Perspective

Arguments for Testing Ethnic Identity and Acculturation as Factors in Risk Judgments

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Understanding of risk views in multiethnic societies and in a globalizing world may be enhanced by use of measures of ethnic identity and acculturation. Ethnic identity includes such attributes as positive attitudes about one's ethnic group and a sense of belonging to it, voluntary and frequent association with other ethnic group members, and ethnic practices (preferred music, food, language; attendance at ethnic festivities). Acculturation is absorption of the "host" society's cultural norms, beliefs, attitudes and behavior patterns by immigrants, or by other groups historically excluded from the larger society. Both generic and ethnicity-specific measures of these concepts are available in the literature. This Perspective reviews the literature on risk implications of these concepts, how the nature of these measures presents both opportunities and challenges to risk researchers, and the degree to which ethnic identity and acculturation may be correlated with sociodemographic factors. Conceptual and methodological suggestions are made for risk research using these concepts, and hypotheses are offered about what such research might find.

1. INTRODUCTION

Differences in risk exposures and beliefs across ethnic groups and cultures have drawn increasing attention. For example, four studies have found that white men (or a subset) seem to differ from nonwhites and women in reactions to hazards, although the studies vary in the degree and target (e.g., ratings of risk magnitudes versus other response measures) of those differences.[1–4] Flynn *et al.*[1] hypothesized that higher risk ratings among nonwhites and women might be due to greater perceptions of powerlessness, few benefits from hazardous technologies and activities, or vulnerability.

Among many questions about the power/benefit/ vulnerability hypothesis is the influence of identity,

particularly for gender and race/ethnicity. For example, someone who identifies strongly with being a woman or member of an ethnic minority, and sees such groups as subordinate in society, may rate risks higher regardless of felt personal power. "Identity" has not been addressed in risk literature to date.[5] But just as self-reported sex does not fully reflect the gendering of hazard,[6] self-reported ethnicity with census-based categories (e.g., African American or Pacific Islander) need not exhaust (or even explain) the potential impact of ethnicity on risk views.[7,8] The purpose of this thought piece is to explicate the potential role and alternative measures of ethnic identity and its relative, acculturation.

It should be noted that this Perspective does not attempt to review the entire literature in this field. First, it focuses primarily on studies done with U.S. residents (and a couple of British studies). Ethnic identity and acculturation undoubtedly apply elsewhere, probably with the same caveats and constraints as

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noted here, but that literature is not part of this review. Second, within the United States and most developed nations ethnic identity is probably more widely applicable than acculturation, since the majority of the population has been there for enough generations to be (nearly) fully acculturated to dominant values. Third, within the ethnic identity literature attention seems to have been distributed roughly with relative population size among minorities: i.e., African American dominant, Hispanic American second and coming up fast, and Asian American a distant third and divided among national origin groups (Chinese seemingly dominant). So, this review cites more studies on ethnic identity among U.S. blacks than others, to give a sense of the field and its implications for risk analysis without producing a monograph.[1]

2. ETHNIC IDENTITY AND RISK VIEWS

Ethnic identity and acculturation can be conceptualized in multiple ways. Very generally, ethnic identity can comprise such notions as positive attitudes about one's ethnic group and a sense of belonging to it, voluntary and frequent association with other ethnic group members, and ethnic practices (preferred music, food, language; attendance at ethnic festivities). Acculturation is absorption of the "host" society's cultural norms, beliefs, attitudes, and behavior patterns by immigrants, or by other groups historically excluded from the larger society.

There is suggestive evidence that ethnic identity or acculturation[2] affect risk reactions, or at least a sense of power or efficacy that might in turn affect risk responses:

1. African-American identity helps to cope with oppression and maintain well-being.[9:144]
2. Use of illegal drugs is lower among those with strong ethnic identities.[10,11]
3. "African self-consciousness" explained substantial variance among African-American college students in "health-promoting lifestyle."[12]
4. An African-American Acculturation Scale explained more variance in behavior than education and income combined, including for stress-coping strategies, cigarette smoking, and knowledge of AIDS transmission.[13:136]

5. Language acculturation among Mexican Americans was weakly associated with use of oral contraceptives, fatalism about health, and attitudes toward folk healers when education and income were controlled.[14]
6. Tales of the Tuskegee syphilis study (poor rural southern black men were left untreated for decades to observe the disease's progress) have helped foster distrust of the medical establishment among African Americans, in turn hampering public health campaigns on AIDS, among others.[15] For example, a 1997 survey found that 74% of African Americans believed they were very or somewhat likely to be doctors' guinea pigs without consent, 18% that HIV is an engineered virus, and nearly 10% that AIDS is a plot to kill blacks.[16] Such rumors in ethnic communities generally—not just among African Americans—can safeguard their bodies, economies, and culture from mainstream inroads.[17] While African-American college students had no less a sense of political power than white students, they were more likely to blame problems in the black community on prejudice and discrimination.[18] High race-central subjects (identified with a multidimensional model of racial identity) were more likely to interpret ambiguous situations as race relevant.[19] Similarly, Operario and Fiske[20] found that high ethnic identity college students were more suspicious of racism in subtle-discrimination scenarios, while those low in ethnic identity only suspected racism in obvious contexts. These findings may indicate that certain kinds of ethnic identity could boost distrust of hazard managers beyond levels generated solely by experience and history.

Overall, these scanty but provocative observations imply that influences on risk views as disparate as attributions of responsibility for hazard causes or remediation, or senses of self-efficacy and control over hazard exposure or mitigation, might be affected by ethnic identity and acculturation. But only risk analysts and colleagues in cognate fields (e.g., public health) might have the motivation to directly test this proposition.

3. SELECTING MEASURES

If such a test is to be pursued, risk analysts will have to pick their way through a rich but disorganized

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[1] The views expressed here are not necessarily those of the New Jersey Department of Environmental Protection.

[2] My impression is that the acculturation literature has been even less prone to explore risk implications than the ethnic identity literatures.

set of measures that cannot be used without deliberation and difficult choices.

3.1. Ethnicity-Specific Measures

A major challenge is choosing among the myriad possible measures of ethnic identity or acculturation in the literature. African-American, Hispanic, and Asian measures appear to dominate the field, although measures exist for smaller groups, such as Hawaiians.[21,22] This diversity poses the prospect of deploying separate scales for each ethnic group of concern, troublesome for tests of the Flynn *et al.* hypothesis, which require inclusion of multiple ethnicities in a single sample. "High-identity" for one ethnic group might not equate to "high-identity" for another; simply finding that blacks rank high and whites low on an African-American identity scale is not very helpful.

There is no unity in measures even within those targeted at a specific ethnic group. For example, the 42-item African self-consciousness (ASC) Scale taps such concepts as collective African identity, value of Africentric institutions, and value of African survival and defense against anti-African threats.[23] Hyers[9] tested a three-identity model for African Americans: preencounter individuals, who deny prejudice or the importance of black identity; immersion-emersion individuals, who express the opposite views; and internalized individuals, for whom racial identity is central but more ethnically pluralist. One African American Acculturation Scale[13] covered religious beliefs and practices; preference for things African American; interracial attitudes; family practices; general health beliefs and practices; cultural superstitions; racial segregation; and family values. Another tapped media preferences (e.g., preferring "black" to "white music"), social interaction patterns (e.g., proportion of friends who are black), and attitudes (e.g., relying mainly on relatives for help).[24] Similar diversity can be seen in measures applying to other ethnic groups, such as Hispanics[25] or Asian Americans.[22,26] From the outside it appears that there has not been much scholarly interest yet in synthesis.

3.2. Generic Measures

There are a few multiethnic measures, with the multigroup ethnic identity measure (MEIM) being the most common, in Phinney's[27] original formulation or variants.[28] It has 14 or so items, in which people report time devoted to learning about one's own ethnic group; talking to others to learn more about it; activity in organizations dominated by that ethnic group; participation in cultural practices of the group; positive feeling about one's ethnic background; and attachment to the ethnic group, among other items. Another generic instrument is the General Ethnicity Questionnaire.[29]

Generic scales offer their own problems, however, in exchange for simplifying data collection. They may fail to capture critical ethnicity-specific differences. For example, Umaña-Taylor and Fine[30] found that the MEIM worked well for Latino adolescents overall. However, analysis by place of origin revealed a significant correlation for Mexican adolescents only; low effect sizes (perhaps abetted by small sample sizes) occurred for six other groups, including Puerto Ricans. The diversity of tested scales means that we do not know whether behavior, social networks, feelings of solidarity, or ideology are most important for ethnic identity in general, much less for identity's effect on risk responses; generic scales appear to scant the ideology dimension. A particular problem is that generic scales may fail to find "high-identity" whites. For example, Yancey *et al.*[28] found that MEIM "participation" scores were lower for white adolescents. The authors were unsure whether these results reflected lower salience of white ethnic identity, or some items' negative connotations (e.g., "I am active in groups with mostly Whites" might imply racism rather than solidarity). Operario and Fiske[20] found that, unlike other groups, whites did not exhibit a significant difference between judgments of individual versus group discrimination regardless of their ethnic identity. "White ethnic identity may have less to do with perceptions of prejudice and discrimination [than] with perceptions of privilege and guilt or with attitudes toward non-Whites."[20:555] Jeffres[31] did use measures similar to those in MEIM to track differences in ethnic identity among white American ethnic groups, so researchers might need to prime whites to think about these ethnic identities for such scales to work.[3] But this approach may not work well in making "whiteness" salient. In situations where "whiteness" is more marked, ethnic identity scales might be more diagnostic of white identity, but that remains to be seen. One example of such marking is "haoles" in Hawaii, subject to some prejudice and without the numerical—and, to a lesser

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3 This may be easier to do in the United States with recent white immigrant groups (e.g., from eastern Europe and the former Soviet Union), but also may be confounded with acculturation issues.

degree, political and economic—dominance they have on the mainland United States. Another example is white expatriates in countries where "whiteness" is unusual.

Any failure to find high-identity whites (or other "majorities" where they exist, in other countries or cultures) is neither entirely unexpected—for example, whiteness is the unmarked aspect of race in the United States[32]—nor fatal for research, but it does pose problems. If whites' answers reflect social desirability biases (e.g., wish to avoid seeming racist) as much or more than they do low levels of ethnic identity, we cannot reliably impute any meaning to their responses to ethnic identity scales. Low variability on ethnic identity among whites also reduces its value in multivariate analyses of intergroup differences and similarities. Such low identity can be a substantive finding, but it remains to be seen how much it hampers research in this field.

3.3. Self-Reports

These challenges may lead some scholars to rely upon self-reports of ethnic identification typical of the U.S. Census, but this is a limited solution. Such self-reports are not entirely reliable indicators of social identity. Depending upon the situation, people might claim a proud identity, feel an identity is imposed upon them, claim an identity for strategic reasons, or refuse to make any choice based on values or social desirability reasons, among many other choices. For example, some "African Americans" in the 2000 Census may have chosen that identity rather than a multiracial identity reflecting their parentage to avoid diluting African Americans' political power, according to pre-Census debates (although the multiple-choice classification approach eventually taken by the Census Bureau should have made that choice less necessary). A growing number of U.S. citizens report themselves as simply Americans; although this occurs among whites who no longer feel linked to European backgrounds, the majority making that choice are nonwhites.[33] Census responses also can be inconsistent, with nearly twice as many reporting their race as black than reporting their ethnicity as such.[34]

4. CONFOUNDING VARIABLES

Might ethnic identity simply be a surrogate for other, more central variables, and thus add nothing to our understanding of risk views? For example, if ethnic identity is not at least partly independent of social standing,[9] it may be social standing and not identity that drives judgments of powerlessness relative to hazards.[1] The available literature provides some hints about the relation of identity and acculturation scales to other potentially relevant identity issues (e.g., citizenship or immigrant status,[28] or darker or lighter skin tone[35]) and sociodemographic variables, but not to risk judgments. Given mixed findings on sociodemographic effects on risk views,[36] this issue cannot be resolved without pursuing identity-and-risk research anyway.

4.1. Identity

The available evidence on ethnic identity's covariation with sociodemographic characteristics is scanty and mixed, in part because many studies of ethnic identity have ignored demographic confounders. In some cases this is because researchers focused on assessing the construct validity of identity measures, in which self-reported ethnicity might be the only salient demographic variable (e.g., seeing whether self-reported blacks had higher African-American identity scores than did self-reported whites). In other cases, researchers used opportunity samples, such as adolescents or college students, that made some (e.g., income, age) but not all (e.g., gender) demographic variables irrelevant or yield insufficient variation.[11,12,19,37,38]

Gender was not significant in ethnic identity across diverse groups of adolescents,[39] nor were age, gender, mother's education, household per capita income, or parents' occupation in another multiethnic sample of teens.[28] Other studies diverged on whether ethnic identity is stronger among males[40] or females.[41] Walsh[42] found neither age nor gender significant for ethnic identity among British blacks, although his sample included few blacks older than 40 years.

Higher income African Americans are likely to have greater racial identity, producing perceptions of power imbalance and ultimately system blame. African-American men exhibited higher levels of racial identity leading to system blame but for African-American women perceptions of power imbalance led to feelings of system blame.[44]

One identity model postulates black identity as taking three forms: preencounter (white frame of reference, blackness is seen as irrelevant or stigmatizing),

immersion (extreme opposite of preencounter), or internalization (African-American identity remains central, but becomes more flexible and pluralistic). Studies with this model disagree on its relation to demographics:

1. One opportunity sample suggested that demographics were irrelevant to racial identity.[45]
2. A second opportunity sample found that preencounter identity was more common in the southern and eastern United States, and among higher income blacks; immersion among the less-educated; and internalization among those with lower incomes.[46]
3. Using two random national samples, Hyers[9] concluded preencounter respondents had lower income and education than immersion types (and were more urban in one sample); immersion was less common among older southern blacks. Men, older respondents, and (in one sample) the less educated were more likely to be internalized than immersed.

4.2. Acculturation

When immigration involves relatively poor and uneducated people (true for many but not all immigrants to the United States in recent years), demographics are likely to be more influential for acculturation than for identity. For example, among Latinos greater acculturation was associated with higher income, education, marital separation or divorce, employment, and lower religiosity.[47] Among African-American men, greater acculturation linked to higher age, income, employment, and marriage, and lower importance of religion; for women, it was linked to higher income, education, separation or divorce, religious affiliation, and urban residence.[24] However, education and income were not related to scores on another African-American acculturation scale, and with age only small if significant correlations on some subscales, while women were significantly more traditional in culture than men.[13]

In short, the few studies available are not consistent about either the strength or type of effect that sociodemographic variables have on ethnic identity and acculturation, and have not explored at all the degree to which they jointly or separately contribute to risk views. This would be part of the agenda that risk analysis can contribute to the notion of ethnic identity.

5. DISCUSSION

Citation of various studies on ethnic identity and acculturation will not in itself suggest an explicit agenda for risk analysis. I offer the following suggestions to prompt further discussion.

5.1. General Implications

The literature suggests the following:

1. Ethnic identity and acculturation might have significant impacts on attributions of responsibility, self-efficacy, and other factors that could influence how respondents judge hazard risks, benefits, and their power to control these. Including identity and acculturation as independent variables may reduce substantial uncontrolled variance in results. At minimum, this will allow researchers to rule out their effects in a field that, with surprisingly few exceptions, has done little to explore "cultural" factors in risk views beyond comparisons across nations[48] and cultural theory.[49]
2. Generic measures of ethnic identity, validated for at least some uses and usually far shorter than ethnic-specific scales, are good candidates for large-scale hazard surveys and for studies comparing ethnic groups. However, they appear to be better at tapping the salience and centrality of that identity than at its meaning, in the sense of tapping behaviors (e.g., music and friendship preferences) more than ideology (as in the attribution[15–18] and multiple-black-identity (preencounter; internalization; immersion) studies[9,45,46]). Although their use is a good first step, it is unlikely to be adequate for all questions about ethnic identity of interest to risk analysts.
3. Whites are the problematic group, at least among Americans. Although most measures have not been applied to them, it appears that their answers to generic scales might not mean the same as others' answers, and their answers to an ethnic identity scale ostensibly measuring a nonwhite identity may not provide useful information to researchers beyond that provided by self-reported ethnicity. We need detailed (particularly qualitative) research that goes beyond the "whiteness" research to date[32] to explore whites' reactions to the existing generic scales. Otherwise we

will be unable to resolve whether the problem is conceptual or methodological; inclusion of whites' responses to the scale in multivariate analyses is appropriate or misleading; or the problem can be resolved or not. Ethnic-identity scholars, as far as I can tell, have not been motivated to do such research; risk analysts may have to act as the catalyst to move it forward, or suffer doubt about the validity of findings that include whites as participants.

4. Ethnic-specific scales could be substitutes or supplements to the generic measures. As substitutes, they can test the effect of identity differences *within* ethnic groups, particularly for attributes not tapped by the generic scales. As supplements, they can reveal how well the generic measures explain risk views relative to specific measures, as well as expand the minuscule literature on the relation of generic and specific identity measures generally. Unfortunately, usually multiple scales exist for a given ethnic group, but rarely have these been compared for mutual validation or relative prediction of identity, much less tested as relative predictors of risk beliefs or behaviors. While this situation might be resolved as the various ethnic-identity fields mature, risk analysts might need to catalyze this effort as well as the white-identity research.

5. Controls for demographic or other potentially associated factors (such as immigration status and timing) should be a standard approach in use of ethnic identity and acculturation in risk research. The paucity of such controls in the identity/acculturation literature proper does not yet allow scholars to presume what independent effects these factors will have on risk views.

A further methodological caution has to do with the application of broad measures to groups with potentially significant diversity. For example, citizens of recent Caribbean or African national origins may be as prone to label themselves African Americans—if that is the only salient choice offered—as those who have lived here for several generations. "Hispanic" might apply to Mexican versus Cuban immigrants, and "Asian American" to people with Chinese, Japanese, Filipino, or Indian ancestry. But the reliability of applying the usually broad ethnicity-specific measures (e.g., "black" identity scales) to these subgroups is largely unknown; only one ethnic identity study cited

earlier addressed this issue.[30] In fact, the degree to which Americans of Asian ancestry, for example, accept identification as "Asian Americans" varies with context.[50] Measures of immigration status and nation of origin are prudent controls, as is humility in generalizing beyond one's sample members.

Another desirable research task would be to expand this work beyond the United States, and particularly beyond the "developed" countries that have borne the brunt of risk research to date. Almost nothing is known about hazard views in most of the world on any basis, much less that of ethnic identity or acculturation; the few published studies[51] done in the People's Republic of China, for example, have used largely urban student samples of that country's multi-ethnic (if mostly Han) population. Without overlooking the difficulties of general risk research in much of the world, ethnic identity and acculturation are major issues in most countries. If this Perspective can inspire pertinent risk research beyond the North America-Europe axis, the results should at least raise confidence in our understanding of risk views in a globalizing world, and might make a small contribution to resolving some of its conflicts.

5.2. Hypotheses

Imprudent as it may be to venture guesses as to what a mature risk-and-identity literature would conclude, reviewers asked for my thoughts on that point. These speculations are informed primarily by my reflections upon the literature reviewed here and that on risk beliefs generally, but do not seem inconsistent with broader research on social identity processes, which finds its motivation to be "uncertainty reduction" and "self-enhancement":[52]4

1. Ethnic identity and acculturation will indeed provide significant explanatory power for differences in risk views in mixed populations or within groups (e.g., "minorities" in the United States) whose identity vis-à-vis the wider society is salient, including when other variables (e.g., trust, demographics) are controlled.
2. Ethnic identity's effects are likely to be weakest for views of hazards that are racially or ethnically salient within the cultural context (e.g., "crime" or "drugs" or "welfare" or "affirmative action" in the United States)—because variations in risk judgments will be driven

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4 I am indebted to Michael A. Hogg for these references.

more by other factors (e.g., self-reported race or political ideology)—and of hazards that are familiar and without cultural/ethnic associations (e.g., automobile safety). Ethnic identity ought to have its strongest effects for hazards that are ambiguous as to their implications for identity.

3. Acculturation is likely to have its largest effects for hazards for which national or cultural identity is an issue (e.g., "homeland" security, immigration, "risky" behaviors that affirm or violate traditional norms). People who are only partly acculturated to society's dominant values will exhibit the most inconsistency in their risk views and behaviors.

4. Different types of ethnic identity measures might have differing effects on risk views. For example, ideological measures of identity might be more influential for trust in institutional hazard managers, while strong social and cultural ties to one's ethnic group might boost self-efficacy judgments for hazards above those of people with weak ties (assuming the group is deemed both supportive of the individual and efficacious itself).

6. CONCLUSION

My point in this Perspective is not that ethnic identity or acculturation are more important than "psychometric" measures or emotion or other factors familiar to risk scholars; they may or may not be. But, when the unexplained variance in risk views is still large after trust, risk beliefs, and other standard items are entered as independent variables,[1–2] other strategies need to be explored. Exploring differences or similarities in views of risk within and among ethnic groups is important, particularly if such differences lead to disparities in actual risk levels that could be avoided otherwise. My hope is that this discussion will alert colleagues to the opportunities and pitfalls represented by the potential explanatory concepts of ethnic identity and acculturation.

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