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Acculturation Research Critiques and Alternative Research Designs

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Abstract and Keywords

Dictionary definitions concur that “acculturation” means second-culture acquisition, but “acculturation” began as a Eurocentric concept that inferior peoples improve themselves by imitating superior peoples. Shadows of this persist despite the acceleration of acculturation research from nine studies per decade in the 1920s to the current rate of more than 6000 per decade. Reviews of this research have noted confused findings and lack of utility. Critics either (1) advocate for qualitative methods because culture, identity, and human experience are too complex for psychometric methods, or (2) recommend new models and new forms of quantitative analysis, or (3) fault research for poor social science practices. Rudmin (2006) has argued that academics’ shared liberal ideology causes collective confirmation bias that shapes research to promote advocacy of bicultural integration. Many future research designs and projects are proposed, including emic studies of rural-urban migration in China and the development of single-case measures of acculturative competence.

Keywords: acculturation, bicultural, confirmation bias, China, definitions, history, integration, liberal ideology, psychometrics, research designs

Accelerating Research Productivity

Rudmin’s (2003a, 2003b, 2009) historical studies have marked Thomas and Znaniecki’s (1918) *Polish Peasant in Europe and America* as the start of empirical research on acculturation. There has since been an accelerating development of research in the social science and health disciplines. Spiro (1955), Borrie (1959), Baglioni (1964), Abramson (1980), and Berry (this volume) have also written histories of these developments. The historical productivity of acculturation research can be estimated by a search of PsycINFO and MEDLINE using the truncated expression in the title, abstract, key concepts, and subject heading fields. Table 1 illustrates the dramatic acceleration in acculturation research indexed by PsycINFO, rising from nine records per decade in the 1920s to currently more than 6000 records per decade. The MEDLINE tabulation of acculturation research in health related journals also shows acceleration. Similarly, the fourth column shows the percent of articles in PsycINFO found by the search that also have at least one of 30 health-related key-words.

The trends shown in Table 1 have implications for future research on the topic of acculturation. First, the literature is now massive and beyond the abilities of individual researchers to encompass. Future research might more frequently include focused literature reviews and meta-analyses. Second, Table 1 indicates that acculturation is increasingly a health science topic. This trend might be expected to cause a shift away from social science research paradigms and toward health science paradigms, for example, use of experimental designs that can test causal hypotheses, use of dose effects, use of physiological measures, Bayesian estimates of risk, randomized controlled trials (RCTs), retrospective case-control, prospective cohort controls, historical controls, and ecological paradigms.

Table 1 Decade Counts from PsycINFO and MEDLINE for the Truncated Expression in the Title, Abstract, Key Concepts or Subject Headings Fields.

10-Year Intervals	N of Articles Found by the Truncated Search Term		N of PsycINFO Articles with and with Health Terms	% with Health Terms
	PsycINFO	MEDLINE		
1925-1934	9	—	0	0%
1935-1944	43	0	7	16%
1945-1954	91	9	21	23%
1955-1964	134	46	26	19%
1965-1974	203	179	41	20%
1975-1984	577	347	131	23%
1985-1994	1422	901	342	24%
1995-2004	3233	1635	1481	46%
2005-2014	6010	3657	3067	51%

Note: The % indicates the percent of the PsycINFO search that also had health-related keywords in the abstract. Health terms in the Boolean search were: .

Unfortunately, the accelerating production of health acculturation research has not resulted in corresponding amounts of useful information. Many independent reviews of health acculturation research have been very critical (Rudmin, 2009). For example, Sheldon and Parker (1992, p. 104) concluded that “studies have been mainly descriptive and have not been used to develop and evaluate strategies to improve health care.” Escobar and Vega (2000, p. 739) concluded, “The experience of psychiatric epidemiology has shown that no explanatory power is gained by the inclusion of multidimensional acculturation scales.” Salant and Lauderdale (2003, p. 87) concluded, “This literature is highly fragmented in both how acculturation is assessed and how it relates to health.” Cabassa (2003, p. 139) concluded, “Literature reviews that have examined the relationship between acculturation and the mental health status of Hispanic groups ... have found a plethora of inconsistent and inconclusive findings.” Hunt, Schneider, and Comer (2004, p. 981) concluded, “Despite its prominence in current research on the unequal distribution of poor health among ethnic minorities in the US, acculturation as a variable in health research is riddled with serious conceptual and factual errors.” Lara, Gamboa, Kahramanian, Morales, and Bautista (2005, p. 383), working under a Rand Corporation contract, concluded, “The literature on acculturation to date lacks sufficient breadth and methodological rigor to make comprehensive and definitive evidence-based recommendations.”

This chapter is the critical balance to the approving claims about acculturation research in the other chapters in this volume. The argument underlying this critique of acculturation is that contemporary acculturation research entails a neglect of the history of the constructs, research questions, and paradigms. This ignorance of history has allowed historical and ideological biases to be unnoticed, thus empowering confirmation biases and collegial conformity to reproduce research that has little utility. Though most modern researchers may dismiss history as useless or uninteresting, such dismissiveness appears to damage research.

History of the Acculturation Construct

The *Oxford English Dictionary* (Simpson & Weiner, 1989, p. 91) defines acculturation as “the adoption and assimilation of an alien culture.” The *Chambers Twentieth Century Dictionary* (Macdonald, 1973, p. 9) defines acculturation as the “process, or result, of adopting features (artifacts, customs, or beliefs) from another civilization.” The *Random House Dictionary* (Stein & Urdang, 1967, p. 10) defines acculturation as “the process of adopting the cultural traits or social patterns of another group,” and *Merriam-Webster’s Collegiate Dictionary* (Mish, 2003, p. 9) defines acculturation as “cultural modification of an individual, group, or people by adapting to or borrowing traits from another culture.” In other words, acculturation is the acquisition of second cultures, whether completely or incompletely, correctly or incorrectly, intentionally or unconsciously, alone or collectively (Rudmin, 2009). By definition, acculturating individuals always and unavoidably become bicultural to some degree.

The etymology of “acculturation” consists of the Latin prefix “ad,” meaning “toward,” attached to the root “cultur” (Macdonald, 1973; Morris, 1975). In English phonology, “ad” is transformed to “ac,” producing “acculturation,” “accultural,” and so forth, rather than “adculturation” or “adcultural.” Thus, by etymology, “acculturation” has a directional aspect, meaning movement toward a culture, in other words, second-culture acquisition. This should not be confused with a seemingly similar word created by attaching the Greek prefix “a,” meaning “not,” to the root “cultur,” for example, “acultural,” meaning “without culture.”

The concept of acculturation has an historic dark shadow that most researchers have not noticed and might deny. The *Heritage Illustrated Dictionary of the English Language* (Morris, 1975, p. 9) defines acculturation as “the modification of a primitive culture by contact with an advanced culture.” The *Oxford English Dictionary* (Simpson & Weiner, 1989, p. 91) presents example uses of the term “acculturation,” some of which illustrate this demeaning definition:

- 1950 “A primitive community that is in the process of being acculturated to the West.”
- 1951 “Terms such as ‘acculturation’ were introduced to express the way in which new patterns of behavior or types of relationship were acquired and incorporated into a primitive system.”

The *Oxford English Dictionary* (Simpson & Weiner, 1989, p. 91) also identifies the first use of “acculturation” to be in John Wesley Powell’s 1880 book, *Introduction to the Study of Indian Languages*. Rudmin (2003c) found no earlier use of the term; so, “acculturation” appears to have been coined by Powell in this passage:

The force of acculturation under the overwhelming presence of millions [of Europeans] has wrought great changes. Primitive Indian society has either been modified or supplanted, primitive religions have been changed, primitive arts lost, and, in like manner, primitive languages have not remained unmodified.

(Powell, 1880, p. 46)

In 1883, Powell explained that the concept of acculturation refers to the process of psychological evolution achieved by primitive people imitating the skills, technologies, and ideas invented by an advanced society:

By this process, they re-invent for themselves, and to a large extent exercise their mind in the same psychic activities. This is acculturation. It is the subjective adjustment of the lower to the higher.

(Powell, 1883, pp. 206–207)

Powell did not define “lower” and “higher” cultures. Those designations typically arise from conventional stereotypes and prejudices, determined by the cultural group self-designating itself to be “advanced” based on its economic and military power, on its own cultural values of what is “good,” and on its dominance of scientific discourse. In contexts of colonialism and apartheid, the *minority* may designate itself to be advanced and the majority population to be primitive. Thus, in the original conception of acculturation, primitive peoples acculturate; whereas, advanced peoples do not acculturate.

Not knowing the history of the construct, acculturation researchers overlook the lack of acculturation research on the imperial European peoples, especially the Anglo-Saxon societies, who deem themselves to be advanced. Designations of “primitive” and “advanced” become difficult when equally powerful and confident cultures interact. For example, in the 16th century, Portugal opened relations with Japan in a two-way process of cultural

learning and cultural change (Castro, 2014a, 2014b; Fróis, 1585/2014; Lévi-Strauss, 1998; Pinto, 1514/1989; Subrahmanyam, 2012; Üçerler, 2008). This might have been the case when Britain opened relations with China in the 17th and 18th centuries (Morse, 1926–1929; Peyrefitte, 1993). In the Chinese value system, “huayiguan” means “Chinese superior, others inferior” (Zhang & Xu, 2007, p. 414). Hence, the emperor wrote to the British king, “Our Celestial Empire possesses all things in prolific abundance and lacks no product within its borders. There is therefore no need to import the manufactures of outside barbarians in exchange for our own produce” (Yang, 1991, p. 22). Future research might examine historical reports, logbooks, diaries, and so forth, of early European and American diplomats, captains, traders, and missionaries to recover their theories and experiences of cultural change, especially when encountering other imperial societies.

In sum, the concept of acculturation arose in an era of ethnocentric arrogance, such that acculturation described inferior people being improved by acquiring the cultures of superior people. This unidirectional, perhaps racist, concept was immediately challenged by cultural relativists. In 1888, Franz Boas argued that acculturation is a universal process: “It is not too much to say that there is no people whose customs have developed uninfluenced by foreign culture, that has not borrowed arts and ideas which it has developed in its own way” (Boas, 1888/1940, p. 631). He noted that the English language is an acculturative fusion of several languages and that “the steel harpoon used by American and Scotch whalers is a slightly modified imitation of the Eskimo harpoon” (Boas, 1888/1940, p. 635). Boas’s first doctoral student, Alexander Chamberlain, was a prolific anthropologist who argued that it was important for the American majority to know the influences of Native American and African cultures on mainstream American culture (Rudmin, 1990, 1999). For example, Chamberlain (1891) documented the Algonkian tribes’ technology for producing maple syrup, which was imitated by the European settlers and is now a common aspect of American and Canadian cultures.

Continuing the relativists’ efforts, a 1936 committee of the US Social Science Research Council defined acculturation without reference to the primitive-advanced dichotomy: “Acculturation comprehends those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original cultural patterns of either or both groups” (Redfield, Linton, & Herskovits, 1936, p. 149). The committee explained that cultural diffusion is *always* an aspect of acculturation, and that once cultural practices, beliefs, values, and so forth, start moving between groups, then there are three possible outcomes: (1) Acceptance (now called assimilation), entailing one group completely adopting the other group’s culture; (2) Adaptation, entailing the fusion of the two cultures into a new culture; and (3) Reaction (now called separation), entailing “contra-acculturative movements” to impede cultural diffusion (Redfield et al., 1936, p. 152). Enduring biculturalism by one or both groups was not considered a possible outcome. Future research might examine the historical and anthropological records for models of enduring minority biculturalism and alternatively for models of biculturalism as a transition to cultural assimilation or to cultural fusion.

The Redfield et al. (1936) definition is unsuited for studies of individuals, especially migrants, because individuals can acculturate without their cultural group experiencing diffusion processes and acculturative changes (Rudmin, 2009). Nevertheless, this definition is very frequently cited in acculturation studies, probably because its apparent cultural relativism is appealing to modern researchers. No modern researchers would overtly endorse the original racist conception of acculturation, but because they are unaware of its history, the shadow of that conception creeps unseen into research practices. Escobar, Nervi, and Gara (2000, p. 64) called this “pernicious social Darwinism” because it is like an endemic condition that widely damages acculturation research but is unnoticed by most researchers and readers. Consider six signs that the demeaning conception of acculturation is still operating.

First, because the original conception of acculturation presumed changes in inferior groups, then co-occurrences of acculturation and discrimination in current research could signify that the old conception is still operating. Indeed, discrimination is considered by some researchers to be a component of the acculturation construct (e.g., Malcarne, Chavira, Fernandez, & Liu, 2006; Padilla, 1980; Richman, Gaviria, Flaherty, Birz, & Wintrob, 1987) or a component of acculturative stress (e.g., Abouguendia & Noels, 2001; Joiner & Walker, 2002; Kim-Bae, 1999; Lay & Nguyen, 1998; Sandhu & Asrabadi, 1994). Many studies have found acculturation and discrimination to be co-occurring phenomena (see Rudmin’s 2009 review). For example, in a multivariate study of 42 immigrant samples in 13 advanced nations, perceived discrimination was the strongest predictor of immigrants’ acculturation problems (Vedder, Vijver, & Liebkind, 2006). In sum, because discrimination against acculturating persons is evident in contemporary acculturation constructs and in contemporary acculturation data, then it appears that discriminated groups are the ones studied, as would be expected by the original conception that acculturation happens to

“inferior” people.

Second, acculturation research often attributes negative health status to minority cultures or to their acculturation processes, without consideration of low socioeconomic status (SES) (Rudmin, 2009). As early as 1992, reviews by Moyerman and Forman (1992) and by Negy and Woods (1992) established that low SES, like discrimination, co-occurs with acculturation and has a stronger impact on health than do the acculturation variables. Nevertheless, studies continue to be designed and published that fail to measure and control for SES. This problem has been noted by critics of health acculturation research (e.g., Sheldon & Parker, 1992; Recio-Adrados, 1993; Hunt et al., 2004; Yamada, Valle, Barrio, & Jeste, 2006) who worry that acculturation research “can inadvertently fuel weak explanations of health disparities by focusing attention on culture rather than on structural constraints” (Abraído-Lanza, Armbrister, Flórez, & Aguirre, 2006, p. 1344). By definition, persons with low SES have inferior resources and status. Research that fails to control for SES can misattribute the effects of low SES to the acculturating groups’ cultural processes, thereby enacting the old conception that acculturation happens to inferior people.

Third, the stigmatizing conception of acculturation can also be seen in the use of “dominant” to label one of the acculturating groups. “Dominant” describes power relationships between groups, one superior and the other inferior. A full-text search of PsycARTICLES before 2015, using the truncated search expression , found 2756 articles, and a further refinement search using the Boolean search expression <“dominant group” OR “dominant culture” OR “dominant society”> found 404 articles. A similar search of Google Scholar found 12,600 and 2720 articles, respectively. These quick counts suggest that perhaps 15% to 20% of acculturation studies label one group to be “dominant,” to which an inferior group will be acculturating, in a one-way process of cultural change. Future research might experimentally examine the semantic effects of the labels “superior group,” “dominant group,” “majority group,” “destination group,” and “cultural group” in questionnaire surveys and in research reports about acculturation.

Fourth, most acculturation research is about minorities in the United States, but without expectations that the American population is reciprocally acculturating to them, showing an implicit presumption that dominant cultures do not acculturate to inferior cultures. Rudmin (2009) found about 60% of all acculturation research to be about Hispanics and Asians in the United States; Nguyen and Benet-Martinez (2013) found that 65% of the studies included in their meta-analysis to be about minorities in the United States. Nevertheless, acculturation research rarely, if ever, considers acculturative changes in the dominant American population. For example, maple syrup, fried chicken, hamburger, pizza, tacos, and bagels are now common American foods, and “raccoon,” “jazz,” “kindergarten,” “patio,” “canyon,” and “glitch” are now common American words, coming respectively from Native American, African American, German, Italian, Hispanic, and Jewish minorities. A few studies of majority group acculturation have appeared in Europe (e.g., Geschke, Mummendey, Kessler, & Funke, 2010; Rudmin, Villemo, & Olsen, 2007), and future research might model on these studies in other national contexts. Future research might also try to identify the thresholds at which acculturating individuals, for example, Americans learning to eat tofu or to do yoga, become so numerous or so distributed that these foreign practices become “American culture” as have such adopted practices as eating peanut butter, putting up Christmas trees, driving on autobahns, and using the World Wide Web.

Fifth, the research community’s reaction to findings that minority groups are superior is often to declare such findings “counterintuitive” or a “paradox,” indicating an undeclared presumption that minorities were expected to be inferior on the selected criteria variables (e.g., De Maio, 2010; Hummer, Powers, Pullum, Gossman, & Frisbie, 2007; Markides & Coreil, 1986; Sam, Vedder, Liebkind, Neto, & Virta, 2008). Large-*N* studies, especially those based on representative population samples, often produce data showing immigrants to have mental and physical health better than that of the dominant society (e.g., Abu-Rayya, 2013; De Maio, 2010; Escobar et al., 2000; Harker, 2001; Kwak & Rudmin, 2014; Read, Amick, & Donato, 2005). In a study using 42 opportunistic samples of adolescents in 13 nations, Berry, Phinney, Sam, and Vedder (2006, p. 284) tabled data showing that, in each of the 13 nations studied, the minority adolescents had lower scores than their national peers on psychological problems and behavior problems and higher scores on school adjustment. The binomial probability of all 39 comparisons favoring the minority by chance is extremely small, $p < .00000000001$. The two groups were not statistically different in self-esteem, and both were within norms for positive life-satisfaction (Sam, Vedder, Ward, & Horenczyk, 2006). Sam et al. (2006) interpreted these results using concepts of “the immigrant paradox” and the “healthy immigrant effect,” implying that the acculturating groups should naturally be inferior unless something caused the effect of them becoming superior.

Explanations of “paradox” and “counterintuitive” are not applied when immigrants from advanced societies settle as minority groups in expatriate residential communities and are found to have superior health. For example, Howard (2008) found that 92% of US, UK, Canadian, and Australian retirees residing in Thailand reported good or excellent well-being, and La Parra and Mateo (2008) found that UK retirees residing in Spain had comparable health profiles to the Spanish population but had better mobility and self-perceived health. Full-text searches of these two articles found no mention of these findings being surprising, unexpected, counterintuitive, or paradoxical. Ward (1999) reported that 99% of British and 94% of Americans residing in Singapore rejected cultural integration with the Chinese majority. By current acculturation theory, such strong rejection of bicultural integration should have negative health consequences for these expatriate minorities. However, few researchers, if any, have thought to examine this, possibly because the British and Americans are presumed to be superior on health variables.

Sixth, for a final sign that the demeaning conceptualization of acculturation is still active, consider that minority cultures are rarely described in any objective detail, for example, by reference to ethnographic or historical literature, or by reference to dimensional cultural characteristics, such as those by Hofstede (1980). Acculturating minorities are often identified by broad regional labels. Such labels activate stereotypes, which often are pejorative. In a search of PsycINFO before 2015, a total of 8994 entries had in the abstract, and 1259 (14%) of these identified the acculturating minority as Hispanic, 1347 (15%) as Latino/Latina, and 1369 (15%) as Asian. Latin America is large and culturally diverse. Asia is even larger and even more diverse, including Israel, Iraq, Turkey, Iran, Afghanistan, Pakistan, India, Indonesia, Thailand, Vietnam, China, Korea, Japan, and Russia. To label minority individuals as “Latino” or “Asian” indicates a demeaning lack of interest in their cultures and in how aspects of their cultures might be adopted by the majority American population. Guacamole is not Latino or Hispanic, it is Mexican. Sushi is not Asian or Asian American, it is Japanese. Both foods are being assimilated by US culture, but such processes are unseen and unstudied by acculturation scholars.

In sum, 21st-century acculturation research seems to be unconsciously contaminated by 19th-century constructs. It is the field’s ignorance of the history of acculturation that empowers that history to have continuing but unnoticed influence on current research. Constructs, questions, methods, and interpretations are reproduced without awareness of their origins or their implications. Future research might use paradigms from the fields of theoretical psychology, deconstructive philosophy, or sociology of science to better understand how historic constructs, ideologies, and paradigms impinge on current acculturation research without awareness that this is happening.

Use of definitions that acculturation is second-culture acquisition would eliminate issues of inequality of cultures and might make clear that health outcomes are to be predicted by second-culture acquisition, not by minority status, nor by minority culture per se, nor by minority group poverty, nor by discrimination. Focusing acculturation on second-culture acquisition would direct attention to the learning processes by which cultures are acquired, and thus might generate more research on efficient methods of acculturative learning (Masgoret & Ward, 2006).

Law Controls Acculturation

Contact between cultural groups and processes of acculturation predate the 1880 coinage of the word “acculturation” (Rudmin, 2003a, 2003b, 2009). As early as the third millennium BC, codified law arose in the Middle Eastern empires in order to merge diverse tribal cultures and to moderate the acculturative influences of foreigners (Gadd, 1971; Johns, 1910/1991; Smith, 1993; Wiseman, 1971). Jackson (1995) has argued that biblical law also was written to give Israelites a secure ethnic identity and to reduce acculturative threats.

Plato (348 BC/1969, p. 1495) was probably the first recorded scholar to theorize about acculturation and its relationship to law:

Now free intercourse between different states has the tendency to produce all manner of admixture of characters, as the itch for innovation is caught by host from visitor or visitor from host. Now this may result in the most detrimental consequences to a society where public life is sound and controlled by right laws, though in most communities where the laws are far from what they should be, it makes no real difference that the inhabitants should welcome the foreign visitor and blend with him, or take a jaunt into another state themselves, as and when the fancy for travel takes hold of them, young or old.

Another translation of the first sentence is “strangers are always suggesting novelties to strangers” (Plato, 348

BC/1892, p. 338). Implicit in Plato's writing are: (1) acculturation is universal because of innate human tendencies for imitation and for travel, (2) acculturation threatens social order, and (3) acculturation and law can conflict.

As in Classical Greece, Chinese scholars were also concerned about social order and thought themselves to be the only civilized people (Chan, 2003). By the concept of "tianxia" (meaning "all under Heaven"), moral authority was the criterion for civilized behavior as a regime of value rather than a regime of power (Levenson, 1958/2005; G. Wang, 2013). As long as ethnic minorities accommodated Chinese values, all forms of ethnic identity and behavior were acceptable (Harrison, 2014). Future research might fully elaborate and explain classical Chinese thinking and policies on intercultural relations. Such might help Eurocentric scholars understand the social mechanisms by which minority cultures can endure for millennia despite continuous acculturative contact with a dominating imperial culture.

The Persian and Roman Empires also encompassed varieties of local cultures that they consolidated by codified law in domains of commerce and civic duties, but they practiced equality in other cultural domains (Grove, 1997; Momigliano, 1971; Munn-Rankin, 1971). The Roman emperor Claudius advocated the policy of treating minorities as equal citizens, noting, "We have had foreigners to reign over us" (Tacitus, 109/1909, p. 32).

Acculturation phenomena and writings became more apparent with the rise of nation-states and the need to merge cultural groups (Stewart, 1997). DeTocqueville (1835/1945, p. 452) argued that America will become monocultural, not by assimilation, but by settlers of diverse origins fusing their cultures, thus "preserving the same civilization, the same language, the same religion, the same habits, the same manners, and imbued with the same opinions, propagated under the same forms." At the end of the 19th century, Simons (1901–1902) wrote a five-part history of acculturative fusion, drawing on the writings of French, German, and Russian scholars. Simons called acculturation "reciprocal accommodation":

It may, perhaps, be defined as that process of adjustment or accommodation which occurs between the members of two different races, if their contact is prolonged and if the necessary psychic conditions are present. The result is group-homogeneity to a greater or less degree. Figuratively speaking, it is the process by which the aggregation of peoples is changed from a mere mechanical mixture into a chemical compound.

(Simons, 1901, part I, pp. 791–792)

Fusion acculturation is also evident in Brazil (Castro, 2012, 2014a, 2014b) and has been well described by Freyre (1933/1986, 1961). Future research might revive a focus on acculturative fusion and empirically describe, measure, and predict bicultural fusion at the individual and group levels.

In sum, governments control acculturation practices by the use of coercive law. Cultural minorities are not free to choose cultural practices based on their preferences, attitudes, and cultural traditions because they confront laws about family relations, child rearing, language use, food, dress, and so forth. Acculturation research must consider the laws that minorities encounter that restrict cultural practices and mandate acculturative changes. Acculturation research directed to applied improvements in the health and well-being of minorities must give more attention to the historical and continuing links between law and acculturation (Rudmin, 2003a).

Finding Faults in Acculturation Research

Applied science, especially in the health fields, welcomes and responds to critics because tolerance of research errors is unethical and perhaps life threatening. The critical literature on acculturation research is diverse and often set within the introductions of empirical papers. Critics of acculturation seem to be of three general types.

First are critics who point to the complexity of culture in dynamic historical contexts and to the complexity of individuals' unique understanding of their identities and lives. These critics challenge the validity of itemized questions about cultural components and traits, selected and imposed by researchers, the answers to which are quantified and analyzed in aggregated samples, for example, Bhatia and Ram (2001, 2009), Chirkov (2009), Kramer (2000), Mahalingam and Rabelo (2013), Meintel (1973), and Rudmin (2010a, 2010b). Such critics tend to recommend that acculturating persons be given voice; tend to argue that historical contexts should be salient including colonialism, racism, sexism, and social class structure; and tend to advocate for qualitative research

methods, though not always, for example, Weinreich (2009). Future research might review qualitative acculturation research reports and compare their summary conclusions with summary reviews of quantitative research.

Second are critics who accept the common positivistic paradigms for studying acculturation but who advocate for adjusting the acculturation models, usually by adding more complexity, for example, Benet-Martínez and Haritatos (2005), Bourhis, Moise, Perreault, and Senecal (1997), Navas et al., (2005), and Schwartz, Unger, Zamboanga, and Szapocznik (2010). Such critics tend to recommend adding new constructs or variables to the existing acculturation paradigms, tend to identify their proposals as “new models,” and tend to employ flow diagrams and to advocate structural equation modeling. Future research might compare several such multivariate models of acculturation to determine which have better fit and which are more likely to lead to useful applications.

Third are critics who fault acculturation research not for unrealistic methods, nor for inadequate modeling, but for poor execution, exemplified by those critics quoted earlier in the opening of this paper and reviewed by Rudmin (2009). Such critics tend to argue that acculturation literature cannot be summarized due to inconsistent constructs, methods, and findings. They tend to make detailed methodological recommendations. Future research might systematically compile and review the technical recommendations for acculturation research and query active researchers on why these recommendations are not adopted.

The present critique argues that contemporary acculturation research has serious faults, in part, because of insufficient understanding of the historical and ideological contexts of acculturation science and insufficient caution concerning ethical science about disempowered people. The research community seems to find the techniques of psychometrics too easily engaged: The Likert-scale method makes it possible to measure any imagined constructs, Cronbach's alpha coefficients make it possible to have confidence in the Likert measures, and multivariate machinations make it possible to interact the measures to appear objective and scientific. This is not to argue that psychometric scales and multivariate statistics are useless, rather, that they are useless for assuring useful research. This has been noted by Recio-Adrados (1993, p. 66):

Existing studies that focus on the process of acculturation seem to have reached an impasse. The problems seems to lie with (1) the limited conceptualization and theory and (2) overemphasis on almost redundant psychometrics.

One of the founders of social psychology, Gardner Murphy (1939, p. 115), had warned of this problem five decades earlier:

Undoubtedly a large part of our trouble has been an over-rapid development of research techniques which can be applied to the surface aspects of almost any social response, and are reasonably sure to give a publishable numerical answer to almost any casual question.

Much of contemporary acculturation research seems to be marching in a conformist, confirmation-bias bandwagon, drumming up evidence by which to advocate that minority groups should become bicultural as a way to achieve better mental and physical health. This is perplexing considering that acculturation, by definition, necessarily and unavoidably causes biculturalism in some form, to some degree. In most acculturative contexts, minimal biculturalism is unavoidable because laws impose behavioral conformities and prohibitions. This fixation on finding empirical evidence favoring biculturalism is also perplexing considering that there is no research community promoting a counterposition.

Past scholars advocating forms of bicultural integration include Thomas and Znaniecki (1918), Berkson (1920/1969), Miller (1924), and Wirth (1945). One dominant scholar, Kurt Lewin (1948, p. 179), recommended “double loyalty,” and another, Emory Bogardus (1949 pp. 127–128), recommended “democratic acculturation,” which entailed the following: (1) “The representatives of each culture view all other cultures with respect and in terms of their history and their merits”; (2) “No compulsion is exercised on anyone as a rule to accept cultural patterns different from his own”; (3) “It includes the proposal to encourage an immigrant to develop his cultural traits fully and then to make culture contributions to the national life”; (4) “Democratic acculturation keeps the immigrant's identity as a distinctive person in the community alive a long time”; (5) “Instead of making the immigrant ashamed of the customs of his homeland, democratic acculturation dignifies his role as a liaison person between cultures”; (6) “As an essential aspect of democratic acculturation, cultural pluralism deprecates those racial stereotypes which are derogatory.” In Australia, Taft (1953, p. 45) advocated “interactionism” based on a

“shared frame of reference.” Antonovsky (1956, p. 60) recommended that US Jews choose the “dual orientation,” which is an “attitude of moderate and unproblematic ... integration in a generally liberal society.” Zubrzycki (1956) in the UK and Rothman (1960) in the United States endorsed that form of biculturalism. Future research might engage a full review of pre-1970 acculturation theory in order to demonstrate the early and wide advocacy for bicultural integration.

However, complete, balanced biculturalism is not possible. Civil laws and practicalities block biculturalism in activities involving traffic, currency, weapons, drugs, sanitation, assault, child labor, family relations, and so forth. A British immigrant in the United States may not sometimes drive on the left and sometimes on the right, nor sometimes pay with pounds and sometimes with dollars. Furthermore, biculturalism is difficult, maybe impossible, in core cultural domains like religion, gender roles, childrearing, sexual behavior, and so on, in which the practices of one culture preclude practices of the other culture. Neither Wahhabi Islam nor Baptist Christianity would allow their faithful to be believers of both. Punitive childrearing precludes permissive childrearing. Premarital sexual intercourse precludes premarital virginity. Male-dominant spousal relations preclude gender-equal relations. Future research might explicitly focus on learning strategies and difficulties for these deeper aspects of culture to see whether, or how, they are open to bicultural code switching.

The rhetorical reasons for empirical advocacy of biculturalism are usually unarticulated and seem to involve persuading the dominant populations that cultural minorities should not be forced into cultural conformity, or perhaps persuading cultural minorities that they should make greater efforts to acculturate to the dominant group. Rarely, if ever, has acculturation research recommended biculturalism for the dominant group. Future research might determine what are the rhetorical purposes of the acculturation research designs, analyses, and reports, and further future research might examine to what degree social science research on the health benefits of bicultural integration is persuasive to the political leadership and to the populations of the dominant society and of cultural minority groups.

Empirical evidence against biculturalism can often be found by careful and thoughtful readings of studies designed to create evidence favoring biculturalism (see Rudmin, 2006). For example, Berry (1976, p. 192) tabled correlations showing that, for Native Canadian communities, preferring bicultural integration is associated with increasing stress and marginality, but preferring assimilation is associated with decreasing stress and marginality. Sayegh and Lasry (1993, p. 42) reported analysis of variance (ANOVA) results showing that Lebanese integrationists in Canada were worse than assimilationists on stability of migration, on seeing themselves as victims of discrimination, and on life satisfaction. Dhawan (1998, p. 115) tabled results showing that integration was a very strong predictor of acculturative stress for Indo-Canadian women caregivers. Lee, Sobal, and Frongillo (2003, pp. 290–291) tabled results showing that bicultural Koreans in the United States were assimilationists in their attitudes and cultural trajectory. Vedder et al. (2006, p. 155) presented a structural equation model showing that Ethnic Orientation was better than Integration for predicting positive psychological adaptation (Rudmin, 2008a, 2008b).

To illustrate how a careful, thoughtful reading can find faults in acculturation research that advocates for bicultural integration, consider the study by Nguyen and Benet-Martinez (2013, p. 122), “Biculturalism and Adjustment: A Meta-Analysis,” which reported “a significant, strong, and positive association between biculturalism and adjustment.” These authors found about 500 studies in a PsycINFO search of key-concepts using the compound Boolean search expression . This search was supplemented by snowball sampling of references in the studies selected from the original PsycINFO sample of articles, each selected study “recommending” other studies to be included. A final 113 studies presented 159 data samples, 83 of which were included in the computations of biculturalism correlations. Because they believed there is “little indication of bias toward reporting only positive relationships,” they excluded the unpublished dissertations indexed in PsycINFO (Nguyen & Benet-Martinez, 2013, p. 126). Examining the relationship between biculturalism and well-being, their analysis found the mean fixed effect, which regards individuals as cases, to be $r = .10$ (effect size $r^2 = .01$), and the mean random effect, which regards studies as cases, to be $r = .51$ (effect size $r^2 = .26$). Thus, if individuals in only that fixed set of studies are examined, then 1% of the variance in well-being is related to biculturalism, and if that set of studies are a representative sample of all possible studies, then 26% of the variance in well-being is related to biculturalism.

Now consider a close criticism of this study, not to display malevolence to the authors, nor to claim that their study is exceptionally faulty, but to demonstrate how confirmation bias supporting beliefs in the benefits of biculturalism creates research results that seem to show those benefits. First, the statistical analyses were conducted without

consideration of SES as a confound, even though Nguyen and Benet-Martinez (2013) had discussed this concern and had cited a previous acculturation meta-analysis (Moyerman & Forman, 1992) that found SES to be a stronger predictor of well-being than were cultural measures. It is well known that SES predicts well-being, but less well known is that SES predicts preference for biculturalism. In a Canadian national sample, Berry, Kalin, and Taylor (1977, p. 343) found that integration attitudes were predicted by income ($r = +.18$, $n = 1835$, $p < .001$), by education ($r = +.26$, $n = 1835$, $p < .001$), and by occupational status ($r = +.16$, $n = 1835$, $p < .001$). Others have shown that SES predicts preference for biculturalism (e.g., Ataca & Berry, 2002; Lee, Sobal, & Frongillo, 2003; Lim, Heiby, Brislin, & Griffin, 2002). Because the dependent variable (well-being) and the independent variable (preference for bicultural integration) are both positively correlated with SES, then SES must be controlled if the purpose of the study is to determine whether or not biculturalism predicts well-being. Future research might undertake a new acculturation meta-analysis including only studies where SES is controlled. Future research might also examine more extensively the links between SES and acculturation preferences.

Second, the exclusion of dissertation research biased the sampling toward finding the expected benefits for biculturalism. Rudmin (2006) reviewed 83 studies that did not find biculturalism to be especially positive, and 45 of these were dissertations. A new search of PsycINFO key concepts using the Boolean expression , limiting publication dates to 2008 and earlier, found 526 reports, of which 154 were dissertations. Thus, the meta-analysis systematically excluded about 30% of the relevant studies their search found in PsycINFO, the very studies that would have revealed “file-drawer effects” of research unreported in the journal literature. Dissertations, like journal articles, have been adjudicated and approved by a panel of scholars.

Third, the snowball sampling from the reference sections of the selected articles also appears to have been biased. For example, the reference list of Nguyen and Benet-Martinez (2013) shows that their study included Cheung-Blunden and Juang (2008) and Virta, Sam, and Westin (2004), both of which cited Sam (2000). Sam (2000, p. 17) had reported that bicultural integration was a significant predictor ($\beta = +.19$) of mental health problems; whereas, assimilation ($\beta = +.10$), separation ($\beta = +.05$), and marginalization ($\beta = -.02$) were not. For some unexplained reason, Sam (2000) was not included in the meta-analysis. Had Sam (2000) been included, the results of the meta-analysis would have been less favorable to biculturalism.

Fourth, a random-effects model for a meta-analysis requires independent random sampling of studies, meaning all relevant studies have equal chance of being included. Without such sampling, random effects do not exist. By excluding dissertation studies, the sampling was not random. By snowball sampling from selected articles, the sampling was not independent. Hence, Nguyen and Benet-Martinez (2013) should only have reported their fixed-effects model. A conservative conclusion for their study could have read something like this:

A fixed-effects meta-analysis ($N = 23,197$) of 83 selected samples replicated Vedder, van de Vijver, and Liebkind's (2006) structural equation analysis of selected individuals ($N = 4,767$) from 42 samples, both studies showing biculturalism to predict well-being, or visa-versa, with effect sizes, respectively, of .01 and .004, neither of which is sufficient to support serious implications or practical recommendations.

Fifth, there definitely is journal bias favoring claims that biculturalism is beneficial. One published study included in the meta-analysis showed its bias by claiming that its biculturalism measure was valid because it had found biculturalism to be beneficial (Lim et al., 2002). Two editors of the *Journal of Cross-Cultural Psychology* (van de Vijver & Phalet, 2004, p. 220) also approved acculturation measures if they “effectively discriminate between a most adaptive [bicultural] integration strategy and other, generally less adaptive, strategies.” In other words, the research community's strong belief that biculturalism is beneficial serves as a biased criterion for validating research.

It has happened that thesis studies remove evidence against biculturalism from the published versions. For example, the thesis study by Almyroudis (1991, pp. 77, 79) found seven of eight correlations to be positive (binomial $p = .03$) for measures of bicultural integration with marginality, with stress, and with two measures of depression, respectively, for first-generation Greeks in Canada ($r = +.09$, $r = +.03$, $r = +.01$, $r = -.02$) and for second-generation Greeks in Canada ($r = +.21$, $r = +.20$, $r = +.11$, $r = +.08$). But these correlations were not reported when published under the author's married name (Sands & Berry, 1993). Because these correlations were excluded from publication, they could not be included in the meta-analysis.

Sixth, the Nguyen and Benet-Martinez (2013) study displays a common error in reporting research on bicultural

integration, namely, to use language implying that biculturalism causes well-being even while declaring that correlational studies cannot determine causation. For example, Nguyen and Benet-Martinez (2013, pp. 131, 137) in the Results correctly stated that maybe “better adjusted [individuals] are more likely to be bicultural,” and in the Discussion recommended that future research determine “whether the biculturalism-adjustment association is causal and, if so, the direction of causality” because this evidently had never been done. But in the Abstract, they declared the one-way, causal presumption, stating that the purpose of the study was to determine “what impact (if any) biculturalism has on individual adjustment,” and they repeatedly wrote about “important benefits for biculturalism,” about biculturalism “leading to greater benefits in all areas of life,” and seven times about the “adjustment benefits” of biculturalism (Nguyen & Benet-Martinez, 2013, pp. 122, 123, 124, 128, 129, 143, 146, 148).

Such confusing use of language can mislead readers or can serve to prime pre-existing beliefs and confirmation biases. For example, the Nguyen and Benet-Martinez (2013) study has been cited as support for the following five statements indicating beliefs that biculturalism causes well-being: (1) “Biculturalism may be especially protective against substance use” (Unger, Schwartz, Huh, Soto, & Baezconde-Garbanati, 2014, pp. 1293–1294); (2) “Furthermore, there is a considerable body of research that indicates integration is associated with more positive psychological and social outcomes” (Sibley & Ward, 2013, p. 711); (3) “...theory and research that argue that biculturalism is the best acculturative style...” (Birman, Simon, Chan, & Tran, 2014, p. 62); (4) “...integration facilitates positive acculturation outcomes...” (Schachner, van de Vijver, & Noack, 2014, p. 1618); and (5) “...there is a substantial body of evidence demonstrating that integration leads to the best acculturative and health-related outcomes...” (Hui, Chen, Leung, & Berry, 2015, p. 72). Authors of these citations include leading acculturation scholars and journal editors. Future research might systematically examine the citations to Nguyen and Benet-Martinez (2013) and to similar studies to determine the degree to which such research reports are being cited as evidence that bicultural integration causes benefits.

Future research might review only those acculturation studies, if any, with research designs that can support causal claims about acculturation outcomes. Future research might use double-blind experiment designs to test the biculturalism hypothesis, for example, by randomly assigning immigrants to different doses of acculturative training or attitude persuasion in order to determine whether increased biculturalism causes increased well-being. Such experimental designs should use appropriate controls for the effects of SES, perceived discrimination, experimenter expectancy, and subjects’ placebo beliefs.

Liberal Ideology

The study by Nguyen and Benet-Martinez (2013) is not especially or uniquely faulty, and this review of their study apologizes for bringing such a strong critical focus on their work. Many empirical studies purporting to find bicultural integration to be beneficial could be critically examined this same way. Such critiques are not intended to insinuate that acculturation scholars are incompetent or deceptive. The leading scholars of the field, including journal editors and department heads, have for decades been making these kinds of errors, and journal review readers have been approving them (Rudmin, 2006).

The most exculpatory explanation is that the whole field shares a common ideological framework that facilitates a consensus of findings that seem obviously correct from within the confines of the ideology but are based on faulty methods and wrong rhetoric that the community cannot see and sometimes denies. Writing about intercultural relations in 1924, Miller (1924, p. xiv) observed that the academic mind “rushes in to solve with scientific assurance some of the most complex problems, the ‘solution’ being generally in line with the traditions and prejudices of their class.” The history of acculturation research suggests that the shared ideology is liberalism, not to be confused with the liberal-conservative dichotomies that dominate US political discourse (Rudmin, 2006). As early as 1920, Berkson (1920/1969) argued that liberalism was the core cultural value of the United States, to which immigrants were acculturating, with the implication that immigrants should maintain their heritage cultures while living interspersed with others and participating fully in the social, economic, and political life of the nation.

The concept of bicultural “integration” in current acculturation theory was introduced in 1970 by Sommerlad and Berry (1970, p. 24), who cited as their source a paper entitled “Liberalising the White Australia Policy: Integration, Assimilation, or Cultural Pluralism.” This paper argued that Australia should adopt a liberal acculturation policy like

that of the United States, where there is “interaction between the migrant community and the host society” but “without the migrant’s loss of cultural identity” such that there is “cultural differentiation within a frame work of social unity” (London, 1967, p. 340). The author, Herbert London, is a political conservative who became Republican Party candidate for mayor of New York City in 1989, Conservative Party candidate for governor of New York State in 1990, and Conservative Party candidate for the US Senate in 1994 (London, 2015).

Berry (1974, p. 20) has explained that he and other academics prefer research findings that favor bicultural integration because such findings conform to liberal values:

If, as value-free social scientists, we could argue on empirical grounds for any one pattern, it is possible many of us would select the pattern which offers us identity, unity and freedom of choice. It is this pattern (Integration or Democratic Pluralism) for which I personally find evidence and with which I am most familiar.

Liberalism is a natural social class ideology for academics because it advocates equality, freedom of choice, mutual tolerance, individual rights, and redress of harm (Gill, 2001; Kernohan, 1998; Krymlicka, 1995; Rudmin, 2006). Bicultural integration may also seem an obvious preference for academics because they have the intellectual, motivational, and material resources to become bicultural. In a Canadian national sample, Berry et al. (1977, p. 343) found that preference for bicultural integration was positively predicted by higher income, by higher education, and by higher occupational status, all of which describe academic researchers.

Liberalism seems a commendable ideology, and its implications for acculturation policies seem also commendable. Liberal multiculturalism policies can be, and are, advocated without recourse to empirical evidence (e.g., Krymlicka, 1995; London, 1967). But as an unseen bias shared by the whole field, liberalism contaminates acculturation science. MacCoun’s (1998) catalog of “Biases in the Interpretation and Use of Research Results” suggests that shared ideology distorts research by confirmation bias, by mental contamination, and by motive-driven cognitions. Ideological bias seems to be the only plausible explanation for obvious errors by the vast majority of contemporary acculturation scholars, as argued extensively by Rudmin (2006). Consider six arguments that the field as a whole shares a common bias that impedes our science.

First, many studies claim to find evidence showing that bicultural integration should be recommended as a means for minorities to have less stress, less illness, better adaptation, and so forth, but few studies, if any, have research designs that allow such causal claims. Often the data actually show bicultural integration to have null or negative correlation with the dependent measures (Rudmin, 2006). Rosenthal (1991, p. 13), in his development of meta-analytic methods, found that researchers can misinterpret their own analyses: “The metamorphosis that sometimes occurs between the results section and the discussion section is itself a topic worthy of detailed consideration.” For example, Vedder et al. (2006, pp. 155–156) presented a structural equation model showing Integration to be a significantly weaker predictor of psychological adaptation ($\gamma = +.06$) than was Ethnic Orientation ($\gamma = +.17$), and on the very next page they concluded the exact opposite:

The model generally provides support for our hypotheses. Hypothesis 1a states that a combined involvement and identification with both the national and the ethnic cultures will be associated with more positive adaptation outcomes than a preference for either of the national or the ethnic culture alone.

Second, many acculturation studies have used double-barreled psychometric items, which ask about two statements in one question. For example, American retirees in Mexico might have an Integration item, “For friendship, I like Americans, and I like Mexicans.” If that is agreed to, then the corresponding Assimilation item, “For friendship, I like Mexicans but not Americans,” and Separation item, “For friendship, I like Americans but not Mexicans,” become impossible to answer satisfactorily since the respondent already declared a liking for both cultures. One response strategy is to disagree to the Assimilation and Separation items, and another strategy is to choose the noncommittal Likert scale midpoint for both. If some subjects use the first strategy and some the second, that results in Assimilation and Separation being positively correlated, even though they are the reverse-key for one another and should be negatively correlated. Phinney, Berry, Vedder, and Liebkind (2006, p. 98) reported such reverse-keyed scales to correlate $r = +.06$. Berry, Kim, Power, Young, and Bujaki (1989, p. 199) reported $r = +.33$. Montreuil and Bourhis (2001, p. 709) reported $r = +.60$. Double-barreled psychometrics also cause excessive acquiescence, confound multivariate analyses (Rudmin, 2006), and have been admonished by most psychometrics textbooks and by the two founders of psychometrics (Likert, 1932, p. 45; Thurstone, 1928, p. 545). Nevertheless, double-barreled questions have been extensively used and approved in acculturation

research (Rudmin, 2006; van de Vijver & Phalet, 2004).

Third, according to Myrdal (1969), ideologically biased social sciences often have illogical aspects in their paradigms that are difficult for their adherents to see or understand. For example, most acculturation researchers believe that attitudes toward two cultures allows only four possible preferences: (1) preferring one culture, (2) preferring the other, (3) preferring both, or (4) preferring neither. These are now labeled, respectively, as Assimilation, Separation, Integration, or Marginalization. In fact, Boolean logic and Euler diagramming both show that a choice of two cultures results in 16 preference possibilities (Rudmin, 2003b, 2003c, 2006). The error comes from not noticing (1) that cultures can share traits, (2) that preference can be to third cultures, and (3) that preferences can be expressed using logical NOT and logical OR. Rudmin (2003a) illustrated this with the historical example that many Korean patriots, when opposing Japanese occupation and forced assimilation policies in the early 1900s, rejected Buddhism, which was part of Korean culture, and adopted Christianity, which comes from foreign cultures, in order to express their attachment to Korean culture. That acculturative strategy does not fit the Assimilation, Separation, Integration, and Marginalization options. The patriots' preferences were for what is *NOT-Japanese*, thereby rejecting Buddhism, which Korea shares with Japan, and preferring the Korean religion called "Chondogyo" OR a foreign religion like Christianity. The 1919 rebellion in Korea was led by 33 patriots, of whom 16 practiced Christianity, 15 Chondogyo, and 2 Buddhism (Nahm, 1993; Oh, 1977).

Fourth, ideological thinking in acculturation presumes a simple, direct mapping of acculturation intentions or attitudes to acculturation outcomes, for example, that positive attitudes to two cultures represents, or will result in, bicultural integration (Bhatia, 2003). But biculturalism is also a transitional stage to assimilation, as is evident in the data of Unger et al. (2002) and of Lee et al. (2003). One must learn the new culture and thus become bicultural before oneself or one's children can assimilate. On the other hand, ethnic orientation can lead to inadvertent bicultural integration. For example, separationist Chinese youth in the United States may follow traditional Chinese values to seek parental approval through educational and occupational success, which requires mastery of American culture, resulting in bicultural integration (Sue & Sue, 1972, p. 638). Rudmin and Ahmadzadeh (2001) encountered Iranian migrants in Norway who used English at home, not Farsi or Norwegian, because they wanted to avoid marginalization of their children in the globalized society. An extended theory of how acculturation strategies result in unforeseen or unintended outcomes is presented by Barth (1969, p. 33). In reality, the fact of an acculturation practice does not determine what acculturation strategy caused that, nor does determining an acculturation strategy predict what practices will be adopted (Rudmin, 2006).

Fifth, ideological biases also entail exaggerated claims, which are not noticed as exaggerated. Perhaps the most dramatic example is a claim comparing modes of acculturation, first published in a Cambridge University Press textbook, then repeated in *Applied Psychology*:

Acculturation strategies have been shown to have substantial relationships with positive adaptation: integration is usually the most successful; marginalization is the least; and assimilation and separation strategies are intermediate. This pattern has been found in virtually every study, and is present for all types of acculturating groups.

(Berry, Poortinga, Segall, & Dasen, 1992, p. 378; Berry, 1997, p. 24)

It rarely happens in psychology, regardless of the topic, that the same pattern of results is found in every study. In this case, it is difficult to find even one study that shows this pattern, tested as ANOVA comparisons or tested as differences in correlations:

Integration > Assimilation ≈ Separation > Marginalization

The *Applied Psychology* presentation of this exaggerated claim was in a keynote article and was evidently not questioned or criticized by the editor, nor by three anonymous reviewers, nor by the published critiques of seven acculturation experts (Horenczyk, 1997; Kagitçibasi, 1997; Lazarus, 1997; Pick, 1997; Schönplflug, 1997; Triandis, 1997; Ward, 1997). All of them apparently perceived this claim to be true. Future research might determine what percentage of acculturation researchers believe this claim despite lack of empirical evidence supporting it.

Sixth, acculturation research has a record of misciting research as showing benefits for bicultural integration, even though the source articles do not show that. Perhaps the most dramatic examples tracked by Rudmin (2006, 2007)

are the citations to Berry, Kim, Minde, and Mok (1987). That review paper reported mean correlations for nine Native Canadian samples to be $r = -.19$ for integration and stress, and $r = -.18$ for assimilation and stress. N 's and significance were not reported, but the original source (Berry, 1976, p. 183, Table 8.6) shows neither correlation to be statistically significant, that is, not different from $r = .00$. The 1987 review paper also described a factor analysis of data from Korean immigrants in Canada (Kim, 1984), reporting that stress, marginalization, and separation loaded positively on the same factor, respectively, .40, .67, and .70, putting them orthogonal to (uncorrelated with) integration and assimilation loading on another factor. In sum, the 1987 review paper presented (1) replicated evidence that integration and assimilation were nearly identical in having no relationship to stress, and (2) evidence that marginalization and separation were similarly stressful. Rudmin (2006, 2007) found over 40 citations claiming that this 1987 review paper showed integration to be least stressful and marginalization most stressful. The misciting papers were authored by leading scholars, often writing in prestigious journals, for example, *American Psychologist* (Williams & Berry, 1991, p. 635), *Psychological Bulletin* (Phinney, 1990, p. 509), *Journal of Personality and Social Psychology* (Ryder, Alden, & Paulhus, 2000, p. 53), and *Journal of Cross-Cultural Psychology* (Liebkind, 1996, p. 163; Ward & Rana-Deuba, 1999, p. 424).

Such systematic errors that violate the ordinary norms of science have been unnoticed for decades by hundreds of scholars and have been approved by countless editors and reviewers tasked with the job to be critically alert to errors in science. Shared ideology, and the blindness it induces, is perhaps the only plausible explanation. Even though liberalism may be a comfortable ideology for most academics, it nevertheless impairs the research community and the utility of our science. Future research might survey acculturation researchers to find alternative explanations for the sources of the shared systematic errors in acculturation research.

Two Acculturation Research Proposals

If the field could comprehend how its projects are darkened by historical and ideological shadows, and if we could begin to see the faults in its methods and rhetoric, then more informative and useful projects might begin to be undertaken. The following are outlines of two research proposals that future research might consider:

Largest Migration in Human History

A 1978 reform allowed rural Chinese to leave their villages, thus starting the largest migration in human history (He, 2014). Hundreds of millions of rural Chinese have migrated to cities (Chan, 2010, 2013). From 2012 to 2013, rural migrants increased by 2.4%, totaling 269 million people (National Bureau of Statistics of China, 2013). An estimated 320 million more will migrate in the next 15 years (Pierson, 2011).

Migrants experience cultural differences that require acculturative adjustments. China comprises perhaps 20 major cultural groups as well as 55 officially recognized ethnic minorities (H. Wang, 2010; Yu, 1995). Differences among the majority Han Chinese are as great as between European nations, with many mutually unintelligible dialects, as many as 400 subdialects, and regionally unique dress, cuisine, and customs (DeGlopper, 1987; W. W. Wang & Fan, 2012). The major coastal cities of Hong Kong, Shanghai, and Macao experienced control by European powers, making them culturally different from the proximate rural areas (Lam, Tsoi, & Chan, 2005). Rural migrants must acculturate to more complex, anonymous, industrial, urban lifestyles and must learn new social norms and values, much as Thomas and Znaniecki documented for rural migrants to Chicago in 1918. The rural migrants suffer discrimination and are stigmatized by urban residents as backward, unrefined, and uncultured because of their dress, dialect, traditional customs, and religious beliefs (X. Li, Stanton, Fang, & Lin, 2006; Tang & Wang, 2011; Zhang, 2007). Hence, migrants tend to reside in ghettos with people from their own region (C. Li, 2012), and many consider themselves to be sojourners, soon to return to their villages (Lan, 1997).

The rural-urban migration in China is studied at the aggregate level by sociologists, demographers, and economists, but rarely at the individual, psychological level. The few studies that do exist have used constructs, measures, or paradigms derived from studies of immigrant and aboriginal minorities in the United States, Canada, Australia, and Europe (e.g., Du, Li, Lin, & Tam, 2015; Fang, Sun, & Yuen, 2014; Gui, Berry, & Zheng, 2012; Yang, Tian, & van Oudenhoven, 2010). Future research might consider programs of research that focus on Chinese emic understandings of health, illness, and successful adaptation. Appropriate psychometric measures might be developed specifically for the contexts of Chinese culture. The development of emic acculturation constructs,

theory, and applications in China by Chinese scholars might help Western acculturation scholars better see how their own historical and cultural contexts have been limiting their own development of theory and methods in ways they have not been able to notice. Imposed-etic concepts are best seen and corrected by cross-cultural elaborations (Berry, 1989).

Development of a Single Case Measure of Acculturative Competence

If macrocultural projects were able to release acculturation scholarship from historical and ideological confines, then practical, technical advancements might get more attention. For example, most measures of acculturation are psychometric scales designed to make claims about the cultural preferences of samples of people from specific cultures (Rudmin, 2009). Few measures, if any, focus on acculturative competence or have norms by which to identify degrees of acculturation by a single individual. In medical, educational, vocational, and legal settings, there is sometimes need for a measure of acculturative competence, suitable for a single case. In 1948, three psychiatrists, Ruesch, Jacobsen, and Loeb (1948), proposed a measure based on time since migration, but their proposal has rarely been adopted or developed.

A single-case measure of acculturative competence might be modeled on the Apgar score in obstetrics—objective (not self-report), efficient, and reliable. The Apgar, named after its author (Apgar, 1953), sums scores of 0, 1, or 2 on five domains of observation that acronym the author's name: Appearance, Pulse, Grimace, Activity, and Respiration. For example, for Appearance, a newborn's blue torso is scored 0, a newborn's pink torso but blue limbs is scored 1, and healthy pink on torso and limbs is scored 2. Summated Apgar scores range from 0 to 10. The Apgar has good inter-rater reliability and good predictive utility and is widely used (Finster & Wood, 2005).

An acculturation measure modeled on the Apgar would require rating observations of five cultural domains, for example, language. Acculturating individuals might be asked to read aloud a newspaper article and be scored 0 if they cannot read, 1 if they read slowly with effort and errors, and 2 if they read fluently, ignoring phonological accent. Another domain might be about a cultural mentor, scored 0 if they deny having a helpful friend, 1 if they can name such a person with hesitation and qualifications, and 2 if they can name such a person promptly and confidently.

Language and mentor are just tentative examples. Development of such a measure would entail a sequence of five studies: (1) interviews and literature surveys to identify many plausible domains to test; (2) pilot studies to devise scoring criteria suitable for different genders, ages, education levels, and cultures; (3) test-retest studies and inter-rater reliability studies to compare reliability of the measures across groups and over time; (4) validity studies to determine which domains reflect grades of acculturative learning and are least affected by gender, age, and social class; and (5) large studies to select a best set of five domains from the original trial set. Such a measure should be efficient, reliable, valid, and able to detect changes in acculturative development.

Conclusion

Acculturation has been a topic of empirical research for almost 100 years, but this has not resulted in a corresponding body of evidence that the information arising from this research has been useful to health practitioners or has improved minority groups' health and adaptation. Major problems have included the field's neglect of its historical foundations and empirical studies that are misdirected and distorted by historical shadows of the 1880s acculturation concept and by ideological biases of liberalism. If the field can escape its historical and ideological confines, then the next century of acculturation research might be more productive, not in volume of research, but in utility of research.

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