

Increasing Inclusiveness with a Short Pro-Diversity Film

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This research was a collaboration of the Utrecht Young Academy, a platform for generating new ideas for science and science-policy among young academics at Utrecht University.

Abstract

This experiment had three novel aims: 1). To test the (pre-registered) hypothesis that a 4-minute, locally produced film about inclusiveness reduces intergroup bias and increases cohesion among city residents; 2). To explore whether a local message (i.e., targeted at the respective city) or a universal message (i.e., targeted at people in general) is more effective; 3). To explore whether a dual identity message creates stronger bias reduction. City residents ( $N = 902$ ) of various ages, educational and professional backgrounds watched the local film, the universal film, or no film. A subsequent survey showed that both films were (equally) effective in reducing in-group favoritism and increasing cohesion, pro-diversity norms, attitudes, and pro-diversity motivation. They were not effective in increasing support for pro-diversity policy or pro-diversity behavior. Perception of a dual identity message predicted stronger bias reduction. We conclude that a short film can cause a small but significant improvement in inclusiveness.

*Keywords:* Prejudice; Contact Theory; Parasocial contact; Common Ingroup Identity Model; Intervention

### **Increasing Inclusiveness with a Short Pro-Diversity Film**

Cities are becoming more and more diverse. People living in the same neighborhood may show very different daily routines, for example with respect to family, work, diet, religion, and behavior towards other groups. Differences in ethnic background, income, ethnicity, age and household composition make cities exciting and lively places to live in, however, they may also cause social distance and segregation between groups. One of the most pressing challenges of local governments and citizens is to improve social cohesion in ever more diverse urban populations (Scheurer & Haase, 2018). In this experiment, we tested the impact of a short, locally produced pro-diversity film on social cohesion among city residents.

#### **Aversive Discrimination**

An important factor threatening social cohesion is prejudice, the negative perception of people of another neighborhood, race, age group, gender, or other social category. On the one hand, explicit discrimination based on social category has declined dramatically in the past decades due to anti-discrimination laws, policies, and norms. However, subtle bias against social groups still exists. These days, discrimination often manifests itself as *aversive discrimination* (Dovidio, Gaertner, Ufkes, Saguy, & Pearson, 2016; Kovel, 1970), a covert form of prejudice where people—on an explicit or conscious level— regard themselves as non-prejudiced, while at the same time they experience—implicitly or unconsciously—negative feelings or anxiety towards people of other groups.

Aversive discrimination is relevant for understanding social cohesion and segregation in urban environments. Research has shown that people who are implicitly prejudiced keep more distance from members of other groups (Dotsch & Wigboldus, 2008) and display aloof nonverbal behavior towards them (Dovidio, Kawakami, & Gaertner, 2002). Furthermore, implicit prejudice is associated with the unfair treatment

of out-groups by police officers (Spencer, Charbonneau, & Glaser, 2016), school teachers (Okonofua & Eberhardt, 2015), and restaurant personnel (Brewster, Lynn, & Cocroft, 2014), and with hostility towards out-group members (Unkelbach, Forgas, & Denson, 2008). These biases—which, again, often impact behavior outside people’s awareness and intention—give rise to tension, social segregation, and conflict between groups in diverse urban environments.

The persistence of discrimination can be understood by looking at the crucial importance of group-memberships to people’s well-being. People derive an important part of their identity from the groups they belong to (Tajfel & Turner, 1985). Even at a basic level of brain activation, people’s sense of self is often indistinguishable from their social identity, the part of their identity they derive from belonging to a group (Volz, Kessler, Von Cramon, & 2009). Because people’s individual identity is strongly tied to their in-group, they are motivated to maintain a positive outlook on their in-group and preserve its high status. This leads to a hard-wired tendency for people to evaluate their in-group more positively than out-groups, a phenomenon known as *in-group favoritism*. People tend to automatically feel psychologically closer to in-group members than to out-group members, and to be more generous, cooperative, and trusting toward them (Buttelmann & Böhm, 2014; for a review see Dovidio & Gaertner, 2010). Indeed, research shows that in-group favoritism often results from a disproportionately positive evaluation of in-group members and does not necessarily entail a negative evaluation of out-group members (Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993).

### **Contact Theory**

In-group favoritism can have detrimental effects on social cohesion and well-being in urban environments. Municipalities and other governance bodies are therefore looking for effective means to improve intergroup relations. Social-psychological research on

the Contact Theory (Allport, 1954) has shown that appropriately structured contact between different groups can improve intergroup attitudes and relations. A meta-analysis of 515 studies with 713 independent samples has confirmed that contact between members of different groups considerably reduces intergroup prejudice (mean  $r = -.215$ , Pettigrew & Tropp, 2008). The analysis also showed that contact is more beneficial when the optimal conditions for intergroup contact according to Allport's Contact Theory are present, that is, when groups have equal status within the contact situation, engage in cooperation, have common goals, and when the contact is supported by relevant authorities, law or custom (Pettigrew & Tropp, 2008).

Direct contact has a robust positive impact on intergroup relations but is difficult to implement pragmatically. Groups often live in different areas of the city, have different occupations and different habits and interests, which limits the opportunities for live encounters. Moreover, because thinking about contact with other groups evokes discomfort and anxiety, members of different groups may avoid contact. Even if contact can be arranged, it usually happens infrequently and among small subsets of the groups. To improve intergroup relations on a larger scale, positive intergroup attitudes need to spread to the larger population. Consequently, in the past years, researchers have started to investigate the effectiveness of easier-to-implement methods based on *indirect* contact. These approaches use the power of perspective-taking and imagination, for example, imagining having contact with out-group members instead of actually meeting them.

### **Parasocial Contact**

In this research, we apply the indirect contact strategy of *parasocial contact*, which refers to being exposed to the interaction between in-group members and out-group members in media portrayals (Schiappa, Gregg, & Hewes, 2005). More

specifically, in this experiment we tested the impact of viewing positive intergroup contact in a short, locally-produced film. Recent studies have revealed that parasocial contact can improve intergroup attitudes and relations (see Dovidio, Eller, & Hewstone, 2011, for a review). For example, Schiappa and colleagues (2005) found that viewing positive intergroup contact in American and British television programs was associated with lower levels of prejudice in American college students. Paluck (2009) showed that exposure to a radio soap opera portraying positive intergroup contact between Hutus and Tutsis in Rwanda changed listeners' pro-diversity norms (albeit not their personal beliefs), which in turn promoted intergroup behavior.

Although these previous studies provided important demonstrations of the impact of parasocial contact on intergroup relations, evidence for this type of intervention is still scarce and more research is needed to understand its effects and underlying processes (Dovidio et al., 2011; Paluck & Green, 2009). Hence, the first contribution of our study to the literature is to experimentally test the impact of a pro-diversity film on intergroup relations.

Secondly, our experiment explored the moderating impact of audience targeting. It is unclear from previous studies whether messages should be targeted at the local situation (e.g., exposing city residents to a film about group relations in their own city) or be more universal (e.g., exposing city residents to a film about group relations in general) to optimize the bias-reducing effect. On the one hand, targeted messages may be preferred because they make viewers perceive themselves as the intended audience, which facilitates identification and internalization of the message (e.g., Aaker, Brumbaugh, & Grier, 2008; Grier & Kumanyika, 2010). On the other hand, a universal message about humanity in general may be more powerful and able to elicit a stronger emotional response (e.g., Strick & Van Soolingen, 2018).

A third contribution is that we investigated the impact of emphasizing a common ingroup. Research on the Common Ingroup Identity Model (Gaertner et al., 1993; Gaertner & Dovidio, 2000) illustrates the importance of re-categorizing different groups into a common in-group for reducing in-group favoritism. People tend to like and trust people of their own group, and hence, re-categorizing members of the out-group to a common in-group should extend these warm and trusting feelings to them.

Furthermore, because being in the same group increases feelings of trust and self-esteem, the need to inflate evaluations of the in-group is reduced. Although the insights of the from the Common Ingroup Identity Model have been applied in numerous laboratory studies and survey studies in meaningful true-to-life settings (see Dovidio et al., 2016, for a review), they have not been demonstrated in parasocial contact on film (Dovidio et al., 2011; Paluck & Green, 2009).

### **Dual Identity Message**

An important qualification of recategorization we needed to take into account, however, is that minorities tend to dislike the emphasis on common identity without acknowledging the different groups, as it creates an undue illusion of uniformity and equality (Dovidio et al., 2016). It is therefore generally advisable to design interventions that emphasize a *dual identity* (i.e., acknowledging the difference between groups while at the same time emphasizing their common in-group identity) instead of a homogeneous in-group (e.g., groups are all the same, we are one big group). We implemented this recommendation in our film by portraying the groups (e.g., native residents, students, immigrants) as distinct units, while at the same time emphasizing their belongingness to the same overarching group (i.e., the city). We assessed viewers' perception of the dual identity message in the film and explored its predictive value for the bias-reducing effect of the film.

In summary, our experiment advanced the literature on intergroup relations in three ways: 1) By experimentally testing the impact of a pro-diversity film on intergroup relations; 2) By comparing the impact of a local message to the impact of a universal message; 3) By examining the impact of a dual identity message (Gaertner et al., 1993; Gaertner & Dovidio, 2000).

### **The Experimental Film**

Our film was produced with residents of the city of Utrecht, which is the capital of Utrecht province and (with approximately 340,000 inhabitants) the fourth biggest city in The Netherlands. It has a reputation of being relatively liberal and progressive, with a large university and a relatively diverse population (34.6% of residents have a non-Dutch origin, 23.2% has a non-Western origin). Nonetheless around 14% of residents each year indicate feeling discriminated, mostly because of their ethnicity, gender, or religion (Utrecht Municipality Residential Survey, 2018). Moreover, in the past years, residents have rated the social cohesion in the city around 5.8 on a scale from 1 to 10, which indicates that intergroup relations can still be improved (Utrecht Municipality Residential Survey, 2018).

The script of our film was inspired by “All that we share” (Leth & Cerkez, 2016, see <https://www.youtube.com/watch?v=jD8tjhVO1Tc>), a Danish TV ad that gained enormous on-line popularity with over 6 million shares and over 250 million views worldwide. In the film, 80 Danish people of different groups (e.g., nurses, athletes, gang members, native residents, immigrants) gather in a studio. The different groups are divided by areas marked on the floor. They are asked several questions, including personal ones such as whether they “were the class clown”, “are stepparents,” or “love to dance”, and are asked to step forward whenever their answer is yes. As people from different groups start to step forward, the crowd mixes and merges, and the “us versus



them” frame quickly falls apart. In the end, the voice-over reminds us “there is more that brings us together than we think”.

Our film featured 35 residents of Utrecht, and the script was translated to the context of Utrecht (e.g., the pay-off was “Utrecht is what we are together”. More information on the film follows in the Method). Otherwise, the film was similar to the Danish original. We chose the All That We Share format because it portrays a dual identity in a compelling and creative way: on the one hand, it emphasizes the diversity of groups, and on the other hand, it portrays the groups as belonging to an overarching identity. Furthermore, the narrative aroused strong emotions in viewers, which contributes to the persuasive effect of the film (Green & Brock, 2000; Strick, De Bruin, De Ruiter, & Jonkers, 2015). Furthermore, the film received rave reactions among viewers and was frequently shared on-line, which increases its potential for reaching a large audience, and hence, to have impact on society.

### **Overview of the Experiment**

A large sample of *Utrechters* (residents of Utrecht) watched the film (local film condition), and afterwards answered questions about their film appreciation, in-group favoritism, feelings of social cohesion, pro-diversity norms, pro-diversity motivation, attitudes, and behavior. A second group of residents (universal film condition) watched an adapted version of the film with a more universal message. In this film, references to Utrecht were minimized and the pay-off was “We share more than we think” (more information about the film follows in the Method). A third group of participants did not see a film (no film condition).

Our main hypothesis (H1) was that participants in the local film condition would report more positive attitudes (lower in-group favoritism, higher feelings of social cohesion, pro-diversity norms) and behaviors (reading pro-diversity tips, see below)

than participants in the no film condition. This hypothesis was pre-registered on the Open Science Framework before starting the data collection (accessible via <https://osf.io/5ne6v/>). Our second, exploratory, hypothesis (H2) was that participants in the local film condition would report more positive attitudes and behavior than participants in the universal film condition. Our third, exploratory, hypothesis (H3) was that the perception of a dual identity message would significantly predict the bias-reducing effect of the film.

### **Method**

The study received approval from the ethical review committee of the Faculty of Law, Economics and Governance at Utrecht University. All data and materials can be accessed via the Open Science Framework <https://osf.io/5ne6v/>

#### **Participants and Design**

The experiment had a between-participants design with three conditions: local film, universal film, and no film. We aimed for a sample size of at least  $N = 822$  ( $n = 274$  in each condition), based on the standard effect size of studies in social psychology (Richard, Bond, & Stokes-Zoota, 2003) of Cohen's  $d = .24$  (based on  $r = .21$ ), statistical power  $.8$ ,  $p < .05$ , two-tailed. Participants were recruited by an external research agency. In return for completing the survey, participants were offered the opportunity to participate in a lottery where they could win a price (e.g., iPod, gift voucher) or could decide to donate their price money to charity.

Only residents from Utrecht province of 18 years or older were invited to participate. The invitees were drawn from three clusters: residents of Utrecht city (Cluster 1), residents of neighboring municipalities with similar diversity (Cluster 2), and residents of less diverse neighboring municipalities (Cluster 3 residents). We ensured that residents from each cluster were equally represented in each experimental

condition by a priori distributing experimental conditions (randomly) across the sample. As intended, in the final sample the clusters were equally divided across conditions,  $\chi^2(4, N = 902) = 2.53, p = .639$ . The four age groups represented in the sample were equally distributed across conditions as well,  $\chi^2(8, N = 901) = 11.63, p = .168$ .

The final sample was  $N = 902$  (Local film:  $n = 296$ ; Universal film:  $n = 298$ ; No film:  $n = 308$ ). The gender distribution was fairly equal (54.7% male, 45.1% female, 0.2% other). The participants were mostly White (94.1%), with a high average age (78.6% 50 years or older). There were only few people (5.3%) with a migration background. Participants had various educational backgrounds (27.8% university, 39.1% HBO) and occupations (43.7% had fulltime or part-time jobs, 40.8% was retired). Only few participants (6.4%) were professionally involved in anti-discrimination policy or diversity policy. More detailed information of the sample composition can be found in the Supplementary Online Material.

## Materials

**Local film** (see <https://www.youtube.com/watch?v=DV5EHGBFSuI>). The voice-over explains that “our city Utrecht” is a colorful city where different social groups live, and that on this particular day, different groups of Utrechters are brought together in Tivoli Vredenburg (a concert-venue in the center of Utrecht). The next shot shows Utrechters from five different social groups walking into a studio and stepping into outlined boxes marked on the floor—areas marking their group division. The five groups are: native Utrechters; students; immigrants; the higher-educated; and people from Moroccan and Turkish descent. A presenter standing in the corner starts asking questions, such as: “Who of you is head-over-heels in love?”; “Who of you was bullied as a kid?”; “Who of takes care of an ill friend or family member?”. After each question, the

residents can answer yes by stepping out of their “own” box and joining others in a separate, larger box marked on the floor—an area marking similarities. The film ends with the residents laughing, shaking hands, and hugging, and the pay-off “Utrecht is what we are together” (“Utrecht, dat zijn we samen”). The film lasts 3 minutes and 48 seconds. It was made by a professional film producer and director.

**Universal film** (see <https://youtu.be/ynoyskj7D5k>). The voice-over and the pay-off do not refer to ‘Utrecht’ and ‘Utrechters’, but to ‘cities’ and ‘people’ more generally. For example, ‘Utrechters’ was changed into ‘people’, ‘Tivoli Vredenburg’ was changed into ‘a studio’, and ‘native Utrechters’ was changed into ‘native residents’. Most importantly, the pay-off was changed into “We share more than we think” (“We delen meer dan we denken”). Otherwise, the film is identical to the local film.

### **Procedure**

A flow diagram for our procedure is shown in Figure 1.

**Local film condition.** Participants first answered demographic questions. Then, they watched the local film. They were asked to watch attentively but in a relaxed way, as if they were watching the film for enjoyment in their own home. After seeing the film, participants completed the measures of film experience and attitudes and behavior towards diversity, in the order shown below. In between the measurements, participants were given the opportunity to leave comments.

**Film appreciation.** To rule out that the possible difference between the films was due to appreciation, we examined how much participants liked the films. They responded to four statements: “I thought the film was beautiful”; “It is a good film”; “I found the film moving”; and “The film touched me” on 5-point Likert scales ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). The items were based on based on Strick et al. (2015,  $\alpha = .89$ )

**Dual identity portrayal.** Participants responded to three statements indicating how they thought the groups were portrayed in the film. The items were designed, respectively, to measure the extent to which participants perceived that the film portrayed the groups as the same (Similarity), the individuals as separate individuals (Individuals), and that different groups belong to a common in-group (Dual identity). The statements read: “The film shows that all groups are the same”, “The film shows we are all individuals, not group members”, and “The film shows that the different groups all belong to the same overarching group”, respectively. Participants answered on 5-point Likert scales ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). These items were adapted from Gaertner, Rust, Dovidio, Bachman, & Anastasio (1994).

**Manipulation check: local versus universal.** Participants were asked to describe in their own words what they perceived as the message of the film. This served as a manipulation check on whether the local film indeed came across as focusing on Utrecht, while the universal film was more general. To operationalize this, two independent raters (with perfect interrater agreement, ICC = 1.00) counted the number of participants who mentioned ‘Utrecht’ in their answer.

**Perceived message.** The manipulation check question also served to get a fuller picture of participants’ subjective experience of the film. To operationalize this, the two independent raters (with excellent interrater agreement, ICC = .98) counted the number of participants who perceived a positive message (e.g., “We are all human”; “Despite our differences, we have many things in common”), those who were more negative or skeptical (e.g., “Artificial attempt to suggest harmony”; “Manipulative, gives me toothache”), and those who did not perceive a clear message.

**Willingness to share the film.** To explore the on-line potential of the films, we asked if (*Yes / No*) and where (*Facebook / Instagram / Pinterest / YouTube / Twitter /*

*WhatsApp / SMS / E-mail / LinkedIn / Somewhere else, namely ...*) participants would be willing to share the film on social media. This item was based on based on Strick et al. (2015).

***In-group favoritism.*** Our procedure for measuring in-group favoritism was adapted from Gaertner and colleagues (1994). First, we asked participants to categorize themselves into one of four groups: individuals with a Turkish immigration background; individuals with a Moroccan immigration background; individuals with an immigration background other than Turkish or Moroccan; individuals born in The Netherlands. Turkish and Moroccan groups were chosen because they represent the largest non-Western immigrant groups in The Netherlands (CBS, 2018) and are currently stigmatized groups in Dutch society (Verkuyten & Zaremba, 2005). The migration background of our participants is shown in Figure 1. Most participants were White and born in The Netherlands.

Then (also based on Gaertner et al., 1994), we recorded participants' agreement with statements about their feelings toward their own group and towards other groups, whereby 'own group' referred to the group to which they had just identified, and 'other groups' referred to groups they did not identify with. The own-group statement read "When I think about contact with my OWN group I feel..." followed by three positive and three negative emotions: safe; comfortable; familiar; threatened; on guard; and distant. For each emotion, participants indicated their agreement on 5-point Likert scales ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). Then, they indicated their feelings towards the other groups by responding to the statement "When I think about contact with OTHER groups I feel..." in a similar way. In-group favoritism was calculated by subtracting, for the positive emotions, the scores of the out-group from the score of the in-group, and for the negative emotions, the scores of the in-group from the score of

the out-group. Then, we averaged these difference scores. (For separate results for each emotion, see the Supplemental Online Material).

***In-group identification.*** Participants were also asked how much they identified with their own group on a scale ranging from 1 (*hardly*) to 5 (*very strongly*). This item was based on Crisp and Beck (2015). It was included to explore if in-group identification interacted with the impact of the film intervention (see Crisp & Beck, 2015).

***Cohesion, norm, and motivation.*** To measure feelings of cohesion, participants were asked to indicate their agreement with the statements “I feel connected with other groups” and “I feel involved with other groups” ( $\alpha = .81$ ). To measure pro-diversity norms, participants were asked to indicate their agreement with the statements “People with different backgrounds should meet each other” and “It is good idea for people from different groups to get to know each other” ( $\alpha = .90$ ). To measure pro-diversity motivation, participants were asked to indicate their agreement with the statements “I feel the need to meet other groups more often” and “I feel the necessity to meet other groups more often” ( $\alpha = .90$ ). Participants responded to these statements on 5-point Likert scales ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). These items on cohesion, norm, and motivation were generated by the authors, broadly based on definitions in earlier studies (Gaertner et al., 1994; Paluck, 2009; Scheurer & Haase, 2018).

***Anti-discrimination policy support.*** It was explained that the Dutch government “strives for an inclusive society in which everyone feels valuable” and that ‘anti-discrimination policy’ is an umbrella term for all policies aimed at this goal. By providing a number between 0 and 100, participants indicated how they felt about this policy with the following pointers: 81-100 points = strong proponent; 61-80 points = proponent; 31-60 points = acceptance; 21-40 points = passive resistance and 0-20 points = active

resistance. This was based on the behavioral support for change scale by Herscovitch and Meyer (2002).

***Pro-diversity attitude.*** Participants also indicated their general attitude towards diversity by answering the question “Are you in general more an opponent or proponent of more diversity in society?” on a 5-point scale ranging from 1 (*strong opponent*) to 5 (*strong proponent*). This item was generated by the authors.

***Anti-discrimination behavior.*** Participants were informed that they had reached the end of the questionnaire and that, as an extra, they were given the opportunity to read information about what they, themselves, could do to reduce discrimination. They were provided with 30 tips taken from various organizations dealing with diversity and discrimination. It was explicitly stated that reading the tips was completely voluntary and they could stop reading them at any time. First, they were asked whether they were willing to start reading the tips (*Yes / No*). If they answered yes, we counted the number of tips they read. After reading each tip, participants could choose to *Proceed to the next tip* or *Skip the rest of the tips*. The tips showed for instance that you can increase feelings of inclusion by meeting people from diverse groups and by confronting others who discriminate using concrete language. The length of the tips varied between 30 and 104 words. This behavioral measure was newly generated by the authors.

After reading the tips (or not), participants were debriefed on the background and purpose of the research and thanked for their participation.

**Universal film condition.** The procedure was identical to that in the local film condition, except for showing the universal film instead of the local film.

**No film condition.** The procedure was identical to that in the local film condition and the universal film condition, except that no film was shown and the measurements of film appreciation, perceived message, and intention to share the film were omitted.



## Results

Below, we first report descriptive results: the correlations between the main study variables, the manipulation check of the local versus universal message, the perceived message, willingness to share the film, and the appreciation of the film. Second, we report the results of the hypothesis tests: the impact of the local film on in-group favoritism and other pro-diversity variables (H1), the comparison between the local and universal film (H2) and the relation between the perception of a dual identity message and bias-reduction (H3). Third, we discuss how in-group identification interacted with the effect of the films. Fourth, we summarize the main findings.

### Descriptive Results

**Correlations between the main study variables.** The correlations are shown in Table 1. They indicate that the appreciation of the film (Table 1, Column 1) predicts all other study variables. Thus, to the extent that participants enjoyed the film, they showed less in-group favoritism and more feelings of cohesion and pro-diversity norms, motivation, attitudes, and behavior. Furthermore, all dependent variables related to being in favor of diversity (Table 1, Columns 5 to 10) were significantly related to each other, which supports the construct validity of the measurements.

**Manipulation check of local versus universal film.** The second row of Table 2 shows that participants in the local film condition indeed mentioned 'Utrecht' more often in their description of the film message than participants in the universal film condition (10.8% vs. 3.0%). The manipulation of the local versus universal message was thus successful.

That being said, it is notable that 87.8% of the participants in the local film condition did not mention Utrecht (the remaining 1.4% did not answer the question). Thus, even though the local film was tuned to Utrecht, many people perceived a more

universal message such as “we are all human” or “the differences between people are often overestimated”.

**Perceived message: positive or negative.** The third row of Table 2 shows that most participants (91.1%) perceived a positive message, while fewer participants (2.4% and 5.6%, respectively, the remaining participants did not answer) interpreted the film negatively or indicated they did not perceive a clear message. The percentages did not differ between the two films.

**Willingness to share the film.** The fourth row of Table 2 shows that more than a third (33.5%) of participants indicated they would be willing to share the film on social media, and this percentage did not differ between the two films. Facebook, WhatsApp, and E-mail were the most popular platforms for sharing (Facebook = 47.7%; Email = 32.2%; WhatsApp = 32.2%; YouTube = 11.6%; LinkedIn = 9.5%; Twitter; 7.5%; Instagram = 6.5%; Pinterest = 3.0%; SMS = 4.0%; Other = 3.5%).

**Film appreciation.** The sixth row of Table 2 shows that overall, participants appreciated the films highly ( $M = 3.74$ ,  $SD = 0.80$  on a scale from 1 to 5, which is significantly higher than the scale midpoint,  $t(593) = 22.52$ ,  $p < .001$ ). The appreciation did not differ between the two films.

## Hypothesis Tests

**H1: effect of the local film on in-group favoritism and pro-diversity variables.** The results are summarized in Table 2. They indicated, first of all, that in-group favoritism was observable in all three conditions (all means were above zero at  $p < .001$ ), confirming the persistence of intergroup bias. In line with our main hypothesis (H1), however, the local film significantly reduced intergroup bias. Compared to the no film condition, the local film significantly reduced in-group favoritism (Mean difference = -0.20, 95% CI [-0.30, -0.10]), and increased feelings of cohesion (Mean difference =

0.20, 95% CI [0.08, 0.31]), pro-diversity norms (Mean difference = 0.11, 95% CI [0.00, 0.21]), and pro-diversity motivation (Mean difference = 0.15, 95% CI [0.03, 0.27]).

According to conventions, these effects were small, with  $\eta_p^2$  between .010 and .025 (Cohen, 1988; Cohen, Miles, & Shevlin, 2001).

Contrasting H1, the local film did not increase support for the Dutch anti-discrimination policy compared to the no film condition (Mean difference = -0.14, 95% CI [-2.70, 2.42]). On average, participants gave 61.78 points ( $SD = 0.63$ ) to anti-discrimination policy, indicating they were proponents (but not strong proponents), and this rating did not differ between conditions. Finally, also contrasting H1, the local film did not increase anti-discrimination behavior compared to the no film condition, (Mean difference = 1.38, 95% CI [-0.46, 3.21]). On average, 52.3% of the participants were willing to start reading the anti-discrimination tips, and this percentage did not differ between conditions,  $X^2(2, N = 902) = 1.99, p = .371$ . On average, participants read 7.59 ( $SD = 11.48$ ) of the 30 tips (25.3%).

**H2: comparison between the local and universal film.** In contrast to H2, the impact of the local film was similar to the universal film in all respects, except for the effect on pro-diversity attitude: the universal film increased the pro-diversity attitude, while the local film did not.

**H3: the contribution of a dual identity message.** In line with our third hypothesis (H3), the perception of a dual identity portrayal was associated with increased feelings of cohesion, reduced in-group-favoritism and increased anti-discrimination attitudes and behavior (Table 1, Columns 2 to 4). Thus, to the extent that people perceived the film as portraying a dual identity, their in-group attitudes and behavior were more in favor of diversity. These results confirm that the dual identity message is an important ingredient of the films. Although the similarity and separate

individuals portrayals were predictive of some pro-diversity outcomes, their effects were less powerful and, in several cases, non-significant. Z-tests (Lee & Preacher, 2013) showed that the predictive validity of the dual identity message was significantly stronger than the predictive validity of the other two portrayals for all diversity outcomes ( $1.98 < z_s < 3.05$ ,  $.000 < p_s > .047$ ). The only exception was in-group favoritism, where the comparison between the dual identity portrayal and the separate individuals portrayal did not reach the conventional level of significance ( $z = 1.85$ ,  $p = .064$ ).

Overall, participants were less in agreement with the statement that the films portrayed similarity ( $M = 2.94$ ,  $SD = 1.05$ ) than with the statement that they portrayed people as individuals ( $M = 3.47$ ,  $SD = 0.95$ ,  $p < .001$ ) and as portraying a dual identity ( $M = 3.49$ ,  $SD = 0.94$ ,  $p < .001$ ),  $F(2, 592) = 89.61$ ,  $p < .001$ ,  $\eta_p^2 = .232$ . Agreement with the latter two statements did not differ from each other ( $p = .592$ ). These results imply that both films portrayed people as individuals and as having a dual identity. The perceived group portrayal was similar for both films.

### **Interaction with In-group Identification**

In-group identification was moderate, on average ( $M = 2.88$ ,  $SD = 1.13$ , below the midpoint of the scale,  $t(901) = -3.16$ ,  $p = .002$ ). Interestingly, in-group identification was lower in the local film condition ( $M = 2.73$ ,  $SD = 1.05$ ) and the universal film condition ( $M = 2.72$ ,  $SD = 1.11$ ), compared to the no film condition ( $M = 3.18$ ,  $SD = 1.16$ ), both  $p_s < .001$ . In-group identification did not differ between the two film conditions ( $p = .869$ ). This result indicates that the films reduced in-group identification and suggests that lowering in-group identification may (at least partly) underlie the impact of the films on reduced intergroup bias. We return to the role of in-group identification in intergroup bias in the Discussion.

To analyze whether in-group identification moderated the impact of the films, we simplified the design to two conditions (film vs. no film) by collapsing the two film conditions. Identification did not interact with the effect of the films on any of the dependent variables ( $ps \geq .216$ ), except for pro-diversity norms,  $F(2, 896) = 4.16, p = .016, \eta_p^2 = .009$ . In-group identification was a significant negative predictor of pro-diversity norms in the no film condition,  $B = -.129, t(901) = -3.25, p = .001$ , but not in the film conditions,  $t < 1, ns$ . More details and a graphical depiction of the interaction pattern can be found in the Supplementary Online Material.

### **Summary of the Main Results**

The results largely supported H1, albeit only concerning the positive effects on in-group-bias, attitudes, norms, and motivation, not concerning support for anti-discrimination policy or behavior. The results did not support H2, as the effects of the local and universal films were almost identical. The results did support H3: the perception of a dual identity portrayal predicted a stronger bias-reducing effect of the film.

### **Discussion**

This experiment tested the impact of a short, locally made pro-diversity film on intergroup attitudes and behavior of city residents. The research contributes to the literature by showing that 1) watching a short pro-diversity film can reduce in-group favoritism and increase feelings of cohesion, pro-diversity norms, attitudes, and motivation. Against our predictions, watching the film did not increase anti-discrimination policy support or behavior; 2) a local message was not more or less effective than a universal message; 3) the perception of a dual identity message was associated with stronger bias reduction.

The effects were small, but nonetheless, the intervention is promising. Even small effects can have a large impact when they are observed in large audiences. The film lasts

less than four minutes and can be watched at home, which makes for an easy-to-implement, low threshold intervention. More than a third of participants indicated they would be willing to share the film on social media. This is in line with research showing that, to the extent that messages arouse strong, positive emotions, they are more likely to be shared on-line (Berger & Milkman, 2012) and more likely to be talked about in daily conversations (Berger, 2013). Our film a likely candidate for sharing, which implies that the reach of the film may grow rapidly. These results encourage interventions based on indirect contact, and especially parasocial contact, for reducing intergroup bias (Dovidio et al., 2011).

### **Underlying Mechanisms**

An important question is *why* the films reduced intergroup bias. The results provided two clues for understanding the underlying mechanism. First, the films reduced in-group identification and positive in-group emotions. Research shows that intergroup bias often results from in-group enhancement rather than out-group devaluation (Gaertner et al., 1993). The films reduced bias, in part, because they reduced in-group enhancement. Second, the dual identity message proved to be important. Portraying the groups as similar or people as separate individuals was less beneficial for reducing bias. This supports the predictions of the Common Ingroup Identity Model (Gaertner & Dovidio, 2000; Gaertner et al., 1993; see also Gaertner et al., 1994), and extends these earlier findings to parasocial contact portrayed in film. Organizations involved in the creation of pro-diversity media messages are thus advised to emphasize dual identities (Dovidio et al., 2016).

The message of the local film was targeted at the city of Utrecht, but nonetheless most viewers perceived a universal message about human connection and harmony. This may explain why the local and universal film had a similar impact. It seems that the

deeper message of the narrative—that people have more in common than they think—was apparent in both films. These results indicate that the local focus of the film did not help or hinder its impact. Future research may further examine whether parasocial contact targeted at specific audiences are more effective than films with a universal message.

Watching the film did not increase participants' support for the Dutch anti-discrimination policy or anti-discrimination behavior. There are various possible explanations for why these effects did not surface. Likely, these dependent variables are more difficult to change than the other variables. Support for the Dutch anti-discrimination policy does not only depend on people's agreement with the anti-discrimination cause, but also with the way the Dutch government currently addresses this cause. Perhaps the relatively progressive citizens of Utrecht disagree with the way the (currently relatively right-wing) Dutch government handles anti-discrimination issues. Furthermore, whereas most of the dependent variables related to pro-diversity attitudes, these two dependent variables related to anti-discriminative action. Being in favor of diversity is not the same as supporting anti-discriminative action. Finally, changing people's behavior is often more difficult than changing people's self-reported attitudes and intentions, as exemplified by the intention-behavior gap (Sheeran & Webb, 2016).

It is noteworthy, however, that the films did not *reduce* the number of anti-discrimination tips participants read. This is noteworthy because the film conditions were more extensive than the no film condition; they included film watching and answering question about the film. Hence, all else being equal, one may expect participants in the film conditions to spend *less* time reading anti-discrimination tips than participants in the no film condition, because they had spent much time and effort

already. This did not happen, which may speak for the pro-diversity attitude among participants in the film conditions. Based on the current results, however, we cannot conclude that the films increase pro-diversity behavior, and this needs further testing in future studies.

### **Limitations**

The experiment had a number of limitations. The sample was mostly White, older, and born in The Netherlands; hence, we can only generalize the findings to this group in The Netherlands. Future studies should investigate whether the effects are similar in minority groups (e.g., Western and Non-Western immigrants). Furthermore, we only measured short-term impact, and it would be valuable to study how long these positive effects last. This could be done by separating the film screening and the measurement of bias in time. Furthermore, it would be interesting to run a field experiment to test whether people actually share the film on-line or tend to talk about it in face-to-face conversations, as the results of the current study suggest. Such research may also reveal whether repeated exposure and additional face-to face-conversations about the film amplify its impact.

Future research may also test variations of the format and execution of the film. Whereas the current study provided correlational evidence for the importance of dual identity portrayal, future studies may provide experimental evidence by experimentally comparing the impact of different group portrayals (e.g., common identity vs. dual identity). Furthermore, future experiments could reveal whether the film is more impactful depending on the implementation of Allport's optimal conditions for group contact (see Pettigrew & Tropp, 2008). Finally, future research may focus on the importance of the artistic quality of the film and the extent to which it emotionally "moves" viewers. In our study, enjoyment of the film (including being moved by it) was



related to stronger bias-reduction. Participants' artistic and emotional response may depend on a variety of factors, for example on moving music (Strick et al., 2015), whether the people in the film exchange personally sensitive information or not (Collins & Miller, 1994), and whether viewers perceive the film as addressing core human values (e.g., love, solidarity, unity, see Strick & Van Soolingen, 2018).

Several questions remain, but most importantly, the experiment has revealed the potential of a 4-minute film for reducing in-group bias and boosting feelings of cohesion, pro-diversity norms, motivations and attitudes. There is an ongoing need for studies on theory-based interventions that reduce intergroup bias and improve social cohesion in urban environments. This research has revealed that a short film with a dual identity message has small but positive effects on cohesion and inclusion.

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Table 1

Correlations Between Main Study Variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Film appreciation	-									
2. Group portrayal: Similarity	.287***	-								
3. Group portrayal: Individuals	.108**	.203***	-							
4. Group portrayal: Dual identity	.392***	.424***	.164***	-						
5. In-group favoritism	-.096*	.055	-.014	-.112**	-					
6. Feelings of cohesion	.262***	.101*	.006	.223***	-.459***	-				
7. Pro-diversity norm	.227***	.034	.017	.167***	-.246***	.491***	-			
8. Pro-diversity motivation	.310***	.115**	.087*	.201***	-.234***	.472***	.508***	-		
9. Anti-discrimination policy support	.177***	-.002	-.022	.102*	-.259***	.399***	.369***	.394***	-	
10. Pro-diversity attitude	.273***	.057	.030	.099*	-.368***	.448***	.476***	.423***	.448***	-
11. Anti-discrimination behavior	.202***	-.053	-.109**	.143***	-.089**	.163***	.219***	.224***	.180***	.205***

\*\*\*  $p < .001$  \*\*  $p < .01$  \*  $p < .05$

Table 2

Univariate Chi-square and ANOVA Results

<i>CHI-SQUARE TESTS</i>	% Local Film	% Universal Film	% No Film	$X^2$	
Perceived message: Local focus	10.8	3.0	-	14.03**	
Perceived message: Positive/Negative/Unclear	88.9/3.0/6.8	93.3/1.7/4.4	-	3.02	
Willingness to share the film	32.1	34.9	-	0.52	
<i>ANOVAS</i>	$M_{\text{Local Film}} (SD)$	$M_{\text{Universal Film}} (SD)$	$M_{\text{No Film}} (SD)$	$F$ -value	$\eta_p^2$
Film appreciation	3.71 (0.76)	3.77 (0.84)	-	1.00	.002
Group portrayal: Similarity	2.95 (1.04)	2.94 (1.07)	-	0.04	.000
Group portrayal: Individuals	3.45 (0.95)	3.48 (0.96)	-	0.15	.000
Group portrayal: Dual identity	3.53 (0.92)	3.46 (0.96)	-	0.84	.001
In-group favoritism	0.43 <sub>a</sub> (0.58)	0.41 <sub>a</sub> (0.59)	0.63 <sub>b</sub> (0.69)	11.43***	.025
Feelings of cohesion	3.19 <sub>a</sub> (0.69)	3.23 <sub>a</sub> (0.72)	2.99 <sub>b</sub> (0.76)	9.44***	.021
Pro-diversity norm	4.16 <sub>a</sub> (0.56)	4.22 <sub>a</sub> (0.59)	4.06 <sub>b</sub> (0.73)	5.20**	.011
Pro-diversity motivation	3.02 <sub>a</sub> (0.72)	3.09 <sub>a</sub> (0.74)	2.87 <sub>b</sub> (0.78)	6.52**	.014
Anti-discrimination policy support	61.13 <sub>a</sub> (15.91)	62.94 <sub>a</sub> (15.07)	61.27 <sub>a</sub> (17.07)	1.18	.003
Pro-diversity attitude	3.50 <sub>a,b</sub> (0.82)	3.60 <sub>a</sub> (0.80)	3.39 <sub>b</sub> (0.88)	4.53*	.010
Anti-discrimination behavior	8.38 (11.88)	7.43 (11.36)	7.00 (11.19)	1.13	.003

\*\*\*  $p < .001$     \*\*  $p < .01$     \*  $p < .05$

Note: Means that do not share subscripts differ within rows at  $p < .05$



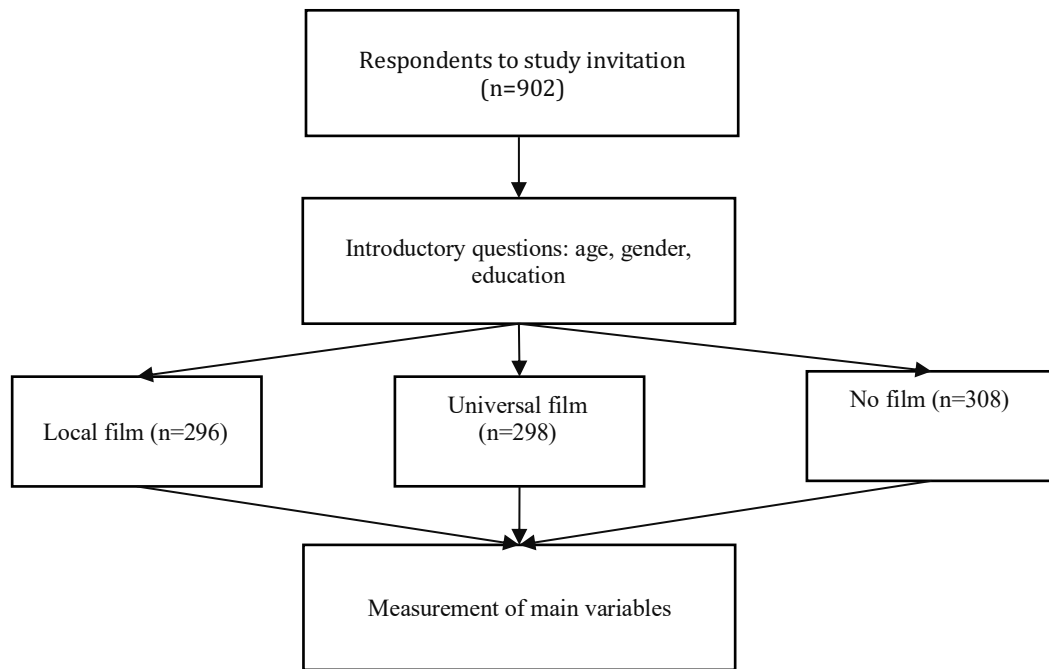


Figure 1. Flow diagram of the procedure.