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Why is Helping Behavior Declining in the United States but not in Canada?:

Ethnic Diversity, New Technologies and other Explanations

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Abstract:

This paper explores whether there has been a recent decline in helping behavior in the United States. In a lost letter experiment, 7,466 letters were “lost” in sixty-three urban areas in the United States and Canada in 2001 and 2011. There has been a 10% decline in helping behavior in the United States, but not in Canada. Two arguments anticipate change in the level of help provided to strangers: the rise of new technologies, and neighborhood racial and ethnic diversity. Findings exclude increased privatism as a source for the decline in helping. In 2001 there was no variation in altruistic behavior based on neighborhood diversity. However, areas of the United States where the proportion of noncitizens increased since 2001 experienced reduced helping; the opposite was found in Canada. Possible explanations including changing attitudes toward noncitizens, and differences in public policy related to economic inequality, social inclusion, and the acceptance of multiculturalism.

Key words:

social capital, hunker down, immigration, telework, telecommuting, urban planning, internet, 9/11

Why is Helping Behavior Declining in the United States but not in Canada?:

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Introduction

In 1964, under the gaze of unresponsive neighbors, the stabbing death of Kitty Genovese in New York City prompted social psychologists to investigate helping behaviors in the urban environment (Milgram 1970). Higher rates of unplanned helping behavior have since been tied to a range of neighborhood outcomes, including lower homicide rates, lower crime rates, fewer teen pregnancies, and lower infant mortality (Sampson 2012). The Gallup World Poll, a comparative survey of 127 countries, has consistently found that self-reported rates of having “helped a stranger” are amongst the highest within the United States (Charities Aid Foundation 2011; Charities Aid Foundation 2015). However, recent changes to the ethnic and racial diversity of the country (Putnam 2007), and the widespread adoption of new information and communication technologies (Ajay, Pocheptsova and Ferraro 2012; Greitemeyer and Osswald 2010) have been suggested as possible sources for a recent decline in helping behavior. While the literature has documented deterioration in a range of civic and civil behaviors (Putnam 2000), there have been few attempts to study change in the unplanned helping behavior provided to strangers (Reysen and Levine 2014).

This research explores the question of whether there has been a decline in helping behavior in the United States since 2001. It is based on a unique dataset – the results of a “lost letter” experiment conducted in the summer of 2001 and again in the summer of 2011 – designed to measure unplanned helping behavior in sixty-three urban areas in the United States and

Canada. The unique nature of these data permits an assessment of large-scale change in helping behavior over time, a comparison between two culturally and geographically similar countries, and the exploration of how neighborhood contextual factors influence altruistic behavior. I focus on two recent arguments that anticipate change in the level of help provided to strangers as a result of 1) racial and ethnic diversity, and 2) privatism – the shift of activities into the home – as a result of the use of new information and communication technologies. The first suggests that areas high in ethnic diversity, including the arrival of new immigrant groups, “hunker down” and exhibit lower levels of altruistic behavior (Putnam 2007). The second argues that as new technologies move activities into the home, unplanned helping behavior provided to strangers declines.

Helping Behavior in Context

Unplanned helping behavior provided to strangers is a unique form of voluntary, informal aid. It is a type of prosocial behavior that is distinct from formal, long-term, planned helping behaviors, such as volunteering (Putnam 2000). Whereas most everyday helping occurs in the form of planned, informal social support provided to friends, family, and other acquaintances (MacGeorge, Feng and Burleson 2011), help given to strangers tends to be rare and spontaneous (Amato 1990). Unplanned helping behavior can be classified as an altruistic behavior (Dovidio 2006), because there tends to be no expectation for direct reciprocity, and there is a cost to perform the action, including time commitment and risk of harm (Trivers 1971). However, unplanned helping behavior may not be “pure” altruism in the sense that there may be encapsulated interests or trust in the presence of generalized reciprocity from the community (Cook 2001; Hardin 2002). In contrast to the type of planned help provided to friends, family, and other acquaintances, individual characteristics, including personality and involvement in

civic institutions, do not reliably predict unplanned helping behavior provided to strangers (Amato 1990; Darley and Batson 1973; Sampson 2012). This contrasts with how people often evaluate acts of unplanned helping; they commit the “fundamental attribution error” by ascribing actions (or the lack of action) to the internal disposition or attributes of the individual rather than to the external situation (Ross 1977). The context of the local environment is a better predictor of the likelihood that an individual will act altruistically and provide spontaneous aid.

Stanley Milgram was one of the first to describe how factors external to the individual – the size, density, and heterogeneity of the environment – were reasonable for higher levels of noninvolvement (Milgram 1970). Studies of bystander effects (Darley and Latane 1968) and unplanned helping behavior have since documented a range of contextual variables that separate those places where there is anonymity and cynicism from those where there is a sense of watchfulness and altruism (Sampson 2012; Zimbardo 2007). Among the most frequently mentioned factors are those related to urban design or the physical environment, the stability of the community, and the socioeconomic characteristics of an area.

There is extensive literature on how the design of places can facilitate prosocial behaviors (Norman 1990; Taylor, Gottfredson and Brower 1984), such as a sense of community, neighborliness and watchfulness (Sampson 2006; Whyte 2001 [1980]). Although much of this literature remains unsubstantiated (Talen 1999), as scholars are often unable to disentangle environmental choice from environmental determinism (Michelson 1977). One of the most common suggestions is a positive relationship between the walkability of a place and helping behavior, which might be supported by living in close proximity to one’s place of work (Jacobs 1961). Milgram (1977) made a similar argument for the role of public transportation. He argued that the use of public transportation leads to the formation of “familiar strangers” – visual, but

not verbal relationships that are established through repeated, regular daily encounters – that can be a source of spontaneous aid (Sun et al. 2013). In the opposite direction, commuting by private automobile may lead to privatism, cutting people off from the streets, reducing opportunities and the norm for unplanned helping behavior (Lofland 1973). Public transit use can also indicate job inaccessibility and socioeconomic disadvantage (Wilson 1987), which may reduce helping behaviors.

Community and family stability are well-documented predictors of prosocial behaviors (Rubington 1977; Sampson 2012). Stability has been conceptualized along a number of dimensions, including residential mobility (Oishi 2010), homeownership (Aaronson 2000), and the presence of single-parent families (Kohen et al. 2008). Those who live in areas where more households move in/out are thought to have less knowledge of local others and community norms. Communities with lower rates of home ownership are believed to experience lower levels of commitment. Single-parent families have less time for local investment and often experience additional household instability (Putnam 2000). However, stability can comingle with indicators of poverty. In quasi-experimental studies, urban areas with higher poverty also demonstrated lower levels of unplanned helping behavior (Holland, Silva and Mace 2012; Levine et al. 1994; Linsky 1986; Sampson 2012; Silva and Mace 2014).

The link between crime and helping behavior is less established. In a study of twenty-four urban areas, Levine et al. (1994) found a nonsignificant relationship between crime rates and helping behavior. Twelve years later, a follow-up study found higher helping behavior in those areas where crime rates had increased (Reysen and Levine 2014). Much crime, especially corporate and white collar crime, remains difficult to observe, because police surveillance disproportionately targets street crime (Reiman 1979). As such, crime rates may not

adequately measure disorder, obscuring the link to helping behavior. Observable disorder – such as vandalism – may be felt negatively (Wilson and Kelling 1982), but perceived disorder is more reliably associated with the psychological discomfort that may inhibit helping behavior (Sampson and Raudenbush 2004). A reduction in reported crime and observable disorder may have little effect on perceptions of disorder, which are closely tied to a social history in the United States that equates disorder with geographical areas where there are concentrated racial and ethnic minority groups (Sampson and Raudenbush 2004).

Ethnic Diversity and Helping Behavior

One could interpret the relationship between perceived disorder and the concentration of minority groups to suggest that minority neighborhoods are likely to have lower levels of unplanned helping behavior. This expectation is moderated by the extensive sociological evidence that finds outside perceptions of neighborhood disorder often do not align with observable behaviors within minority communities (Gans 1962; Portes and Vickstrom 2011). However, Putnam (2007) found that in communities where ethnic diversity is high, people are less altruistic and have lower levels of community involvement. He argued that the residents of ethnically diverse neighborhoods tend to “hunker down,” and this generates reduced trust both within ethnic groups and between ethnic groups and larger society. Putnam warns that Americans are uncomfortable with diversity, and, in absence of public policies to address this issue, increasing immigration may only make the negative relationship between diversity and altruism more pronounced. Although attempts to replicate Putnam’s findings within the United States and other countries have had mixed results (Alesina and La Ferrara 2000; Gesthuizen, Van Der Meer and Scheepers 2009; Stolle, Soroka and Johnston 2008; Tolsma, Van der Meer and Gesthuizen 2009), there is evidence to suggest that the relationship between altruism and

diversity is absent or minimized in societies that have institutionalized policies to promote economic equality and multiculturalism (Kesler and Bloemraad 2010).

The total foreign-born population of the United States is nearly 40 million people, which is a larger proportion of the population than at any time since the 1920s (Grieco et al. 2012). Putnam's (2007) prediction about increasing immigration rates coincided with a peak in the percentage of the American population consisting of unauthorized immigrants (Krogstad 2015). However, both ethnic diversity and the foreign born population in the United States have continued to increase. Since 2001, the foreign born population of the United States increased by 30%. The average immigrant has lived in the United States longer, and is less likely to have become a naturalized citizen than in the past (Kandel ; Lopez, Passel and Rohal 2015). Rates of intolerance toward ethnic and immigrant groups have also increased (Lahav and Courtemanche 2012; Morgan, Wisneski and Skitka 2011). From 2001 to 2011 fewer Americans felt that immigrants strengthened the United States and more felt that immigrants were a burden (Dimock, Doherty and Suls 2013). Based on Putnam's hypothesis, diverse neighborhoods naturally "hunker down," and altruism should decrease over time where ethnic diversity increases. Alternatively, intolerance may reduce the rate of unplanned help that minorities receive from strangers and encourage the type of hunkering down described by Putnam. Both scenarios suggest a recent disproportional decline in altruistic behavior within minority communities.

New Technologies and Helping Behavior

There has been much speculation about how the rise of digital technologies, home computing, mobile phones, and the Internet have influenced a range of prosocial behaviors (Ajay, Pocheptsova and Ferraro 2012). Much of the research in this area is lab based. Examples

include the effect of using video games on altruistic behaviors (Anderson et al. 2010; Greitemeyer and Osswald 2010). Experiments suggest that prosocial video games might promote prosocial behaviors, while violent video game play leads to decreased prosocial behaviors. However, these studies have not demonstrated a reliable link between video game play and helping behavior (Ferguson and Kilburn 2010; Tear and Nielsen 2013). Lab experiments focus on short-term effects, and this may be another example of fundamental attribution error (Ross 1977) – attempting to attribute declines in altruistic behavior to the psychological consequences of a new technology – rather than how the use of new technologies has changed the context for helping behavior.

Arguments for a contextual effect resulting from the use of new technologies are not new; they are extensions of long-running concerns over the rise of privatism, the argument that technological change facilitates the shift of interactions from public to private spaces (Popenoe 1985). Refrigerators and freezers reduced the need for people to make daily visits to the market; air conditioners removed people from the stoop; television reduced the need to visit the theater (Lofland 1998); and home computing permits people to spend leisure and work time within the confines of their homes (Graham and Marvin 1996). As work, leisure, and commerce move into the home, people may have less contact and less attachment to their local community (Gurstein 2001). Some have suggested that mobile phone use may further reduce attention to strangers, when used outside of the home (Gergen 2008; Humphreys 2005; Ling 2008). However, longitudinal evidence suggests that mobile phone use in public spaces has not contributed to a decline in public social interaction (Hampton, Goulet and Albanesius 2015). A multi-site, observational study of public spaces found no contextual effects related to technology use that distracted from nearby others (Hampton, Livio and Goulet 2010). In fact, both mobile phone use

(Hampton, Goulet and Albanesius 2015) and the use of other mobile devices (e.g., laptops) in public spaces (Hampton, Livio and Goulet 2010) have been associated with “lingering,” an environmental outcome that has been linked to street life, watchfulness, and bystander intervention (Jacobs 1961; Whyte 2001 [1980]).

If the latest digital innovations have contributed to a decline in unplanned helping behavior, it should be most visible in those communities where new technologies support a context of privatism, where people complete more tasks in the home. The rise of digital technologies has greatly facilitated the ability for people to work from home – teleworking or telecommuting. Between 1997 and 2010, the number of workers who worked exclusively from home increased from 4.8 to 6.6 percent of the paid workforce (Mateyka and Rapino 2012). However, whereas teleworking may increase privatism, these individuals may also be spending less time commuting, more time in their local community, and may be more available to put “eyes upon the street” (Jacobs 1961). Yet, studies of teleworking have largely found no reorganization of time to expand neighboring, time spent in the local community, or time in social activities (Michelson 2000; Noonan and Glass 2012). How this activity influences the local context for helping behavior is unknown.

Change in Helping Behavior

This paper explores change in unplanned helping in the United States from the summer of 2001 to the summer of 2011. Using a quasi-experimental approach – a modified “lost-letter” study (Milgram, Mann and Harter 1965) – this paper compares unplanned helping behavior across neighborhoods located in the United States and Canada. Canadian neighborhoods are included to model the cross-national reliability of environmental, socioeconomic, and community stability variables as predictors of unplanned helping behavior. Canada also serves as

a means to explore social change that may have occurred within the United States that may not have been experienced by a similar, neighboring country. The focus is on identifying change in the rate of helping behavior and what amount of change, if any, can be attributed to contextual changes related to ethnic diversity and/or privatism.

If, as Putnam (2007) suggests, there is a tendency for communities high in ethnic diversity to exhibit less altruistic behavior, such a trend should be observable in rates of helping behavior based on observations from this experiment in 2001 (the data Putnam used in his analysis were collected in 2000). However, if lower helping behavior is not visible within communities high in diversity then Putnam's (2007) "hunker down" hypothesis seems unlikely. If there has been a change in helping behavior in ethnically diverse areas since 2001, this trend would necessarily be the result of some new social force that has prompted a need to "hunker down." For example, in response to changing attitudes towards immigrant groups since 9/11. Canada provides a natural comparison for this condition.

There are well documented differences in Canadian public policy in comparison to the United States that favor social inclusion and the acceptance of multiculturalism (Bloemraad, Korteweg and Yurdakul 2008; Omidvar, Richmond and Foundation 2003). Despite similar immigrant traditions in the United States and Canada, foreign-born immigrants to Canada are much more likely to become citizens and in a shorter time period than those who immigrate to the United States (Bloemraad 2006). In contrast to the experience in the United States, in recent years public opinion in Canada has generally become more positive towards immigrants and minority groups (Wilkes, Guppy and Farris 2008). If the trend in helping behavior within minority communities in the United States contrasts with the Canadian experience, this would be

further evidence to suggest that Putnam's (2007) thesis is not generalizable outside of the United States, but represents a distinct cultural or policy characteristic of the United States.

Other large-scale social changes, such as the rise of privatism as tied to the growth of digital technologies, may also have played a role in any change in unplanned helping behavior. It is difficult to test the impact of this technology on helping behavior because of the absence of community-level data about the penetration of internet access, mobile phone use, and specific uses of new technologies. However, the role of privatism can be tested as a contextual variable by exploring the rise of telecommuting. Although there is no existing evidence that working from home increases time spent neighboring or in the local community, a distinct eyes-on-the-street behavior that accompanies working from home may support unplanned helping behavior. It is expected that a higher proportion of individuals working from home within a community will be positively related to helping behavior.

Method

Unplanned helping behavior was measured at two time periods – the summers of 2001 and 2011 – in sixty-three urban areas across the United States and Canada. Because of the methodological and ethical issues associated with using elaborate deception to replicate a situation in which an individual could provide help to an endangered person, helping was measured unobtrusively in the form of “lost letters.” The act of picking up and mailing a lost letter was used as an indicator of helping behavior. Stanley Milgram popularized the lost-letter approach as an alternative to polling public opinion (Milgram, Mann and Harter 1965). Although popularized by Milgram, researchers have a long history that predates Milgram of placing “lost” items in different settings and measuring responses as a form of altruism or unplanned helping (Bihm, Gaudet and Sale 1979; Fessler 2009; Forbes and Gromoll 1971; Merritt and Fowler 1948;

Simon and Gillen 1971; West 2003). A quasi-experimental study provides a highly valid measure of actual incidents of unplanned helping behavior. This contrasts with survey methods of assessing altruism, such as asking participants if they have recently “helped a stranger” (Charities Aid Foundation 2011; Charities Aid Foundation 2015). Survey based measures are likely to have a response bias based on the normative expectation of helping, and could be interpreted by respondents as a proxy for being a “good citizen” rather than demonstrated incidence of informal, unplanned aid (Organization for Economic Cooperation and Development 2015).

During both time periods, researchers were deployed to thirty-seven study areas in the United States and twenty-six areas in Canada. Researchers were instructed to covertly “lose” sixty letters in each area. Letters were lost in well-traveled, pedestrian areas during daylight hours when rain was not forecast for at least twenty-four hours; they were lost in plain view and out of sight of other lost letters. Researchers were instructed to divide the locations where they lost letters among public sidewalks, stores, and phone booths.¹ No systematic attempt was made to remain behind and observe if a letter was found. Envelopes were stamped and addressed to the study’s author at one of two mailing addresses (rented post office boxes). To reduce any geographic bias in willingness to help (Bridges, Williamson and Scheibe 1998), mailing addresses were selected in cities that were outside any of the study areas. Letters lost in the United States were addressed to a street address in Des Moines, Iowa. Letters lost in Canada were addressed to an address in Brandon, Manitoba. If opened, the envelope contained a single page – a generic thank-you letter expressing appreciation for a recent meeting between professional colleagues. Half of all Canadian letters were written in French; all other letters were in English. Each envelope was discretely coded with a small, hand-written number on the reverse

of the envelope. A total of 3,721 letters were lost in 2001 and 3,745 in 2011. When returned, the unique code on each envelope was used to identify the location where it had been lost. There was no other information on the envelope or in the letter to indicate that the letter was part of an experiment.

Areas selected for this study were geographically dispersed across the United States and Canada. The geographic size of the area was within the boundaries of an identifiable neighborhood, typically an area of no more than one-half dozen blocks. Census data were used to select neighborhoods that varied in socioeconomic status. Typically, three neighborhoods were selected from the same metropolitan region representing a low income area, an area of higher income, and an area located near the downtown core. Contextual measures were generated from census tract data from the 2000 and 2010 US decennial censuses, the 2010 US American Community Survey, the 2001 and 2011 Canadian decennial censuses, and the 2011 Canadian National Household Survey. Based on the established literature on unplanned helping behavior, a range of contextual variables were included as controls (see Table 1 for descriptives). These included:

- *environmental characteristics*: the proportion of people who traveled to work on foot or by bicycle, public transit, and automobile;
- *community instability*: the proportion of single-mother households, households that had lived in the same house five years earlier, and rental units;
- *socioeconomic characteristics*: the proportion of adults with at least an undergraduate university degree, employment rate, and mean number of people per household.

Given the variation in the literature in how diversity is conceptualized in relation to perceived disorder and the variation in cues that generate awareness of minority concentration within a community (Wickes et al. 2013), a range of diversity measures were tested in the analysis. This included variables that focused on diversity based on visible minority status, speaking a foreign language, recent and long-term immigrants, and status as noncitizens (Oropesa 2012; Sampson and Raudenbush 2004).

- *measures of diversity*: the proportion of the population that speaks English (and French in Canada), who are citizens, foreign born, immigrated within the previous ten years, and visible minorities (non-White);

As a measure of how technology may be moving activities into the home and of privatism more broadly:

- *work at home*: the proportion of the population that works full-time from home.

Hierarchical-linear modeling (HLM) was used to test the likelihood that a letter would be returned based on the characteristics of the letter – if it had been lost in a store, phone booth, or on a sidewalk – and the characteristics of the neighborhood where it was lost (Raudenbush et al. 2004). At time 1 (2001), a stepwise logistic regression procedure was used to test the significance of letter characteristics (level 1) and contextual variables (level 2) on the likelihood of a letter being returned. A series of forward selection models were used, whereby each variable was introduced and retained if it was statistically significant ($p < .05$) and remained significant after the introduction of subsequent variables. In addition, at each step in the analysis, to test for variation unique to either Canada or the United States, an interaction effect for country was tested on each significant variable.

Level-1 Model at Time 1

$$\text{Prob}(\text{Returned}=1|\beta_{t1}) = \varphi_{t1}$$

$$\log[\varphi_{t1}/(1-\varphi_{t1})] = \eta_{t1}$$

$$\eta_{t1} = \beta_{0t1} + \beta_{1t1} * X_{1t1} + \beta_{2t1} * X_{2t1} + \dots + \beta_{kt1} * X_{kt1}$$

Level-2 Model at Time 1

$$\beta_{0t1} = \beta_{00t1} + \gamma_{01t1} * Z_{01t1} + \gamma_{02t1} * Z_{02t1} + \dots + \gamma_{kt1} * Z_{kt1} + U_{0t1}$$

At time 2 (2011), likelihood of return is a change model that included at level-1, letter characteristics; at level-2, a lagged endogenous variable (β_{0t1}), a dummy variable for country, and variables tested at time 1 modeled as change scores ($\Delta Z_{01} = Z_{01t2} - Z_{01t1}$) (see Table 1 for descriptives).² The lagged endogenous variable was calculated based on the unique covariate pattern from the final model at time 1 for each set of grouped data for an area, and can be interpreted as controlling for the inertial effect of past values of context on the current likelihood of helping behavior (Menard 2010).

Level-1 Model at Time 2

$$\text{Prob}(\text{Returned}=1|\beta_{t2}) = \varphi_{t2}$$

$$\log[\varphi_{t2}/(1-\varphi_{t2})] = \eta_{t2}$$

$$\eta_{t2} = \beta_{0t2} + \beta_{1t2} * X_{1t2} + \beta_{2t2} * X_{2t2} + \dots + \beta_{kt2} * X_{kt2}$$

Level-2 Model at Time 2

$$\beta_{0t2} = \beta_{00t2} + \gamma_{01} * \text{Country} + \gamma_{02t2} * \Delta Z_{02} + \dots + \gamma_{kt2} * \Delta Z_k + \gamma_{t2} * \beta_{0t1} + U_{0t2}$$

As with the analysis at time 1, stepwise logistic regression was used to develop a final model of predictors that identify how change in context explains helping behavior since 2001. Again, to test for variation unique to either Canada or the United States, an interaction effect was tested on each significant variable.

Findings

Factors Predicting Unplanned Helping Behavior in 2001

In 2001, the overall return rate for letters was 56.5 percent. A comparison of proportions suggests that there is a significant difference ($p < .01$) between the proportion of letters returned from the United States (58.7%) and Canada (53.6%). However, after controlling for differences in letter characteristics and the demographics of the neighborhoods selected for this study, HLM found that the country where a letter was lost was unrelated to the odds that a letter would be returned (Table 2).

A relatively small number of variables predicted unplanned helping behavior. One letter characteristic – lost in a phone booth – predicted a significantly lower likelihood of return; the odds were 2.5 times higher that a letter would be returned if it had been lost in a store or on a public walkway. Relatively few contextual variables mattered for predicting unplanned helping behavior: residential stability, use of public transportation, employment rates, and working from home. Counter to the expectation from the literature that residential stability predicts helping behavior, areas where a higher proportion of the local population had lived in the same house five years earlier were less likely to aid a stranger. Holding other factors at their mean values, in an area that was one standard deviation (14.5%) above the mean level (46.1%) of residential stability, the probability that a letter would be returned was 59.4%, 4.1% lower than the average area (63.5%). In the opposite direction, counter to Milgram (1977), areas with higher levels of public transportation use also had lower levels of helping behavior. The probability of a letter being returned was 4.9% lower in an area where the proportion of people who took public transit to work was one standard deviation (10.9%) above the mean (15.5%). However, helping behavior tends to be higher in areas where employment rates are higher and where there is a larger proportion of at-home workers. The probability of a letter being returned in an area where the employment rate was one standard deviation (4.7%) above the mean (92.3%) was 14.0%

higher than in an average area. The probability of a letter being returned was 4.5% higher than the average (63.5%) in an area where the rate of at home workers was one standard deviation (4.7%) above the mean (5.1%).

As an indicator of effect size, a one standard deviation difference in employment rate had the strongest effect on the likelihood of helping behavior (+), followed by public transit use (-), working from home (+), and residential stability (-). The positive relationship between the proportion of the population working from home and helping behavior was as anticipated. Notably, in 2001 there was no relationship between any measure of ethnic diversity and unplanned helping behavior. This finding is inconsistent with Putnam (2007), who found lower levels of altruistic behavior in minority areas.

Change in Unplanned Helping Behavior

The overall return rate for letters decreased from 56.5% in 2001 to 50.3% in 2011 ($p < .001$).³ A comparison of proportions finds that the difference in helping behavior within Canada between 2001 and 2011 (-2.2%) was not statistically significant ($p = .223$), whereas the change within the United States (-9.2%) was significant ($p < .001$).

The model predicting likelihood of a letter being returned in 2011 tested the influence of prior contextual variables, country, and change in contextual variables since 2001 (Table 3). After controlling for change in contextual variables, the probability of a letter being returned in 2011 was higher if the letter had been lost in Canada than if it had been lost in the United States. Controlling for letter characteristics, with controls for change in context at their average values, in 2011 the probability that a letter lost on a sidewalk would be returned in Canada was 62.5 percent, whereas the probability of a letter being returned from the United States was 53.4

percent. This compares to the probability of 63.5 percent in 2001 that a lost letter on a sidewalk would be returned in either the United States or Canada.

In 2011, the likelihood of a letter being returned remained lower for the letters that had been lost in a phone booth, but, in 2011, the likelihood was also lower for letters lost in stores compared to on sidewalks. The odds of a letter being returned from a phone booth were 3.40 times lower; the odds of return were 1.38 times lower for letters lost in stores compared to those lost on sidewalks. The final model reveals that prior context had no influence on helping behavior ten years later in 2011. This finding confirms that since 2001, there has been a decline of about 10% in helping behavior in the United States that was not experienced in Canada.

Change in helping behavior has not been felt equally across communities. The rate of return was significantly higher where the proportion of people with a university degree had increased since 2001. For example, the probability of helping behavior in an area of the United States where the proportion of university-educated residents had increased one standard deviation (41.6 percent) above the average (71.9 percent) was 10 percent higher than the average area (53.4 percent). In contrast with expectations from the literature that walkability would be associated with unplanned helping behavior, there was a slightly lower likelihood that a letter would be returned in areas where the proportion of people walking to work had increased since 2001. The probability of a letter being returned from an area in the United States where the proportion of residents walking to work increased by one standard deviation above the mean was 3.4 percent lower than the average.

The Changing Context for Diversity

In addition to the overall higher probability that a letter lost in 2011 would be returned if it were lost in Canada, an interaction effect was found for the relationship between the

proportions of people living in an area who are citizens and the country in which the letter was lost. The likelihood that a letter would be returned was higher in areas of the United States where the proportion of people who were citizens had increased since 2001. In Canada, the likelihood that a letter would be returned was lower in areas where the proportion of citizens had increased since 2001. The probability that a letter would be returned from an area in the United States that has experienced a decline in the proportion of citizens equivalent to one standard deviation (4.22%) from the average (0.81%) is 47.0% or 6.4% lower than the average area (53.4%). In Canada, a similar decline in the proportion of Canadian citizens was associated with a 64.1% probability of a letter's return; 1.6% higher than the average area (62.5%).

Change in neighborhood diversity from 2001 to 2011, measured in terms of immigrants who have not been naturalized, was associated with a decline in local helping behavior – but only in the United States. The same relationship was not found in Canada. Contrary to the pattern in the United States, areas within Canada that experienced an increase in the proportion of noncitizens also experienced an increase in unplanned helping behavior. Diverse neighborhoods in the United States disproportionately experienced a decline in helping behavior since 2001. The evidence suggests that there was not a preexisting contextual factor related to diversity that predicted lower rates of unplanned helping behavior in these communities.

Discussion

The results of a large-scale, longitudinal experiment suggest that in the summer of 2001 the United States and Canada had similar levels of unplanned helping behavior. As suggested in the literature, a context of socioeconomic well-being is a strong predictor of helping behavior (Linsky 1986). Areas within the United States and Canada that had higher socioeconomic status were more likely to demonstrate unplanned helping behavior. Areas where there was a higher

rate of commuting to work via public transit, which may serve as an additional indicator of economic disadvantage (Vugt, Meertens and Lange 1995; Wilson 1987), were contexts that were less likely to support helping behavior. Low residential mobility predicted lower levels of helping behavior. It is not clear why, in this work, residential mobility predicted lower levels of unplanned helping behavior, whereas it had been consistently associated with other measures of community disadvantage (Sampson 2012). It may be that in this broad sample of neighborhoods, a lack of residential mobility signals lack of residential choice, which may be a better indicator of poverty than of community stability. As anticipated, areas where the population working full-time from home was higher were more likely to provide unplanned help. In contrast to the findings of Putnam (2007), this research did not find that areas of higher diversity (measured as the proportion of nonnative language speakers, visible minorities, foreign born, recent immigrant groups, or the presence of noncitizens) were less likely to exhibit helping behavior. This finding raises questions about the validity of self-report survey data on altruistic behavior in comparison to actual, observed behavior.

In the decade since 2001, the United States has experienced a decline of roughly 10% in the likelihood of unplanned helping behavior. This decline is unique to the United States; it was not experienced in Canada, its most geographically and culturally similar neighbor. There was no evidence that this change was related to privatism or a tendency for more people to be involved in work activities from the home as a result of the rise of new technologies.⁴ As further evidence of the importance of socioeconomic well-being as a context for helping behavior, areas in both countries that experienced an increase in the proportion of people with at least an undergraduate university degree also experienced increased helping behavior. Despite arguments that the proportion of people walking or biking to work might afford prosocial behavior, controlling for

socioeconomic status, an increase in this activity was related to lower helping. Because the time period of 2001 to 2011 coincides with the Great Recession and higher gas prices (Saad 2011), within neighborhood increase in the rates of walking/biking to work could be associated with declines in economic well-being. One of the most dramatic changes since 2001 was the divergence in helping behavior between the United States and Canada in neighborhoods where the proportion of noncitizens increased.

Divergence between Canada and the United States in rates of unplanned helping behavior, both overall, and specifically in neighborhoods where the proportion of noncitizens had increased, might be explained by historical events that occurred in the decade after 2001. Perhaps the most salient event was the deaths of nearly 3,000 people on September 11, 2011, as a result of terrorists crashing airplanes into the World Trade Center, the Pentagon, and a field in rural Pennsylvania. Morgan, Wisneski and Skitka (2011) have suggested that the events of 9/11 had a major impact on the American collective conscience. Some evidence suggests that these events may have resulted in a sudden increase in social cohesion and civic engagement (Li and Brewer 2004; Sander and Putnam 2010). Many Americans believe that the events of 9/11 were responsible (at least in the short term) for an increase in prosocial behaviors, including helping behavior (Abrams, Albright and Panofsky 2004; Poulin et al. 2009; Steinert 2003). However, there is no evidence to suggest that any immediate increase in altruistic behavior after 2001 was more than a short-term effect. The more enduring response to 9/11 within the United States has been a sharp rise in unfavorable attitudes toward immigrant groups. Over the same time period, this attitudinal change has been largely absent or even reversed within Canada (Wilkes, Guppy and Farris 2008). A shift in US attitudes towards immigrants might explain the disproportionate

change in helping behavior within neighborhoods that experienced a proportional increase in noncitizens, as opposed to change in response to other indicators of diversity.

Based on trend data from the US General Social Survey, others have noted that trust in others reached an all-time low in 2012 (Twenge, Campbell and Carter 2014). Twenge, Campbell and Carter (2014) found that trust was lowest when poverty rates and levels of income inequality were higher. The finding that unplanned helping behavior is higher in areas where unemployment rates were low, and where education levels increased, supports the link between altruism and socioeconomic context.⁵ Rising poverty rates between 2001 and 2011, as a result of the Great Recession and increasing inequality (Frank 2013; Piketty 2014) – neither of which were felt as strongly and rebounded more quickly in Canada over the same time period (Boivin 2011) – may partially explain recent declines in rates of both trust and unplanned helping behavior in the United States.

There are other possible explanations, including the possibility of an historical event that influenced the experimental manipulation. One analysis reports that the number of US Post Office mailboxes declined by 56% between 2000 and 2011 (Jones 2011). However, this seems an unlikely explanation for a disproportionate decline in returned lost letters in the United States relative to Canada. Canada Post also reduced the total number of mailboxes over the same time period (CTV News 2012), and per capita mailbox penetration remains higher in the United States than in Canada. In addition, unlike in Canada, US households have the option of leaving a letter in their home mailbox for pickup by a letter carrier – providing a ubiquitous place to return a lost letter in the United States that is not available within Canada.

It is also possible that a historical event increased the perceived cost of unplanned helping behavior. For example, a report of organized gangs staging opportunities to provide aid in order

to rob people and a well-publicized case of a lawsuit filed against someone who assisted a stranger were blamed for people later fleeing from a person in need of aid on a subway in Shanghai (Langfitt 2014). News of these events were probably not disproportionately felt in the United States relative to Canada. However, in the weeks after 9/11, a number of letters containing anthrax were mailed to members of the news media and United States Senate, killing five people (Sarasin 2006). Although there was never any evidence that the average American was at risk for exposure to anthrax through postal mail, it is at least conceivable that as a result of that event some Americans might be more reluctant to handle a lost letter. Yet, such an effect was likely short lived.

Although a serious attempt was made to sample from a large number of geographically dispersed urban areas within the United States and Canada, the external validity of the study is unknown. The same areas were subject to experimentation at both time periods. Rural areas were clearly not included. Although every effort was made to train experimenters consistently and, when possible, to use the same experimenters at multiple sites and over time, individual variation in experimenters and the possibility of experimenter effects can never be completely excluded. It was impossible to exactly replicate the precise location and/or timing of letters lost within sites. Some change in the ecology of the experimental sites may not be accounted for through Census data and would require a longitudinal observational study to truly account for other sources of variation (Hwang and Sampson 2014). Similarly, although context has been argued as more important than individual characteristics in predicting helping behavior, context may not be all that matters. Some studies have demonstrated the important role of personality traits and hormones, such as empathy and oxytocin (Zak, Stanton and Ahmadi 2007), as well as individual socioeconomic characteristics for predicting related constructs, such as charitable giving and

unethical behavior (Piff et al. 2012; Silva and Mace 2014). Although the direct observation of altruistic behaviors may have increased validity over survey methods, it does not have the strength of allowing for the collection of data on individual characteristics of those who did, and did not, demonstrate altruism.

What can be done to reverse the trend of declining helping behavior in the United States? Helping behavior may be the latest in an increasingly long list of civic and civil activities that are in decline, including trust (Twenge, Campbell and Carter 2014), neighboring (Marsden and Srivastava 2012), involvement in religious institutions (Putnam and Campbell 2010), and participation in voluntary associations (Putnam 2000). There has been a consistent attempt to associate declines in these activities with the rise of digital communication and information technologies. This study finds no link between declining helping behavior and the privatism that may result from the use of these technologies. In fact, as with neighboring (Hampton and Wellman 2003; Hampton 2011), religious participation (Campbell 2012), and voluntary participation (Hampton, Lee and Her 2011), there is evidence that the use of new technologies may be related to higher rates of helping behavior. Even if a negative relationship existed, it is hard to imagine how we might wind back the clock on technological change. There are more promising explanations and sources of intervention to reverse the trend in helping behavior.

There is evidence that economic inequality is related to lower levels of trust and lower levels of helping behavior. The end of the Great Recession and rising education rates may help stem a decline in altruism. However, if lower rates of unplanned helping behavior are tied more closely to inequality than poverty, then a more significant series of policy interventions are required. The United States has the highest level of inequality of any rich, member nation of the Organization for Economic Cooperation and Development (Smeeding 2005). Affecting this

disparity would require major political change. However, addressing inequality may be only part of any cure for declining helping behavior.

The disproportionate decline in helping behavior within US communities with more noncitizens – whereas Canadian communities with more noncitizens experience the opposite trend – points to clear policy differences between two otherwise similar countries. Direct observation of helping behavior does not support Putnam's (2007) "hunker down" hypothesis. Nevertheless, Putnam's policy recommendations to address Americans' discomfort with diversity remain valid. Negative outcomes, pertaining to altruism and related constructs, from diversity are lower in societies where institutionalized policies promote multiculturalism (Kesler and Bloemraad 2010). In contrast to Canada's national policy of multiculturalism, few US jurisdictions have public policies aimed at valuing multiculturalism, and immigrants to Canada tend to become citizens in a shorter time period than those who immigrate to the United States (Bloemraad 2006). Differences between the United States and Canada in political rhetoric and policy toward the social inclusion of immigrants, and pathways to citizenship may be responsible for differences in public opinion towards immigrants and perceived disorder within diverse neighborhoods. In the United States, this may trigger lower levels of trust, generate a context of non-involvement toward noncitizens, and possibly encourage ethnic groups to "hunker down," reducing the unplanned aid they provide to themselves and others. Reversing the trend toward declining helping behavior is tied to public policy that reduces inequality and unfavorable national sentiment toward noncitizens.

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Footnotes

¹ If there were not enough phone booths within an area, the letters were redistributed between stores and sidewalks.

² Change in the proportion of people who had lived in the same home in the previous five years was excluded from the analysis at time 2 (2011). A valid version of this variable was unavailable in 2011 because of the elimination of the long-form census in both Canada and the United States.

³ Return rates by neighborhood and year are available as an online supplement see Table S1, http://www.mysocialnetwork.net/candc/lostletter_supplemental.pdf

⁴ An ad-hoc analysis confirmed that, as in 2001, in 2011 working at home predicts a higher likelihood of helping behavior (see online supplemental information, Table S2, http://www.mysocialnetwork.net/candc/lostletter_supplemental.pdf).

⁵ An ad-hoc analysis confirmed that, as in 2001, in 2011 employment rate predicts a higher likelihood of helping behavior (see online supplemental information, Table S2, http://www.mysocialnetwork.net/candc/lostletter_supplemental.pdf).

Table 1. Descriptives of contextual variables (N=63).

	Mean 2001	Min 2001	Max 2001	SD 2001	Mean Δ 2011	Min Δ 2011	Max Δ 2011	SD Δ 2011
Undergraduate degree (%)	33.26	3.20	79.68	21.31	71.85	6.61	162.23	41.57
Employment (%)	92.30	77.81	97.90	4.65	-0.70	-10.18	7.71	3.85
Single parent (%)	2.34	1.28	36.91	6.74	-0.41	-6.24	3.55	1.66
People per household ¹	2.34	1.41	3.45	0.53	17.12	-49.96	261.10	48.72
Rental units (%)	52.27	5.30	99.45	26.70	-0.86	-33.73	12.60	7.96
Lived in same house five years earlier (%) ²	46.06	14.28	73.62	14.52	n/a	n/a	n/a	n/a
Walk or bike to work (%)	18.15	0.45	62.20	17.98	-0.09	-17.70	10.46	4.26
Take public transit to work (%)	15.54	0.00	42.86	10.91	1.07	-12.50	12.11	4.11
Take private automobile to work (%)	62.31	14.40	97.35	24.34	-1.72	-12.64	23.51	6.20
English speaker (or French in Canada) (%)	78.33	15.62	98.90	17.19	-2.34	-65.30	14.97	10.59
Citizen (%)	8.67	0.22	40.94	6.32	0.81	-16.15	9.64	4.22
Foreign born (%)	17.62	0.74	55.63	12.71	0.38	-16.10	13.85	5.06
Foreign born arrived in past ten years (%)	7.71	0.11	36.80	7.49	-3.54	-36.80	10.81	7.24
Visible minority (%)	25.83	0.66	99.61	23.08	4.68	-29.45	48.92	10.70
Work at home (%)	5.07	0.00	19.32	4.70	0.73	-6.79	6.05	2.38

¹ Change scores coded as percent change.² A valid version of this variable unavailable in 2011 because of the elimination of the long-form census in both Canada and the United States.

Table 2. Predicting likelihood of 2001 letter return based on hierarchical linear model (N level 1 = 3,721; N level 2 = 63).

Level 1	
Phone	-.930***
Store	-
Level 2	
Intercept	-3.150**
Canada	-
Undergraduate degree (%)	-
Employment (%)	.047***
Single parent (%)	-
People per household	-
Rental units (%)	-
Lived in same house five years earlier (%)	-.012**
Walk or bike to work (%)	-
Take public transit to work (%)	-.019**
Take private automobile to work (%)	-
English speaker (or French in Canada) (%)	-
Citizen (%)	-
Foreign born (%)	-
Foreign born arrived in past ten years (%)	-
Visible minority (%)	-
Work at home (%)	.042*
R ²	.066

*p<.05 **p<.01 ***p<.001

Note: used stepwise forward selection, excluded variables indicated by a dash "-".

Table 3. Change model predicting 2011 letter return based on hierarchical linear model (N level 1 = 3,745; N level 2 = 63).

Level 1	
Phone	-1.224***
Store	-.325**
Level 2	
Intercept	-.634***
Time 1 Lag	-
Canada	.436**
Δ Undergraduate degree (%)	.010***
Δ Employment (%)	-
Δ Single parent (%)	-
Δ People per household (%)	-
Δ Rental units (%)	-
Δ Walk or bike to work (%)	-.032***
Δ Take public transit to work (%)	-
Δ Take private automobile to work (%)	-
Δ English speaker (or French in Canada) (%)	-
Δ Citizen (%)	.061**
Δ Citizen * Canada	-.077**
Δ Foreign born (%)	-
Δ Foreign born arrived in past ten years (%)	-
Δ Visible minority (%)	-
Δ Work at home (%)	-
R ²	.067

*p<.05 **p<.01 ***p<.001

Note: used stepwise forward selection, excluded variables indicated by a dash “-”.

Table S1: Lost letter return rate by area for 2001 and 2011.[†]

	2001 Return (%)	2011 Return (%)	Change (%)
United States			
Celebration, FL	85.45	48.33	-37.12
Boulder, CO	83.05	68.33	-14.72
Bangor, ME	76.77	53.33	-23.44
Anchorage, AK	76.67	55.00	-21.67
Lafayette, CO	73.33	28.33	-45.00
Lexington, MA	71.67	75.00	3.33
Chicago, IL	71.77	61.67	-10.1
Nederland, CO	70.00	61.67	-8.33
Westchester, IL	70.00	56.67	-13.33
Cambridge, MA	68.33	66.67	-1.66
Berkeley, CA	68.33	64.91	-3.42
Jacksonville, FL	68.33	46.67	-21.66
Boston, MA	66.67	45.00	-21.67
Mandarin, FL	63.33	73.33	10.00
Washington, DC	63.33	56.67	-6.66
Bloomington, MN	63.16	60.00	-3.16
Bethesda, MD	61.67	48.33	-13.34
Seaside, FL	61.54	51.67	-9.87
Denver, CO	60.00	15.00	-45.00
Seattle, WA	60.00	73.58	13.58
San Antonio, TX	60.00	31.67	-28.33
Red Bank, NJ	56.67	68.33	11.66
San Antonio, TX	56.67	36.67	-20.00
Middleburg, FL	55.00	50.00	5.00
Waterbury, CT	53.85	30.00	-23.85
Denver, CO	53.33	56.67	3.34
San Antonio, TX	53.33	30.00	-23.33
Teaneck, NJ	51.67	58.33	6.66
Seattle, WA	50.00	80.00	30.00
Minneapolis-St. Paul, MN	50.00	20.00	-30.00
Seattle, WA	48.33	53.33	-5.00
New York City, NY	45.00	50.00	5.00
Minneapolis-St. Paul, MN	40.82	61.67	20.85
Boston, MA	36.67	18.33	-18.34
Washington, DC	33.33	28.33	-5.00
Chicago, IL	30.00	30.00	0.00
San Antonio, TX	25.00	20.00	-5.00
N	2,161	2,210	
US total return rate:	58.68	49.46	-9.22
Canada			
Surrey, BC	85.00	66.67	-18.33
Ottawa, ON	78.33	68.33	-10.00

Kamloops, BC	70.00	68.33	-1.67
Quebec City, PQ	70.00	66.67	-3.33
Calgary, AB	68.33	55.00	-13.33
Lethbridge, AB	65.00	51.67	-13.33
Toronto, ON	63.33	33.33	-30.00
Vancouver, BC	61.67	51.67	-10.00
Longueuil, PQ	58.33	30.00	-28.33
Calgary, AB	56.67	58.33	1.66
Montreal, PQ	55.00	41.67	-13.33
Winnipeg, MB	53.33	51.67	-1.66
Montreal, PQ	53.33	50.00	-3.33
Ottawa, ON	53.33	66.67	13.34
Ottawa, ON	53.33	55.00	1.67
Halifax, NS	51.67	76.67	25.00
Winnipeg, MB	50.00	32.76	-17.24
Winnipeg, MB	50.00	36.67	-13.33
Loretteville , PQ	50.00	53.33	3.33
Calgary, AB	46.67	30.00	-16.67
Newmarket, ON	43.33	41.67	-1.66
Toronto, ON	40.00	25.45	-14.55
Vancouver, BC	38.33	58.33	20.00
Quebec City, PQ	30.00	41.67	11.67
Halifax, NS	25.00	51.67	26.67
Halifax, NS	23.33	75.00	51.67
N	1,560	1,535	
Canada total return rate:	53.59%	51.40%	-2.19%
Overall total return rate:	56.54%	50.25%	-6.29%

[†] Note: Place names may appear more than once if letters were lost in more than one area within a metropolitan area. Specific neighborhood names are omitted to avoid harm that may result from revealing the specific locations of areas with low helping behavior.

Table S2. Predicting likelihood of 2011 letter return based on hierarchical linear model (N level 1 = 3,745; N level 2 = 63).

Level 1	
Phone	-1.013***
Store	-
Level 2	
Intercept	-4.305**
Canada	-
Undergraduate degree (%)	-
Employment (%)	.046**
Single parent (%)	-
People per household	-
Rental units (%)	-
Lived in same house five years earlier (%) *	missing
Walk or bike to work (%)	-
Take public transit to work (%)	-.009
Take private automobile to work (%)	-
English speaker (or French in Canada) (%)	-
Citizen (%)	-
Foreign born (%)	-
Foreign born arrived in past ten years (%)	-
Visible minority (%)	-
Work at home (%)	.055*
R ²	.065

* A valid version of this variable unavailable in 2011 because of the elimination of the long-form census in both Canada and the United States.

*p<.05 **p<.01 ***p<.001

Note: used stepwise forward selection, excluded variables indicted by a dash “-”.