This paper introduces the Cultural Index (CI), which is composed of grounded indices for measuring cultural identity and predicting culturally-determined behaviors. These behaviors often are associated with ethnicity, which researchers have used as a predictor of culturally-defined behaviors. This use posits that ethnicity defines culture. However, this is not so in multicultural societies where ethnic groups influence each other's culturally-determined behaviors by sometimes borrowing more effective behaviors and sometimes marking their separate identity by emphasizing differential behaviors. This paper describes the CI and how to calculate it. It is supported by ethnographic data from a 4-year long comparative study of native Fijians and Indo-Fijians. Gives illustrative examples of CI use. Contains a 10-item bibliography. (Author/BT)
The Cultural Index as a Predictor of Culturally-Determined Behaviours in Multicultural Societies.

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THE CULTURAL INDEX AS A PREDICTOR OF CULTURALLY-DETERMINED BEHAVIOURS IN MULTICULTURAL SOCIETIES

Beatrice Boufoy-Bastick

Abstract
This paper introduces the Cultural Index. The Cultural Index (CI) is composed of grounded indices for measuring cultural identity and predicting culturally-determined behaviours. These behaviours are often associated with ethnicity, which researchers have used as a predictor of culturally-defined behaviours. This use posits that ethnicity defines culture. However, this is not so in multicultural societies where ethnic groups influence each other's culturally-determined behaviours by sometimes borrowing more effective behaviours and sometimes marking their separate identity by emphasising differential behaviours. This paper describes the CI and how to calculate it. It is supported by ethnographic data from a four-year long comparative study of native Fijians and Indo-Fijians.

Introduction
This paper introduces the Cultural Index. The Cultural Index (CI) consists of two types of grounded ipsative measures, namely Primary Cultural Indices (PCIs) and Relative Culture Indices (RCIs). The PCIs have been developed to measure cultural identity and the RCIs have been developed to predict culturally-determined behaviours. These behaviours are often associated with ethnicity. Hence, ethnicity has previously been used by researchers to predict culturally-defined behaviours. This use posits that 'ethnicity' is equivalent to 'culture'. This is not so in multicultural societies where ethnic groups influence each other's culturally determined behaviours by sometimes borrowing more effective behaviours and sometimes marking their separate identity by emphasising differential behaviours.

This paper first describes the Cultural Index, and then describes how the PCIs and RCIs are calculated and used for determining cultural identity and for predicting culturally determined behaviours. The paper then gives illustrative examples of CI use from the four-year long ethnographic study from which it emerged.

1 Describing the Cultural Index
What is the Cultural Index?
The Cultural Index is a measure of cultural identity which differs from ethnicity and social grouping. It has been developed for distinguishing between culturally-determined behaviours which are indicative of an ethnic or a social group. It takes into account cultural influences from other cultural and social groups which are present in multicultural societies. Previously, cultural studies have used ethnicity as a nominal category to predict culturally-dependent behaviours. This ignores extraneous cultural influences from other ethnic groups.

Ethnicity is not the sole predictor of cultural behaviours in multicultural societies. The ethnic mixing inherent to multicultural societies results in borrowing cultural behaviours
from the other ethnic groups. This cultural borrowing manifests itself in changing existing, and emerging new, social and cultural values in multiethnic societies (Sarkany, 1992). This cross-cultural 'borrowing' of behaviours makes ethnicity too crude a measure on which to distinguish and predict cultural behaviours. The Cultural Index has been developed as a more valid instrument which also gives a pseudo-interval measure of cultural identity. This offers more options for statistical analysis and can be used to distinguish between culturally-specific behaviours. It is also an example of a 'Grounded Index', which is grounded in each ethnic group, and can be grounded in any sub-group for finer distinctions.

Calculating the Cultural Index: How is CI grounded?
The CI uses Likert scale type responses. It requires 2 questions Q1 and Q2. Q1 asks a respondent to rate a cultural attribute of him/herself and Q2 asks for a rating of the same cultural attribute of a public object. An example of Q1 and Q2 would be: 'How Anglo-American are you?' and 'How Anglo-American is Bill Clinton?' Bill Clinton is the public object to which respondent's rating can be compared by dividing Q1 by Q2 to convert Q1 to an ipsative measure. By dividing the first answer by the second it cancels out, to a first degree approximation, the idiosyncratic values with which the respondent views the attribute. Then the respondent's ipsative measure can be grounded in any sub-group values by multiplying their Q1/Q2 result by the mean rating of Q2 for that sub-group. This is a Primary Cultural Index.

In this example, the Primary Cultural Index for Anglo-American cultural identity (PCI-A) is given by:

\[
\text{PCI-A} = \frac{Q1 \text{ (the self-rating)}}{Q2 \text{ (the public object)}} \times \text{[mean of Q2 (for some sub-group)]}
\]

This is the calculation of a Primary Cultural Index (PCI) for a respondent, which is grounded in the mean values of the whole population or in the mean values for a chosen sub-group. The respondent's PCI shows how imbued a respondent is with his/her culture, such as how Anglo-American he/she is - PCI-A is a measure of the Anglo-American component of their cultural identity according to the values of the chosen population or sub-group.

However; in pluri-ethnic societies, cultural identity consists of more than one Primary Cultural Index. For example an Anglo-American is likely to have borrowed cultural behaviours from other ethnic groups of this society, such as from Hispanics or Afro-Americans. His or her PCIs for Hispanic (PCI-H) and Afro-American (PCI-AF) can be calculated in the same way as PCI-A, that is by asking the relevant Q1 and Q2 and grounding each division in the same population or sub-group values by multiplying the division result by the relevant mean Q2 representing the mean values of that population of sub-group. The individual PCIs form a profile of a respondent's Cultural Identity and the total of the respondent's PCIs - that is PCI-A + PCI-H + PCI-AF - is his/her Total Cultural Index (TCI) which is an additive measure of the respondent's cultural identity.

\[
\text{TCI} = \text{PCI-A} + \text{PCI-H} + \text{PCI-AF}
\]

It can be noted, for reasons of validity and practical effectiveness, that one's primary
cultural index should be the same no matter which public object is chosen as a vehicle for its calculation, providing the public object has a reasonable amount of the cultural attribute to evaluate. My research has shown that the CI is rigorous even using public objects which have significantly different mean ratings of the same cultural attribute. So in this example, you could use Bill Clinton as the same public object for each cultural rating e.g. Q2H "How Hispanic is Bill Clinton", Q2AF "How Afro-American is Bill Clinton", or one may use different public objects for Q2H and Q2AF. In practice, it seems more effective to use the same public object so that the respondent can also use comparative evaluations from within one evoked mental set.

Assessing Relative Cultural Identity

In pluri-ethnic societies, a respondent's Total Cultural Identity differs from their ethnic identity. His or her TCI comprises different cultural aspects which are identified separately in his or her PCIs as shown above. Each of the PCIs indicates how much the respondent is imbued with each particular culture. PCIs can be compared to assess the strength of any one PCI relative to others, that is to assess if a respondent has a stronger Hispanic PCI, Afro-American or Anglo-American PCI. For this, each PCI can be assessed as a proportion of his or her TCI, that is each PCI can be written as a fraction of the TCI such as: PCI-A /TCI, PCI-H /TCI, and PCI-AF /TCI. Each fraction represents a respondent's Relative Cultural Index (RCI) for that particular cultural component. This is simply a proportion of his or her total cultural allegiances. Each RCIs indicates the relative strength of the respondent's adherence to each culture, and hence the probability (all else being equal) that he or she will choose a behaviour determined by that culture.

\[
\text{RCI-A} = \frac{\text{PCI-A}}{\text{TCI}} \\
\text{RCI-H} = \frac{\text{PCI-H}}{\text{TCI}} \\
\text{RCI-AF} = \frac{\text{PCI-AF}}{\text{TCI}}
\]

2 Using the Cultural Index

The CI emerged from a four-year ethnographic study in Fiji, in the South Pacific. Fiji is an archipelago of 300 islands with an estimated 100 being inhabited (Lotherington, 1998; Mangubhai, 1984; Thomas & Postlethwaite, 1984; Tavola, 1992). Although Fiji's population is made up of diverse ethnic minority groups, such as Europeans, Part-Europeans and Chinese, by far the largest two ethnic groups are the indigenous Fijians and the Indians. The native Fijians are themselves ethnoculturally diverse, being from either Polynesian or Melanesian races (Wood, 1964, p. 47). The Indians were not indigenous and came to work as indentured 'Girim' labourers in the cane-fields (Mangubhai, 1984, p. 169; Mugler, 1996, p. 276; Tavola, 1992, p. 11). The 'Girim' indenture system lasted from 1879 to 1916 and brought some 60,000 indentured labourers, of which it is estimated that almost 60% decided to settle in Fiji after Girmit (Tavola, 1990; Tavola, 1992; Chandra, 1980). Most Indians were Hindus from different sects whilst only 14.6% were Muslims - resulting in Indian ethnic heterogeneity (Chandra, 1980, p. 2). A further wave of Indian migrants followed in the 1930's and the number of Indians kept growing and by the mid-1970's the Indians outnumbered the Fijians (Bureau of Statistics, Facts and Figures 1995). Nowadays the number of Indians and Fijians are on a par.

The presence of two ethnic groups of approximately equal populations makes Fiji a natural laboratory in which to examine the cultural interface of two extremely-dissimilar
cultural groups. These cultural differences were investigated in a study of how Fijian and Indian teachers of English interpreted a common 'English as a Second Language' (ESL) curriculum prescribed by the Fiji Ministry of Education. The study showed that teachers' interpretations of the ESL curriculum were guided by their cultural expectations of teaching and learning. For instance, dissimilar teaching practices reflected different cultural values such as: Fijian cooperation vs Indian competition, Fijian emphasis on the 'here and now' vs Indian long-term detailed planning, Fijian sharing vs Indian saving. It was found that differential educational attainments resulted from these dissimilar Fijian and Indian teaching practices. Indian competition favoured hard work and determination to achieve which led to higher educational outcomes. By contrast Fijian cooperation favoured relationships, group membership which was reflected in an indifference towards achieving. The most culturally-extreme behaviours were found in rural secondary schools in which ethnic mixing was insignificant. This ethnic segregation was further associated with rural teachers' cultural prejudices against teachers and students from the other ethnic group. Examples of cultural prejudice marked by dissimilar behaviours are given in the following interview excerpts.

The following excerpt from an interview taped on November 15th, 1995 with a Muslim principal from a Muslim rural secondary school reflects the widespread perception that Fijians lack the motivation to work and to plan their future.

++ ON-LINE DOCUMENT: TB7A
+++ Retrieval for this document: 8 units out of 80, = 10%
++ Text units 25-30:
Ans. I told the village... this is the time you struggle, you may take a bit a time, 20 years or 10 years, you struggle, you work hard, and once you come up by using your brain you will be more successful. If you are spoon-fed you will be unsuccessful, you will never, ever, compete with Indians. Never ever. 
25 * competitive; societal change; study habits; study motivation; Fijian; student attributes; student behaviour; 
Q. Can they compete? 
Ans. If their attitude is not changing, no. 
Q. What should they do to be able to compete? 
Ans. Look, hard work, they must change their attitude. Everything is not fun. Flashy car is not everything. You give them a car, see what happens, they will visit every relative first. Without realising that it needs some benzine. Car is very expensive. So they have to change their attitude. Education is very important. They say a lot about education. But what happens is that they are not studying. Anywhere you can open the register, wherever there is an absent if it is very long you close your eyes and you say it's a Fijian. Why? 

The next excerpt from an interview with an American Peace Corp teacher of English taped on July 11th, 1996 illustrates the lack of Fijian planning for the future and the corresponding emphasis on the 'here and now'.

++ ON-LINE DOCUMENT: TC1A
+++ Retrieval for this document: 13 units out of 89, = 15%
++ Text units 71-74:
Q. What about the plans the children do for their career? 
Ans. They just take it as it comes. There's also a little phrase on the wall and when I've read it I said: 'No wonder they don't do homework, study or care about tomorrow'. The phrase says: 'today's here, yesterday's gone, tomorrow doesn't exist'. 
Q. Really? And what do you think is the meaning of that phrase?
By contrast Indians make sure their children study. They monitor their work to ensure children's educational success. An English HOD and acting VP interviewed on November 16th, 1995 at 'B125', a secondary school on Vanua Levu island, told about how he prepared his son for the secondary examination entrance.

This excerpt from an interview with a Fijian Catholic nun, an English teacher on Taveuni island, taped on November 19th, 1995 compares Fijian and Indian child raising behaviours and links them to cultural differences.

These excerpts from recorded interviews show the Indian value of hard work, 'no pain, no gain, for building a better future for themselves. By contrast these excerpts also show the people-orientedness of the Fijians. Relationships and associated 'vanua', that is immediate fulfilling social obligations, are prioritised: "Kana ni kua. Raica mataka" (eat today and let tomorrow take care of itself). The ethnically-segregated rural schools offered little cultural mixing and most rural teachers were imbued almost exclusively with their native cultures. Some rural teachers however were found to exhibit cultural values pertaining to
the other ethnic group, such as: (a) a Fijian female English teacher married to an Indian policeman in 'N27' Methodist school on Taveuni island, (b) an Indian male principal married to a Fijian female at 'L37' on Vanua Levu island, and (c) a Hindu female HOD married to a Muslim Indian at 'S23' in Labasa. Inter-marriages, although not the norm in rural areas, were much more prevalent in urban areas, in particular, between Fijian and Europeans (Australian, New Zealander, English). Those teachers marrying outside their ethnic group exhibited cultural values pertaining to that group. For instance, a Niu Sa Wa Methodist High school English teacher reported that she severed her ties with her 'mataqali', that is extended family: she stopped fulfilling her social obligations and financially contributing. She felt she had a duty to bring up her own children, bear the cost of their education and monitor their progress. She denounced communal upbringing for its lack of child monitoring and parental responsibility. This Fijian teacher had borrowed Indian cultural parenting behaviours. This teacher was ethnically Fijian but leaned culturally much towards Indian-ness.

Another example of inter-marriage between Indian and Fijian was 'L123' principal, a devout Hindu married to a Fijian. He accepted limited responsibility towards his wife's mataqali, but allowed her to fulfil her social obligations. In return he expected her to behave as an Indian lady in social Indian contexts and bring up their two children in Indian culture. Although the principal was ethnically and culturally Indian he exhibited a low degree of Fijian-ness. Both these respondents, the Fijian HOD and the Indian principal, had a cultural identity which differed to a greater or lesser extent from their ethnic identity.

Inter-marriage was not the only compounding influence on cultural identity. Ethnic mixing in urban centres had attenuated culturally-specific behaviours pertaining to Fijian and Indian cultures. For instance, bi-ethnic and multiracial urban secondary schools had fostered a culturally-eclectic education milieu. Further, some English HODs had completed MAs in Australian or New Zealand universities and they had imbued some of the humanistic educational values inherent in the Australian and New Zealand cultures. Their teaching orientation markedly reflected corresponding aspects of western education philosophy. Urban English teachers were found to have had a greater exposure to English and to English social contexts. English was the first language of some of these urban English teachers. As a result, they had taken on some of the 'westernised' cultural values propagated by the English language. Hence, a third cultural component of the cultural identities of urban English teachers was their degree of westernisation. In this study, teachers' cultural identities were assessed by calculating their PCI for Fijian-ness (PCI-F), Indian-ness (PCI-I) and Western-ness (PCI-W). The three PCI's gave a profile of each teacher's cultural identity and the total TCI gave a measure of how cultured a teacher was in terms of these three primary components:

\[
TCI = PCI-F + PCI-I + PCI-W
\]

The probability with which a teacher would act in an evenly balanced context in accordance with one of the cultures to which he or she adheres could be assessed by calculating his or her Relative Cultural Indices (RCIs), each of which represents a proportion of their TCI (e.g., \( RCI-F = PCI-F / TCI \)). Then the RCIs can be compared to assess the strength of each culture in predicting culturally-determined behaviours. This was verified in the study by a census of all secondary schools in the Fiji isles which
compared teachers' RCIs with their relative prevalence of ethnographically identified culturally distinctive behaviours.

Conclusion
The influence of one's ethnic culture is important (Holliday, 1994, p. 48). However, this study's ethnographic data revealed that, in Fiji, ethnicity was not a simple indicator of culture and, in particular, the more urbanised the bi-ethnic context then the less reliable was ethnicity as a predictor of culturally-defined behaviours. Ethnicity, as a nominal category, provides little sensitivity for predicting culturally-preferred behaviours of members living in pluri-ethnic societies such as America and Fiji. Ethnic mixing in these pluri-ethnic societies has encouraged cultural borrowing, that is members have taken on to a greater or lesser extent cultural behaviours pertaining to other cultures. The Cultural Index is an instrument which assesses cultural identity and the strength of each constituting culture influence in predicting culturally-determined behaviours.

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