An experimental study of contact effects and their persistence on Malawian shopkeepers’ willingness to spend future time with their Chinese counterparts

Jun Gu1, Annika Mueller2, Ingrid Nielsen3, Jason Shachat* and Russell Smyth4

Abstract:
The last decade has seen a massive influx of Chinese migrants to sub-Saharan Africa, where many have opened small businesses to compete amongst local merchants. These Chinese have often met resistance from the local competition, resulting in a sharp social divide. The current paper draws on Allport’s (1954) contact hypothesis theory and reports on the results of two experimental studies that examined the effects of direct and imagined contact on indigenous Malawian shopkeepers’ willingness to spend future time with their Chinese counterparts. Results show that direct contact led to Malawians’ greater willingness to spend time with their Chinese counterparts, and this effect persisted over a time period of ten days, when a follow up survey was conducted. In contrast, imagined contact did not change Malawians’ willingness to spend future time with Chinese. Implications of these results for China’s ambitions to introduce its development model into Africa are discussed.

Keywords: Chinese migrants in Africa, social contact, Chinese small business

*Corresponding author. E-mail: Jason.shachat@durham.ac.uk, Durham University Business School Mill Hill Lane, Durham City, DH1 3LB, United Kingdom. Telephone: +44 (0) 191 3345895
1 Department of Management, Monash University
2 WISE, Xiamen University
3 Deakin Business School
4 Department of Economics, Monash University, Australia

Author Note: We are grateful for the generous support our study received from the Office of the District Commissioner of Lilongwe. We thank the leaders of the Community of Chinese Businessmen, Malawi, for granting access to their community and for fruitful collaboration. We thank our project associates Lonnie Mwamlima and Tianfan Lin for their dedication, which made the fieldwork and data collection a success. We also thank Marumbo Munyenemme for key contributions to the fieldwork, not least in the form of logistical support. Annika Meuller acknowledges funding from Xiamen University, and Jason Shachat acknowledges funding from the Fujian Overseas High Talent Program.

© 2015 Jun Gu, Annika Mueller, Ingrid Nielsen, Jason Shachat and Russell Smyth
All rights reserved. No part of this paper may be reproduced in any form, or stored in a retrieval system, without the prior written permission of the author
Chinese outward migration and proliferation of small-scale Chinese enterprises has been increasing since the introduction of more liberalized emigration policies in China in the 1980s. Chinese presence has created inevitable social frictions with the indigenous populations of several host countries, yet academic research into the dynamics of these frictions remains scant. The current research seeks to fill this gap by employing two randomized experimental studies to test the effect of direct intergroup contact and imagined intergroup contact between Chinese migrant and Malawian shopkeepers. In the first study, we test the effect of “pleasant and co-operative” contact (see Hewstone & Brown, 1986) on the willingness of Malawians to spend future time with the Chinese and the stability of this effect over time. In the second study, we employ the notion of imagined contact (Crisp & Turner, 2009) to test whether Malawian shopkeepers imagining contact with their Chinese counterparts can change the willingness of Malawians to spend future time with the Chinese and the stability of this effect over time. Our results have direct implications for breaking down entrenched barriers between local and Chinese migrant populations in Africa.

Background to the Study

The last decade has seen a massive influx of Chinese migrants into Sub-Saharan Africa. Though reliable figures are hard to come by, Sautman (2006) estimates that the number of Chinese migrants in South Africa alone grew from about 30,000 in 2001 to between 100,000 and 300,000 in 2006. This scale of foreign migration of a group with no traditional or colonial ties to Africa is unique. Apart from its scale, the Chinese diaspora in Africa is also qualitatively unique in that the Chinese, unlike other migrant populations with commercial interests, lack cultural or linguistic ties to Africa (for example, Indian migrants in former British colonies in Africa share a common language and certain institutions with the local populace). The
influx of Chinese products and the proliferation of small Chinese enterprises have led to lower prices for a range of products and increased competition for local businesses. Further, the presence of Chinese traders has also greatly expanded the choice set of African consumers (McNamee, Mills, Manoeli, Mulaudzi, Doran & Chen, 2012).

Political reactions to Chinese presence have been mixed. While Malawian leaders such as the late president Dr. Bingu wa Mutharika and the former president Joyce Banda have largely welcomed Chinese investment, there have also been recent laws condemned by civil rights groups as xenophobic. As an example, the Investment and Export Promotion Bill, which was enforced starting July 31 2012, was aimed mainly at Chinese private traders and barred foreigners from carrying out trade in Malawi’s rural areas (Ngozo, 2012).

For the man in the street, the social frictions associated with the Chinese emigration manifests in different ways. Chinese firms are perceived by local Malawians as bad employers who have little regard for labor laws and workers’ rights (Chinguwo, 2008). In some countries, ill will is growing amongst African customers over the perceived poor quality of some Chinese goods (McNamee et al., 2012). For their part, Chinese traders feel misunderstood. In a survey-based study of Chinese private traders in South Africa, Lesotho, Botswana, Zambia and Angola, McNamee et al. (2012) found that Chinese traders pride themselves on their work ethics and believe that their mind-set is neither comprehended nor shared by their African customers or employees.

Overlaying Chinese migration to Africa are China’s own political ambitions on that continent. China has poured large amounts of foreign aid into Africa, which is tied to expanding its strategic interests there. In 2013 China’s foreign aid budget was US$6.4 billion, equivalent to 0.07 percent of the country’s GDP (Brant, 2014).
Between 2010 and 2012, China provided US$14.4 billion of aid to 121 countries; of which 51 were in Africa (Brant, 2014). China wants to work with African nations to promote the notion of a Chinese development model in Africa, as an alternative to the Washington Consensus United States inspired pro-market approach to development in Africa (Davies, 2008; Friedman, 2009). One has to wonder how much these Chinese development efforts are at risk because of the accompanying social frictions? Further, can the utilization of positive and cooperative social contact provide a grass roots driven dissipation of the frictions?

We conduct our studies in Lilongwe, which is the capital of Malawi. Malawi is a small land locked country in South East Africa with an approximate population of 16.36 million people. The Malawian economy is largely agrarian and under diversified; tobacco accounts for the majority of its export earnings (Ministry of Industry & Trade, 2002). Thus foreign investment and access to the Chinese export market have been welcome. Formal diplomatic relationships were established between China and Malawi in 2008 after Malawi severed its 41-year old ties with Taiwan. This led to a surge in migration from China in the form of construction workers and private traders. The current size of the Chinese business community in Lilongwe, not including construction workers, is approximately 2000.

**Intergroup Contact**

Allport (1954) first proposed what has become known as the contact hypothesis sixty years ago. The contact hypothesis states that intergroup contact between different social groups can reduce prejudice towards the other group. The key principles of Allport’s (1954) original idea have been articulated in intergroup contact theory (Browne & Hewstone, 2005). Importantly, for contact to reduce prejudice, the contact event must be pleasant in nature and involve an element of
cooperation toward a shared goal. Mere incidental contact is not sufficient to reduce prejudice (Hewstone & Brown, 1986).

Existing research demonstrates that pleasant and co-operative contact acts to reduce prejudice via a range of affective mediating processes, including reduced intergroup anxiety and increased self-disclosure and trust (Crisp & Turner, 2012; Pettigrew, 1998). In particular, Pettigrew (1998) identifies four processes of change: learning about the other group, changing behavior, generating affective ties and same-group reappraisal. Among these, emotions, or affect, are a particularly important mediating mechanism, with evidence suggesting that “pleasant and co-operative” contact reduces prejudice by diminishing negative affect (anxiety/threat) and inducing positive affect, such as empathy (Tausch & Hewstone, 2010; Pettigrew & Tropp, 2006).

While a large literature has confirmed the contact hypothesis (Pettrigrow & Tropp, 2006), studies involving Chinese migrant groups are limited. There are studies that have found that intergroup contact between adult rural-urban migrants and those with an urban hukou (household registration) in China are correlated with more positive attitudes towards the other group (Nielsen, Nyland, Smyth, Zhang & Zhu, 2006; Nielsen & Smyth, 2011). Similarly, research suggests that intergroup contact between Chinese migrants in the Italian town of Prato is positively correlated with more favorable attitudes among the Chinese migrants towards local Italian residents (Nielsen, Paritski & Smyth, 2012). A limitation of each of these studies is that because they use cross-sectional self-report data, they are only able to establish correlation, and not causation, between contact and attitude change. Gu, Nielsen, Shachat, Smyth and Peng (2014) used an experimental design with random treatment assignment to test the effect of intergroup contact on attitudes between a group of
urban adolescents and a group of rural-urban migrant adolescents in China. Their results showed that intergroup contact in the form of a fun and cooperative puzzle reduced negative attitudes towards the other group.

While we are not aware of other studies evaluating intergroup contact in Malawi, there are numerous studies focused on the effects of interracial contacts in South Africa. The evidence is mixed. During the period of apartheid, some studies showed significant effects such as Luiz and Krige (1981 and 1985) that found positive and cooperative contact increased positive attitudes between white and colored South African adolescent girls. Moreover this study is one of the few that measure the persistence of attitude change; they found the positive shift persisted a year after the contact event. On the other hand, studies such as Foster and Finchilescu (1986), find the effect of contact does not overcome the ingrained identities. The post-apartheid has provided a unique natural experiment to evaluate interracial contact. Much of this literature offers mixed results with some finding positive evidence, for example Gibson (2004), and others mixed, for example Dixon, Durrheim and Tredoux (2007) and Durrheim and Dixon (2010).

**Imagined Contact**

Crisp and Turner (2009) proposed a variation on Allport’s (1954) contact hypothesis, such that contact in the form of an imagined interaction with an outgroup can produce more positive perceptions of an ingroup. The logic is that when one imagines intergroup contact they engage in conscious processes that parallel those involved in actual contact. This, in turn, should lead to more positive evaluations of the outgroup, similar to the effects of actual intergroup contact (Crisp & Turner 2012, 2013). Their elements of imagined contact are simulation and positive tone. Simulation entails imagining engaging in an interaction that involves some joint
activity, in which the groups cooperate. Positive tone means that that interaction should be regarded as comfortable, positive and relaxed (Crisp & Turner, 2012).

Since Crisp and Turner (2009) first proposed the notion of imagined contact as a means to reduce prejudice, a number of studies have shown imagined contact to generate positive outcomes. Imagined contact has been shown to improve both explicit and implicit attitudes towards the outgroup, contact self-efficacy (confidence in one’s ability to interact effectively with outgroup members), intention to seek out members of the outgroup and non-verbal behaviors towards the outgroup (see Crisp & Turner, 2012, 2013 for reviews). In a meta-analysis of seventy-one published and unpublished studies of the imagined contact hypothesis, Miles & Crisp (2014) found that imagined contact resulted in significantly reduced intergroup bias in attitudes, behavior, emotions and intentions across a broad range of outgroups and contexts (overall \(d = 0.35\)).

The mechanisms through which imagined contact generates positive outcomes are both affective and cognitive (Crisp & Turner, 2012). Imagined contact operates through similar affective processes to direct intergroup contact; namely, by reducing intergroup anxiety and promoting outgroup trust. Imagined contact also provides a cognitive basis for reduced anxiety about outgroup contact in the form of a positive mental script for what to expect in future encounters. This positive mental script engenders positive emotions, such as forgiveness and trust, and reduces negative emotions, such as anxiety at actual contact with the outgroup (Crisp & Turner, 2012).

**Time Effects**

If actual or imagined contact changes attitudes, for this to have a lasting effect on reducing prejudice, it is important that the change in attitude remains stable over time. This issue has been rarely addressed in the contact hypothesis literature or
indeed in any attitude research. One exception is Enos (2014) who performed a randomized control experiment in which Spanish-speaking confederates were randomly assigned to be inserted, for a period of days, into the daily lives of Anglo-whites living in homogenous communities in the United States, thus simulating demographic change. The result was a significant increase in exclusionary attitudes among treated subjects. Enos (2014) randomly surveyed participants subject to a treatment three days and ten days after the treatment to provide insights into the longer-term effects. He found that the treatment effects were considerably stronger after three days than ten days.

**The Current Research**

In alternative studies, we examine whether direct contact and imagined contact changes the behavioral intentions of Malawian shopkeepers toward Chinese shopkeepers. The Chinese phenomenon which we address is the widespread outward migration of Chinese and proliferation of small-scale Chinese enterprises outside China since rules on emigrating from China were relaxed in the 1980s and how better integration of Chinese immigrant and local communities can be realized.

The more specific Chinese phenomena that we address are Chinese migration to Africa and the development of Chinese commercial interests in Africa. The latter has largely occurred over the last decade and has resulted in the need to promote cooperation between the Chinese migrant populations and their local hosts. We focus on the capacity of contact to effect behavioral change of Malawians toward the Chinese because our emphasis is on ways to improve cooperation between the migrant Chinese population and domestic commercial groups. Though large-scale Chinese firms operate in key resource-based industries, for most Africans, the most visible sign of Chinese presence is that of private traders in goods markets (Broadman
2007; Giles & Tan-Mullins, 2009). If behavioral intentions toward Chinese shopkeepers - the front line of China’s expansion objectives - are improved, this potentially has implications for grass roots political acceptance of China’s broader ambitions in Africa.

We extend the literature in the following directions: First, we extend the study of direct and imagined contact to a novel international migration context and examine the efficacy of both direct and imagined contact to effect change in behavioral intentions. Second, we examine whether any change in behavioral intention from direct or imagined contact remains stable over time. Third, we examine a peculiarly Chinese phenomenon of growing importance and contribute to the literature on integration of Chinese migrant populations with local communities abroad.

Specifically, we test the following hypotheses:

H1: Direct contact of a pleasant and cooperative nature between Malawian shopkeepers and their Chinese counterparts will make Malawian shopkeepers more willing to spend time with Chinese shopkeepers in general.

H2: Imagined contact of a pleasant and cooperative nature between Malawian shopkeepers and their Chinese counterparts will make Malawian shopkeepers more willing to spend time with Chinese shopkeepers in general.

H3. The expressed change in willingness to spend time with Chinese shopkeepers in general will be stable over time.

Method

Study 1

Participants. A total of sixty indigenous Malawian and sixty Chinese shopkeepers participated in the study for monetary compensation. Table 1 provides summary statistics for all participants. To recruit the Malawian subjects, recruiters
identified markets and other areas with a large number of shops. Within each such area, the recruiters selected shops based on location with the goal of recruiting Malawian participants from shops as distant as possible from each other. Participants were told that they would be participating in a study for up to one and a half hours duration which would involve a survey and a simple, pleasant task. To gain access to the Chinese migrant shopkeeper population, we worked closely with the Community of Chinese Businessmen, Malawi. We identified six community leaders who assisted our recruiting efforts by disseminating basic information about our study to the community. Participants were told that they would be participating in a study for up to one and a half hours in duration which would involve a survey and a simple, pleasant task.

Materials and procedure. The materials consisted of name cards that provided the names of each dyad pair, jigsaw puzzles, script protocols to direct the dyads in each of the treatment and control groups and a follow-up survey questionnaire. The written materials were in Chichewa and Chinese, translated from English materials.

The study employed a randomized experimental design with a treatment to induce direct pleasant and cooperative contact. Participants received 5000 Malawian Kwacha (MWK) as a show-up fee and another 2000 MWK as a transportation fee at the end of their session ($1 \approx 390$ MWK at the time of the study).

The study consisted of six sessions, two per day, conducted over the 5th, 6th, and 7th of July 2014. Six sessions were run in total: the first three constituted the control group, the latter three the treatment group. In each session the Malawian and Chinese participants were randomly paired to form dyads. As a result, half of the dyads were randomly selected into a treatment group where they engaged in a direct
contact event with their dyad partner, while half were randomly selected into a control group where they did not engage in direct contact with their dyad partner.

A session proceeded as follows: each dyad was seated side by side at a desk. Each participant was given a name card, with his or her last name (e.g., “Banda” and “Ming”, respectively). Once seated, participants in each dyad were instructed to exchange name cards and pronounce their own last name clearly so that each participant could learn the name of their counterpart. Each dyad was then asked to complete two jigsaw puzzles, a task that was perceived by the participants as enjoyable yet requiring cognitive ability and cooperation on their part to achieve the common goal.

We used the following procedure to manipulate the amount of contact between the treatment and control groups. We gave two comparable jigsaw puzzles per dyad. In the treatment group, each dyad was asked to jointly solve the puzzles one after the other, with the order randomly assigned. In the control group, each dyad was asked to solve both puzzles as well; however, in this case each of the members were randomly assigned one of the puzzles to solve individually. All the participants were given a maximum of one hour to complete the jigsaw puzzle task. After the jigsaw puzzle task, the participants completed a short survey that included demographic and socio-economic questions and our key question to assess a participant’s future willingness to spend time with the Chinese migrants. Participants responded using a five-point Likert scale (1= very willing, 3=neutral, 5=very unwilling.)

Study 2

Participants. A total of sixty Malawian shopkeepers participated in the study for cash compensation. While these participants were different individuals to those
who participated in Study 1, they were recruited using the same strategy as per the Malawian participants in Study 1.

**Materials and procedure.** The materials consisted of scripts to direct the imagined contact protocols and follow-up survey questionnaires. Consistent with Study 1, the written materials were in Chichewa translated from English materials.

The study employed a randomized experimental design with a treatment to simulate imagined pleasant and cooperative contact. Participants received 5000 MWK as a show-up fee and another 2000 MWK as a transportation fee at the end of their session ($1 \approx 460 \text{ MWK}$ at the time of the study). The experiment consisted of six sessions, two per day, conducted over the 2\textsuperscript{nd}, 3\textsuperscript{rd} and 4\textsuperscript{th} of November 2014. Again, the first three session were used to create a control group and the latter three to create a treatment group (thirty participant per group).

A session proceeded as follows. Participants were read a story about climbing Mount Mulanje (one of the two most famous natural sights in Malawi and a popular destination for hiking/climbing among Malawians and Chinese alike) with a shopkeeper they meet for the first time at the foot of the mountain. Our script described the interaction with the shopkeeper as enjoyable and emphasized the cooperative nature of the interaction required to reach the common goal. We used the following procedure to manipulate imagined contact: the participants were asked to either envision a Malawian (control group) or Chinese (treatment group) shopkeeper as their travel companion. During the reading of the script several breaks were provided for visualization. Please see the Appendix for the full instructions used to manipulate imagined contact. Afterwards, a survey asked participants details about the script that was read out to them, as well as about what they themselves visualized. Subsequently, the same survey tool as for the direct contact study was administered.
Follow Up

We conducted follow-up surveys for both Studies 1 and 2 via phone. In both cases, the project associates called participants exactly ten days after the date of their initial participation. The follow-up studies comprised of a survey in which a subset of the questions from the initial participation were asked again, including our key question of interest regarding the willingness to spend time with a member of the other group. We obtained follow-up responses for all one hundred and twenty Malawian participants and fifty-seven out of the sixty Chinese participants.

Results

There is significant improvement in Malawians’ willingness to spend time with a Chinese person when direct contact has occurred. This improvement is persistent ten days after the direct contact. On the other hand, there is no improvement following imagined contact.

We start by presenting histograms for the responses, both the initial and follow-up solicitations, to the willingness to spend time with a Chinese person question. Figure 1 is a 2X2 array of histograms. The rows of the arrays correspond to the two studies: the top row for the direct contact study, and the bottom row for the imagined contact study. The left column corresponds to the treatment group and the right column corresponds to the control group. Each histogram reports the response counts for the initial responses, black bars, during the experiment and the follow-up responses, light grey bars, collected ten days later.

--Insert Figure 1 about here--
These histograms provide visualization of our main results. In the direct contact study, the distribution of the initial treatment groups’ responses is more concentrated on the lower responses. This reflects a greater behavioral intention to spend time with Chinese individuals than that of the control group. There is no apparent difference between the initial responses of the treatment and control groups in the imagined contact study. Further, in all four cases, the distribution of follow-up responses closely matches that of the corresponding initial response. For the case of the direct contact, this is evidence that the contact effect sustains for at least ten days.

Next, we formally test our hypotheses. We first examine treatment effects. In Table 2, the third and fourth rows report the means and standard deviations respectively of the responses in treatment and control groups for the two studies. Consider hypotheses H1 and H2; treatment groups will express a stronger willingness to spend time with a Chinese person. We formally evaluate this with a one-tailed $t$-test comparing the response means of the treatment and the control group. The null hypothesis is the means are equal, and the alternative is that the control mean is larger. In the direct contact study, the mean response is 1.63 for the treatment group, and 2.17 for the control group. We reject the null in favor of the alternative with a $p$-value slightly larger than 1%; see rows five and six. Given the number of observations for each group is just thirty and the histograms not indicating a normal distribution for responses, we also conduct the same hypothesis test using the more appropriate Wilcoxon rank-sum test. We reach the same conclusion with this hypothesis test.
We use the same two statistical tests to evaluate the hypothesis that groups exposed to imagined contact will express a stronger willingness to spend time with a Chinese person. The treatment group mean is 2.93, and the control group mean is 2.83. Correspondingly, we fail to reject the null for either the $t$-test or Wilcoxon rank-sum test.

Lastly, we address hypotheses that any boosts to Malawians’ willingness to spend future time with Chinese as a result of contact are sustainable. In rows three through six of Table 3, we report the means and standard deviations of initial and follow-up responses for each of the four groups. Of greatest interest is the change in the direct contact treatment group responses. Here we see a small increase in the mean from 1.63 to 1.77 in the follow-up survey. Of the four initial/follow-up response pairs this is the only exhibiting non-negligible switching; one-third of the responses differ in the follow-up.

--Insert table 3 about here--

We first use a paired $t$-test asking whether the mean of the thirty changes in response, initial – follow-up response, is zero. The alternative hypothesis is that the contact affect dissipates, i.e. the mean of the changes in response is negative. The $t$-test, columns ten and eleven, fails to reject the mean of the differences is zero. We conduct a Wilcoxon signed-rank test to dispense with the assumption that the response differences are normally distributed. In this case, the null hypothesis is that the median of the initial response is equal to that of the follow-up response, and the alternative hypothesis is that median of the initial response is strictly lower. Again we fail to reject the null hypothesis, with a similar $p$-value.
General Discussion

A vast body of literature now attests to the influence that pleasant and cooperative intergroup contact events can have on ameliorating negative attitudes towards outgroups. Relatively less is known about the impact that such contact events have on changing actual behavior towards outgroups. If behavioral intentions are mechanisms through which cognition spills into behavior, then understanding how contact influences intentions is an important step forward in understanding the broader dynamics of Allport’s (1954) contact hypothesis. Consistent with this view, Crisp, Husnu, Meleady, Stathi and Turner (2010) argued that the willingness of people to seek out future contact experiences should be an important consideration of any intervention designed to promote positive intergroup relations.

Our two studies employed randomized experiments to examine the immediate and sustained effects of both direct and imagined pleasant and cooperative contact on local Malawian shopkeepers’ behavioral intentions toward Chinese migrant shopkeepers. Specifically, we tested whether direct and imagined contact facilitates Malawians’ intended approach behavior with respect to Chinese migrants, measured as willingness to spend future time with the Chinese migrant shopkeepers. A particular strength of our study is that we tested the effects of these different contact media – actual and imagined contact – on behavioral intention immediately after the contact event and again ten days later to assess the persistence of any change in behavioral intentions.

In terms of the effect of direct contact, we found that Malawian subjects in the treatment group reported a significantly greater willingness than those in a control group to spend future time with the Chinese migrant shopkeepers (H1). This finding adds to a relatively small body of literature examining the effects of contact on
intentions. Consistent with results reported by Christ, Hewstone, Tausch, Wagner, Voci, Hughes and Cairns (2010), Tam, Hewstone, Kenworthy and Cairns (2009) and Wagner, Christ and Pettigrew (2008), subjects in our study were more likely to report a willingness to spend future time with the identified outgroup following a pleasant and cooperative contact event, suggesting that even the simplest forms of contact, such as completing a jigsaw puzzle, have the capacity to influence intentions. Taken with results from Webb and Sheeran’s (2006) meta-analysis of forty-seven experimental tests of intention–behavior relations that show a medium-to-large change in intention \( (d = 0.66) \) leads to a small-to-medium change in behavior \( (d = 0.36) \), our results point to direct pleasant and cooperative contact as a viable mechanism to foster more positive behavioral interaction between these segregated groups.

Recent research has called for studies that investigate whether changes in emotional responses are persistent over time (Brambilla, Ravenna & Hewston, 2012). In follow up surveys, we found the significant effect of direct pleasant and cooperative contact on behavioral intentions persisted ten days after the direct contact event, supporting our third hypothesis. We show that direct contact of the form envisaged by Allport causes changes in behavioral intentions that are oriented toward inclusionary behavior and, furthermore, that these behavioral intentions are stable over at least ten days. The current study is hence suggestive of the power of contact to effect lasting change in behavioral intentions and in this specific case, approach behavior.

In terms of the effect of imagined contact, we found no significant difference in willingness to spend future time with the Chinese migrant shopkeepers between
those Malawians randomly selected into the treatment group and those randomly
selected into the control group. We hence found no support for our second hypothesis.
In follow up surveys ten days after the imagined contact event, subjects in both the
treatment and control groups reported almost identical mean scores to their T1 scores
on the measure of willingness to spend future time with the Chinese shopkeepers,
suggesting that the null effect of imagined contact persisted over this time frame.

These results add to a body of some seventy papers on imagined contact.
Overall, existing studies have found results consistent with the theory. For example,
Birtel and Crisp (2012) showed that imagined contact reduces negative aspects of
outgroup evaluation, such as outgroup anxiety. Turner, Crisp and Lambert (2007)
used imagined contact protocols to show that this form of contact leads to a
preference to work with an outgroup; and to more favorable attitudes about an
outgroup. Other recent studies have reported that imagined contact conditions have
been useful in reducing negative attitudes toward cultural minority groups such as
Muslims (Husnu & Crisp, 2010) and indigenous groups (Stathi & Crisp, 2008). In
terms of behavioral intentions, Husnu and Crisp (2010a; 2010b) found that imagined
contact fosters more positive intentions to engage in outgroup contact.

However, the idea of imagined contact has not been without its critics and there
have been some imagined contact studies that have not been able to replicate this
support. Dermody, Jones and Cumming (2013) found no support for the effectiveness
of imagined contact in reducing prejudice towards homosexuals. McDonald,
Donnellan, Lang and Nikolajuk (2014) were unable to replicate Birtel and Crisp’s
(2012) outgroup anxiety results, although Crisp and Birtel (2014) have suggested that
issues with data and design may underlie McDonald et al.’s conclusions.
Why has imagined contact had no effect on behavioral intentions in the context of the current study? A likely reason for the lack of effect may simply be that the social divide between Malawian locals and Chinese migrants in Malawi is so wide that a single imagined contact event does not have sufficient power to effect changes in behavioral intention. Turner and Crisp (2010) acknowledged that imagined contact might not be as powerful or as long lasting as face-to-face contact, based on the notion that direct experiences produce stronger attitudes than indirect experiences (Stangor, Sullivan & Ford, 1991). Where direct and indirect contact has been studied concurrently, direct contact typically shows stronger effects on attitudes (Paolini, Hewstone & Cairns, 2007), consistent with this conjecture.

**Implications**

The results of the first study suggest that developing strategies that facilitate direct contact between Chinese migrant and local communities in Malawi can facilitate change in the intentions of Malawians to interact with this migrant group. This bodes well for reducing prejudice against Chinese migrants in Africa, particularly since this effect shows some resilience. However, the results from the second study suggest that in the Malawi context at least, an isolated one time imagined contact intervention may not be enough to change behavioral intentions.

As part of China’s rise as an economic superpower, China’s engagement with Africa is emerging as an important economic and political phenomenon. China’s entry into Africa is part of a long-term strategy. However, there is mistrust in some African nations about the true intent of the Chinese (Davies, 2008) and such mistrust has the capacity to act as a barrier to broader acceptance of the Chinese model. This mistrust has been a source of African political forces pushing back against China’s strategy. For example, in 2011, Michael Sata, the leader of the largest opposition
party, Patriotic Front (PF), made resistance against Chinese ‘exploitation’ of Zambia’s natural resources and workforce a key campaign platform (McGreal, 2007; Palitza, 2011).

Chinese shopkeepers, such as those recruited for the current study, are a significant component of the interface between the Chinese development model and the everyday Malawians. If Malawian shopkeepers have more positive behavioral intentions toward their Chinese counterparts, they may be more likely to support the broader, higher level ambitions of the Chinese government. That direct contact facilitates change in the behavioral intentions of these Malawians toward the Chinese shopkeepers, and that the change is stable, has important practical implications. Where there is mistrust and anxiety about the perceived true objectives of the Chinese exist, that there is a foundation for addressing it.

Limitations and Future Research

One limitation of these studies is that they are confined to a specific cultural setting with implications for the generalizability of our findings. Nevertheless, for nuanced interventions to be tailored to specific contexts, data such as these are important informants of conflict resolution strategies. Further studies are required in more diverse contexts to build a more complete picture of how both direct and imagined contact effect changes in behavioral intentions, given the informative power of intentions on subsequent behavior. Together, such studies have the capacity to inform intervention strategies drawing upon theoretical contentions from Allport’s contact hypothesis theory as well as broader theories of attitude-behavior relations.

A second potential limitation is that the imagined contact study was designed as a single treatment, whereas this contact strategy requires multiple treatments to effect changes in behavioral intentions where ingrained prejudice and widespread
socio-economic disparities exist. Future studies are required to more fully understand the role of imagined contact on both attitudes and intentions; particularly those that use imagined contact protocols to prime direct contact studies.

Finally, while we have tested the effect of contact on intentions of a majority group, future research should also be undertaken to examine the effect of different contact media on minority group intentions.

References


Table 1: Summary Statistics For Study Participants

<table>
<thead>
<tr>
<th>Study</th>
<th>Treatment or Control</th>
<th>Subjects</th>
<th>Females</th>
<th>Secondary School Graduates</th>
<th>Average Age</th>
<th>Average Monthly Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>Treatment</td>
<td>30</td>
<td>19</td>
<td>27</td>
<td>30.6</td>
<td>MWK 66,383</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>30</td>
<td>15</td>
<td>22</td>
<td>29.8</td>
<td>MWK 57,667</td>
</tr>
<tr>
<td>Imagine</td>
<td>Treatment</td>
<td>30</td>
<td>7</td>
<td>20</td>
<td>35.9</td>
<td>MWK 57,617</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>30</td>
<td>17</td>
<td>24</td>
<td>28.4</td>
<td>MWK 38,500</td>
</tr>
</tbody>
</table>
Table 2: Hypothesis Tests for Treatment Effects

<table>
<thead>
<tr>
<th></th>
<th>Direct Contact</th>
<th>Imagine Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Treatment</td>
<td>Control</td>
</tr>
<tr>
<td>Mean</td>
<td>1.63</td>
<td>2.17</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>(0.76)</td>
<td>(0.99)</td>
</tr>
<tr>
<td>$H_0$: Mean Treatment = $t$-statistic</td>
<td>$-2.34^{**}$</td>
<td>0.34</td>
</tr>
<tr>
<td>Mean Control</td>
<td>0.01</td>
<td>0.63</td>
</tr>
<tr>
<td>$H_A$: Mean Treatment &lt; $\text{Wilcoxon z-stat.}$</td>
<td>$-2.20^{**}$</td>
<td>-0.45</td>
</tr>
<tr>
<td>Mean Control</td>
<td>0.01</td>
<td>0.67</td>
</tr>
</tbody>
</table>

*, **, *** indicate rejection of the null hypothesis at the 10%, 5%, and 1% level respectively
Table 3: Time Effects Statistics Comparing Initial and Follow-up Responses

<table>
<thead>
<tr>
<th></th>
<th>Direct Contact</th>
<th>Imposed Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Treatment</td>
<td>Control</td>
</tr>
<tr>
<td><strong>Initial</strong></td>
<td>Mean</td>
<td>1.63</td>
</tr>
<tr>
<td></td>
<td>Standard Deviation</td>
<td>(0.76)</td>
</tr>
<tr>
<td><strong>Follow-up</strong></td>
<td>Mean</td>
<td>1.77</td>
</tr>
<tr>
<td></td>
<td>Standard Deviation</td>
<td>(0.97)</td>
</tr>
<tr>
<td><strong>Count</strong></td>
<td>Follow-up &gt; Initial</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Follow-up = Initial</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Follow-up &lt; Initial</td>
<td>3</td>
</tr>
<tr>
<td><strong>Paired t-test</strong></td>
<td>t-statistic</td>
<td>-0.81</td>
</tr>
<tr>
<td></td>
<td>p-value</td>
<td>0.21</td>
</tr>
<tr>
<td><strong>Wilcoxon signed-rank test</strong></td>
<td>z-statistic</td>
<td>-1.15</td>
</tr>
<tr>
<td></td>
<td>p-value</td>
<td>0.13</td>
</tr>
</tbody>
</table>
Figure 1: Histograms Of The Initial And Follow-up Responses To The Willingness To Spend Time With A Chinese Person In The Direct And Imagined Contact Studies.
Appendix: Instructions used to manipulate imagined contact.

Contact condition

“We are interested in people’s ability to imagine and visualize events. We would like you to spend the next 10 minutes imagining yourself meeting a Chinese shopkeeper for the first time. Together you will climb to the top of Mount Mulanje together. You meet the shopkeeper and a guide in the market. You shake the shopkeeper’s hand and you exchange names. Imagine the Chinese shopkeeper’s appearance. In the market you buy provisions to take on your trip together. After passing the first meadow, you enter the woods and must cross a stream. You help each other to balance and walk across large rocks to do this. Then you cross tea plantations as the slope gets steeper. You help take photos of each other and share water and snacks. After the tea plantations, the slope grows steeper. You and the Chinese shopkeeper help each other over large rocks and up steep paths. After three hours you reach the summit. To celebrate your achievement, one of you cooks a lunch you enjoy together, and the other cleans the pots and dishes. Finally you take photos of each other and the guide takes photos of you together with the Chinese shopkeeper.”

Control condition

“We are interested in people’s ability to imagine and visualize events. We would like you to spend the next 10 minutes imagining yourself meeting another Malawian shopkeeper for the first time. Together you will climb to the top of Mount Mulanje. You meet the shopkeeper and a guide in the market. You shake the shopkeeper’s hand and you exchange names. Imagine the shopkeeper’s appearance. In the market you buy provisions to take on your trip together. After passing the first meadow, you enter the woods and must cross a stream. You help each other to balance and walk across large rocks to do this. Then you cross tea plantations as the slope gets steeper. You help take photos of each other and share water and snacks. After the tea plantations, the slope grows steeper. You and the Malawian shopkeeper help each other over large rocks and up steep paths. After three hours you reach the summit. To celebrate your achievement, one of you cooks a lunch you enjoy together, and the other cleans the pots and dishes. Finally you take photos of each other and the guide takes photos of you together with the Malawian shopkeeper.”