social Psychology Bulletin*, *59*, 475-486

Pérez, J. A., & Mugny, G. (1998). Categorization and social influence. In S. Worchel, J. F. Morales, D. Páez & J. C. Deschamps (Eds.), *Social identity: International perspectives* (pp. 142- 153). London: Sage

Pinto, I., & Marques, J. M. (2005). Rejection of deviants as a function of their status in the group. Paper presented at the *XIV General Meeting of the European Association of Experimental Social Psychology*. Wuerzburg. Germany

Platow, M. J., & van Knippenberg, D. (2001). A social identity analysis of leadership endorsement: The effects of leader in-group prototypicality and distributive intergroup fairness. *Personality and Social Psychology Bulletin, 27*, 1508-1519.

Posner, M., & Snyder, C. (1975). Attention and cognitive control. In R. L. Solso (Ed.), *Information processing and cognition: The Loyola symposium* (pp. 55-85). Hillsdale, US: Lawrence Erlebaum

Prentice-Dunn, S., & Rogers, R. W. (1982). Deindividuation and the self-regulation of behavior. In P. B. Paulus (Ed.), *Psychology of group influence*. Hillsdale, N.J.: Lawrence Erlebaum

Quattrone, G. A., & Jones, E. E. (1980). The perception of variability within ingroups and outgroups: Implications for the law of small numbers. *Journal of Personality and Social Psychology*, *38*, 141-152

Reber, A. S. (1976). Implicit learning of synthetic languages: The role of instructional sets. *Journal of Experimental Psychology: Human Learning and Memory*, *2*, 88-94

Reber, A. S. (1989). Implicit learning and tacit knowledge. *Journal of Experimental Psychology: General*, *118*, 219-235

Reber, A. S., Kassin, S. M., Lewis, S., & Cantor, G. W. (1980). On the relationship between implicit and explicit modes in the learning of a complex rule structure. *Journal of Experimental Psychology: Human Learning and Memory*, *6*, 492-502

Reed, J. M., & Johnson, P. J. (1998). Implicit learning: Methodological issues and evidence of unique characteristics. In M. A. Stadler & P. A. Frensch (Eds.), *Handbook of implicit learning* (pp. 261–294). Thousand Oaks, US: Sage

Reicher, S. (1987). Crowd behavior as social action. In J. C. Turner, M. A. Hogg, P. J. Oakes, S. D. Reicher & M. S. Wetherell (Eds.), *Rediscovering the social group: A self-categorization theory* (pp. 171-208). Oxford, UK: Blackwell

Robinson, W. P. (Ed.). (1996). *Social groups and identities*. Oxford, UK: Butterworth

Rohrer, J. H., Baron, S. H., Hoffman, E. L., & Swander, D. V. (1954). The stability of autokinetic judgment. *Journal of Abnormal and Social Psychology*, *49*, 595-597

Rosch, E. (1978). Principles of categorization. In E. Rosch & B. Lloyd (Eds.) *Cognition and categorization*. N. Y.: Wiley

Rubin, M., & Hewstone, M. (1998). Social identity theory's self-esteem hypothesis: A review and some suggestions for clarification. *Personality and Social Psychology Review*, *2*, 40-62

Samelson, F. (1975). Conforming behavior under two conditions of conflict in the cognitive field. *Journal of Abnormal and Social Psychology*, *55*, 181-187

Schachter, S. (1951). Deviation, rejection and communication. *Journal of Abnormal and Social Psychology*, *46*, 190-207

Schneider, W., & Shiffrin, R. M. (1977). Controlled and automatic human information processing: I. Detection, search and attention. *Psychological Review*, *84*, 1- 66

Serôdio, R. G. & Marques, J. M. (2005). The black-sheep effect as a function of deviants' typicality and threat to prescriptive norms. Paper presented at the *XIV General Meeting of the European Association of Experimental Social Psychology*. Wuerzburg. Germany

Sherif, M. (1936). *The psychology of social norms.* N. Y.: Harper & Row

Sherif, M. (1967). *Group conflict and cooperation: Their social psychology.* London: Routledge & Kegan Paul

Shiffrin, R. M., & Schneider, W. (1977). Controlled and automatic human information processing: II. Perceptual learning, automatic attending and a general theory. *Psychological Review*, *84*, 127- 190

Simon, B. (1992). The perception of in-group and out-group homogeneity: Reintroducing the intergroup context. *European Review of Social Psychology*, *3*, 1-30

Simon, B. (1993). On the asymmetry in the cognitive construal of ingroup and outgroup: A model of egocentric social categorization. *European Journal of Social Psychology*, *23*, 131–147.

Simon, B. (1997). Self and group in modern society: Ten theses on the individual self and the collective self. In R. Spears, P. J. Oakes, N. Ellemers & S. A. Haslam (Eds.), *The social psychology of stereotyping and group life* (pp. 318- 335). Oxford, UK: Blackwell

Simon, B., & Brown, R. (1987). Perceived intragroup homogeneity in minority and majority contexts. *Journal of Personality and Social Psychology*, *53*, 703-711

Simon, B., & Mummendey, A. (1990). Perceptions of relative group size and group homogeneity: we are the majority and they are all the same. *European Journal of Social Psychology, 20*, 351-356

Simon, B., & Pantaleo, G., & Mummendey, A. (1995). Unique individual or interchangeable group members? The accentuation of intragroup differences versus similarities as an indicator of the individual self versus the collective self. *Journal of Personality and Social Psychology*, *69*, 106-119

Simon, B., & Pettigrew, T. F. (1990). Social identity and perceived group homogeneity. *European Journal of Social Psychology, 20*, 269-286

Smith, E. R., & Henry, S. (1996). An in-group becomes part of the self: Response time evidence. *Personality and Social Psychology Bulletin*, *22*, 635-642

Smith, E. R., Coats, S., & Walling, D. (1999). Overlapping mental representations of self, in-group and partner: Further response time evidence and a connectionist model. *Personality and Social Psychology Bulletin*, *25*, 873-882

Snyder, C. R., & Fromkin, H. L. (1980). *Uniqueness: The human pursuit of difference*. N. Y.: Plenum Press.

Sorrentino, R. M., King, G., & Leo, G. (1980). The influence of the minority on perception: A note on a possible alternative explanation. *Journal of Experimental Social Psychology*, *16*, 293-301

Spears, R., Oakes, P. J., Ellemers, N. & Haslam, S. A. (Eds.). (1997). *The social psychology of stereotyping and group life*. Oxford: Blackwell

St. John, M. F., & Shanks, D. R. (1997). Implicit learning from an information processing standpoint. In D. C. Berry (Ed.) *How implicit is implicit learning?* (pp. 162-194). Oxford: University Press

Stadler, M. A. (1995). Role of attention in implicit learning. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *21*, 674-685

Stadler, M. A., & Frensch, P. A. (Eds.). (1998). *Handbook of implicit learning*. Thousand Oakes, US: Sage

Stevens, L. E., & Fiske, S. T. (2000). Motivated impressions of a powerholder: Accuracy under task dependency and misperception under evaluation dependency. *Personality and Social Psychology Bulletin*, *26*, 907-922

Tajfel, H. (1957). Value and the perceptual judgment of magnitude. *Psychological Review*, *64*, 192-204

Tajfel, H. (1959). Quantitative judgment in social perception. *British Journal of Psychology*, *50*, 16-29

Tajfel, H. (1969). Cognitive aspects of prejudice. *Journal of Social Issues*, *25*, 79-97

Tajfel, H. (1972). La catégorisation sociale. In S. Moscovici (Ed.), *Introduction à la Psychologie Sociale* (pp. 272-302). Paris: Larousse

Tajfel, H. (Ed.). (1978a). *Differentiation between social groups: Studies in the social psychology of intergroup relations*. London: Academic Press

Tajfel, H. (1978b). Interindividual behavior and intergroup behavior. In H. Tajfel (Ed.) *Differentiation between social groups: Studies in the social psychology of intergroup relations* (pp. 27-60). London: Academic Press

Tajfel, H. (1978c). Social categorization, social identity and social comparison. In H. Tajfel (Ed.) *Differentiation between social groups: Studies in the social psychology of intergroup relations* (pp. 61-76). London: Academic Press

Tajfel, H. (1978d). The achievement of group differentiation. In H. Tajfel (Ed.) *Differentiation between social groups: Studies in the social psychology of intergroup relations* (pp. 77-100). London: Academic Press

Tajfel, H., & Forgas, J. P. (1981). Social categorization: Cognition, values and groups. In J. P. Forgas (Ed.), *Social cognition: Perspectives in everyday understanding*. London: Academic Press

Tajfel, H., & Jahoda, G. (1966). Development in children of concepts and attitudes about their own and other nations: a cross-nation study. *Proceedings of the XVIIIth International Congress of Psychology* (pp. 17-33). Moscow

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations*. Monterey, US: Brooks Cole

Tajfel, H., & Wilkes, A. L. (1963). Classification and quantitative judgment. *British Journal of Social and Clinical Psychology*, *18*, 173-90.

Tajfel, H., Flament, C., Billig, M., & Bundy, R. P. (1971). Social categorization and intergroup behavior. *European Journal of Social Psychology*, *1*, 149-78.

Tajfel, H., Sheikh, A.A., & Gardner, A.A. (1964). Content of stereotypes and the inference of similarity between members of stereotyped groups. *Acta Psychologica*, *22*, 191-201

Tanford, S., & Penrod, S. (1984). Social influence model: A formal integration of research on majority and minority influence processes. *Psychological Bulletin*, *95*, 189-225

Thibault, J. W., & Strickland, L. H. (1956). Psychological set and social conformity. *Journal of Personality*, *25*, 413-451

Turner, J. C. (1975). Social comparison and social identity: Some prospects for intergroup behavior. *European Journal of Social Psychology*, *5*, 5-34

Turner, J. C. (1982). Towards a cognitive redefinition of the social group. In H. Tajfel (Ed.), *Social identity and intergroup relations* (pp. 93-118). Cambridge, UK: University Press

Turner, J. C. (1984). Social identification and psychological group formation. In H. Tajfel (Ed.), *The social dimension: European developments in social psychology*. Cambridge, UK: University Press

Turner, J. C. (1987). The analysis of social influence. In J. C. Turner, M. A. Hogg, P. J. Oakes, S. D. Reicher & M. S. Wetherell (Eds.), *Rediscovering the social group: A self-categorization theory* (pp. 68-88). Oxford, UK: Blackwell

Turner, J. C. (1991). *Social influence*. Milton Keynes, UK: Open University

Turner, J. C. (2005). Explaining the nature of power: A three-process theory. *European Journal of Social Psychology*, *34*, 257-278

Turner, J. C., & Brown, R. (1978). Social status, cognitive alternatives and intergroup relations. In H. Tajfel (Ed.), *Differentiation between social groups: Studies in the social psychology of intergroup relations* (pp. 201-234). London: Academic Press

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, UK: Blackwell

Turner, J. C., & Oakes, P. J. (1986). The significance of social identity concept for social psychology with reference to individualism, interactionism and social influence. *British Journal of Social Psychology*, *25*, 237- 252

Turner, J. C., & Oakes, P. J. (1989). Self-Categorization Theory and social influence. In P. B. Paulus (Ed.), *Psychology of group influence* (pp. 233- 275). Mahwah, US: Erlbaum

Turner, J. C., Oakes, P. J., Haslam, S. A., & McGarty, C. (1994). Self and collective: Cognition and social context. *Personality and Social Psychology Bulletin*, *20*, 454-463

van Knippenberg, D., Lossie, N., & Wilke, H. (1994). In-group processing and persuasion: Determinants of heuristic and systematic processing. *British Journal of Social Psychology*, *33*, 289-300

van Knippenberg, D., & Wilke, H. (1992). Prototypicality of arguments and conformity to in-group norms. *European Journal of Social Psychology*, *22*, 141- 155

Vigotsky, L. S. (1925/1997). The history of the development of higher mental functions. In *The collected works of L. S. Vigotsky*. N. Y.: Plenum Press

Wahrman, R., & Pugh, M. D. (1972). Competence and conformity: Another look at Hollander's model. *Sociometry*, *35*, 376-386

Wegner, D. M., & Bargh, J. A. (1998). Control and automaticity in social life. In D. T. Gilbert, S. T. Fiske & G. Lindzey (Eds.), *The handbook of social psychology* (4th Ed.) (pp. 446-496). N. Y.: McGraw-Hill

Wetherell, M. S. (1987). Social identity and group polarization. In J. C. Turner, M. A. Hogg, P. J. Oakes, S. D. Reicher & M. S. Wetherell, *Rediscovering the social group: A self-categorization theory*. (pp. 142-170). Oxford, UK: Blackwell.

Wiggins, J. A., Dill, F., & Schwartz, R. D. (1965). On 'status liability'. *Sociometry*, *28*, 197-209

Wilder, D. A. (1990). Some determinants of the persuasive power of in-groups and out-groups: Organization of information and attribution of independence. *Journal of Personality and Social Psychology*, *59*, 1202-1213

Wolf, S. (1985). The manifest and latent influence of majorities and minorities. *Journal of Personality and Social Psychology*, *48*, 899-908

Wood, W. (1999). Motives and modes of processing in the social influence of groups. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 547-570). N. Y.: Guilford

Wood, W., Lundgren, S., Ouellette, J. A., Busceme, S., & Blackstone, T. (1994). Minority influence: A meta-analytic review of social influence processes. *Psychological Bulletin*, *115*, 323-345

Worth, L. T., & Mackie, D. M. (1987). The cognitive mediation of positive affect in persuasion. *Social Cognition*, *5*, 76-94

Zimbardo, P. G. (1975). Transforming experimental research into advocacy for social change. In M. Deutsch & H. A. Hornstein (Eds.), *Applying Social Psychology* (pp. 33-66). Hillsdale, US: Erlbaum.

APPENDIX 1

Pre-test of the material used in Experiments 1-5

Participants and design. Thirty-nine students enrolled in an introductory Psychology course (twenty-seven females and twelve males; ages ranging from 18 to 27 years old; M = 20.28, SD = 2.42) volunteered to participate in an experiment on perception and esthetic judgment. In order to check on the maximum features of the material that could interfere in the main experiments we planned the following design: 2 (Series Order: Series 1 first vs. Series 2 first) x 2 (Task Order: recognition task first vs. judgment task first) x 2 (Type: Type XXX vs. Type YYY). The latter factor was a within-participants factor and the remaining were between-participants factors.

Procedure and material. The experiment proceeded in four sessions of 9-11 participants each. Participants sat facing a screen where the pictures were projected ensuring an even distance to the screen. Participants were told that several computer-generated abstract pictures had been classified into two types: XXX and YYY. The pictures were the same described in Experiment 1 (cf. Figure 1). First, participants were asked to observe a sample of ten labeled pictures of each of these two types (learning phase). In the second phase, participants were asked to classify 20 unlabelled pictures into type XXX or type YYY, as a function of the examples they had observed before (recognition task), and to describe systematic differences between pictures Type XXX and pictures Type YYY (written report). Finally, participants were asked to rate their preference for 20 new unlabelled pictures (judgment task). They observed each picture for 5 seconds and then reported their judgment in a 7-point scale (1= Do not like it; 7= Like it very much).

Participants were randomly assigned to four experimental conditions. In one condition, participants judged Series 1 - 20 pictures including 10 type XXX and 10 type YYY - and classified Series 2 – other 20 pictures also including 10 type XXX and 10 type YYY. In the other condition, the distribution of the two series of the pictures in the two tasks was reversed: Series 1 was classified and Series 2 was judged. The third condition was similar to the first condition but the recognition task preceded the judgment task. Finally, the fourth condition was similar to the second condition but the recognition task was before the judgment task.

Results

Recognition and recall. A Series Order x Task Order ANOVA conducted on the recognition index yielded no significant effects, being the highest, $F(1, 38) = 3.84$, *ns*. Participants were unable to classify correctly the pictures at a level different from chance. In the whole, the average number of pictures correctly classified, $M = 10.59$, $SD = 3.39$, was not different from the result obtained if the classification was made randomly, $t(38) = 1.09$, *ns*.

We proceeded with the analysis of the content of the written reports. Four participants (10 %) reported differences between the pictures that resembled the manipulated distinction. One participant referred to the pictures XXX's vertical structure and to the pictures YYY's horizontal structure (that could be a mention to their respective vertical and horizontal details). Two participants referred to the existence of the letter *F* in the left side of Pictures YYY, and one referred to the regularity of the left contour of pictures XXX against the correspondent broken contour in pictures YYY. However, the average recognition of these four participants was not above a chance level, $M = 10.00$. Of the remaining participants, 10 gave no explanations and eight referred to darkness of pictures XXX against the whiteness of pictures YYY whereas five referred the opposite features. The fact that these thirteen participants had opposite opinions in terms of the general tonality of the two types of pictures made us confident that this difference was not objective. Table 8 displays the answers provided by each participant in the written report.

No.	Type XXX	Type YYY
	Tests of awareness in Series 2	
1	Clearer, with various blank spaces	Darker, without so many blank spaces
2	More geometrical forms and some have *F*s	They have something like animals
3	Did not recognize nothing in the pictures	One could recognize human figures, etc.
4	More dense, heavier	Clearer, more “black and white”
5	Darker, i.e., the black color is enhanced	Clearer, more blank spaces
7	**Taller and more filled**	**Longer and less filled**
8	More saturated	More dispersed
10	Clearer	Darker
34	**Darker, with more black dots**	**With small blanks, the letter *F* appears**
35	Very abstract	Abstract
36	Clearer	Darker
37	Less complex	More complex
39	**They do not have an *F***	**They have an *F***
	Tests of awareness in Series 1	
11	More compact	More dispersed, darker, and letters
13	Higher load of black color	Simpler, with blank spaces
16	Darker, include more drawings	Clearer, include less drawings
18	More dispersed (white intervals)	More compact, some include figures
19	Darker, less blanks	Clearer, more spaces
20	Clearer, with more squares	Darker, with blanks in the middle, some contain the letter *F* in the bottom left
21	Less compact with more blanks	More compact, more “complex”
22	More structured	Less structured, with a deformed pattern
24	More deformed	More defined
25	Formed by grouped dots	Formed by dispersed dots
26	More intense in color	Less intense in color
27	Visually clearer	More abstract, did not find anything special
28	More visible, describe an object, less clearer	Clearer, with more blanks, more complex
29	Heavier, darker	Lighter, clearer
30	**Left contour with flaws**	**Left contour intact**
31	Too abstract	More interesting, w/ logical forms

Table 8. Reports on the distinction between the two types of pictures (Pre-test). The responses in bold characters refer to distinctions that resemble the actual distinction.

Preferences. We first average the ratings of pictures XXX and pictures YYY into two new variables (Type). We then conducted a Series Order x Task Order x Type (for pictures XXX vs. for pictures YYY) ANOVA, with Type as within-participant factor, which revealed no significant effects, highest $F(1, 35) = 2.29$, *ns.* Participants reported similar preference for pictures XXX and for pictures YYY, $M = 3.48$, $SD = .92$ and $M = 3.49$, $SD = .94$, respectively, independently of the series' order and the tasks' order. We then analyzed the scores of the two items measuring the preference, in general, for pictures XXX and for pictures YYY. A Series Order x Task Order x Type ANOVA, with Type as within-participant factor, revealed no significant effects, all $F(1, 35) < 1$. Participants reported similar general preference for pictures XXX and for pictures YYY, $M = 3.46$, $SD = 1.41$ and $M = 3.74$, $SD = 1.47$, respectively, independently of the series order and the tasks order.

Conclusion. The pre-test's results show that the two types of pictures were judged similarly attractive and the two series were similarly difficult to be classified, independently of the order of presentation of the fact that the judgment was made before or after the classification. Four participants reported a distinction that resembled the actual distinction between the two types of pictures but the invoked criteria revealed insufficiently clear to classify correctly the pictures at a level above chance.

APPENDIX 2

Pre-test to Experiment 1

The introduction of a distraction in the learning phase resulted from a review of implicit learning literature after the failure of obtaining confirming evidence for our hypothesis on a first version of Experiment 1. Below we described this first version similar to Experiment 1 in all aspects except for the absence of distraction during the learning phase. During this pre-test, we noticed that participants show a strong interest in the pictures, apparently, trying hard to find an objective feature of the pictures to explain the alleged selection of the jury. These attempts were already noticeable in the pre-test of the material (see Appendix 1) and in the many written reports of the participants.

Participants. Thirty students enrolled in an introductory Psychology course (twenty-seven females and 3 males; ages ranging from 18 to 34 years old, M = 22.47, SD = 4.28) volunteered to participate. There was a single intra-participants factor, Type of Pictures (Approved vs. Rejected).

Procedure. The procedure was the same of Experiment 1 except that there was no distraction. Specifically, the experiment proceeded in four sessions of 5-7 participants each. Participants sat facing a screen where the pictures were projected always ensuring an even distance to the screen. The experiment was presented as a study on the features that make pictures pleasant or unpleasant, attractive or unattractive. Allegedly, for that purpose, a set of abstract black and white pictures had been randomly created by computer, and then submitted to the appraisal of a "jury of experts in fine arts, teachers, critics and artistic professionals like painters and sculptors". Allegedly, the most approved pictures were then separated from the most rejected pictures to create two series. After receiving this information, the participants were asked to observe a sample of 10 approved pictures and 10 rejected pictures.

Learning phase. The pictures were rectangular abstract compositions consisting of black dots and lines (cf. Figure 1 in Chapter 3). Despite their resemblance, the pictures were all different from each other, except that one half of the pictures contained one vertical salience in the right top side of the picture and the other half contained one

horizontal salience in the left side of the picture. To control for eventual order effects, we balanced the labeling of the pictures' series. In two of the sessions, the vertical type was labeled Approved and the horizontal type labeled Rejected. In the other two sessions, the vertical type was labeled Rejected and the horizontal type was labeled Approved. Each picture was displayed for one second and separated from the next picture by a blank screen for one second.

Tests of awareness. After observing the sample of pictures, participants were told that the experimenters wished to known whether they were able to distinguish between approved and rejected pictures. This corresponded to the recognition test of awareness. Participants were asked to observe twenty unlabelled pictures that allegedly had been extracted from the lot of approved and rejected pictures judged by the jury. After observing each picture for a maximum of five seconds, participants reported whether it had been approved or rejected. The order of presentation of the pictures was randomized. The experimenter controlled the presentation of each picture after ensuring that the participants have rated the previous one, although mentioning the need for "a somewhat fast rhythm". The number of pictures correctly classified represented the extent to which the respondent was aware of the series' distinctive details. Twenty, or close to twenty, correctly classified pictures meant that the respondent had a correct criterion for the classification and was aware of the details. None or close to none correctly classified pictures meant that the respondent based on an incorrect criterion for the classification. Ten or close to ten correctly classified pictures meant that the respondent did not used any criterion and answered by chance.

After this task, participants answered to the question "Have you found any distinction between the approved and the rejected pictures?" and, in the affirmative case, they were asked to describe the distinction(s). This task corresponded to the 'written report' test of awareness.

Judgment task. Subsequently, participants were told that, in the present research, the experimenters wanted to "know the opinion of average people about this particular kind of pictures". Participants were then asked to judge twenty pictures that allegedly had been produced recently and had never been judged. There were 10 vertical and 10 horizontal pictures and their order of presentation was randomized. Participants

observed each picture for 5 seconds and then reported their judgment in a 7-point scale (1= Do not like it; 7= Like it very much).

After this task, participants were debriefed and thanked for their participation. In the debriefing, none participants verbally reported a distinction between the approved and rejected pictures similar to the actual one.

No.	Approved Pictures	Rejected Pictures
	Balance 1	
2	Center with filled spaces	Center with blank spaces
3	Lighter with well matched tonalities	Darker with less blank spaces
5	More centered	With salient white or black spots
6	More defined and precise	Less defined and irregular
9	More homogeneous, less “noise”	More disorganized, with more scattered patterns
11	More precise, a bit more geometrical	More imperfect, more confusing
12	No straight limits	Contoured by bounding lines
14	More expressive, with closer dots	Sparse dots, blanks
16	More balanced between color and extremities	Black spots more marked
	Balance 2	
17	Similar to labyrinths, more blank spaces	More homogeneous, darker, less mysterious
18	Lighter, with some delimited space	Darker, cannot see any line
19	Smoother and sharper	More abstract with white tonalities
20	With precise and concrete contents	Undefined limits, missing some parts
21	More rigorous, sharper, with less white spaces	More abstract and subjective, less geometrical
22	More comprehensible	Darker, hardly comprehensible
23	Less definable	They say nothing to you
24	More varied, with various forms	More confusing
27	More beautiful, with more blank spaces	Formless, very closed
28	More organized esthetics	Less organized esthetics
30	More structured imagination	Less structured imagination

Table 9. Reports on the distinction between the two series of pictures grouped by balance condition (Pre-test to Experiment 1).

Results

Recognition and recall. We computed a recognition index by summing the number of pictures correctly recognized (minimum=0; maximum = 20). The mean recognition rate differed from chance but in the incorrect direction, M = 8.87, SD = 2.16, $t(29) = 2.87$, $p = .008$, showing that participants made more inaccuracies than if they were responding at random. One possible explanation for this result is that, as there was no distraction, participants obtained some subjective confidence on their respective 'theories' about the pictures (generally congruent with the approved and rejected status of the pictures, attributing more positive features to the former or more negative features to the latter). As a result, they applied them in the classification task and, likely, in the judgment task. However, as may be seen in Table 9, none of the 20 reported 'theories' was close to the actual distinction.

Conformity. We first averaged the ratings of approved and rejected pictures into two new variables of preference for approved pictures and preference for rejected pictures, respectively (Picture Type), and then conducted a Picture Type (for approved pictures vs. rejected pictures) x Balance ANOVA, in which Preferences was a within-participants factor. The analysis revealed no significant effects: participants did not differentiate between approved and rejected pictures, M = 3.84, SD = .77 and M = 4.02, SD = .91, respectively, $F(1, 28) = 2.68$, *ns*; all other effects, $F(1, 28) < 1$.