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Judging a Group by Sampling Members: How the Subdivision of a Minority Affects Its Perceived Size and Influence

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ABSTRACT. The authors used a frequency sampling paradigm to investigate how perceptions of a minority group's size and influence are affected by the manner in which the subgroup structure of the minority is presented. Participants in two experiments read sequentially sampled opinions that hypothetical members of a committee supposedly held about a controversial proposal. The minority members holding "against" opinions were described as belonging either to one homogenous group (the single-entity condition) or to one of three subgroups (the multiple-subgroups condition). Although the numbers of "for" and "against" opinions were held constant, predictable biases emerged in participants' frequency reports. Consistent with an information loss account, the minority was viewed as larger in the multiple-subgroups condition than in the single-entity condition. The manipulation also affected the perceived social influence of the minority on the committee's final decision about the proposal.

Keywords: frequency sampling, group perception, minority influence, persuasion

WHEN EVALUATING A CONTROVERSIAL ISSUE or proposal, observers may try to determine the proportions of people who support and oppose it. All else being equal, when more people are for a proposal than against it, the numeric majority (i.e., the "for" group) is perceived to have the upper hand over the minority (i.e., the "against" group). However, in the real world, all else is rarely equal. A variety of factors can complicate this simplistic situation.

Two such factors are critical for the research described in this article. First, although media sources will sometimes provide people with summarized polling

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information about the frequencies of various opinions, there are many contexts in which people do not have access to such summary data. In those contexts, observers may do their own form of data collection and analysis to judge the relative strengths of the majority and minority groups. However, there is nothing to guarantee that an observer's perceptions of these frequencies will match their actual values.

Second, there is more than one way to characterize a given group. An "against" group could be characterized as essentially one entity or as a group composed of several subgroups, all of which are against a proposal. For example, consider how one might characterize the opposition to the easing of a labor law. Twenty people who oppose the law might be characterized as a group of 20 proworker individuals or as 8 proworker teachers, 7 proworker health professionals, and 5 proworker factory workers.

Social influence research in the tradition of Solomon Asch (1955) provides some indication of whether the perceived influence of a group may be greater when the group is characterized as consisting of multiple subgroups rather than as a single entity. Wilder (1977, 1978) found that the social influence of a group increased with the number of social units into which the group members were categorized. Specifically, Wilder (1977) showed that participants were more influenced by the opinions of a six-person discussion group about a legal case when the group was presented as two groups of three people or three groups of two people rather than as a single group of six. In another study, Wilder (1978) found that eight jurors were more influential on participants' opinions when variations in race and occupation made it possible to categorize the jurors into various subgroups rather than only into a single, homogeneous group of eight.

Numerous researchers have investigated the consequences of subgrouping on perceived variability, stereotyping against the group, and stereotype change (Park, Ryan, & Judd, 1992; Park, Wolsko, & Judd, 2001; for a review, see Richards & Hewstone, 2001). For instance, Park et al. (1992) found that subgrouping leads to more perceived variability among target group members and less stereotypic perceptions of the group. Although this line of research is relevant for understanding how subgroups are perceived in terms of their composition and variability, those researchers did not explore the consequences of subgrouping on the perceived social influence of the group.

Participants in Wilder's (1977, 1978) studies had immediate access to information on group size. In the present work, we applied Wilder's paradigm to contexts in which a cognitive representation of a group conflict gradually developed as participants were exposed to piecemeal information and arguments about group membership (e.g., Fiedler & Juslin, 2006). That is, participants did not receive summary data about the proportions of people holding a "for" or "against" opinion on the key proposal; instead, they learned about the opinions of individuals in a randomly sequenced fashion, which required the participants to estimate for themselves the frequencies of "for" and "against" opinions. We

investigated whether splitting a minority into smaller subgroups had predictable effects on perceivers' subjective representation of the minority—and possibly also the majority—and whether this representation in turn affected their judgments of the minority group's influence. Our predictions about the results of the present experiments originated from theoretical perspectives on information sampling and general judgment processes.

Frequency Processing and Information Loss

In their work on frequency processing, Fiedler and colleagues (Fiedler, 1996, 2002; Fiedler & Armbruster, 1994) have argued and demonstrated that splitting a given stimulus category into smaller subcategories can cause participants to perceive a greater overall number of stimuli in the category. For example, participants in one study, after seeing a set of stimuli composed of various squares, triangles, and other shapes, reported seeing more total triangles if asked to report the frequencies of upward-peaked triangles and downward-peaked triangles separately than if asked to report the frequency of all triangles (Fiedler & Armbruster, 1994). Fiedler and Armbruster (1994) explained this finding with an *information loss* account, according to which the mental representation of the sampled frequency data is distorted in a systematic way as a function of the intrusion of error variance, leading to a predictable bias in the recollection of the actual input. To the extent that information is lost (e.g., through memory decay, lack of attention, overload, distraction), the cognitive reproduction of an observed frequency distribution will regress toward the mean of all category frequencies observed. This regression effect should increase as accuracy decreases and should affect extreme values most (Fiedler & Armbruster, 1994). In the case of maximum information loss, the subjective frequency estimates for each category encountered should coincide with the mean of all category frequencies.

The information loss perspective provides a clear prediction of how participants in our experiments should perceive minority group size. In the present experiments, participants learned about whether each of 27 people held a "for" or "against" position regarding a hypothetical proposal. Of the 27 people, 15 held the "for" position (the majority) and 12 held the "against" position (the minority). The key manipulation was of the homogeneity of the minority group: some participants encoded the members of the minority as all belonging to a single group (the *single-entity condition*), whereas others encoded the 12 members of the minority as belonging to three separate subgroups, with frequencies of 5, 4, and 3 (the *multiple-subgroups condition*). We asked participants in the single-entity condition to report the frequencies of the majority group and the single minority group, whereas we asked participants in the multiple-subgroups condition to report the frequencies of the majority group and each minority subgroup. The information loss perspective suggests that the minority frequencies reported in the single-entity condition should regress toward the mean frequency of (15 + 12)/2

= 13.5; in contrast, the minority frequencies reported in the multiple-subgroups condition should regress toward the mean frequency of (15 + 5 + 4 + 3)/4 = 6.75, and thus the combined frequency of all three minority subgroups should approach 3 × 6.75 = 20.25. Therefore, the combined minority frequencies in the multiple-subgroups condition should be higher than the reported minority frequencies in the single-entity condition. Because it is reasonable to expect some (but far from complete) information loss to occur during frequency sampling, we predicted that the combined minority frequencies in the multiple subgroups condition would not reach the value of 20.25 in absolute terms but would exceed the reported minority frequencies in the single-entity condition.[1]

Although the information loss perspective makes a clear prediction about how participants will judge frequencies, it does not indicate whether perceived group size affects other important dependent variables, such as participants' predictions about how influential the group will be (e.g., in the present study, the committee's decision on the proposal). One straightforward possibility is that, because the overall frequency of the minority looms larger in the multiple-subgroups condition than in the single-entity condition, participants in the former condition would also expect the minority to be more influential and less likely to lose the decision. This prediction may be derived from *social impact theory* (Latané & Wolf, 1981), according to which the social impact of a given group is a function of—among other factors such as temporal and physical immediacy—the perceived number of people exerting this influence. Therefore, participants' judgments about the committee's decision in the multiple-subgroups condition should reflect the impact of an upwardly biased minority representation.

In summary, we expected that, consistent with the information loss perspective, (a) the combined minority frequencies reported by participants in the multiple-subgroups condition would be greater than the minority frequencies reported by participants in the single-entity condition and (b) the biased representations in the multiple-subgroups condition would also show carryover effects with regard to predictions about the decision of the full committee.

Method

Because of the similarity in methods and procedures for the two studies we conducted, we provide a combined Method section.

Participants

Participants were 67 (Study 1) and 78 (Study 2) undergraduate psychology students at the University of Iowa in Iowa City. They participated in a study on "social issues" in exchange for partial course credit. Gender ratios mirrored the usual gender ratio (3 women: 1 man) of students in the psychology department's research participant pool. We randomly assigned participants to experimental conditions.

Materials and Procedure

After all participants had provided informed consent, we presented them with the following scenario about a controversial issue concerning church groups:

> Imagine you are a reporter for a local newspaper in city T. The city owns a popular recreation area with camping facilities and group meeting places used by many groups living in T. More than 50 years ago, the recreation zone was built as a cooperative project by the local churches in T on their own support and was restricted to their private use only. Twenty years ago the park became public property, purchased from the churches by the city, and from then on was accessible to all citizens in T. Since then, the park facilities could be used on a fee-for-access basis. Historically, church members in T had paid less than nonreligious groups for the recreation park facility use in a friendly gesture from the city. Because of financial shortcomings, however, the city council of T is now thinking about increasing the fees for church members to match those of nonreligious groups.

Additional information indicated that the city council's special committee would hold a meeting to decide whether to pass or reject the proposal. We told participants to assume they were journalists who approached members of the committee upon entering the building shortly before the start of the meeting to ask them for a short statement about their opinion on the issue and also about their religious membership.

In the information-sampling task that followed, participants saw information about committee members in a random order on a computer screen. In total there were 27 committee members: 15 (i.e., the majority) were in favor of an increase in fees and 12 (i.e., the minority) were against an increase. We opted for a relatively small discrepancy between majority and minority group size because we wanted to investigate whether the bias in perceived minority group size due to category-split effects would be strong enough to invert the actual group-size ratio. Furthermore, we wanted the minority to be large enough to enable a split into at least three distinct subgroups. As a critical manipulation of minority presentation, we varied whether the minority was presented as a single group or as consisting of multiple subgroups. The arguments presented by the majority and minority were identical across conditions.

In the single-entity condition, the majority and the minority groups were each composed of participants who held the same religious affiliation as all others in their respective group. In contrast, in the multiple-subgroups condition, the minority group was subdivided into three smaller factions comprising 5, 4 and 3 members. To maximize the cohesiveness of the (sub)groups and avoid further complicating the information-sampling task for participants, each (sub)group unanimously represented one standpoint, either for or against the increase in fees, and each (sub)group was composed of members who all shared the same religious affiliation. All group affiliations were taken from a set of four possible affiliations (Episcopalian, Lutheran, Methodist, and Presbyterian) and balanced across conditions.

In the information-sampling sequence, participants read all 27 committee members' descriptions and statements in a sequential and random order. We used a computer to display the descriptions and statements (one per screen). Each committee member was first introduced by a description of his or her religious affiliation. After a delay of 1,200 ms, the committee member's personal argument about the issue was presented, always beginning with a short general statement about his or her position (either "I am against it" or "I am in favor of it"). The purpose of this general statement was to facilitate participants' processing of the argument that followed. "For" arguments were based on concerns for equality and fairness (e.g., "I will vote for an equal treatment of all citizens"), whereas "against" arguments emphasized the obligation and sense of duty that the city owed to the churches (e.g., "We have an agreement with the city. They can't just break such an agreement whenever they like to"; see the Appendix for a complete list of arguments used). We designed each argument such that the reasoning on both sides was understandable and plausible, so as not bias the decision too clearly toward one side.

After participants had read the information for one committee member, they had to click a button (displayed after 2 s) to move on to the next committee member. This procedure ensured that participants could completely read through all the information. Each argument was presented once. In the multiple-subgroups condition, we randomized the assignment of minority member arguments to the three subgroups.

Following the presentation of opinions, participants were first asked, with an open-ended response format, how many members of each church group they encountered at the entrance to the meeting (*frequency estimate*). We randomized the order of frequency estimates for the different church groups. We then asked participants to rate how they would generally characterize the types of opinions in the committee (*committee opinion*) on a 9-point scale ranging from –4 (*in favor of an increase in fees*) to 4 (*against an increase in fees*). Last, we asked participants to respond to the question, "From what you've heard, how do you think the committee will decide?" on the same 9-point scale (*expected decision outcome*). At the end of the study, we debriefed participants about the full purpose of the research.

We intended Study 2 to be a close replication and minor extension of Study 1. Specifically, we investigated whether the effects of minority presentation on committee opinion and expected decision outcome differed as a function of whether participants recalled sampling frequencies before rating those variables. For instance, having to make frequency judgments first may prime this variable, thus rendering the influence of perceived group size more important than it would be otherwise. Therefore, in addition to the *frequency first* condition (analogous to the one in Study 1), we introduced a *frequency last* condition in which participants provided frequency estimates after the other dependent variables. All procedural elements were identical

except that the order of dependent measures was varied as a second between-participants variable.

Data Preparation

For each participant in the multiple-subgroups condition, we summed the estimated frequencies for the three minority subgroups. We excluded data from analysis if the estimation of majority or minority frequencies was more than three standard deviations away from the respective sample mean. One participant in Study 1 and 3 participants in Study 2 were excluded because of unrealistically high estimations.

Results for Study 1

Minority and Majority Frequency Estimates

The initial question of interest was whether the subdivision of the minority influenced the frequencies reported for the minority group(s). Table 1 displays the mean estimated frequencies for both experimental conditions. A one-sample *t* test indicated that, in the single-entity condition ($n = 32$), the mean of the minority frequency estimates ($M = 11.63$, $SD = 3.78$) was not significantly different from the correct value of 12, $t(31) = -0.561$, $p = .58$, $d = 0.09$. However, consistent with the information loss account, the summed minority frequencies reported

TABLE 1. Means and Standard Deviations for Minority and Majority Frequency Estimates and Ratings of Committee Opinion and Expected Decision in the Single-Entity and Multiple-Subgroups Conditions for Studies 1 and 2

	Study 1				Study 2			
	Single entity		Multiple subgroups		Single entity		Multiple subgroups	
Variable	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Minority estimate	11.63_a	3.78	16.09_b	5.94	11.85_c	3.63	15.67_d	5.84
Majority estimate	14.53_a	5.39	12.12_b	3.80	14.21_c	3.58	12.31_d	3.74
Committee opinion	0.59_a	1.37	-0.38_b	2.00	0.85_c	1.04	0.28_d	1.37
Expected decision	0.94_a	1.61	0.65_a	2.36	1.28_c	1.40	0.36_d	2.00

Note. Participants rated committee opinion and expected decision on a 9-point scale ranging from –4 (*against the proposal*; i.e., the minority view) to 4 (*in favor of the proposal*; i.e., the majority view). Means in the same study and row that do not share a subscript differ significantly at $p < .05$.

in the multiple-subgroups condition (n = 34) were upwardly biased (M = 16.09, SD = 5.94) from the correct value, $t(33) = 4.02$, $p < .001$, $d = 0.69$, and differed significantly from the single-entity condition according to a t test for two independent samples, $t(64) = 3.62$, $p < .001$, $d = 0.92$.[2] Mean estimated frequencies for the three minority subgroups (5, 4, and 3 members) amounted to 5.91, 5.44, and 4.74, respectively (SDs = 2.43, 2.80, and 2.21, respectively).

A second question of interest was whether the subdivision of the minority influenced the frequencies reported for the majority. One might expect that, because the majority group was not subdivided in our minority-presentation manipulation, the majority frequencies should be unaffected by the subdivision of the minority group. However, the information loss account suggests that there may be a difference in the majority frequencies reported as a function of the minority-presentation manipulation because the mean of the group sizes in the multiple-subgroups condition (6.75) is much lower than the mean of the group sizes in the single-entity condition (13.5). Therefore, frequency estimates for the majority should regress toward a lower value in the former than in the latter condition (see Fiedler & Armbruster, 1994). Consistent with this prediction, the majority-frequency reports were significantly downwardly biased in the multiple-subgroups condition (M = 12.12, SD = 3.80), $t(33) = –4.42$, $p < .001$, $d = 0.76$, but closely matched the correct frequency in the single-entity condition (M = 14.53, SD = 5.39), $t(31) = –0.492$, $p = .63$, $d = 0.09$. The means from the two conditions differed significantly, $t(64) = 2.11$, $p = .039$, $d = 0.53$.

Committee Opinion and Expected Decision Outcome

Apart from the distortion of perceived frequencies, does subdividing the minority have further-reaching effects on reports about committee opinions and expected decision outcome? Table 1 displays the relevant means for these dependent variables. Positive scores favor the majority view (for an increase in fees) and negative scores favor the minority view (against an increase in fees).

Consistent with the biases we observed for the frequency reports, the perceived overall committee opinion was influenced by our experimental manipulation, $t(64) = 2.30$, $p = .025$, $d = 0.58$. Participants judged the overall sentiment of the committee to fall more toward the minority position when the minority was subdivided into distinct factions rather than presented as a single entity. However, the presentation of the minority in Study 1 did not significantly influence reports about the expected committee decision, $t(64) = 0.58$, $p = .63$, $d = 0.15$.

Results for Study 2

We analyzed the dependent variables from Study 2 using a two-factorial analysis of variance (ANOVA) that included minority presentation (single entity vs. multiple subgroups) and question order (frequency first vs. frequency last) as between-subjects factors. There was neither a significant question-order main

effect nor a reliable interaction with minority presentation for any of the dependent variables. We therefore concluded that the effects of minority presentation were comparable across both question orders. In the following sections, we report the main effects for minority presentation only. Table 1 presents means collapsed across the question-order factor, leading to a total of 39 participants in the single-entity and 36 participants in the multiple-subgroups condition.

Minority and Majority Frequencies

As in Study 1, there was a significant main effect of minority presentation on minority frequency estimates,[3] $F(1, 71) = 12.15$, $p < .001$, $d = 0.81$, indicating that participants in the multiple-subgroups condition reported significantly higher minority frequencies than did participants in the single-entity condition (see Table 1). There was also a significant main effect of minority presentation on majority frequency estimates, $F(1, 71) = 4.57$, $p = .036$, $d = 0.52$, indicating that subdividing the minority also resulted in lower majority estimates. As in Study 1, the category-split manipulation led to an overestimation of minority group size ($M = 15.67$, $SD = 5.84$, vs. actual size of 12), $t(35) = 3.77$, $p < .001$, $d = 0.63$, with subcategory mean estimates of 5.67, 5.14, and 4.86 (*SD*s = 2.24, 2.50, and 3.06, respectively) for the 5-, 4-, and 3-member minority groups, respectively. Also as in Study 1, there was a corresponding underestimation of majority group size ($M = 12.31$, $SD = 3.74$, vs. actual size of 15), $t(35) = -4.32$, $p < .001$, $d = 0.72$. Again, participants' frequency estimates in the single-entity condition did not significantly differ from the correct values.

Committee Opinion and Expected Decision Outcome

Analogous to the outcome in Study 1, the minority-presentation manipulation had a significant effect on participants' reports about the overall opinion of the committee, $F(1, 71) = 4.14$, $p = .046$, $d = 0.47$. Unlike in Study 1, however, the minority-presentation manipulation also had a significant influence on participants' expectations about the decision of the committee: Participants were significantly more likely to expect the majority position to win in the single-entity condition than in the multiple-subgroups condition, $F(1, 71) = 5.41$, $p = .023$, $d = 0.54$. The direction of the effect of minority-presentation manipulation on participants' expectations about the committee's decision is consistent with the information loss perspective.

Combined Analysis of Studies 1 and 2

To investigate whether the results we obtained were similar across both studies, we analyzed the two data sets together by adding a replication factor (i.e., study) as a between-subjects variable. Separate 2 (group: single entity vs. multiple subgroups) × 2 (study: Study 1 vs. Study 2) ANOVAs of majority estimate,

minority estimate, committee opinion, and expected decision outcome all yielded significant main effects of group (all ps < .05), no significant effects of study (all ps > .10), and, most important, no significant interactions between group and study (all ps > .30), indicating that the two studies yielded similar findings.

We calculated the degree of information loss in the category-split condition for each variable and study by (a) computing the difference between the grand mean of category frequencies and the subjective frequency estimate for a category, (b) computing the difference between the grand mean of category frequencies and the objective frequency for that category, and (c) forming the ratio of (a) to (b). This ratio served as an index of the percentage by which actual differences in category frequency were reduced toward the grand mean. In the case of total information loss, this ratio equals 1 (100%); in the case of no information loss, it equals 0 (0%). For instance, information loss for the 3-member subgroup in Study 2 amounted to (6.75 – 4.86)/(6.75 – 3) = 50%. The averaged information loss in the category-split condition across both studies was 45%.

Discussion

In this research, we investigated whether presenting a minority as having multiple subgroups as opposed to being a single entity influenced participants' (a) perceptions of the sizes of the minority and majority and (b) judgments about the outcome of a group conflict scenario. Across two studies on a controversial issue involving a majority and minority group position—in which participants learned about each group member's opinion and affiliation bit by bit—we obtained clear evidence for an overestimation of minority group size and influence when the majority was split into several factions, as postulated by Fiedler and Armbruster's (1994) information loss perspective on frequency sampling. To the contrary of what one may intuitively expect, our findings show that splitting a minority into multiple subgroups leads to an upward bias in the cognitive representation of minority group size because of a regression effect toward the grand mean of group frequencies.

The subdivision of the minority also appears to have distorted participants' cognitive representations of the actual majority such that perceived minority estimates superseded perceived majority estimates, leading to a reversal effect. That is, even though participants in the multiple-subgroups condition read about 15 majority-group members and about only 12 minority-group members, their average frequency estimate for the majority group was approximately 12, and the sum of their frequency estimates for the minority groups was, on average, 16 (see Table 1). As discussed earlier, the information loss perspective can also account for the underestimation of the majority because the average group size in the multiple-subgroups condition was small. When information loss occurs, frequency judgments about the majority regress to that average. Future research is needed to determine whether the predictions derived from the model also generalize to a setting in which the majority is split into several factions.

We also investigated the effects of the minority split manipulation on participants' characterization of the overall committee opinion and their expected decision outcome. Our results indicate that the subdivision of a minority group not only strongly influences how participants perceive the distribution of opinions in a larger group, but also can influence the expected outcome of the group conflict (Study 2). Importantly, because we could not detect any interactions between minority presentation and question order in Study 2, these effects cannot be attributed to the order in which the questions were asked.

At first glance, our findings seem to contradict Moscovici and colleagues' (e.g., Moscovici, Lage, & Naffrechoux, 1969; Moscovici & Nemeth, 1974) model of minority influence, which posits the persuasive influence of a consistent as opposed to an inconsistent minority. However, in Moscovici's line of research, *consistency* was defined with regard to *behavioral style*, or the degree to which different minority members displayed convergent or divergent views toward a given issue. In our studies, minority members were always consistent about their stance toward the issue: Their statements were unanimously directed against the proposal, independent of the experimental condition. However, minority members in the multiple-subgroups condition were inconsistent with regard to their religious affiliation. Thus, our findings qualify the role of high versus low consistency of group affiliation in cases with high consistency of behavioral style (as investigated by Moscovici and colleagues) by showing that highest influence is to be expected from a behaviorally consistent and affiliation-inconsistent minority.

What are the exact processes by which the subdivision of a minority may influence the perceived distribution of power in a group conflict? We mentioned the possibility that the biased perceptions of the minority and majority group sizes caused by information loss simply influence the perceived relative strength of these groups, as predicted by social impact theory (Latané & Wolf, 1981). There are other explanation that do not necessarily imply a distorted representation of group sizes and may nevertheless explain how the subdivision of a group could influence expectations about the outcomes relevant to a larger group. For instance, the subdivision of the minority may render its individual members more salient because their group affiliation is encountered less often, and this salience advantage may give rise to a more systematic elaboration of the arguments brought forward by these individuals (cf. Chaiken, 1987; Petty & Cacioppo, 1986). In other words, members from small groups may enjoy some sort of processing advantage over members from larger groups (Latané & Wolf, 1981). Alternatively, Moscovici and colleagues' (e.g., Moscovici & Nemeth, 1974) work on consistency suggests that full consensus among subgroups may leave a perceiver with the impression that the point of view that receives such high consensus (high behavioral consistency) across different groups (low group-affiliation consistency) has merit and will ultimately be chosen by group members after further consideration. One limitation of the present studies is that our findings do not allow us to distinguish among these possible mechanisms, which are probably best viewed as multiple contributing causes rather than as mutually exclusive.

A second limitation of the present research is that the topic of our studies, although well-suited as a cover story and for the category-split manipulation, raises the question of the degree to which the participants' religious identifications or attitudes toward church–state separation in the United States may have influenced our results. Given that participants were assigned randomly to experimental conditions, it is unlikely that religiosity had a confounding effect on our manipulation. Nonetheless, variations in religious identification and attitudes could have introduced irrelevant variance in our dependent variables, and controlling for such influences would have been desirable.

Overall, our findings suggest that splitting a minority into smaller units has traceable effects on the representation of group size in settings in which information about the composition of the minority is sampled piecemeal. The representation of frequencies in turn influences judgments about the relative strength of the group and expectations regarding decision outcomes. Given that many minority groups can be described both as homogenous entities and as compositions of several subgroups, our results suggest that, all else being equal, presenting a minority as rich in subgroup structure may have consequences that ultimately prove to be strategically important.

NOTES

1. For instance, assuming a more plausible information loss of 50%, we would predict reported frequencies in the multiple-subgroups condition to amount to $(0.50 \times [15 - 6.75]) + 6.75 = 10.88$ for the majority and, by the same token, to 5.88, 5.38, and 4.88 for the three minority categories of 5, 4, and 3 elements, respectively, adding up to a combined minority frequency of 16.13.

2. When the Levene test for equal variances produced a significant result, we used corrected degrees of freedom for Student's *t* tests. For simplicity, all reported degrees of freedom and *t* values in the text refer to the uncorrected data; all *p* values, however, were corrected for unequal variances when necessary.

3. For comparison purposes with Study 1, all effect sizes for the difference between means in the single-entity and multiple-subgroups conditions in Study 2 have been computed from a *t*-test comparison of means collapsed across the order factor.

AUTHOR NOTES

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APPENDIX
Majority and Minority Group Arguments Rated by Participants

Majority group arguments[a]

1. I don't mind sharing the park equally. We had our privileges long enough.
2. As a church member, I don't want to be treated any better than a non–church member.
3. In hard times, we all have to contribute our share for the public good. Therefore, we shouldn't always look for our own advantages but rather give something.
4. I will vote for an equal treatment of all citizens.
5. To me it seems odd why we as church members should receive special benefits that other groups do not get.
6. I don't see why we church members should be treated any better than non religious people.

(appendix continues)

APPENDIX (cont.)

7. I think everyone should be treated equally. That's just fair.
8. We church members profited so much in the recent years. It is time that we also contribute our part.
9. The park should be equally affordable to every citizen in this city.
10. We church members don't need any privileges.
11. We were privileged long enough for no reason, so let's try to be fair about this.
12. In my view, we need a new agreement—an agreement with equal access for everybody.
13. We churches are rich enough to bear the increase.
14. If the city really needs the money, then I can fully understand why they have to raise our fees.[b]

Minority group arguments[c]

1. This site is a traditional property of the churches. They should take that into account.
2. Did they forget that it was we who built the whole place?
3. The city seems to be neglecting the fact that it still owes us a favor for the building of the park.
4. I think the city is burdening the wrong group. We church members shouldn't be the scapegoats of the city's administrative problems.
5. The city officials undermine the faith that we had placed in them.
6. By having us pay, they send the wrong signals: It was we who contributed that wonderful park to the city and now it seems as though we have to pay for it.
7. It was we who allowed the park to be used for all people, and now nobody seems to honor that anymore.
8. I won't let the city pay its debts by raising our fees.
9. When we gave the park to the city, we made an agreement. It seems like the city officials want to break that agreement for dubious reasons.
10. We churches have been and still are contributing so many services to the city. It is just fair if we pay less than those who do not care for our community.
11. We have an agreement with the city. They can't just break such an agreement whenever they like to.
12. I am very upset. In all those years the city cooperated with us, but now it seems as though we are reduced to some sort of taxpayers.

[a]All statements began with "I am in favor of it."
[b]Used by two different committee members.
[c]All statements began with "I am against it."

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