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Creative innovation or crazy irrelevance? The contribution of group norms and social identity to creative behavior

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Abstract

This paper develops an analysis of innovative behavior and creativity that is informed by the social identity perspective. Two studies manipulated group norms and analyzed their impact on creative behavior. The results of Study 1 show that when people are asked to make a creative product collectively they display conformity to ingroup norms, but that they deviate from ingroup norms when group members make the same products on their own. A parallel result was found in group members' private perceptions of what they consider creative. In Study 2, the social identity of participants was made salient. Results showed conformity to group norms even when group members worked on their own creations. Findings suggest that innovative behavior is informed by normative context, and that in contexts in which people operate as members of a group (either physically through collective action, or psychologically through social identity salience) innovation will respect normative boundaries.

Creative innovation or crazy irrelevance? The contribution of group norms and social identity to creative behavior

The only difference between me and the surrealist is that I am a surrealist
(Salvador Dali).

This paper explores the effects of social identity and group norms on the creativity of individuals and groups. It argues that norms influence what is perceived to be creative, and that they also guide creative endeavor. Two studies confirm that creativity can be understood as the product of a social system, not merely as the product of an individual or group with particular abilities.

There is a vast literature on what makes people more or less creative (Runco, 2004, for a review). Generally, this literature treats individual creativity as separate and largely unrelated to creativity in and of groups. But the fact is that individuals in isolation can also act as group members, as much as group members can act as individuals (e.g., Turner, 1991). In addition, one limitation of nearly all creativity research—on individuals as well as groups—is the prevailing assumption that the researcher can decide what is creative and what is not (Adarves-Yorno, Postmes, & Haslam, in press; Csikszentmihalyi, 1994). The problem with this assumption is that it disguises the fact that in non-research settings "creativity" is a social judgment, not an objective property of the creation which can be assessed independently of its social context.

(Re)defining creativity

The traditional assumption is that creativity is defined by intrinsic properties of the creation such as novelty and appropriateness (e.g., Barron, 1955; Stein, 1974). One problem with this line of argument is that novelty and appropriateness are, at least to

some extent, context-dependent: something novel or appropriate in China may not be either in the USA (Wetherell, 1987). Indeed, some have argued that there are no objective criteria that can be used to establish what is creative and what is not (Amabile, 1983, 1996; Csikszentmihalyi, 1998). Moreover, contrary to popular wisdom, the recognition of someone as a creative genius is less contingent upon a person's actual achievements than upon a social consensus about their contribution (Howe, 1999), and this, in turn, is influenced by factors such as their status (Kasof, 1995). A systematic study of creativity therefore needs to take account of the social processes through which groups and communities recognize creativity, and come to value particular achievements.

Norms and creativity

As social judgments, assessments of creativity must refer to normative criteria (Amabile, 1996, p. 36). Also, creative accomplishments can only be understood and appreciated with reference to current values and norms (Csikszentmihalyi, 1994). Norms can influence creativity in several ways: by increasing the number of creations (Woodman, Sawyer & Griffin, 1993), by giving direction to creative behavior (e.g., valuing cubism over realism in paintings), and by determining the means by which creativity is expressed (e.g., self-expressing in images or in words). However, the relationship between norms and creativity is not entirely straightforward. This is because creativity is also achieved by deviating from normative criteria (Amabile, 1996; Eiseman, 1990). For example, Newton's classical mechanics were creative precisely because they were deviations from contemporary scientific assumptions. By contrast, products also need to remain within normative boundaries in order to be creative (Markus & Kitayama, 1991; Martinlade, 1990). For instance, the creativity of Renaissance artists was largely a function of their ability to live up to ancient Roman rules of aesthetics.

Importantly, the question of when and in what way people's creations will deviate from existing group norms is determined not just by the content of those norms, or the kind of value (descriptive or prescriptive) they bring to bear on the subject. It is also determined by the relationship of the individual to the group. The social identity perspective (Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) has clear implications for the way in which groups (and their norms) exert a regulatory influence on their members. It has explored the role of group norms in a variety of group behaviors (see Haslam, 2004, for a review), including the way in which creativity is recognized (Adarves-Yorno et al., in press). However, it has not as yet been applied to the study of creative behavior.

A social identity perspective on creative behavior

The basic premise of the social identity perspective is that individuals have a personal identity as well as a range of social identities. A social identity is an aspect of the self that is derived from memberships of social groups, and this includes (internalized) values and norms. Self-categorization theory (e.g., Turner et al., 1987) argues that whether a personal or social identity becomes salient depends on the extent to which a specific group is meaningful for a given member (i.e., whether it is valued and self-involving) and the extent to which the group fits comparatively and normatively with a current situation (Oakes, 1987). In this way, the salience of different aspects of self is a product of personal X situational relevance and prominence.

One consequence of social identity salience is that the social values and norms embedded in social identity become internalized—they become the private anchors for people's thoughts and actions. Thus, social identity salience induces conformity to ingroup norms (Reicher, 1984; Spears, Lea & Lee, 1990; Wilder & Shapiro, 1984). In

contrast, personal identity salience can induce a contrastive comparison of self with ingroup norms (Postmes, Spears, Sakhel, & De Groot, 2001).

Past and present research

In prior research, we have shown that these processes influence perceptions of creativity (Adarves-Yorno et al., in press). One study manipulated identity salience and the content of ingroup norms in a two-factor between-subjects design. Results showed that when social identity was salient, participants' perceptions of creativity were assimilated with ingroup norms: the ideas that were congruent with the norm were seen as more creative. However, when personal identity was salient, participants contrasted their creativity assessments from the norm. Thus, identity salience moderated the tendency to contrast or assimilate to group norms.

The present research seeks to establish that similar processes influence creative *behavior*—extending our reasoning from social judgments to social action. In two studies, we manipulated norms that guide creative expression. Specifically, we manipulated the value placed on the use of words vs. the use of images for self-expression. Study 1 also manipulated social identity salience, comparing creative products made by groups to those made by individuals. Study 2 examined the impact of norms on the products of individuals acting as team members. The prediction was that group members will *conform* to group norms, but that individuals will behave creatively by *deviating* from the ingroup norm. As in prior research, Study 1 also assessed participants' perceptions of creativity. We expected similar effects for perceptions and creative behavior.

Study 1

Method

Participants and design.

125 first-year undergraduate students (99 women and 26 men) were randomly divided into 32 groups and allocated to conditions. The group norm (to be creative with words vs. to be creative with images) and identity salience (personal vs. social) were manipulated in a 2 X 2 between-subjects factorial design.

Procedure

The study was conducted during two consecutive days of a student induction program organized to help students develop effective teamwork skills. At the start of the day, participants were randomly allocated to groups of 4 (not all students turned up when or where they should; some groups had 3 or 5 members). They worked with the same people and in the same team for the whole day. The study had two phases, three hours apart, with unrelated team activities in between. In the first phase, group norms were manipulated. In the second phase participants created a leaflet advertising the university, and evaluated a leaflet supposedly created by a student in the previous year.

Independent variables

In Phase 1 (norm manipulation), groups created a poster either about "reasons for going to university" or "fashion at the university". It was assumed that in order to express possible reasons for going to university, groups would end up using more words than images. By contrast, more images would be used for making posters about fashion. This subtly primed a norm for creative expression through words vs. images. This was subsequently reinforced with a brief questionnaire with leading questions. Participants read five statements and ticked those that were applicable to them (see Jetten et al., 1997,

for a similar procedure). All the statements were “truisms” that would elicit agreement in a majority of cases. When the norm was to be creative with *images*, the statements emphasized the value of images (e.g., “An image can say more than 1000 words”). When the norm was to be creative with *words*, statements emphasized the value of words (e.g., “It would be difficult for humans to communicate without words”).

The manipulation was followed by a two-item manipulation check ($\alpha = .64$): “Members of my group would rather use words than images to communicate” and “I think members of my group believe that words are more powerful to communicate with than images are.” Both items were scored on a nine-point scales ranging from “not at all” (1) to “very much” (9).

The manipulation of identity salience had two separate aspects. At the start of the day each group was given the name of a fruit/vegetable (e.g., carrot). All participants received a label that they wore all day. The label was composed of the group name and an individual identification. In the personal identity condition this was the participants' own first name (carrot James). In the group condition it was an identifying number (carrot 1). Research has shown that comparable manipulations of personal identifiability affect social identity salience (Lea, Spears, & De Groot, 2001; Sassenberg & Postmes, 2002). To further strengthen the salience manipulation, we also varied whether the creative task was a collective or an individual one. In phase 2, participants created an leaflet either individually (i.e., each member made one) or collectively (i.e., the whole group made one). Participants were given 10 minutes to complete the task. Prior research has shown that working collectively on a common outcome enhances social identity salience by means of accessibility (i.e., people’s readiness to define themselves in that social category; see Haslam, 2004 for a review).

After the creative task, all participants evaluated a leaflet supposedly created by a student in a previous year. They did so in private—away from other members of the group. In the individual condition, they marked their evaluation with the name of their subgroup and their own name. In the collective condition, they marked evaluations with the name of their subgroup and their identification number.

Materials

For the creation of a poster (Phase 1), each group was given a large paper sheet, pens, pencils, two magazines, two scissors and two glue sticks. For the creation of a leaflet (Phase 2), the same materials and a smaller paper sheet (A4 size) were available to individuals or groups. However, instead of magazines, they were given the current undergraduate prospectus of the University. This prospectus was a 160-page booklet promoting the University. In the individual condition, participants were provided with one undergraduate prospectus each. In the group condition, they received multiple prospectuses per group (depending on the number of group members). For the leaflet evaluation task, the leaflet that participants were asked to evaluate was purposely created, and used mainly images (taking up 90% of the space) and very few words (10% of the space).

Dependent variables.

The *behavioral measure* in this study was the relative amount of space dedicated to words. Participants in the social identity condition created one leaflet per group and those in the personal identity condition created one leaflet per person. This measure was computed at the group level. Two independent coders assessed “the percentage of space dedicated to words as a percentage of the total space dedicated to words and images”. The order in which they evaluated leaflets was random, and both raters were blind to the

experimental conditions. One rater was the first author, and the second was blind to the hypotheses. The inter-rater reliability was good, $r = .75, p < .05$. Their judgments were averaged into a single measure of “% of words”.

Perceived creativity was assessed by asking participants to evaluate individually the (supposed) previous-year student's creation on adjectives associated with creativity (creative, original, artistic, imaginative and expressive). These adjectives were scored on nine-point scales ranging from “not at all” (1) to “very much” (9). They were aggregated into single measure of “perceived creativity” ($\alpha = .85$).

Results

All analyses were conducted at the group level ($n = 32$), and hence all checks and measures were aggregated at the group level. As mentioned previously, participants created one leaflet per group in the social identity salience condition, but in the personal identity salience condition participants created one leaflet per person. For this measure, we therefore aggregated scores in the personal identity salience condition only. This raises some statistical issues, discussed in greater detail below. Because of the loss of statistical power in group-level analyses and given the directional nature of the hypotheses, tests of predicted simple main effects are one-tailed.

Manipulation check

The manipulation of group norm appears to have been successful. Participants in the “be creative with words” condition were more positive about the use of words ($M = 5.02, SD = .92$) than participants in the “be creative with images” condition ($M = 4.35, SD = .85$), $F(1, 30) = 4.52, p = .042, \eta^2 = .131$.

Creative behavior

The percentage of words used in the leaflet was analyzed by means of a two-way ANOVA. Consistent with H1, the interaction between identity salience and group norm was significant, $F(1,28) = 5.77, p = .023, \eta^2 = .171$. However, this test directly compared group products (in the social identity salient condition) with individual products aggregated at the group level (in the personal identity salient condition). We therefore decomposed this interaction by conducting t -tests on the effect of the group norm within each salience condition. When social identity was salient, participants used somewhat more words when the norm was to be creative with words ($M = 54.25, SD = 30.04$) than when the norm was to be creative with images ($M = 40.00, SD = 16.02$), and although this difference did not reach conventional levels of statistical significance the effect was in the predicted direction, $t(18) = 1.32, p = .10, d = .054^1$. In the personal identity salience condition, participants used significantly fewer words when the norm was to be creative with words ($M = 25.09, SD = 7.04$) than when the norm was to be creative with images ($M = 48.63, SD = 14.47$), $t(10) = 3.02, p = .013, d = 1.09$. Analyses revealed no main effects for identity salience or group norm.

Perceived creativity

As mentioned previously, participants evaluated a leaflet composed of 90% images and 10% words. Consistent with H2, the interaction between identity salience and group norm was significant, $F(1,28) = 5.91, p = .022, \eta^2 = .174$. Simple main effects were conducted to decompose the interaction. Participants whose social identity was salient considered the leaflet to be less creative when the norm was to be creative with words ($M = 3.07, SD = 1.10$) than when the norm was to be creative with images ($M = 3.97, SD = .766$), $F(1, 28) = 4.56, p = .021, \eta^2 = .140$. Also in line with predictions,

participants whose personal identity was salient considered the leaflet to be relatively more creative when the norm was to be creative with words ($M = 4.76$, $SD = 1.34$) than when the norm was to be creative with images ($M = 3.92$, $SD = 0.66$), but this was only a trend in the predicted direction, $F(1, 28) = 2.10$, $p = .08$, $\eta^2 = .070$. Analyses revealed no main effects for identity salience or group norm.

Discussion

Overall, results support the hypotheses. When social identity was salient, creations were more in line with ingroup norms, and others' creations were (when they were consistent with those norms) judged to be more creative. In the personal identity condition, individuals' creations were inconsistent with ingroup norms, and others' creations were evaluated more favorably when they were also inconsistent with the norms.

The parallel results for creative behavior and for the perception of creativity suggest that these are not unrelated phenomena, but that both are grounded in the same factors—normative context and self-categorization processes. The data show that creativity is expressed with reference to group norms in a similar fashion to evaluations of creativity. This suggests that processes which guide creators' actions are parallel to those guiding observers' judgments. In both cases, it is the extent to which products comply with or deviate from group norms that guides creativity in action and/or perception, whether through contrast or assimilation.

On the measure of creative behavior, the predicted cross-over interaction between group norm and social identity salience was significant. The interpretation of this cross-over effect is complicated by the fact that in the condition where social identity was salient, groups collaborated on one leaflet, whereas in the personal identity condition

each individual worked on their own. The fact that we could not aggregate across individual leaflets in the social identity salient condition contributed to standard deviations in those conditions being higher, driving power down. Fortunately, the effects for the perception of creativity shored up the behavior data, and here the predicted simple main effect was indeed significant. Thus, despite the power issues the pattern is consistent with predictions.

A potentially more serious limitation is the fact that some participants worked as a group and others as individuals. Although it is well known that collaborating on group task (in comparison with working alone) increases levels of social identity salience, it is also known that group collaboration has other effects (e.g., it increases identification as well as transactive memory; Moreland, Argote, & Krishnan, 1996). Thus, the manipulation of social identity salience could be confounded with other variables. Although we believe this to be a “natural” confound in that social identity salience is likely to be associated with a range of outcomes such as formation of shared identity, transactive memory and prosocial norms (see Postmes, Haslam, & Swaab, 2005, for a review), this nonetheless means we are not able to exclude the possibility that alternative (group-related) factors are involved in the production of these effects. Thus, we conducted a follow-up study designed to replicate the effect of group norms on creative behavior when social identity was salient, this time using a task where group members worked individually (thereby removing the confound).

Study 2

As in Study 1, the content of group norms was manipulated. But unlike Study 1, social identity was salient in both conditions, and each participant created one leaflet as a group member. Measures of perceptions of creativity were not included in this study.

Because we wanted to remove the confound of simply working as a group, we manipulated social identity salience using principles of “comparative fit.” The comparative fit principle means that a particular social identity is more likely to be salient when members of a group compare themselves with a distinct outgroup (Haslam & Turner, 1992). Following this rationale, participants were told that their creations were going to be compared with creations of other groups. However, since no consequences of this comparison were identified, any competition remained implicit.

Method

Participants and Design

Participants were 41 first year undergraduate students, 32 women and 9 men. They were randomly divided into 12 groups of 3 or 4 students, and allocated to one of two group norm conditions (to be creative with words vs. to be creative with images).

Procedure

The study was conducted in a similar setting to Study 1, and the procedure was similar as well. Two key differences were that (a) each participant created a leaflet individually whilst social identity was kept salient for all and (b) there was no leaflet evaluation. Phase 1 was identical to Study 1, and each participant wore badges identifying their group.

In Phase 2, group members were asked to each make a leaflet. To further strengthen social identity salience, the instructions emphasized the importance of working as a group member and made salient the intergroup context (i.e., “each of you will create one leaflet so your group will make 3 or 4 creative leaflets in total. Together the leaflets made by your group will be compared with the leaflets made by other groups.”). As a check of social identity salience, we measured group identification and

comparative fit. Identification was assessed using five items (e.g., I feel connected to my group, I am glad to belong to this group; I value this group; $\alpha = .84$) and scored on nine-point scales ranging from “not at all” (1) to “very much” (9). As an indirect measure of comparative fit, participants were asked to what extent they expected their performance to be compared with other group’s performance (intergroup comparison) and to what extent they expected their performance to be compared with other members of their group (intra-group comparison). The difference between these two measures gives us an indication of comparative fit. Those items were also scored on a nine-point scale as indicated above.

Materials

Basically the same set of materials was used for this experiment as in Study 1. However, in the present study each participant received one University prospectus and one sheet of paper to create the leaflet.

Dependent variables.

As in Study 1, the behavioral measure was the relative amount of space dedicated to words as a percentage of the total space dedicated to words and images. The same coders assessed the material following the same procedure, and inter-rater reliability was good, $r = .73, p < .001$.

Results and Discussion

Manipulation check

A one-sample *t*-test evaluated whether participants' identification levels were significantly higher than the mid point of the scale (5). Levels of identification were indeed high ($M = 6.30, SD = 0.19$), $t(11) = 6.52, p < .001, d = 3.90$. A repeated-measures analysis of variance also showed that participants thought it more likely that

their responses would be used for intergroup comparison ($M = 5.65$, $SD = .85$) than for intragroup comparison ($M = 5.05$, $SD = .90$), $F(1,11) = 5.88$, $p = .034$, $\eta^2 = .34$. On both measures, social identity appears to have been salient. There were no between-condition effects ($ts < 1$).

Creative behavior

We decided to conduct a multilevel analysis (cf. Kenny, Mannetti, Pierro, Livi & Kashy, 2002) to examine the effect of condition (manipulated at the group level) on individual creative behavior. Multilevel analysis circumvents the problems of independence by taking variance at individual and group levels into account. We used HLM for Windows for the analysis (Raudenbusch, Bryk, & Congdon, 2001).

Results showed that those in the word condition used significantly more words ($M_{group} = 48.57$, $SD_{group} = 12.65$) than those in the image condition ($M_{group} = 32.82$, $SD_{group} = 10.02$), $\gamma = 13.00$, $t(10) = 2.56$, $p = .029$. Comparisons of this model with a null model showed the goodness of fit was significantly better, $\chi^2(1) = 11.74$, $p < .001$, suggesting that the experimental condition accounted for a considerable amount of variance.

The result is similar to that obtained in Study 1 and supports the hypothesis. Group members used more words when the norm was “to be creative with words” than when the norm was “to be creative with images”. In other words, when their social identity was made salient, group members engaged in forms of creativity that respected the boundaries of ingroup norms. These findings suggest that group norms impact not only on creativity displayed by groups as a whole (Study 1) but also on the creativity of individual group members. They confirm that social identity salience induces conformity to group norms even when individuals work on their own, and therefore address a limitation of Study 1.

General Discussion

Our data support Farrell's (2001) argument that artists', scientists' and writers' creations are informed by the group to which they belong (e.g., so that impressionist painters were not just "creative" but also adhered to the artistic rules of impressionism in their paintings). But the results not only show that social norms influence creativity, they also demonstrate part of the social dynamic underlying this process. Two studies showed how group norms inform the direction of creative enterprise. At the most basic level, what these results show is that by manipulating people's practices and their perceptions of what is a good way of expressing themselves, creativity can be channeled in particular directions—in the present research, so that group members come to express themselves in words or in images. To our knowledge, these are the first experimental studies to systematically explore the influence of group norms on creative behavior.

However, the influence of these practices and preferences is not straightforward, and here the pattern of results confirms that we are dealing with the influence of group norms rather than individual preferences. Sometimes the norm is used as constructive information guiding creation (with creativity assimilating to prevalent norms), but at other times the norm is a comparative standard for the individual creator (with creativity going against the grain of prevalent norms). In our research, the key determinant of whether assimilation or contrast tendencies dominated creative enterprise was the level of the creator's identity that had been made salient. When personal identity was salient, people's behavior contrasted with the norm. When social identity was salient (either through a process of accessibility in Study 1 or comparative fit in Study 2; see Haslam, 2004, for a review), assimilation was observed. This pattern provides direct evidence that these are group effects. More broadly, it confirms the point that norms play a pivotal role

as behavioral anchors for creators, in the same way that norms are judgmental anchors for those who judge creative products (Adarves-Yorno, Postmes, & Haslam, in press).

The implication of our approach for the study of creativity is that here we see creation as a dynamic *process* in which individual and social-structural factors interact. The content of the prevalent group norm does not exert a static influence that overshadows all creations and all evaluations of creativity. Not all our results are consistent with arguments that norms and culture necessarily elicit assimilation (cf. Martinlade, 1990). Depending on one's relationship to the group, norms are used in different (sometimes diametrically opposed) ways. This seemingly paradoxical opposition, is nicely summed up in the quotation at the start of the paper—in which Dali simultaneously acknowledges his affiliation with, and differentiation from, other surrealists. Significantly too, these opposing normative influences do not only influence public behavior that is under the direct influence of ingroup members (Deutsch & Gerard, 1955). In fact, similar effects were observed in public behavior as a group (behavior in Study 1) and in subsequent private perceptions (judgments made in Study 1) and in private actions undertaken in a group context (Study 2).

These findings confirm the point that creativity does not depend solely on the intrinsic properties of the creation (cf. Barron, 1955; Bruner, 1962). They also help us explain when creative ideas will be recognized and accepted. As an illustration, consider McClintock's Nobel Prize winning research on mobile genetic elements. Her research was obviously outstanding and creative. However, her studies deviated from the contemporary biological conventions and "norms" and hence were initially rejected by top biology journals (Williams & Yang, 1999). It was only once the logic underlying

genetic investigations became evident that her research fell within the boundaries of acceptability, and was consequently re-evaluated as a highly innovative advance.

Implications

For several decades, psychologists have called for a more systemic and social approach to creativity (Csikszentmihalyi, 1994, 1998). Yet, despite an emergent consensus that a more *social* psychological perspective would inform and advance our understanding of creativity, subsequent research has focused mainly on static factors at the individual or group level—shedding little light on the interaction between individuality and the social system that creativity almost by definition involves. One of the key strengths of applying the social identity perspective to creativity is that it comes with a more interactionist agenda (Turner & Oakes, 1986). The data suggests that the core assumption of this approach—the recognition that the self encompasses social as well as personal identities—is one factor that helps us understand how factors at the individual level (identity) and the collective level (norms) interact to produce certain creative outcomes. Although there are almost certainly factors other than identity and norms that play a role in this dynamic, the analysis we propose already represents a significant advance.

The present research offers an insight into the processes guiding creativity, and removes the need for a fundamental distinction between action and perception. Although by necessity this can be only be a limited and partial demonstration, the findings nonetheless suggest that creativity (within which perceptions and action are mutually reinforcing) is best studied as the product of a *social system*. It is, then, the social (group) relationships within that system and the prevailing norms, values and actions that

combine to determine both how people choose to be creative and how others react to their efforts.

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Footnotes

¹ The high standard deviation in this condition was due to the discrepancy between two outlier groups that used 15% of words with other groups in this condition using more than 50%. We cannot explain why these two groups used so few words, but since there were two of them we felt uncomfortable about removing them from the data as outliers. A non-parametric test (less sensitive to outliers, but with less power) fares better, and shows a trend, Kruskal-Wallis $\chi^2(1) = 1.98, p = .08$. Although significance remains marginal, this is not a small but a moderate size effect (Cohen, 1977).