

Within-nation cultural variation across regions provides a largely untapped resource for examining cross-cultural relations usually studied at the international level. The current study examines the relations of collectivism, helping behavior with strangers, and pace of life across regions of the United States. The study shows that within-nation cultural variation can be used both to (a) cross-validate findings generated at the international level, findings that are otherwise exceedingly difficult to cross-validate, and to (b) generate new findings. The current study provides cross-validation for the previously reported negative relation at the international level between collectivism and a faster pace of life. The study also provides evidence that in the context of helping strangers, collectivism is negatively associated with certain types of helping behavior. In particular collectivism was negatively associated with the “planned” (as opposed to “spontaneous”) and “giving” (as opposed to “doing”) types of helping.

INTRANATIONAL CULTURAL VARIATION

Exploring Further Implications of Collectivism Within the United States

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A defining aspect of cross-cultural psychology over the years has been its reliance on studies using international boundaries as the central strategy for demarcating the world’s various cultures. This practice is not without its merits, as the existence of a nation-state encourages homogenization of, for example, language, law, education, mass media, sense of history, and identity (see Tweed, Conway, & Ryder, 1999). Nonetheless, such tendencies do not preclude regional cultural differences within national borders (see Hermans & Kempen, 1998). Federated countries, such as the United States, China, and India, are good exemplars of such variation, with language, law, education, and so forth, showing regional differences. In these countries, the nesting of state or provincial government within national government is mirrored by the nesting of regional culture within national culture.

Although the United States has long been considered the most prototypic of individualist nations (e.g., Hofstede, 1980), this country contains considerable regional variation within its borders. Recent work by Vandello and Cohen (1999) investigating collectivism¹ within the United States provides some of the most convincing empirical evidence to support this claim. Using the 50 American states as their unit of analysis, they constructed a U.S. collectivism index based on behavioral measures that has adequate internal reliability, correlates well with a self-report measure of collectivism, and demonstrates theoretically meaningful relationships with other variables, including suicide rate, frequency of binge drinking, and levels of gender and racial inequality.

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Although caution should be exercised in interpreting the precise meaning of collectivism within a more generally individualist culture, we believe that this demonstration of intranational variation provides a largely untapped resource for individuals conducting cultural research. Specifically, cross-cultural researchers who exclusively focus on international cultural comparisons face the problem of satisfactorily cross-validating their findings due to the restricted number of national cases available—even the most ambitious studies (e.g., Chinese Culture Connection, 1987; Hofstede, 1980) do not exceed 50 countries, making cross-validation difficult in practice. The current investigation highlights a way by which this largely artificially imposed limitation might be overcome by taking advantage of intranational cultural variation. That is, the method we describe here shows how regional cultural variations within a country can be utilized to cross-validate findings from international research and potentially generate new findings for international application. Our purposes, then, are to illustrate this method while simultaneously elaborating our understanding of American collectivism by comparing it with other behavioral variables thought to be influenced by the collectivism dimension.

In the present study, we pose two specific questions relating collectivism to two other variables shown to differ across cultures at the international level: (a) What is the relationship between collectivism and various helping behaviors? and (b) What is the relationship between collectivism and pace of life? The present report hopes to shed some light on these questions by looking at how the U.S. collectivism measure of Vandello and Cohen (1999) correlates with the helping (directed toward strangers) and pace of life measures developed by Levine and his colleagues (Levine, 1997; Levine, Lynch, Miyake, & Lucia, 1989; Levine, Martinez, Brase, & Sorenson, 1994; Levine, Miyake, & Lee, 1989). To identify potential mediators of the relations, the effect of controlling for five other demographic factors was also explored.

PREDICTIONS

Collectivism and helping. Collectivism involves a heightened commitment and attention to other people (e.g., Kagitcibasi, 1997; Levine, 1997). Based on this evident “concern” for others (Hui & Triandis, 1986, p. 231), it would not be unreasonable to expect that collectivism is more likely to be associated with prosocial helping behaviors. Indeed, some evidence suggests that persons with a collectivistic cultural background have more of an orientation toward helping. For example, Freeberg and Stein (1996) found that Mexican Americans, when compared to Anglo-Americans, both endorsed more collectivistic attitudes and were more likely to report that they felt an obligation to assist family members. Similarly, Farver, Welles-Nystrom, Frosch, Wimbari, and Hoppe-Graff’s (1997) analyses of children’s imaginative “toy” narratives suggested that Indonesian children were more likely to tell stories about helpful and friendly figures than either American, German, or Swedish children; on the other hand, American children were more prone to using aggressive imagery than the other three cultures. Farver et al. (1997) suggested that these results, in part, can be understood as a difference in the collective orientation of the cultures, with Indonesia being considered the most collectivistic and America the most individualistic.

However, many cultural researchers (e.g., Leung & Bond, 1984; Schwartz, 1990; Triandis, Bontempo, Villareal, Asai, & Lucca, 1988) acknowledge that collectivists typically show notable differences in behavior toward ingroup and outgroup members. For this reason, it is also reasonable to predict that collectivism involves less concern for others’

welfare in situations involving outgroup members (see Bond & Smith, 1996). Thus, to the degree that strangers are considered a part of an outgroup, this thinking would suggest that the present study ought to reveal a negative relationship between collectivism and helping.

Indeed, evidence using an individual-level measure of individualism/collectivism suggests that persons lower on individualism tend to have more prosocial values relevant to direct interpersonal issues, but persons higher in individualism tend to have more prosocial values at a universal and abstract level (Triandis et al., 1986, cited in Schwartz, 1990). This suggests that persons higher in individualism may be more likely to help outgroup members, and less likely to help ingroup members, than persons lower in individualism (see Schwartz, 1990). Other evidence pertains more directly to a cross-cultural understanding of helping behavior. In a series of naturalistic experiments, Feldman (1968) studied differences in helping behavior in cities from three different countries: France (Paris), Greece (Athens), and the United States (Boston). Hofstede's (1980) work suggests that these countries differ in their levels of collectivism, with Greece being the most collectivistic, the United States the least collectivistic, and France somewhere in between the two. Did the countries differ in their treatment of strangers? The answer, overall, is "yes." Although Feldman (1968) was not primarily interested in simple overall differences between nations, a glance at the mean patterns suggests that, on average, Americans were more likely to help, and Grecians the least likely. By itself, this would suggest that collectivists were less likely to help strangers.

However, it is worth noting that the empirical story from Feldman's work with regards to the broader ingroup/outgroup question is a little murkier. Feldman also looked at differences in helping behavior toward people who were from the same country ("compatriots") and people from a different country ("foreigners"), and this evidence suggested that, on the whole, Grecians were the least biased toward foreigners of the three nations (indeed, Grecians generally helped foreigners more than compatriots). Because of these theoretical ambiguities, although Feldman's (1968) studies are interesting, it is perhaps difficult to draw a simple theoretical conclusion from them with respect to our current question.

Indeed, at a broader level, the exact nature of the relationship between individualistic attitudes and cooperative or interdependent values has been the topic of some debate. Some have argued that individualism necessarily promotes antisocial behavior, whereas others have argued that individualism actually promotes interdependent behavior (for a different perspective, see Kagitcibasi, 1997; for a review, see Waterman, 1981). Because neither the above theoretical or empirical considerations conclusively suggests which of the competing predictions are most likely to be correct, all analyses of the collectivism-helping relation were conducted with two-tailed tests.

Collectivism and pace of life. In contrast to the uncertainty surrounding helping behavior, both the theoretical and empirical literatures on collectivism and pace of life suggest a straightforward negative relation. More specifically, Levine (1997) points to evidence that because cultures high on collectivism are more focused on affiliation than achievement (e.g., Triandis, 1994, cited in Levine, 1997), members may be more likely to eschew the ever-prevalent "time-is-money mindset" (p. 18) that can increase the pace of life in cultures that fall toward the individualism pole. Furthermore, previous research at the international level, using an index similar to the one used here, demonstrated a negative correlation between collectivism and pace of life at the international level (Levine, 1997). The present study provides an opportunity to cross-validate this finding at the intranational level of analysis.

METHOD

MEASURES

U.S. Collectivism Index

Vandello and Cohen's (1999) U.S. collectivism index is composed of the following eight state-level variables: The percentage of people living alone (reverse-scored), the ratio of people carpooling to work to driving alone, the ratio of divorces to marriages (reverse-scored), the percentage of elderly people living alone (reverse-scored), the percentage of households with grandchildren in them, the percentage of people with no religious affiliation (reverse-scored), the average percentage of Libertarian votes over four presidential elections from 1980 to 1992 (reverse-scored), and the percentage of self-employed people (reverse-scored). These raw scores were then standardized and added together to form the composite index of U.S. collectivism (see Vandello & Cohen, 1999).

Helping Indexes

In an ambitious project, Levine and colleagues (1994) sent male experimenters to 36 U.S. cities. These experimenters had been trained to enact four different helping scenarios. In one scenario, they asked for change for a quarter ("change"). In another, they accidentally dropped a pen ("dropped pen"). In the third scenario, the experimenter, wearing a large leg brace and limping, dropped a pile of large magazines and tried (without success) to pick them up ("hurt leg"). The fourth scenario was even more elaborate: the experimenters dressed up as blind persons and acted as if they needed help crossing the street ("blind person"). For each scenario, the percentage of enactments eliciting an offer of help was calculated.

In addition to these four live scenarios, Levine and colleagues (1994) developed two other helping indexes. First, a stamped, addressed letter was randomly placed on the windshields of cars with a note reading, "I found this next to your car" (Levine et al., 1994, p. 74). The percentage of returned envelopes was then calculated ("lost letter"). Finally, per capita United Way contributions were measured ("United Way"). A total helping index was then constructed from these six variables, all of which measured helping behavior directed toward strangers.

Pace of Life Indexes

Levine, Lynch, and colleagues (1989) collected four different measures of the pace of life across 36 U.S. cities, 35 of which were the same as those for the helping index reported above. First, during business hours and in downtown locations, they measured the walking speeds of pedestrians across distances of 60 feet ("walking speed"). Second, they measured how long it took a bank clerk to either give change for two \$20 bills (always requesting the same denominations), or to give two \$20 bills for this same amount of change ("bank speed"). Third, they tape-recorded the responses of postal workers to a question about the differences between different types of mail, and later calculated the talking speed of the individuals by dividing the number of spoken syllables by the total time it took to say them ("talking speed"). Lastly, the percentage of watches worn by randomly selected downtown persons was counted ("watches worn"). These raw scores were then standardized and added

together to form the composite index of pace of life. The overall pace of life index is largely uncorrelated with the overall helping index, $r = -.02$ (Levine et al., 1994).

Demographic Variables

To ascertain potential mediators of the relations, the effect of controlling for five demographic factors was also examined. These demographic variables were chosen in part because each has been demonstrated to have (or is closely linked to another variable that has been demonstrated to have) some relationship with collectivism, helping, and/or the pace of life—thus, it was believed that each of these variables might be an important mediator of any collectivism-helping or collectivism-pace of life relationship. The demographic variables were as follows:

1. The percentage of persons within the state who fell below the poverty line in 1994 (“poverty”). Poverty in the United States is positively correlated to collectivism (Vandello & Cohen, 1999). It may be that being poor causes persons to be dependent on one another, and this dependence may lead to both high collectivism (Vandello & Cohen, 1999) and an increased predisposition to help.
2. Per capita income by state in 1995 (“income”). Personal income affords another indicator of wealth or poverty in each state.
3. Gross state product, 1994. Industrialization is negatively related to collectivism at the international level. Gross state product measures “output attributable to the factors of production located” within that state (Bureau of the Census, 1997, p. 442), and was used as a proxy for industrialization.
4. City population density (“density”). Density was computed for each of the cities proper in 1990; the greater metropolitan areas of cities were excluded for these computations. Population density is associated with both collectivism (Vandello & Cohen, 1999) and helping (Levine et al., 1994).
5. Percentage of persons who fell within a minority group in 1994 (“minority percent”). Because cross-ethnic differences in collectivism have been suggested (see Vandello & Cohen, 1999), it seemed prudent to include a variable relevant to ethnicity.

The vast majority of the above demographic statistics were obtained through the Bureau of the Census’s (1997) publication *Statistical Abstracts of the United States, 1997*. The population densities of four cities (Santa Barbara, California; Youngstown, Ohio; Canton, Ohio; and East Lansing, Michigan) were obtained via the Internet (United States Census Bureau, 1999).

CORRELATIONS

The present study involved 37 cities spread out across the following 17 states (number of cities within each state in parentheses): California (9), Georgia (1), Illinois (1), Indiana (1), Kentucky (1), Louisiana (1), Massachusetts (3), Michigan (2), Missouri (2), New Jersey (1), New York (3), Ohio (3), Pennsylvania (1), Rhode Island (1), Tennessee (4), Texas (2), and Utah (1). For all correlations between city-level variables and state-level variables, each city represented a separate case in the analysis (in other words, the state-level scores were entered separately for all cities, including those cities within the same state). This resulted in all correlations having an N of 36, with some states’ scores being represented multiple times. Because all cities represented in this research were sampled independently of one another,

with participants in one city being highly unlikely to directly influence the scores derived from participants in another city, this approach meets accepted criteria of independence.

Of course, due to the fact that one state (California) contributed more than one quarter of the cities in the present study, the above analytic strategy suffers from the possibility that any effects found may be asymmetrically driven by one state. To ensure that this was not the case, we also performed all primary analyses at the state level. For these analyses, all city-level scores were averaged within each state, producing 17 state-level scores. These state-level analyses yielded results that were largely identical, in the inferential story that they told, to those performed at the city level. We opted to focus our results and interpretation on the city-level correlations, following the principle of Cohen (1990) to use the highest available N and thus avoid discarding our most precious commodity, information, unless there is a compelling statistical reason to do otherwise. For completeness, we also have included all relevant state-level analyses in tabular form for the interested reader.

COLLECTIVISM AND HELPING BEHAVIOR

RESULTS

Primary findings. A zero-order correlation showed only a weak negative relation between the U.S. Collectivism Index and the Helping Index, $r(36) = -.27$, two-tailed $p = .115$, but after controlling for five relevant demographic variables, this association was stronger and statistically significant, $r = -.41$, two-tailed $p = .022$.² (The meaning of this suppression effect will be discussed below.) In addition, to more closely examine how each demographic variable impacted the collectivism-helping relationship, each variable was also partialled out separately. These analyses revealed that this relationship strengthened when controlling for poverty, personal income, and city population, but was substantially weakened when controlling for minority percentage (see upper panel of Table 1; here, and for all further references to this table, interested readers may examine the equivalent location of Table 2 for state-level analyses, discussed previously).

Type of helping behavior. Feldman's (1968) work suggested that a different pattern of cross-cultural results emerged for different helping scenarios. Similarly, the present findings suggested that collectivists and individualists helped in different types of situations, with the six different helping scenarios revealing considerable variation in the relation between helping and collectivism. Four of the helping measures were negatively related to collectivism, whereas two of them ("dropped pen" and "hurt leg") were positively related. The largest zero-order effect was for United Way contributions, which showed a strong negative relation with collectivism, $r(36) = -.48$, $p = .003$ (although this correlation was substantially reduced when controlling for the five demographic variables; see upper panel of Table 1).

To better understand this variability, we examined more closely the relation between (a) the extent to which collectivism is associated with helping, as measured by the zero-order correlations, and (b) three dimensions along which helping contexts vary and for which each scenario was scored (the dimensions were empirically derived by Pearce & Amato, 1980, cited in Levine et al., 1994). This series of dimensions included helping behaviors characterized as (a) spontaneous versus planned, (b) doing versus giving, and (c) nonserious versus serious. All six helping scenarios had previously been scored on each of these dimensions

TABLE 1
Collectivism-Helping and Collectivism-Pace
of Life Correlations: City-Level Analyses

<i>Zero-Order Correlation</i>	<i>Collectivism When Controlling for:</i>						
	<i>Poverty</i>	<i>Income</i>	<i>GSP</i>	<i>Density</i>	<i>Minority</i>	<i>All Five</i>	
Collectivism-helping correlations (two-tailed tests)							
Helping index	-.27	-.39*	-.43**	-.30	-.42*	-.11	-.41*
Dropped pen	.15	.13	.11	.15	.12	.12	.00
Hurt leg	.16	.14	.10	.16	.11	.20	.21
Change	-.29	-.43**	-.49**	-.35*	-.41*	-.13	-.52**
Blind person	-.13	-.36*	-.21	-.14	-.16	-.10	-.25
Lost letter	-.27	-.29	-.34	-.29	-.31	-.18	-.29
United Way	-.48**	-.48**	-.51**	-.48**	-.51**	-.28	-.32
Collectivism-pace of life correlations (one-tailed tests)							
Pace of life index	-.52**	-.32*	-.47**	-.54**	-.52**	-.33*	-.26
Walking speed	-.48**	-.28	-.45**	-.48**	-.47**	-.27	-.32*
Bank speed	-.32*	-.20	-.28	-.32*	-.31*	-.05	.15
Talking speed	-.34*	-.08	-.30*	-.33*	-.34*	-.23	-.18
Watches worn	-.13	-.14	-.03	-.13	-.09	-.26	-.15

NOTE: *N* = 36 for all correlations. GSP = gross state product.
 p* < .05. *p* < .01.

TABLE 2
Collectivism-Helping and Collectivism-Pace
of Life Correlations: State-Level Analyses

<i>Zero-Order Correlation</i>	<i>Collectivism When Controlling for:</i>						
	<i>Poverty</i>	<i>Income</i>	<i>GSP</i>	<i>Density</i>	<i>Minority</i>	<i>All Five</i>	
Collectivism-helping correlations (two-tailed tests)							
Helping index	-.33	-.55*	-.57*	-.40	-.61*	-.26	-.67*
Dropped pen	.11	.04	.02	.10	.03	.14	.01
Hurt leg	.37	.31	.33	.36	.32	.26	.35
Change	-.34	-.53*	-.67**	-.46	-.63**	-.20	-.77**
Blind person	-.20	-.51*	-.27	-.21	-.23	-.31	-.54
Lost letter	-.39	-.40	-.54*	-.46	-.57*	-.23	-.36
United Way	-.60*	-.68**	-.64**	-.61*	-.65**	-.54*	-.60*
Collectivism-pace of life correlations (one-tailed tests)							
Pace of life index	-.47*	-.24	-.39	-.45*	-.43*	-.33	-.30
Walking speed	-.39	-.18	-.37	-.38	-.40	-.27	-.40
Bank speed	-.21	-.10	-.10	-.19	-.12	-.07	.23
Talking speed	-.27	.05	-.17	-.25	-.24	-.25	-.12
Watches worn	-.36	-.33	-.33	-.35	-.33	-.25	-.23

NOTE: *N* = 17 for all correlations. GSP = gross state product.
 p* < .05. *p* < .01.

(Levine et al., 1994). For this analysis, the six scenarios served as the cases in Table 1 (rows 1 to 6). For the variables, the dimension scores were entered first (columns 1 to 3), and the collectivism-helping Fisher's z scored correlation (see Howell, 1992) was entered as the final variable (column 4). This procedure resulted in a 4×6 data matrix, with the relations of interest being the correlations of columns 1 to 3 (nature of the helping situation) with column 4 (relation between collectivism and helping). The collectivism-helping correlation had a strong negative association with both the spontaneous/planned and doing/giving dimensions, $r_s(6) = -.85$ and $-.79$, two-tailed p s = .031 and .062, respectively. (The correlation that emerged on the nonserious/serious dimension was likely due to sampling error, $r(6) = -.12$, two-tailed $p = .823$.) Thus, collectivism within these six contexts of helping strangers is associated with more helping in those situations that require spontaneous response than in situations requiring planning and more helping in situations requiring direct action than in situations requiring monetary donation.

DISCUSSION

In general, a negative relation emerged between collectivism and helping behavior toward strangers, especially when controlling for poverty, personal income, and city population. That collectivism, which emphasizes social affiliation over achievement (e.g., Levine, 1997) and a heightened concern for others (Hui & Triandis, 1986), should inspire less helping seems almost paradoxical. Nevertheless, it is important to remember that the social umbrella of collectivism does not typically include the entire breadth of humankind (Schwartz, 1990); rather, it has a limited scope of persons to whom it applies (Bond & Smith, 1996). Thus, the present results suggest that if you are a stranger, you are, on the whole, less likely to reap the benefits of increased social cohesion that comes with collectivism.

We expected demographic factors to in part mediate any collectivism-helping relation and thus expected that controlling for demographic factors would reduce the effect sizes. In contrast, we found a suppression effect such that the effect size tended to increase with the addition of the control factors. One interpretation is that controlling for economic and social factors merely reduces "noise," thus reducing the error term in the inferential analysis so that the actual relationship under inquiry can be more accurately examined. Such an interpretation suggests that the primary theoretical benefit in controlling for economic and social crowding indicators is that it allowed us to ensure that the relationship of interest holds when accounting for the economic and social circumstances in each state or city. In this sense, economic indicators such as poverty can be seen as partially "masking" the real relationship between collectivism and helping (for discussion of suppressors, see Cohen & Cohen, 1983; Pedhazur, 1997). Of course, it may be that the suppression means something theoretically important beyond mere "masking"—but it is unclear at this point exactly what that meaning may be.

The only variable that substantially reduced the collectivism-helping relationship when accounted for was minority percentage. Why might this be the case? One obvious reason is that ethnocultural groups within the United States themselves differ on collectivism, with the larger European American culture tending to be less collectivistic than many of the minority groups (in every state used here, European Americans were the majority group). Thus, it may be that minority percent serves as a proxy for collectivism (see Vandello & Cohen, 1999, for discussion).

Interestingly, the present results revealed that the collectivism-helping relationship was dependent on the particular type of helping involved. At a broad level, this result reminds us

to be cautious when making sweeping generalizations about the relationship between culture and behavior. Although the overall pattern suggests an inverse collectivism-helping relationship, this relationship is not monolithic—indeed, one could easily imagine that if the selection of helping scenarios had included more of those situations in which collectivistic cultures are more likely to help, the overall picture would be quite different.

More specifically, this investigation suggests that, in America at least, the collectivism of a given region is associated with more help given directly and spontaneously, and less help given when allowed time to deliberate. Why might this occur? One possibility is that those situations in Levine et al.'s (1994) study that required deliberate, planned helping might also be those situations in which the persons in need of help were most likely to be classified as an outgroup member. Consider the two helping behaviors that showed the largest negative correlations between collectivism and helping, "lost letter" and "United Way giving." In neither of these instances were the person(s) to receive the help physically present, and it may be that this psychological distance between the helper and the persons in need made those persons more likely to be classified as an outgroup member. Because, as suggested earlier, there is reason to suspect that collectivism involves less help given to outgroup members, such an explanation may help to elucidate the differential relations between collectivism and the six helping scenarios.

Furthermore, Schwartz (1990) proposed that individualists attend more closely to the "universal context beyond the ingroup" (p. 149). This broader focus may lead cultures low on collectivism to generate comparatively fewer helping behaviors in situations arising from "close interpersonal contexts" (p. 149). In sum, such cultures may deemphasize helping those immediately present because of this broader view, whereas cultures higher on collectivism may especially deemphasize helping strangers not present because of outgroup attributions.

Of course, this reasoning is based on post hoc speculation, and as such it is unsurprising that it possesses some problems. For example, the "physical distance = outgroup" assumption may well not hold in a situation such as the "lost letter" one; people may assume that someone mailing a letter in an area that they frequently traverse in is somewhat similar. On another note, not all of the evidence is consistent with the idea that more direct contact with the person in need leads to a more positive collectivism-helping relationship. For example, all of the helping behaviors used in Feldman (1968) involved direct contact with the potential helper—and, in those studies, the most collectivistic nation's members helped the least. Similarly, in the present study, two of the "direct contact" behaviors showed negative collectivism-helping relationships (see Table 1). Although not undermining entirely the present explanation, this suggests that an inverse collectivism-helping relationship can extend into the realm of direct helping.

In addition, Feldman's studies are unclear as to whether they provide evidence that the more collectivistic Grecians are more likely to help ingroup (vs. outgroup) members. As noted above, his research suggests that Grecians are less biased in their helping of foreigners than are the more individualistic Americans and French. Feldman (1968), drawing on the ideas of Triandis, Vassiliou, and Nassiakou (1967; cited in Feldman, 1968), suggests that this is because Grecians are more likely to categorize foreigners as a "temporary" part of the ingroup. Although this may of course be true, we are yet unconvinced. Another plausible explanation may be that Grecians recognize foreigners as outgroup members and are not biased against them in spite of this (and, indeed, may be biased in favor of outgroup members). If this is the case, it may be inconsistent with the thinking that collectivists are less likely to help outgroup members.

Of course, one does not want to make too much of the Feldman study's application to wider cultural issues, given that the study had only three cultural units under the investigative lens. All of the above together, however, does suggest that it would be premature to make any strong conclusions regarding ingroup/outgroup distinctions from the present study. Although the present study contributes directly to our understanding of how culturally measured collectivism relates to helping behavior toward strangers, the exact psychological processes underlying the effect are somewhat ambiguous. Clearly, future research should clarify the psychological nature of the helping scenarios used in the present studies along ingroup/outgroup (and other) lines.

Another possible explanation for the different collectivism-helping relationships on different types of helping behavior merits discussion. The potential faster pace of life in cultures low on collectivism may impact this relationship: Although less collectivistic cultures may be in general more likely to encourage helping strangers, this principle may break down when those strangers require more immediate help for which time had not been previously allotted. In other words, a culture with a hurried pace of life may be less likely to promote immediate assistance of those in need. But do less collectivistic regions in the United States, in actual fact, have a faster pace of life? We now turn to this collectivism-pace of life relationship.

COLLECTIVISM AND PACE OF LIFE

RESULTS

Primary analyses: Intranational level. Consistent with previous research using nations (Levine, 1997), the correlation between U.S. collectivism and the overall pace of life index was strongly negative, $r(36) = -.52$, one-tailed $p < .001$. However, this effect was reduced to a trend by the partialling out of the five demographic mediators, $r = -.26$, one-tailed $p = .076$. As with the helping analyses, the individual impact of each demographic indicator was separately assessed. Three of these variables had little effect, whereas poverty and minority percentage substantially reduced the collectivism-pace of life correlation, $r_s = -.32$ and $-.33$, both one-tailed $p_s < .03$ (see lower panel of Table 1). Closer examination of the pace of life measures revealed that three of the four individual pace of life indicators were moderately to strongly negative, whereas the fourth indicator, watches worn, was not associated with collectivism (see lower panel of Table 1).

Supplementary analyses: Mediation of the international collectivism-pace of life correlation. Levine (1997) reported that collectivism was negatively correlated with the pace of life at the international level, but did not examine the effect of controlling for demographic factors. Thus, to determine whether the mediation effects described above at the within-nation level were also mirrored at the international level, we turned our attention back to Levine's (1997) original analyses. The pace of life index Levine constructed at the international level was based on three indicators. One of these directly overlaps with those used within the United States: Measurements of walking speed. The other two are conceptually related but methodologically different: The speed of service by a post office employee and the accuracy of clocks. In the present analyses, we correlated this overall index with the collectivism index reported by Hofstede (1980). Hofstede reported collectivism scores for 22 of

the 31 nations used in Levine's (1997) pace of life analyses; thus, 9 nations were dropped from these analyses. Levine (1997) did not report the magnitude of the collectivism-pace of life correlation; but, consistent with his suggestion, our analyses yielded a negative correlation of substantial size, $r(22) = -.55, p < .01$.

To identify potential demographic mediators in Levine's (1997) data, we obtained gross domestic product (GDP) per capita scores for 1989 from the United Nations statistical archives (1993; one political region, Taiwan, had to be dropped from all GDP analyses because no GDP score was reported for it) and the percentage of minority ethnic groups comprising the population via the Internet (*Encyclopedia Britannica*, 2000; one nation, France, had to be dropped from all minority percentage analyses because no ethnic breakdown was reported).³ When controlling for both GDP per capita and minority percentage, the collectivism-pace of life correlation was reduced to zero, $r = -.00$, one-tailed $p > .497$. Analyses on each mediator separately, however, suggested that the majority of this mediation effect was accounted for by GDP: When controlling for GDP alone, the collectivism-pace of life correlation was reduced to almost zero, $r = -.06$, one-tailed $p > .40$; on the other hand, controlling for minority percent alone had little effect. (Please see Table 3 for both zero-order and partial correlations on the overall index and the three individual pace of life indicators).⁴

DISCUSSION

The present results cross-validate, at the intranational level, findings reported at the international level (Levine, 1997), providing confirmatory evidence that collectivism is negatively related to pace of life. Impressively, this negative relationship occurred at both the state and nation level despite the fact that the operations of collectivism used at the two levels were markedly different. In addition, the present results in the United States are particularly interesting in that they were performed entirely within one of the most individualistic countries in the world. Such a finding suggests that the collectivism construct may have some similar meanings both within and across international borders.

Although the zero-order relationships were virtually identical at the international and intranational levels, additional analyses with demographic variables suggested that the two levels contained somewhat different patterns of mediation. Although an indicator of the per capita level of economic production did not mediate the collectivism-pace of life relationship at all within the United States, a similar indicator almost entirely mediated that relationship across nations. What might account for this difference? First, a methodological point should be noted. As Table 3 shows, most of the mediating effect for GDP at the international level occurred for postal times and clock accuracy; neither of these indicators was used in constructing the pace of life index within the United States. Indeed, the only indicator that was used across both the international and intranational levels of analyses showed a somewhat similar pattern: Both within the United States and across nations, the negative relationship between collectivism and "walking speed" was not much influenced by GDP or gross state product (GSP) per capita. Thus, it may be that the differences can be accounted for by the different ways of operationalizing pace of life in the two studies. By implication, this suggests that if other ways of operationalizing pace of life are used within the United States, then GSP per capita may play a more prominent role in mediation.

Second, although GSP per capita did not mediate the pace of life-collectivism relationship within the United States, this relationship was at least somewhat mediated by another economic indicator—poverty. Thus, it may be argued that economic indicators mediate the

TABLE 3
Collectivism–Pace of Life Correlations: Cross-National Analyses

	<i>Collectivism</i>			
	<i>Zero-Order</i>	<i>Controlling for GDP</i>	<i>Controlling for Minority</i>	<i>Controlling for Both</i>
Pace of life index	-.55**	-.06	-.46*	-.00
Walking speed	-.69**	-.52**	-.64**	-.51*
Postal speed	-.23	.24	-.14	.30
Clock accuracy	-.31	.31	-.19	.38

NOTE: $N = 22$ for all zero-order correlations; $N = 21$ for all GDP partials and Minority partials; $N = 20$ for partials including both mediators. GDP = gross domestic product.

* $p < .05$. ** $p < .01$.

relationship between pace of life and collectivism both within the United States and across nations, but the difference lies in which particular economic indicators are more important in mediation.

To the degree that it occurs, the mediation of the collectivism-pace of life relationship by economic factors suggests the importance of an “ecological” or “ecocultural” framework in understanding how particular cultural attributes and relationships emerge (e.g., Berry, 1994; Insko et al., 1980). It may be that certain core environmental and economic factors play a role in creating both collectivism (see Berry, 1994) and a slow pace of life (see Levine, 1997). Given this, one would expect that such economic factors would account for much of the relationship between collectivism and pace of life. Thus, the present analyses are consistent with the idea that culture can be understood, in part, as related conceptual structures (collectivism, pace of life) that emerge as a response to particular environmental conditions (but see also Schaller & Conway, in press).

GENERAL DISCUSSION

The present study set out to investigate the relations between collectivism and the helping of strangers, and collectivism and the pace of life. For the former association, in which the a priori hypothesis was difficult to discern from the extant literature, our results indicate that collectivism is indeed negatively associated with helping strangers, but that this relation is importantly modified by the helping context. For the latter association, in which expectations were more clear, our results serve to cross-validate research previously performed across nations, albeit with some minor differences in the influence of mediating variables.

Importantly, these findings indicate that researchers need not be limited by the low number of countries in which research may be conducted, nor is replication in a new sample necessarily impossible, or even difficult. The fact that, to our knowledge, no previous cross-cultural study on helping behavior had exceeded four cultural units serves to underscore the point that constraining research to national boundaries can be unnecessarily limiting. The American states and, by analogy, regions in China, India, Britain, and other nations with a similar organization, can serve as sources of localized culture.

Moreover, this capability is even more important when one recalls that group-level differences are not synonymous with individual-level differences. For example, although we now have both international and intranational evidence that collectivism at the regional level is negatively associated with pace of life, it does not necessarily follow that collectivistic

individuals within these regions have the slowest pace of life. Indeed, the possibility remains that within every cultural unit studied, collectivism could be positively associated with pace of life at the individual level. The ways in which variables relate within groups must be examined separately from how they relate across groups. Because cultural levels of analysis are providing us with answers that cannot be investigated in other ways, access to additional natural datasets is invaluable.

Turning now to difficulties with the present study, a potential criticism of the analytic strategy used here is that we have correlated a state-level variable with city-level variables. There are at least two related problems. First, are the city- and state-level units of analyses really compatible? Although there exists a certain inelegance in correlating state- and city-level variables, it is important to note that it works in the direction of inhibiting, not boosting, correlations. The problem is one of the precision of the instrument; the best collectivism instrument for this study would be a measure that looks at each city individually. This lack of precision ought to make it harder to find correlations that in reality exist; it is unlikely to produce spurious correlations. Thus, any correlations that emerge between the variables of interest—such as those that emerged in the present investigation—are likely to represent real relationships.

A related problem is that differences in state-level variables are more likely to reflect rural (vs. urban) differences than are city-level variables; unlike city-level variables, state-level variables include rural as well as urban populations. This is certainly a difficulty; however, reasons exist for trusting the present results to be theoretically meaningful in the face of this difficulty. First, it is true that because our results focused only on cities, in reality our interpretation, to be true to the data, should also focus only on the importance of state-level collectivism to helping/pace of life in urban environments. Although this is an important caveat to remember, it does not pose a substantial threat to the validity of the collectivism-helping or the collectivism-pace of life relationships. This would only be true if the units of analyses were confounded with rural/urban environments—that is, if we used rural environments in some states and urban environments in others, while failing to control for this confound. However, because in all states the areas surveyed were urban in nature, and because we were able to control for both state urbanization and city population density, the present results do not seem to run this risk.

The present test can be seen as analogous to any cross-cultural test that uses similar populations of people in different cultures. Although it would of course be ideal to use, for example, the entire population of China and the entire population of the United States in Chinese-American comparisons, this is not practically possible. Thus, instead researchers use persons within each country from a similar demographic background, such as students or teachers, to ensure as much as possible that the differences obtained are due to cultural, as opposed to demographic, differences (see Smith & Schwartz, 1997). Similarly, in the present study, because the collectivism measure is at the state level, it would be ideal to use the entire populations of all states in the analyses pertaining to helping and pace of life; but, given that we do not currently have access to data for those populations in entirety, a reasonable strategy is to look at similar populations of people within each state—such as city dwellers.

In addition, it is worth noting that a large majority of persons in the United States (77%) live in urban environments. Thus, state-level variables (such as collectivism) are constructed largely from urban populations. This has implications for interpretation: Even if we limited the interpretation of the present results to urban populations in the United States, the large urban population still means that the reported relationships would be applicable to the majority of persons in the United States.

Finally, statistical analyses suggest that the urban/rural distinction may be relatively unimportant in the relationships discussed here. Controlling for the percent of the population living in urban areas within a state (or nation) made practically no difference in the reported correlations between collectivism and helping at the intranational level, and between collectivism and pace of life at both the intranational and international levels (see Note 4). In addition, although no truly rural environments were used in the present study, the level of city “urbanness” was partially accounted for by controlling for the population density of the city—an analysis suggesting that population density did not matter too much in the collectivism–helping and collectivism–pace of life relationships at the state level. Of course, to more fully account for the rural/urban dimension, one would need to have the same helping and pace of life measures obtained for both urban and more genuinely rural areas within each state/country under consideration. However, though not conclusive, the above analyses do suggest that the relationships reported here may go beyond mere considerations of “urbanness.”

Taken together, the results of the present study demonstrate the usefulness of studying relations between cross-cultural variables at the intranational level. The study of culture need not be constrained by international boundaries. Focusing solely on such large cultural units can limit both our understanding of cultural processes in general and our understanding of individual cultures in particular. At the broader conceptual level, understanding intranational regional variability provides an excellent way to test the generality of theories about how culture emerges and how it influences people. At the more specific level, just as it would be wrong to presume that every person in every nation were exactly the same on some dimension (e.g., Tweed et al., 1999), it would likewise be wrong to presume that every region within a larger national unit were the same. Thus, we have much to learn about how particular nations can form relatively cohesive cultural units and yet still contain identifiable and theoretically meaningful regional differences.

NOTES

1. Following the lead of Vandello and Cohen (1999), in the present article we speak of individualism and collectivism as a single dimension. However, there are reasons to suspect that, in some contexts at least, individualism/collectivism and related constructs are composed of relatively independent dimensions (e.g., Kagitcibasi, 1997; Singelis, 1994). As pointed out by Vandello and Cohen (1999), Triandis (1989) has argued that whether individualism/collectivism is unidimensional or bidimensional depends on both what level of analysis is used and whether a broad range of values is assessed. According to Vandello and Cohen (1999), Triandis (1989) suggests that when using the nation level of analysis and obtaining a broad range of values, individualism/collectivism becomes more unidimensional. On the basis of this, Vandello and Cohen (1999) argue that because their individualism/collectivism measure is at the state level and taps into a broad range of behavioral measures, it is appropriate to speak of it as a unidimensional measure. We recognize, however, that both individualism/collectivism (Tweed et al., 1999) and other cultural identity constructs (Ryder, Alden, & Paulhus, in press) can contain more than one subdimension, and the present article is not an attempt to enter into that debate. We refer to collectivism in a unidimensional manner largely for convenience.

2. Partly because we were primarily interested in the demographic variables as mediators (and not in their predictive relationships with helping and pace of life), and partly for ease of presentation, we opted to present partial correlations instead of simultaneous regression analyses (which could have included the predictive relationships of all the demographic variables with collectivism and pace of life, while accounting for the other variables). Note, however, that simultaneous regression analyses parallel to the partial correlations presented would yield identical *p* values for the predictive validity of collectivism with the measures of helping and pace of life (while similarly accounting for the demographic measures).

3. Because the only economic indicator of any mediational impact within the United States was poverty, we had hoped to obtain comparable poverty scores across nations. However, we were unable to obtain poverty scores from a

broad enough range of nations that were comparable across international boundaries. Therefore, we did not perform analyses for poverty.

4. Because all analyses presented here are subject to the potential criticism that they do not account for rural/urban differences within states and nations, for both the intranational and international levels, we also included a measure of urbanization in the mediational analyses on the helping and pace of life composite indexes. For the states, this measure was the percentage of the population living in metropolitan areas in 1996 (U.S. Census Bureau, 2000); for the nations, it was the percentage of the population living in urban areas in 1997 (WorldBank, 2000). These partial correlations revealed that the level of urban population within either states or countries had virtually no effect on the correlations reported here between collectivism and helping, or between collectivism and pace of life. When controlling only for urban percentage, the collectivism-overall helping index correlation within the United States (computed at the city level) remains at $-.27$, two-tailed $p = .123$. When adding urban percentage to the other five mediators, the same correlation is nearly identical as when using the five mediators alone, $r = -.43$, $p = .018$. Similar results emerged for the collectivism-pace of life correlations within the United States (r controlling for urban percent = $-.53$, one-tailed $p < .001$; r controlling for all six = $-.28$, $p = .065$). (The above analyses were also computed using the state level of analysis, and, again, the correlations changed little from those already reported). Likewise, at the international level, the collectivism-pace of life correlation remained similar to previous analyses when controlling only for urban percentage ($r = -.52$, two-tailed $p = .018$), and when controlling for both urban percentage and per capita Gross Domestic Product ($r = -.04$, two-tailed $p = .860$). Thus, the rural/urban distinction does not seem to easily account for the present findings.

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