

Chapter 17: Approaches to Measuring Cultural Diversity in Recreation

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Abstract

Measuring cultural diversity in recreation has become an important topic because of the increasing coverage of and interest in ethnicity and cross-cultural aspects of recreation. Introducing theories and methods from established disciplines other than leisure studies/recreation and park studies is necessary to understand this important issue. In this article, we first define recreation and examine different aspects/domains of recreation cross-culturally. To examine different domains of recreation cross-culturally, we need to have an unambiguous cultural definition as a basis to measure cultural variations. If the definition of culture contains cultural content (e.g., language, religion, family structure, cultural values), then we can specifically examine the influence of cultural content on recreation with various methods. We discuss different methods of measuring culture, emphasizing cultural consensus analysis to estimate the level of within-group or intracultural agreement. We also stress the issue of examining the homogeneity of ethnic groups as “real groups” from a scientific perspective. Finally, we describe approaches to measuring between-group or intercultural variations.

Keywords: Culture, diversity, outdoor recreation, measurement

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Recreation as Culture

Recreation has been described as time, activity, or experience apart from obligations, such as work or family, but mostly has been approached from the activity standpoint (Roberts 1978). Culture can be described as shared information and the behaviors and artifacts that are manifestations of that information (Chick 1997). Recreation and culture are interrelated, as culture can be expected to influence recreation preferences and behaviors. From an anthropological perspective, few researchers study recreation, even though recreational activities (e.g., athletic sports, outdoor recreation participation) have been regarded as part of the universal human cultural repertoire. Murdock and Provost (1973), however, pointed out that

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such universals rarely, if ever, represent identical culture content. In other words, there may be differences in recreation such as time use and activity participation among various cultural groups. Regardless of the cross-cultural differences that exist, multicultural comparative research in recreation has been rare in both the anthropological and leisure literature (Chick 2000). Research that leads to a better understanding of the relationship between culture and recreation can lead to improved knowledge about managing recreation opportunities and to enhance appreciation of different cultural traditions (Li et al. 2003). Despite the growing interest in cross-cultural aspects of recreation, there is currently no systematic agenda for the anthropological study of recreation (Chick 1998, Hsu et al. 2007, Li et al. 2007c).

Culture Defined

Culture is defined variously. Chick (1997) grouped cultures on the basis of their inclusiveness, and defined culture as mental; mental and behavioral; mental, behavioral, and material; or simply as information. The distinct disadvantage of the second and third definitions is that neither behavior nor artifacts can be explained in terms of culture since they are part of the definition. The final definition, while comprehensive, is problematic because it is difficult to extract the information content from observed behaviors or from artifacts (Li et al. 2007a).

A cognitive theory of culture emerges from Goodenough's (1957) classic definition of culture: it is that which one must know in order to function adequately in a given social system. For example, a highly influential definition of culture proposed by Goodenough (1957) is as follows:

A society's culture consists of whatever it is one has to know or believe in order to operate in a manner acceptable to its members. Culture is not a material phenomenon; it does not consist of things, behavior, or emotions. It is rather an organization of these things. It is the form of things that people have in mind, their models for perceiving, relating, and otherwise interpreting them (p. 167)

Extending from Goodenough's definition of culture, values and knowledge and beliefs are major components of culture and serve as key features distinguishing cultural groups (Chick et al. 2007). Values are mental constructs and can be defined as enduring beliefs about desired end states and modes of conduct (Hofstede 1980). That is, values are goals for living that define how we want the world to be (i.e., a world view) and principles that guide our behavior (Rokeach 1973). This approach of using values as a core to operationalize culture has also been widely accepted

in psychology, sociology, marketing, and tourism (Li et al. 2007b, Reisinger and Turner 1999, Watkins and Gnoth 2005). The cognitive theory of culture, along with the related methods of cultural domain analysis (e.g., cultural consensus analysis), enables researchers to unambiguously identify shared dimensions of meaning that give structure to cultural domains and simplify measuring culture.

Approaches to Measuring Culture

We contend that culture is learned and consists of specific ideas or knowledge that is shared within a society (Pelto and Pelto 1975). From this perspective, consensus analysis provides a way of measuring culture. Consensus analysis is well established as a means to investigate the degree to which a population or sample share similar understandings of the world (Caulkins 2001, Romney et al. 1986). For different types of recreation, we can imagine a variety of possible outcomes of consensus analysis from specific populations. These include random, patternless responses, bimodal distributions, overlapping subcultures, or high concordance agreement that can be used to identify a cultural pattern (Caulkins and Hyatt 1999). The key task is to emphasize the content of the culture and the selection of productive domains for measuring similarities or differences of culture in recreation. Using the cultural consensus model developed by Romney et al. (1986), we are able to (a) confirm that ideas within some domains are shared, (b) evaluate how that sharing is distributed, (c) estimate how a reasonably culturally competent individual would respond to a set of questions about that domain, and (d) evaluate the construct validity of cultural domains (Handwerker 2002).

Examples of measuring culture using consensus analysis in leisure settings include Chick's (1981) Tlaxcalan Festival study of how festival sponsorships were ranked in terms of what villagers called the *escalafón*, or graded list or scale. He studied the degree to which a sample of individuals in a Mexican village understood how the local festival system operated. Chick investigated the "real" ranking of the festivals, the degree to which individuals agreed with this "real" ranking, and the overall level of agreement over the ranking. His findings showed that individual informant rankings all correlated significantly with the overall ranking but that some informants were considerably more knowledgeable than others.

Parr and Lashua (2004) studied members of the Recreation Branch of the Ohio Parks and Recreation Association to determine the extent of agreement among leisure services practitioners regarding the meaning of leisure, and to examine how they describe themselves and the body of knowledge related to leisure services. Using Anthropac data analysis software and SPSS, they found high agreement among members, and thus, "culturally correct" definitions of leisure. For example,

respondents supported the “multidimensionality” of leisure as evidenced by their agreement with statements such as “leisure may have different meanings and values, dependent on one’s cultural background.” When analyzed along with the free-list data, they found the most frequently reported dimensions of leisure paralleled traditional definitions. For example, respondents had a high level of agreement with statements such as “Leisure is a state of mind,” and “Leisure is doing a favorite activity.”

Li et al. (2007a) also used cultural consensus analyses to examine whether three nominal ethnic groups, Anglos, Hispanics, and Asians, were homogeneous in terms of cultural values as measured by Hofstede’s (1980) instrument when used in a national forest recreation setting. The authors argued that if distinctive ethnic subcultures exist, then they should be identifiable by specific measures of languages, religion, family structure, cultural values, and the like. The authors used Handwerker’s criteria (2002) of measuring consensus that employs principal components analysis with an unrotated solution to test for differences among the three ethnic groups. The results of cultural consensus analyses showed that none of the three ethnic groups, and none of the subgroups split by age, gender, and generations in the United States within the three ethnic groups, were homogeneous in terms of the cultural values. The authors, therefore, concluded that it is questionable to make comparisons of cultural values if within-group variance equals or exceeds between-group variance. They infer that if the homogeneity assumption of ethnic groups does not hold empirically, then research based on it may be fundamentally flawed. Later, Li et al. (2008), in their research reflections of cross-cultural study for diverse customers, further suggested that it is important to examine the individual dimensions of cultural content such as values or behavior patterns attributed to culture (e.g., perceptions of service quality, behavioral intentions) among ethnic groups if the nominal ethnic groups are, in fact, culturally heterogeneous.

Reliability analysis also provides a way to measure within-sample cultural agreement or intracultural variation (Weller and Baer 2002). It is based on the correlations between the individual variables and the scale calculated from that set of variables. The reliability coefficient (i.e., coefficient alpha or Cronbach’s alpha) measures the internal consistency of the scale items and reflects the extent to which they are measuring the same thing. It provides the degree to which the aggregated responses are stable and reliable estimates of “true” answers. In other words, it measures the degree to which subjects would give the same answers on a test if the test were administered repeatedly. In essence, reliability analysis provides information about the reliability and/or validity of the aggregated responses that can be estimated from the level of agreement among informants.

There are other, more complex methods applicable to the issue of measuring culture⁵ (e.g., analysis of variance, analysis of covariance, standard deviation, average correlation, discriminant analysis, cluster analysis). For example, Li et al. (in press) used analysis of covariance to compare similarities and differences among census-based ethnic groups in the United States in terms of their perceptions of service quality while controlling for the generations in the United States as a coarse measure of acculturation and assimilation (the covariate). The authors concluded that, compared to Whites and Hispanics, Asians tended to perceive lower service quality in their recreational trips to a national forest. The covariate, however, showed no significant relationship to perceptions of service quality.

Weller and Baer (2001) have also applied some of these methods (e.g., average correlation) to the comparison of amounts of sharing in cultural beliefs about five illnesses across geographic regions and ethnic groups. They concluded that there was a strong pattern of shared beliefs (i.e., high levels of agreement) in the five illnesses selected across samples.

Do Nominal Ethnic Groups Really Exist?

Members of ethnic groups may identify with each other and are generally recognized by others as a distinct group with a specific name. Group identities are constructed on the basis of various traits and experiences. Many of these characteristics are open to different interpretations. Skin color, for example, is an important marker of identity in many societies, but in others, it is of minimal importance. Some researchers stress that ethnicity is socially constructed, with people choosing a history and common ancestry and creating as much difference as possible from others. Many group identities, then, are not based on ascribed traits, *per se*, but on shared values, beliefs, or knowledge (Nagel 1994). Ethnicity has multiple definitions but most include a basic core of features. The term ethnicity is generally understood in the anthropological literature (e.g., Barth 1996 [orig. 1969]) to designate a population that:

- Is largely biologically self-perpetuating.
- Shares fundamental cultural values, realized in overt unity in cultural forms.
- Makes up a field of communication and interaction.
- Has a membership that identifies itself, and is identified by others, as constituting a category distinguishable from other categories of the same order.

⁵ We acknowledge the existence of other approaches to define culture or measure cultural diversity in recreation that rely on more qualitative or post-modernist approaches such as “fuzzy theory” (Lowen 1996). Although worthwhile, they are beyond the scope of this paper. We hope our results and concerns will be gauged subsequently from within these approaches as well.

We contend that ethnic groups need to be constructed from a scientific perspective. From a scientific perspective, we need to, first, have a good and clear definition of ethnicity. Then, if that definition includes culture, we need to know what part of culture is presumed to be critical.

Two basic assumptions are commonly made within ethnic leisure research: (a) ethnic groups are culturally homogenous, and (b) if ethnic “behavior” is observed, it must therefore be assumed that it is homogenous and the result of culture (Chick et al. 2007). However, if ethnic groups display within-group variance that equals or exceeds between-group variance in terms of cultural content (e.g., languages, cultural values), then it becomes problematic to compare the cultural content among groups.

Traditionally, the U.S. Forest Service, National Park Service, and other federal and state agencies use census categories to operationalize ethnic groups (Gobster 2007, U.S. Census Bureau 2006). This practice has the effect of asserting that the concept of ethnicity shows that some groups are unitary, i.e., that they compose a bounded, distinctive, and solitary group and that their internal differences do not matter. This is a normal, and perhaps desirable, part of politics and public policy. However, the current uses of census practices may not identify true ethnic groups but rather merely assign categories (Brubaker 2006).

We contend that ethnic groups need to be constructed from a scientific perspective. From a scientific perspective, we need to, first, have a good and clear definition of ethnicity. Then, if that definition includes culture, we need to know what part of culture is presumed to be critical. Most definitions of culture have included values, for example, as an important component of cultural content. But, we must make certain that the cultural content chosen, such as values, is, in fact, shared. The degree to which the nominal group categories share values can be determined via cultural consensus analysis or similar methods such as the comparison of group standard deviations and correlations. In other words, we suggest empirically examining the amount of sharing of cultural values or some other cultural content to assess whether a nominal ethnic group constitutes a real group in a scientific way (Chick 2006).

We feel that if an ethnic group lacks the internal consistency of cultural content (e.g., language, religion, family structure, values), they are a group in name only. It seems to us that the concept of ethnicity is too vague if it is not clearly defined and examined with appropriate scientific procedures. If distinctive ethnic subcultures exist, then those subcultures should show cultural consensus in terms of cultural domains. If, however, ethnic groups fail to show consensus in some cultural domains presumed to constitute ethnicity, then the assumption of cultural homogeneity of the ethnic group is violated. If ethnic groups lack cultural consensus on a relevant domain, comparing them on that particular domain may be meaningless (Li et al. 2007a).

Measuring Intergroup Diversity

According to Barth (1996), the cultural content of different cultural/ethnic groups might be similar, and only a few generally recognized items of symbolic values (e.g., ethnic identity) might actually differ among groups. To measure cultural variation across samples, it is necessary to determine both the within- and between-sample agreement levels (Weller and Baer 2002). For example, Moore et al. (1999) used a simple, understandable method where the within- and between-group agreement difference was used to indicate the level of shared beliefs among samples. Specifically, they used the amount by which the within-sample agreement exceeded the between-sample agreement to identify the proportion of beliefs not shared across groups, thus indicating the proportion of beliefs unique to the samples.⁶ They then attributed the unique proportion of beliefs to be culturally determined.

Conclusion

Exploring approaches to measuring cultural diversity in recreation has become more important because of the interest in ethnicity and cross-cultural aspects of recreational studies. To understand this important issue, we first need to clearly define and examine different aspects/domains of recreation cross-culturally. To examine different domains of recreation cross-culturally, we need to have an unambiguous cultural definition as a basis to measure cultural variations. If the definition of culture contains cultural content (e.g., language, religion, family structure, cultural values), then we can specifically examine the influence of cultural content on recreation with various methods. We suggest appropriate methods of measuring culture, such as cultural consensus analysis, to estimate the level of within-group or intracultural agreement. We also stress the importance of examining the homogeneity of ethnic groups as “real groups” from a scientific perspective. We described some approaches to measuring between-group or intercultural variations. Our intent is to introduce relevant theories and methods from a cultural anthropological perspective into the recreation discipline and correctively move cross-cultural research in recreation forward. Clearly there are other approaches and techniques and we look forward to future advances in this area of study.

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⁶ Description of the mathematics of between-group agreement is beyond the scope of this paper. Details of the calculations are available from the authors.

Literature Cited

- Barth, F. 1996.** Ethnic groups and boundaries. Long Grove, IL: Waveland Press.
- Brubaker, R. 2006.** Ethnicity without groups. Cambridge, MA: Harvard University Press.
- Caulkins, D. 2001.** Consensus, clines, and edges in Celtic cultures. *Cross-Cultural Research*. 35(2): 109–126.
- Caulkins, D.; Hyatt, S.B. 1999.** Using consensus analysis to measure cultural diversity in organizations and social movements. *Field Methods*. 11: 5–26.
- Chick, G.E. 1981.** Concept and behavior in Tlaxcalan cargo hierarchy. *Ethnology*. 20: 217–228.
- Chick, G.E. 2006.** Personal communication. Professor, School of Hotel, Restaurant, and Recreation Management, Pennsylvania State University, 210 Mateer Bldg., University Park, PA 16802.
- Chick, G. 1997.** Cultural complexity: The concept and its measurement. *Cross-Cultural Research*. 31: 275–307.
- Chick, G.E. 1998.** Leisure and culture: issues for an anthropology of leisure. *Leisure Sciences*. 20: 111–133.
- Chick, G.E. 2000.** Editorial: opportunities for cross-cultural comparative research on leisure. *Leisure Sciences*. 22: 79–91.
- Chick, G.E.; Li, C.; Zinn, H.C.; Absher, J.D.; Graefe, A.R. 2007.** Ethnicity as a construct in leisure research: a rejoinder to Gobster. *Journal of Leisure Research*. 39(3): 554–566.
- Gobster, P.H. 2007.** Comments on the paper by Chieh-Lu Li and others. Comments on “Ethnicity as a Variable in Leisure Research” by Li et al. *Journal of Leisure Research*. 39(3): 346–553.
- Goodenough, W.H. 1957.** Cultural anthropology and linguistics. In: Garvin. P.L. ed. Report of the 7th annual round table meeting on linguistics and language study, monograph series on languages and linguistics, No. 9. Washington, DC: Georgetown University Press: 167–173.
- Handwerker, W.P. 2002.** The construct validity of cultures: cultural diversity, culture theory, and a method for ethnography. *American Anthropologist*. 104: 106–122.

- Hofstede, G. 1980.** Culture's consequences: international differences in work-related values. Abridged Edition. Beverly Hills, CA: Sage.
- Hsu, Y.; Li, C.; Chuang, O. 2007.** Encounters, norms and perceived crowding of hikers in a non-North American backcountry recreational context. *Forest, Snow and Landscape Research*. 81(1/2): 99–108.
- Li, C.; Absher, J.D.; Graefe, A.R.; Hsu, Y. 2008.** Research reflections—services for culturally diverse customers in parks and recreation. *Leisure Sciences*. 30(1): 1–6.
- Li, C.; Absher, J.D.; Zinn, H.C.; Graefe, A.R.; Chick, G.E. [In press].** Perceptions of forest recreation service quality in a multi-ethnic context. *Journal of Sports & Leisure*.
- Li, C.; Chick, G.E.; Zinn, H.C.; Absher, J.D.; Graefe, A.R. 2007a.** Ethnicity as a variable in leisure research. *Journal of Leisure Research*. 39(3): 514–545.
- Li, C.; Lai, P.C.; Chick, G.E.; Zinn, H.C.; Graefe, A.R. 2007b.** Cross-cultural models of customer service: a case of country park recreation in Hong Kong. *Journal of Park and Recreation Administration*. 25(3): 41–66.
- Li, C.; Zinn, H.C.; Barro, S.C.; Manfredi, M.J. 2003.** A cross-regional comparison of recreation patterns of older hunters. *Leisure Sciences*. 25(1): 1–16.
- Li, C.; Zinn, H.C.; Chick, G.E.; Absher, J.; Graefe, A.R.; Hsu, Y. 2007c.** Segmentation of culturally diverse visitors' values in forest recreation management. *Forest, Snow and Landscape Research*. 81(1/2): 19–29.
- Lowen, R. 1996.** Fuzzy set theory: basic concepts, techniques, and bibliography. London: Springer Publishing.
- Moore, C.C.; Romney, A.K.; Hsia, T.L.; Rusch, C. 1999.** The universality of the semantic structure of emotion terms: methods for the study of inter- and intra-cultural variability. *American Anthropologist*. 101(3): 529–546.
- Murdock, G.P.; Provost, C. 1973.** Measurement of cultural complexity. *Ethnology*. 11: 254–285.
- Nagel, J. 1994.** Constructing ethnicity: creating and recreating ethnic identity culture. *Social Problems*. 41: 152–176.
- Parr, M.G.; Lashua, B.D. 2004.** What is leisure? The perceptions of recreation practitioners and others. *Leisure Sciences*. 26(1): 1–17.

- Pelto, P.; Pelto, G. 1975.** Intracultural diversity: some theoretical issues. *American Ethnologist*. 2: 1–18.
- Roberts, K. 1978.** Contemporary society and the growth of leisure. London: Longman.
- Rokeach, M. 1973.** The nature of human values. New York: Free Press.
- Romney, A.K.; Weller, S.C.; Batchelder, W.H. 1986.** Culture as consensus: a theory of culture and informant accuracy. *American Anthropologist*. 88: 313–338.
- Reisinger, Y.; Turner, L. 1999.** A cultural analysis of Japanese tourists: challenges for tourism marketers. *European Journal of Marketing*. 33(11/12): 1203–1227.
- U.S. Department of Commerce, Bureau of the Census [Census Bureau]. 2006.** Racial and ethnic classifications used in Census 2000 and beyond. <http://www.Census.Gov/population/www/socdemo/race/racefactcb>. (May 28, 2007).
- Watkins, L.; Gnoth, J. 2005.** Methodological issues in using Kahle’s list of values scale for Japanese tourism behaviour. *Journal of Vacation Marketing*. 11(3): 225–233.
- Weller, S.C.; Baer, R. 2002.** Measuring within- and between-group agreement: identifying the proportion of shared and unique beliefs across samples. *Field Methods*. 14(1): 6–25.
- Weller, S.C.; Baer, R.D. 2001.** Intra- and intercultural variation in the definition of five illnesses: AIDS, diabetes, the common cold, empacho, and mal de ojo. *Cross-Cultural Research*. 35(2): 210–226.

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