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Replication of the "Asch Effect" in Bosnia and Herzegovina: Evidence for the Moderating Role of Group Similarity in Conformity

Muamer Ušto, Saša Drače, and Nina Hadžiahmetović
University of Sarajevo, Sarajevo, Bosnia and Herzegovina

Abstract

In the present study, we tried to replicate a classic Asch effect in the cultural context of Bosnia-Herzegovina and to explore the potential impact of group similarity on conformity. To answer these questions Bosniak (Muslim) students (N = 95) performed classic Asch's line judgment task in the presence of five confederates (the majority) who were ostensibly either of a similar ethnic origin (in-group), different ethnic origin (out-group) or no salient ethnic origin. The task involved choosing one of three comparison lines that was equal in length to a test line. Each participant went through 18 test trials including 12 critical trials in which confederates provided an obviously wrong answer. In line with past research, the results revealed a clear-cut and powerful "Asch effect" wherein participants followed the majority in 35.4% of critical trials. More importantly, this effect was moderated by group similarity. Thus, in comparison to no salient group identity condition, conformity was maximized in the in-group majority condition and minimized in the out-group majority condition. Taken together, our results support the universal finding of "Asch effect" and provide clear evidence that similarity with the majority plays an important role in the conformity phenomenon.

Keywords: conformity, Asch effect, self-categorization theory, group similarity

Introduction

In his seminal work, Asch (1951, 1952, 1956) reported a compelling social conformity effect: in line judgment task with unambiguous stimuli, and no explicit pressure to conform, 37% of minority subjects' responses conformed to a clearly erroneous and unanimous group judgment. Today, more than a half-century later, the "Asch effect" studies are described in every introductory social psychology textbook and continue to fascinate new generations of students and stimulate a new generation of researchers. However, despite its great popularity, the question may arise as to the

✉ Drače Saša, Franje Račkog 1, 71000 Sarajevo, Bosnia and Herzegovina. E-mail: *dracesasa@gmail.com*

replicability of the Asch effect in various cultural settings. The preliminary Asch effect of the 50s was ascribed to the predominance of anti-communist McCarthyism, a period marked by a high social pressure to remain quiet (Larsen, 1974). Yet, in the subsequent years, a replication by Larsen (1974) showed that conformity rate of the subjects who assented with a group at least once dropped to 62.5% compared to the Asch original study (76.5%). In addition, a meta-analysis of the U.S. studies using an Asch line judgment task also showed that conformity has declined since the 1950s (Bond & Smith, 1996). Conformity increased again during the 70's and 80's replications (Lamb & Alsikafi, 1980), in the era characterized by a heightened focus on career orientation (Larsen, 1990).

The replications of the Asch effect in other cultures provided ambiguous findings. For instance, Perrin and Spencer (1981) attempted to replicate Asch's study with British students and obtained conformity only *once* in 396 trials. Similarly, a decade later, Lalancette and Standing (1990) did not obtain any conformity in a variant of the Asch paradigm with Canadian students. Perrin and Spencer (1981) argued that the Asch effect was a "child of its time" (p. 405) and not a "rock-bottom" (p. 406) replicable phenomenon. However, data from other cross-cultural studies replicated Asch's experiment and found some evidence for conformity effect in British (Nicholson, Cole, & Rocklin, 1985), Kuwaiti (Amir, 1984) and more recently Japanese (Mori & Arai, 2010) samples.

Clearly, the jury is still out on whether the Asch effect is a universal phenomenon or simply the product of a specific society in particular period of its history. To our knowledge, no replications of the Asch experiment have been conducted in Bosnia-Herzegovina or other countries of former Yugoslavia that could provide valid or comparable evidence on this issue. Given that cultural variability may moderate social behaviour (e.g. Triandis, 1989), it would be of great interest to re-evaluate these findings in socio-politically different contexts. If generalized conclusions are to be drawn regarding the Asch effect, or conformity as a whole, it is important that findings obtained on a particular sample are replicated at different times and in other cultures. Therefore, our attempt to replicate the Asch results in Bosnia-Herzegovina could be one way of addressing this issue.

Another purpose of our study was to investigate an unexplored, yet potentially powerful factor that may influence Asch effect: similarity with the majority. According to the Self-Categorization Theory (SCT; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), subjective validity and uncertainty are functions of "agreement and disagreement about the same stimulus in the context of a shared social reality" (Turner, 1991, p. 162). What is perceived as evidence about reality having an informational value is a function of shared in-group norms. Such norms are subjectively prescriptive in that they make one feel that one ought to see, think or act in a certain way, and they provide information that particular responses are objectively valid and appropriate. The central idea of the SCT analysis is that agreement with 'categorically identical others' (i.e. members of the same group as

oneself) in a given situation creates subjective validity. In other words, self-categorization provides psychological boundaries for influence such that people are more likely to share social reality with people who are members of their own category (in-group) than with members of another group (out-group). Thus, according to Turner (1991), conformity is supposed to be higher when the majority is categorized as an in-group rather than an out-group.

However, despite its popularity in social influence literature, only one empirical study tested this hypothesis. Using classic Asch paradigm Abrams, Wetherell, Cochrane, Hogg, and Turner (1990) exposed participants to the majority members who were introduced either as first-year psychology students of a prestigious neighbouring university (in-group condition) or as ancient history students (out-group condition) of the same university. Consistent with expectations, self-categorization was found to be a critical determining factor in social influence – only disagreement with members of one's group was associated with judgmental conformity. However, the main problem with Abrams et al. study is that the manipulation of similarity could be confounded with credibility. Precisely, given that participants were exposed to groups of different academic areas, it is not clear whether the similar group condition (i.e., psychology students) increased agreement with in-group because of their similarity or the perceived higher competence (which *per se* could have had more informational value).

To address this issue, we conducted the experimental study using similar design as Abrams et al. (1990) in which we introduced openly declared Bosniak (Muslim) students to five confederates who were ostensibly either of a similar ethnic origin (in-group), different ethnic origin (out-group) or no salient ethnic origin (control group). In all conditions these confederates were strangers whom the subjects would not expect to encounter again. This experimental design allowed us to directly compare no salient identity group with standard majority influence condition from the Asch's original study (Asch, 1952) with the opportunity to test the moderating role of group similarity in conformity phenomenon. More importantly, given that ethnicity was not of relevance for the visual discrimination task at hand, we could hardly expect any variation in conformity to be attributed to the pre-existing differences in the participant's competence. Consistent with prior work (Nicholson et al., 1985) we expected to find a classic conformity effect. In addition, in line with the assumptions of the SCT, we also expected that conformity would be maximized in the in-group condition and minimized in the out-group condition.

Method

Participants

Ninety-five political science undergraduates (69 females M_{age} = 21.65, *SD* = 2.91) from University of Sarajevo took part in exchange for course credits. Prior to experiment participants completed a sociodemographic questionnaire providing information on their ethnicity. As the majority of the student population in Sarajevo are Bosniaks these participants were randomly assigned to one of two conditions: in-group and out-group. Participants who initially declared themselves as members of other ethnic groups (i.e., Serbs or Croats) were systematically assigned to the control group. At the end, this group was composed of 1 Serb, 9 Croats, 7 Bosniaks and 4 participants who declared to belong the category "Other"[1] or remained undeclared. Our rationale was that the ethnic origin of the participants was not of significance in this condition because their group identity was not made salient.[2]

Procedure

Participants came to the laboratory for an experiment of visual discrimination. The Asch (1956) procedure was followed, adopting the standard instructions. Because research has shown that the conformity does not increase after the majority reaches a size of four or five other people (Campbell & Fairey, 1989; Gerard, Wilhelmy, & Conolley, 1968; see also Asch, 1951) we used the groups that were comprised of the participant and five confederates (see also Striker, Messick, & Jackson, 1967). The group always consisted of equal numbers of men and women to avoid gender-based categorization of members in each condition.

Manipulation of group similarity. To manipulate similarity with a majority, before each session the experimenter read the data from the socio-demographic questionnaire out loud in the presence of participants, with the emphasis on names and information related to ethnic origin. To keep their attention on the manipulation, participants were asked to check the accuracy of the presented data. In the *in-group* condition, five confederates were presented as Bosniaks (i.e., members of the same ethnic origin as the participant). In the *out-group* condition, the same confederates were presented as Serbs (i.e., members of different ethnic origin). Participants in the control condition did not receive any information that might indicate any group membership.

Line judgment task. During the experimental session, subjects were instructed not to talk to each other. The task involved choosing one of three comparison lines

[1] Unaligned ethnic category not belonging to constitutive nations (i.e. Bosniaks, Serbs, Croats), but instead sustaining from the declaration or non-formally identifying with superordinate geographic category (i. e. Bosnians-Herzegovinians).

[2] The participants' personal name was never disclosed.

that was equal in length to a test line (Asch, 1952, 1956). The stimulus lines consisted of 0.5-cm thick black strips mounted lengthwise on a 30 x 42-cm card. The lengths of test stimuli ranged from 10 cm to 20 cm, with the error magnitude of 5 cm. On a given trial a pair of cards was placed 80 cm apart on a ledge 3 m from the participant. The comparison lines were numbered 1, 2, 3. In a pilot study 15 subjects correctly identified all comparison lines confirming that the perception task was highly objective and unambiguous. The 18-trial sequence in this experiment consisted of 6 correct (C) and twelve (E) error judgments by confederates in the following order:

C C C E E E C E E E C E C E E E E E

The unanimous judgments of the confederates were given in a detached and impersonal manner. The same trained confederates presented majority group in all experimental conditions. Each session consisted of five confederates and one naïve participant who sat in a row, facing the card. The participants were always placed at the fifth, second last place. The group always gave their judgments in turn, beginning at the opposite end from the subject, and confederates behaved as if they were evaluating the line for the first time. After every participant gave his answer, the experimenter would show the next card. Responses were scored as conforming if naïve participants erroneously picked the same comparison line to match the standard as did the majority subjects.

Debriefing. After finishing the experiment participants responded to two questions: *"Were you previously familiar with this experiment?" and "Have you noticed the nationality of the other group members, if so, which nationalities were they?"* Three participants who reported being familiar with the Asch paradigm and sixteen who didn't remember the ethnic origin of majority members were excluded from the final sample which consisted of 76 participants (57 female, M_{age} = 21.84, *SD* = 3.12).

Results

The results revealed a clear-cut and powerful "Asch effect". The actual proportion of conforming responses in the three experimental groups was 303 out of a possible 912 (i.e. 35.4%) and 59.2% of all subjects conformed to the erroneous judgments of confederates on at least one trial (40.8% of all subjects kept their independence).[3] Results obtained in the standard majority condition with no salient ethnic origin were quite similar to those from the original Asch study with conformity arising to 35.31%. As in the Asch study, the number of errors in our experimental groups was not equally distributed (see Table 1). Among the members of the three experimental groups, 14 participants (18.42%) conformed to the majority in all of 12

[3] Results revealed that men and women didn't differ in conformity. Hence, gender was not included in the main analyses.

possible situations. On the other side, 31 respondents (40.78%) never conformed to the majority.

Table 1.

Distribution of Errors as a Function of Ethnic Similarity with the Majority: Different Ethnic Origin (Out-Group), no Salient Ethnic Origin (Control Group) and Similar Ethnic Origin (In-Group)

Number of errors	Out-group	Control group	In-group	Total
0	15	9	7	31
1	7	3	3	13
2	3	0	1	4
3	0	0	0	0
4	0	2	1	3
5	0	0	0	0
6	1	0	0	1
7	0	0	1	1
8	2	0	0	2
9	0	1	0	1
10	1	1	0	2
11	0	1	3	4
12	1	4	9	14
Mean %	15.83%	35.31%	52.33%	33.22%

To test whether the group similarity influenced the intensity of conformity we conducted a one-way ANOVA with two orthogonal contrasts: a planned comparison testing the linear model and a contrast testing the remaining variance (i.e., the only contrast that should not be significant if the model fits the data). As expected, the planned comparison, opposing the in-group majority and the out-group majority conditions (in-group = 1, no salient group identity = 0, out-group = -1), was significant, $F(1, 73) = 11.93$, $p < .001$, $\eta_p^2 = .14$. More importantly, the orthogonal contrast, opposing the no salient identity condition to both the in-group and out-group majority conditions (in-group = 1, no salient group = -2, out-group = 1), was not significant, $F < 1$. As shown in Figure 1, in comparison to the no salient identity group ($M = 4.24$; $SD = 5.17$), conformity was significantly maximized in the in-group majority condition ($M = 6.28$; $SD = 5.75$) and minimized in the out-group majority condition ($M = 1.9$; $SD = 3.99$).

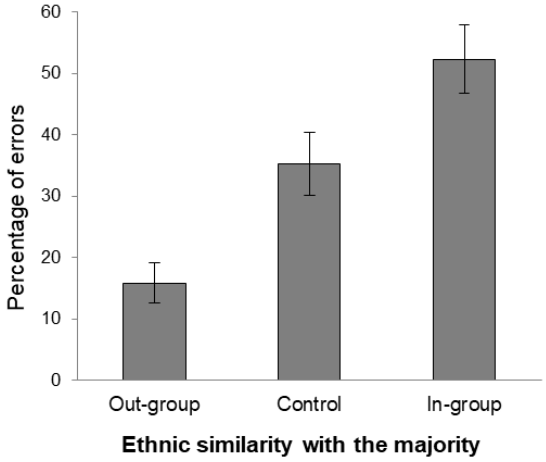

Figure 1. Mean percentage of errors and standard deviations as a function of ethnic similarity with the majority: Different ethnic origin (Out-group), no salient ethnic origin (Control group) and similar ethnic origin (In-group).

Discussion

In line with prior findings (e.g., Nicholson et al., 1985) we replicated the Asch conformity effect. More than sixty years after Asch originally showed that American students' judgments in an objective perception task were affected by the erroneous estimates given by unanimous majority group, Bosnian students were similarly influenced under the same experimental circumstances. Interestingly, the conformity in our sample even exceeded the usual level found in other replications of the Asch experiment (20-30%, cf. Nicholson et al., 1985; Ross, Bierbrauer, & Hoffman, 1976; Walker & Andrade, 1996). As we can see in Table 1, participants generally followed the majority in 4 out of 12 critical trials (33.3%). However, when we look only at the standard condition, where ethnic identity was not salient, we can see that the number of errors was even bigger, approaching the conformity level obtained by Asch in similar condition. One reason for these findings could be in cross-cultural differences on the dimension of individualism-collectivism (Bond & Smith, 1996). In general, individualistic cultures tend to prioritize independence and uniqueness as cultural values. Collectivistic cultures, on the other hand, tend to see people as connected with others and embedded in a broader social context. As such, they tend to emphasize interdependence, family relationships, and social conformity. Given that Bosnia and Herzegovina is closer to collectivistic values (probably due to communism residues) than North America and Western European countries, this could explain higher levels of conformity in our sample.

Despite this converging evidence in favour of conformity phenomenon, some authors (e.g., Friend, Rafferty, & Barmel, 1990) pointed out that most people are not

conformists, but that only some individuals tend to conform due to individual differences in personality. Therefore, it is possible that those conformist personalities tend to maximize conformity rate, which may also explain the results in our study. If this hypothesis is true, then the Asch effect should occur only for participants having conformity disposition, but not for the rest of them: a hypothesis which was disconfirmed by our results. Indeed, the follow-up analysis conducted without participants who conformed on each stimulus revealed the overall level of conformity of 36.29%. Moreover, the fact that 59.2% of subjects conformed at least at one critical trial indicates that the majority of people exposed to the influence of others tend to display conformist behaviour. Thus, the results we observed point to conformity as a rather global phenomenon, which could not be attributed to the idiosyncratic features of our subjects.

Besides the cross-cultural replication, another important aspect of our study is that it showed that the Asch effect was clearly moderated by group similarity. Consistent with the assumption of the SCT (Turner, 1991; Turner et al., 1987), participants exposed to the in-group majority showed the increase in conformity in comparison to the standard condition in which group identity was not salient. On the opposite, when the majority was presented as the out-group, the conformity effect significantly dropped. Thus, we replicated and extended past research (Abrahams et al., 1990), showing that self-categorization could play a determining role in conformity even in more minimal conditions, in which salient in- and out-group characteristics (i.e., ethnicity) were completely irrelevant for the task at hand. As such our findings could not be accounted for by the potential differences in objective informational value (i.e., competence) but rather by the perception of similarity with the majority. In addition, it should be noted that by including in- and out-groups, which reflect prototypical ethnic divisions of Bosnian society, we created conditions that enhanced the ecological validity of the present study. From this point, our findings could have interesting implications for the understanding of social influence processes in real life. Indeed, after showing how similarity with particular ethnic group moderates conformity in clearly unambiguous task, we can easily anticipate the power of self-categorization process in situations where people have to deal with more complex and uncertain social reality involving real group interests such as, support of political decision or voting in the context in which group membership is highly salient.

Limitations and Direction for Future Studies

One limitation of the present study is that we manipulated group similarity but had no objective information related to the processes involved in self-categorization. For instance, it was also possible that induced group salience with extremely conflicting past activated negative stereotypes and attitudes which in turn might have exerted a corresponding pattern of social influence. Thus, although we found that group similarity moderates majority effect on conformity, the role of cognitive

processes undermining group influence still remains unclear. The future studies should address this issue more directly by including another majority control group that is independent of the Bosnian 1992-1995 conflict. In addition, future studies should include both a measure of perception of group similarity and a measure of group evaluations (i.e., attitudes). Not only would this allow us to have better control over the psychological processes expected to be involved in the conformity, but it would also give us the possibility to test the multiple mediator models in which we could directly contrast self-categorization (similarity) with other concurrent explanations.

Finally, it is important to note that unlike the original Asch's study which included only male participants the sample of our study was rather heterogeneous with a greater proportion of female participants, which are generally more sensitive to the influence (e.g., Bond & Smith, 1996). Although we didn't find evidence for gender differences in conformity (see footnote 3) future studies could explore this possibility more systematically, with samples including a similar proportion of men and women.

Conclusion

The purpose of the present study was to test cross-cultural validity of Asch effect in the context of Bosnia-Herzegovina and to explore the potential impact of group similarity on conformity. In line with classic Asch's study, the results revealed a strong conformity effect. Importantly, this effect was moderated by the group similarity where the conformity was significantly maximized in the condition of in-group majority and minimized in the out-group majority condition. Taken together, the present study provides a much-needed cross-cultural replication of the past research demonstrating that classic Asch's effect could be considered as a global phenomenon, which occurs in the East European samples as well. In addition, the results we obtained provide clear evidence that group similarity should be considered as an important determinant of conformity.

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Replikacija Aschova efekta u Bosni i Hercegovini: Dokaz za moderatorsku ulogu sličnosti s grupom u konformizmu

Sažetak

U ovom smo istraživanju pokušali replicirati klasični Aschov efekt u kulturnom kontekstu Bosne i Hercegovine te ispitati potencijalni utjecaj sličnosti s grupom na konformizam. U ispitivanju su sudjelovali studenti Bošnjaci (Muslimani, $N = 95$), koji su, u prisutnosti pet eksperimentatorovih suradnika, koji su im bili predstavljeni kao osobe istoga etničkog podrijetla, različitoga etničkog podrijetla ili kao osobe čije etničko podrijetlo nije bilo istaknuto, proveli klasični Aschov zadatak procjene crta. Zadatak se sastojao u odabiru jedne od triju crta za usporedbu koja je bila jednake duljine kao testna crta. Svaki je sudionik prošao kroz 18 testnih pokušaja koji su uključivali 12 kritičnih pokušaja na kojima su eksperimentatorovi suradnici davali očigledno pogrešan odgovor. Očekivano, u skladu s ranijim istraživanjima, rezultati su pokazali jasan i snažan Aschov efekt, gdje su sudionici slijedili većinu u 35.4% kritičnih pokušaja. Važno je istaknuti da je ovaj efekt varirao u ovisnosti o sličnosti s grupom. Naime, u usporedbi s uvjetom u kojem grupni identitet nije bio istaknut, konformizam je bio veći u uvjetu unutargrupne većine, odnosno manji u uvjetu izvangrupne većine. Promatrano u cjelini, naši rezultati potvrđuju univerzalni nalaz Aschova efekta te nude nedvojben dokaz da sličnost s većinom igra važnu ulogu u fenomenu konformizma.

Ključne riječi: konformizam, Aschov efekt, teorija samokategorizacije, sličnost s grupom

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