Defining Cultural Competence in Context: Dyadic Norms of Friendship Among U.S. High School Students

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Abstract Cultural competence is often defined as the ability to adhere to a core set of beliefs and practices. In this article, I argue that in many cases competence also involves the creative and occasionally idiosyncratic use of conventional knowledge to meet both personal goals and the specific requirements of local relationships and settings. I illustrate this tension between adopting broadly shared cultural norms and adapting them to local circumstances by examining how U.S. high school students prioritize their expectations of ''good friends.'' Drawing from cultural consensus approaches in cognitive anthropology, I analyze patterns of agreement among students to show that despite some population-wide sharing, friends share more similar priorities than do nonfriends, and individuals also maintain stable differences in their personal priorities. These patterns of agreement and disagreement support the view that individuals strike a balance between fitting their personal models of friendship to broad cultural norms and accommodating the goals and needs of particular partners. More generally, I argue that competence in a cultural domain (in this case appropriate friendship behaviors) must be examined in relation to the specific contexts of use and the scale of social interaction for that domain. [competence, cultural consensus, friendship, quadratic assignment procedure, adolescence]

How people come to embody the skills and knowledge necessary to live, survive, and thrive in particular human societies remains a central and productive question in psychological anthropology (Goodenough 1957; Lancy 1996; Ogbu 1981; Ross 2004). A key concept in this area of research is the notion of "competence," which is often defined as the degree to which a person has embodied or approximated a corpus of knowledge and skills (D'Andrade 1987; Romney et al. 1986). From this perspective, individuals in a population differentially tap into common domains of skills and knowledge, and the more that an individual masters a domain, the greater his or her competence in that domain. This view of "cultural competence" as greater sharing through learning mirrors common definitions of *culture* as a communal and socially transmitted pool of information (Swartz 2001).[1]

The view of "competence-as-sharing," although common in anthropology, has drawn criticism for downplaying the fact that individuals often perform more effectively by resisting or creatively transforming cultural norms (See Rodseth 1998). This alternate view, which

focuses on "competence-as-efficacy" is illustrated nicely by Barth's description of Baktaman ritual, where cult masters must balance preserving the stability of the ritual and creatively adapting it in ways that are evocative and compelling for members of the cult (Barth 2002). By emphasizing the pragmatic utility of creative transformation and nonconformity, these critiques show how competence in a domain of activity may also involve divergence from broad population norms. The presence of intracultural divergence also raises an important question, framed several decades ago by Anthony F. C. Wallace in his discussion of the "organization of diversity." Specifically, how do individuals with diverse knowledge and preferences organize themselves into an orderly, yet changing society (Wallace 1961)?

In this article, I tackle this question and integrate the two perspectives on competence by focusing on a domain of great importance to many U.S. high school students—the appropriate behaviors of a good friend. First, I lay a theoretical foundation for the discussion by: (1) reviewing common models of competence-as-sharing, and (2) describing how a functional view of competence-as-efficacy includes both conformity and divergence as potential strategies for becoming competent in a domain. Then, I show how the dynamic tension between sharing and divergence leads to a complex and multiscale distribution of models of friendship in a sample of U.S. high school students. I argue that this particular distribution depends on the contexts in which models of friendship are regularly used, and that competence must be judged by the effective adaptation of these models to accommodate personal and dyadic goals in context.

Models of Cultural Competence

Competence as Agreement in Cultural Context

Abundant anthropological research has demonstrated that what counts as competence in a society depends on the cultural and ecological context. For example, in his comparison of middle-class whites and urban ghetto blacks in the United States, Ogbu argued that making a living at the periphery of the conventional market economy required skills and knowledge not encapsulated by white middle-class models of success. Rather, a number of survival strategies, described by Ogbu as "collective struggle, clientship, hustling, pimping, preaching-hustling, entertainment, and sports" formed a core set of skills for urban ghetto blacks that complemented and sometimes replaced white middle-class models based on appropriate school credentials or conventional employment (Ogbu 1981:423). With similar cross-cultural examples, anthropologists have shown that competence must be evaluated in relation to the specific ecological circumstances and cultural domains of activity in which one regularly participates (Lancy 1996; Ogbu 1981).

Standards for competence greatly differ across cultural and ecological contexts. However, within a particular setting, benchmarks for competent behavior often become standardized as individuals face common problems and actively seek out the skills and knowledge that other people in similar situations have found particularly useful for dealing with these

problems (Strauss and Quinn 1997). Specifically, accumulated bodies of knowledge (e.g., regarding folk medicine, food preparation, hunting, blacksmithing, and folk sociology) often store highly effective ways of dealing with problems in specific cultural and ecological settings. In such cases, a single model, honed and elaborated through the trial and error of forbearers, may perform noticeably better than alternatives at permitting individuals to get things done, whether it involves gathering food, communicating about the physical world, or treating illness (Strauss and Quinn 1997). Similarly, in social coordination tasks, such as speaking a mutually intelligible language or driving on the same side of the road, a cultural system often reaches a stable equilibrium and there is little benefit (and, usu., substantial costs) for individuals to diverge from that equilibrium. Thus, two common situations—the existence of an accumulated body of knowledge and the need for population-wide social coordination—often make adopting common modes of reasoning and action the best route to success in a particular domain of activity. This also implies that within a particular niche (i.e., a cultural setting or a social role) there is a body of knowledge and skills to be mastered and that variation within the relevant niche represents differing degrees of competence (D'Andrade 1987).

In the mid-1980s, Romney and colleagues formalized these notions for the specific aims of: (1) identifying key informants most likely to provide an ethnographer with culture typical knowledge in a domain, and (2) extracting culture typical knowledge from a limited number of respondents. This approach, often referred to as the "cultural consensus model," explicitly estimates competence as the degree to which one's knowledge, skills, or behavior approximate the central cultural tendency in a specific domain of activity (Batchelder and Romney 1988; Romney 1999; Romney et al. 1986). The model does a good job of fitting the distribution of responses in a number of knowledge domains (see Weller 2007 for review) and is particularly attractive when considering the common definition of culture as the degree to which it is shared (Swartz 2001). In short, if the defining quality of culture is its sharedness, then a measure of cultural competence indicates how well one shares knowledge and skills with others.

Competence as Efficacy in Cultural Context

If we consider Ogbu's definition of competence as "the ability to perform a culturally specified task," then agreement with population norms defines one very special kind of competence—the degree to which one can perform as a reliable informant regarding a particular domain of knowledge (Ogbu 1981:414). Although adopting conventional practices is useful in many situations, there are also a range of conditions where the most effective way to act, think, or solve a problem is to deviate from the norm. For example, creating a unique identity as a practitioner in a domain of activity may be an integral part of mastering that domain. In both art and science, competence is judged by a subtle combination of adherence to conventions and the personal use of these conventions in novel and creative ways. Without mastering the technical competencies one may be branded an ill-trained amateur. However, without an element of individual creativity one would be

considered only an adept imitator and not a true expert. To argue that the common elements of practice and knowledge in these fields constitute the "cultural part" while the elements that reflect personal identity are the "personal part" ignores the fact that generating a unique identity, in many cases, is an integral part of becoming a culturally competent practitioner.

Deviance can also be adaptive when conventional modes of thinking or practice fall short of the goals and needs of particular community members. For example, in his study of Tzintzintzun, Mexico, Foster described how local norms and institutions often failed to accommodate all individual needs, a gap regularly filled by the cultivation of particular and idiosyncratically specified dyadic relationships (Foster 1961). Moreover, Obeyesekere has investigated how people transform cultural representations in creative ways to deal with personal suffering (Obeyesekere 1981, 1990). In such situations, the best use of cultural knowledge may not be to adopt it whole cloth, but, rather, to creatively transform or even resist the norm.

These examples fit well with Strauss and Quinn's observation that the distribution of cultural knowledge is the product of a constant and generative tension between centrifugal and centripetal forces (Strauss and Quinn 1997). There are numerous centrifugal forces, including (1) the necessary division of cognitive labor (Roberts 1968; Wallace 1961), (2) the inability of broad cultural standards to fit all member's particular dispositions, needs, and resources (Foster 1961), (3) the fact that there are often multiple ways to accomplish the same cultural task, (4) the need to create a unique identity as a practitioner in a cultural setting, (5) the stochastic nature of learning, and (6) differential opportunities for practice in a specific domain.

Centripetal forces that encourage greater sharing include: (1) the advantage of drawing on a body of accumulated knowledge honed by the trial and error of others, (2) punishment for not following cultural norms, and (3) the efficiency provided by common protocols for communicating and coordinating activities. These pressures act at particular social scales for any given domain of activity, and thus can create complex, domain-specific patterns of sharing and divergence.

The Distribution of Models of Friendship

In this article, I illustrate this tension between centripetal and centrifugal forces by focusing on expectations of good friends among a class of high school students in the southeastern United States ($n = 27$). Expectations of friends are significantly shaped by cultural norms and values (Bell and Coleman 1999; Hruschka 2006; Keller 2004; Wierzbicka 1997). At the same time, partners in a friendship are also responsible for negotiating, maintaining, and regulating the relationship, and there is a great deal of leeway in how cultural models of friendship are instantiated among particular pairs of friends (Paine 1969; Suttles 1970).

In conversations and formal interviews with high school students during a year of field-work (see methods section below) I found that models for friendship among U.S. high school students come into play during daily interaction in a number of important ways. First, they provided rough guidelines for behavior toward friends (e.g., "I shouldn't talk behind his back" and "I should take some time to make her feel better"). Second, they constituted a set of expectations for assessing satisfaction with a particular relationship and for deciding when to confront a misbehaving friend (e.g., "I enjoy being around her" vs. "He ditched me again" or "She won't stop talking about herself."). Third, they gave benchmarks for deciding whether to cultivate a friendship with particular partners (e.g., "She's easy to talk to," "He doesn't seem that trustworthy," and "I think she's really annoying").[2] For these reasons, models for friendship played an important role in determining how friends behaved toward each other and addressed inappropriate actions, which pairs cultivated friendships, and which partners ultimately stayed together.

Students clearly articulated how these expectations played a part in the cultivation and decline of friendships. For example, one male student described dropping a set of friends who were not sufficiently sensitive to his situation when his father died. Another female student talked about avoiding a former friend who inexplicably "got boring" and wasn't fun to be around anymore. Moreover, new priorities could also emerge among friends, such as a male student who emphasized how one relationship taught him the value of having someone to talk to about his personal problems, something he had not appreciated prior to that friendship.

Taken as a whole, student interviews revealed a broadly shared model of appropriate friendship behaviors. Notably, friends should be there for each other in times of need, they should be fun to be around, they should want to hang out and do things together, they should be able to talk to each other about deeply held personal issues, they should be sensitive to each other's personal problems and concerns, and they should be able to tease and criticize each other as long as they do so without malicious intent.

Rarely was it possible, however, to cultivate relationships in which all of these different expectations were realized, and students often differed on which of these expectations were more important than others. Some students emphasized the importance of loyalty and support in their friendships, such as the student who dropped friends who did not provide adequate support during a family tragedy. Others focused on the ability to confide in a friend, and others valued the fun and stimulating companionships they had with good friends. As one senior girl suggested,

> I don't even think you would be able, like one person would be able to put it in the dictionary. I think different types of people would have to do that. Because people think differently of what friendship is.

With such diversity and the need to negotiate trade-offs between different expectations, competence was a subtle blend of maintaining broad cultural norms and developing mutually acceptable variations on these norms within the contexts of particular friendships.[3]

The apparent diversity in expectations of friends differs from current models of friendship in relationship research. For example, psychologists in the United States and a number of other countries have noted a general developmental trend in the knowledge and social skills involved in participating in friendships. Whereas very young children describe the expectations of friends in terms of doing things together and liking each other, older children approach a unitary adult model by using abstract concepts, such as loyalty and trust, to think about and evaluate their relationships with friends (Keller 2004; Keller et al. 1998; Selman 1981). Although there seems to be a clear developmental component to friendship reasoning, I argue here that competence cannot be assessed by a single yardstick that is approximated more closely as individuals move into adulthood. Rather, I argue that being a good, or competent, friend among these U.S. high school students is based on a subtle interplay of three pressures: (1) to approximate a basic cultural form, (2) to fit one's personal needs, and (3) to fit the expectations of one's particular friends.

Materials and Methods

To systematically examine the patterns of sharing in friendship expectations that reflect these opposing forces, I asked a class of high school students in the southeastern United States ($n = 27$) to rank the importance of criteria for evaluating good friends and also violations of a friendship.[4] Criteria were initially identified through free lists ($n = 26$). Then, two data collection instruments (pencil-and-paper rankings and pile sorts) were piloted and developed from these criteria. The pencil-and-paper rankings were administered to class members ($n = 26$) and their self-identified closest friends ($n = 16$). Class members also participated in semistructured interviews to talk about their responses on structured questionnaires and to elaborate on common patterns of disagreement in the data ($n = 21$).

The Class

I conducted the surveys and interviews with members of a nonhonors physics class in a suburban high school near Atlanta, Georgia. The school population consisted primarily of white and African American students. On average, students' families had higher incomes than families of students from other Georgia schools, and students performed substantially better on statewide and national tests than average Georgia students. The class members were primarily juniors (median age = 17 years) and reflected the ethnic makeup of the larger school population. The class itself consisted of students who were not on the "science track," but, rather, needed to take the course as part of their graduation requirements. In this class, as has been documented in numerous other studies of U.S. high school students,

"friends" and "friendship" were important notions and arose frequently in conversations both during class and at class transitions (Moody 2001; Ortner 2003).

I regularly participated in classroom activities, primarily in the role of a facilitator for problem-based learning cases (ten months in the school and five months with this particular class). During these activities, students worked in teams on problems designed to encourage application of key concepts in the Physics curriculum. In this capacity, I was able to become acquainted with most of the students, and they were very willing to participate in at least the questionnaire portion of the project.

Questionnaire Development

To elicit statements for structured interviews related to models of good friends and violations of these models, I asked 26 participants to free list items in response to two questions:

> Think of a good friend. Please take 7 minutes to list the things that make that person a good friend. List as many or as few things as you want. Feel free to use several sentences to describe what you mean.

> Think of someone who is not such a good friend. Please take 7 minutes to list the things that make that person not such a good friend . . .

For each of the questions, I used the 16 most common criteria in structured ranking tasks. For the pencil-and-paper questionnaire, there were four ranking tasks of eight items each.[5] These were divided by domain (i.e., qualities of a good friend vs. violations of friendship) and frequency of mention in the free lists (i.e., most common vs. less common). The order of items was randomized in the tasks for each participant and testing occasion. To provide methodological triangulation on these paper-and-pencil rankings, I also asked students during one of the open-ended interviews to pile sort index cards in order of importance.[6]

Data Collection

For this study, 26 students participated in several questionnaires regarding models of friendship. To assess whether deviations from consensus were indeed because of between-individual differences, the 26 students were given the same interview ten weeks apart. To compare similarities between friends, 16 students chose "close friends" who were not part of the physics class to complete friendship questionnaires. Of the 42 participants, 24 self classified as white, 16 as African American, and 2 as Hispanic. There were 30 females and 12 males. Most students were juniors, and the median age was 17. In addition, 21 class members participated in at least one open-ended interview. I obtained written assent and parental consent from all participants. I administered questionnaires and interviews in the classroom during lunch periods and provided lunch for participation.

I also collected data on several variables that might account for differences among individuals' models. Results from several prior studies suggest that students from different racial or ethnic backgrounds and of different genders might possess different models of friendship (Dubois and Hirsch 1990; Maccoby 1990). Thus, I collected data on each student's open-ended ethnic and gender self-identification. To examine the effect of social crowd identification on models of friendship, I classified students into one of four categories based on interviews and conversations with students and the teacher: (1) those who were heavily involved in sports or cheerleading, (2) those who identified as "goth,"[7] (3) those who were popular or student leaders but not in the first two categories, and (4) those who did not fit clearly in any of these categories. These groups roughly fit with the four extremes of identity proposed by Ortner as a common feature of social life in U.S. high schools (Eckert 1989; Ortner 2003).

Interactional perspectives propose that one will share relationship relevant models with one's relationship partners, or friends (Holland 1987; Krackhardt and Kilduff 1990). To examine this possibility, I assessed "friendship" in two ways. First, I identified "close friends" as: (1) class members who students listed as their closest friends (and who reciprocated the nomination) in a social network survey, and (2) those nonclass close friends who completed questionnaires. Second, I recorded those pairs of students who listed each other as "friends from class" in the social network survey, expecting that this represented a weaker kind of social interaction than with close friends.

Data Analysis

Here, quantitative analyses focus on the patterns of agreement and disagreement between students' rankings, based on correlations between rankings. I also use this approach to assess the agreement of a person "with herself or himself" over time (i.e., ten-week lag between questionnaires) and across various methods (i.e., pile sorts compared to ranking tasks; Romney 1999). The analyses reported below use ranking-by-ranking matrices based on these estimates of agreement.

First, I assess the degree to which the data satisfy the assumptions of the cultural consensus model (Romney et al. 1987; Romney et al. 1986). Specification of the model relies on the assumption that within a given domain of knowledge in a particular culture there is a "correct" way to respond (a common truth), and that the degree to which two people are similar in their responses is mediated by their respective ability to give the correct response. It also assumes that individuals respond independently of each other conditional on the common truth (local independence), and that the competence of the informants is constant over all questions (homogeneity of items). Factor analysis of the agreement matrix provides a check on whether these conditions have been met. Specifically, the eigenvalue for the first factor should be at least three times that for the second factor, indicating that a single factor is far more important than any other factors in accounting for systematic variation in the matrix. Moreover, individual loadings on the first factor should all be positive, indicating general agreement

with this single factor.[8] To assess the cultural consensus model assumptions, I factor analyzed the agreement matrix between course members at times 1 and 2 (each $n = 26$) and in the pile sort task ($n = 21$). I also fit a cultural consensus model among nonclass friends ($n = 16$) and again among the pooled group of questionnaires (excluding the pile sort; $n = 68$).[9]

There are several ways to assess if there are meaningful variations in competence, or agreement with the modal response (Brewer 1995; Weller 1987). Here, I use two approaches. First, competence is a measure of between-individual difference and thus we would expect those who are more competent at one time to also be more competent at another. Thus, I examine the degree to which relative competence is stable over time. Second, the definition of competence in the cultural consensus model implies that more competent individuals should be more consistent in their rankings. Thus, I examine the degree to which competence correlates with consistency in ranking over time.

In those cases where the general assumptions of the cultural consensus model hold only weakly, Caulkins and Hyatt have suggested various ways of characterizing the distribution of knowledge in "noncoherent" domains, as weakly agreeing, turbulent, subcultural, and contested (Caulkins and Hyatt 1999). Others have proposed ways of modeling relationship-mediated agreement (Boster 1986). Finally, Romney and Moore have developed a general model for characterizing sharing of semantic domains at multiple levels of analysis, including universal, cultural, and intrapersonal (Moore et al. 1999; Romney et al. 2000).

Here, I draw from these approaches to examine the extent to which other kinds of sharing (within-gender, within-race, within-crowd, and between-friends) can account for variation in patterns of agreement (Boster 1986). For these analyses, I use a linear regression to predict agreement based on different kinds of social proximity. I test the significance of regression coefficients with a nonparametric, permutation-based procedure (quadratic assignment; see Hubert and Schultz 1976; Krackhardt 1988), a useful technique for analyzing similarity and dyadic data, which handles unknowable amounts of row and column autocorrelation among observations. To measure the strength of bivariate correlations, I calculated Goodman-Kruskal's gamma, a nonparametric correlation coefficient that is a more appropriate measure than Pearson's r for binary data with extremely low frequencies like that often contained in social network data (Goodman and Kruskal 1954; Krackhardt and Kilduff 1990).

Results

Average Population Rank

Figures 1 and 2 describe the average population rank for each item. For example, "Cares for you," "Doesn't lie to you," and "Is there for you in times of need" were ranked as the most important qualities of a good friend. These also represented the highest ranked items in the pile sorts, suggesting the general importance attributed to trustworthiness mediated by positive feelings for a partner.

Figure 1. Mean population ranks of qualities of a good friend. Error bars represent standard error of the mean.

Is There Consensus on the Rankings?

Though these overall ranks represent population averages, it is not clear how well they reflect a broad cultural consensus. Table 1 reports the results of consensus models applied to several samples in the study: the class at time 1 ($n = 26$), the class at time 2 ($n = 26$), the set of

Figure 2. Mean Population Ranks of Inappropriate Friendship Behaviors. Error Bars Represent Standard Error of the Mean.

TABLE 1. Results of Cultural Consensus Models in Various Populations

Sample	N	Eigenvalue ratio	Competence estimates		
			Mean *(SD)*	Range	# Neg. values
Time 1 (T1)	26	4.07	0.50 (0.19)	(0.10, 0.81)	0
Time 2 (T2)	26	2.27	0.42 (0.24)	(−0.20, 0.89)	2
Friends	16	2.79	0.43 (0.30)	(−0.10, 0.89)	2
T1+T2+Friends	68	3.20	0.46 (0.23)	(−0.18, 0.93)	3
Pile sort[a]	21	4.73	0.52 (0.19)	(−0.04, 0.79)	1

[a]Concerned that the subset of 21 might have exhibited more consensus with the questionnaire ranking, I also analyzed the time 1 and time 2 questionnaires with this subset of 21. This did not produce results noticeably different from those described above for times 1 and 2.

nonclass friends ($n = 16$), the pile sort data ($n = 21$), and the entire set of 68 questionnaires (excluding pile sorts). Students' rankings showed marginal fit to the consensus model (see Table 1). First, the eigenvalue ratios straddle the relevant cutoff (>3). In all but one case, there is at least one person with a negative estimated competence. Moreover, the mean competences shown in Table 1 are low by most published standards. For example, they are much lower than those for identification or similarity judgments in animal or plant domains (0.7–0.9), slightly lower than those related to beliefs about contagious diseases (Weller and Baer 2001), hot–cold categories (Boster and Weller 1990), emotion and color terms (Moore et al. 2002) (0.55–0.7), and approaching the range for beliefs about folk illnesses, such as *empacho* and *mal de ojo* (~0.55; see Weller and Baer 2001). According to Caulkin's criteria, the students' models of friendship approach a "noncoherent" domain (Caulkins and Hyatt 1999).

Given the marginal fit to the cultural consensus model, it is unlikely that the estimated competence scores meaningfully reflect individual differences in knowledge of a unitary domain. In line with this expectation, the correlation between competence at times 1 and 2 is low ($n = 26$, $\rho = 0.29$) and nonsignificant ($p > 0.10$). In addition, the correlations between competence and consistency are low ($n = 26$, ρs = 0.27 and 0.32) and nonsignificant ($p > 0.10$). On the basis of this and the above evidence, it appears that the data only marginally fit the cultural consensus model.

What to do with a Noncoherent Domain?

What then can account for the observed patterns of agreement? The first possibility is random error in the ranking task. However, individuals showed some consistency in their responses over time ($\rho = 0.46$, $p < 0.05$) and between methods ($\rho = 0.43$, $p < 0.05$).[10] And, at the population level, average rankings were highly correlated over time (average correlation = 0.92) and between paper-and-pencil and pile sort methods (average correlation = 0.86).

Caulkins and Hyatt (1999) refer to domains that poorly fit the cultural consensus model's assumptions as noncoherent domains, and several published reports have presented results for such domains. In one of the earliest applications of cultural consensus analysis, Boster showed that Aguarana women only moderately agreed in naming difficult manioc varieties (eigenvalue ratio = 2.1). He also showed that some of the variation between individuals was patterned by kin ties and manioc exchange relations (Boster 1986).

To explore how social groupings and relationships influence patterns of agreement in models of friendship, I extend an approach described by Boster (1986). Specifically, I model the agreement that one would expect between rankings: (1) by the same individual at two time points, (2) by close friends, (3) by friends from class, and (4) by members of broad social categories indexed by gender, ethnic identification, and social crowd in school. In Table 2, estimates for the various regression coefficients (the βs) indicate the degree to which each of the factors increases the agreement between observed rankings. These results indicate that there is positive but weak correlation ($\rho = 0.21$) between the rankings made by randomly paired individuals who are not friends. It is important here to point out that the expected correlation between two rankings is the square of expected agreement with the cultural consensus. Thus, rho equals 0.21 reflects an average agreement of 0.46.

As we noted earlier, the expected correlation between two rankings made by the same person (ten weeks apart) will be much higher than that made between two unfamiliar individuals ($\rho = 0.47 = 0.21+0.26$). In addition, the model indicates that the rankings of close friends will also be significantly more similar ($\rho = 0.33 = 0.21+0.12$) than those between randomly paired individuals. The effect is weaker for those nominated as "friends from class" ($\rho = 0.27$ vs. 0.21), which makes sense considering the more circumscribed nature of the relationship. Finally, there is no increase in sharing between members of

TABLE 2. Interobservation Correlations Predicted by Unique Personal Consistency, Between-Friend Sharing, and Within-Group Sharing

	Bivariate associations		Full Model
	β (p-value)	G-K gamma	β (p-value)
Baseline correlation			
	NA	NA	0.21
Added correlation			
Within individuals	0.24 (0.000)	0.74*	0.26 (0.000)
Between close friends	0.10 (0.002)	0.41	0.12 (0.001)
Between class friends	0.05 (0.013)	0.15	0.06 (0.007)
Within gender	0.01 (0.29)	0.08	0.00 (0.45)
Within ethnicity	0.01 (0.27)	0.08	− 0.00 (0.52)
Within social crowd	0.00 (0.36)	0.04	− 0.02 (0.14)

*Goodman-Kruskal gamma for within-individual correlations calculated from outcome cutoff at 0.40. Other gammas calculated from outcome cutoff at 0.30.

similar social groupings, and the near-zero coefficients indicate that the lack of association is not because of lack of power or sample size. These results (except for base sharing) do not qualitatively differ when I first partial out interinformant agreements predicted by a consensus model (Boster 1986; Nakao and Romney 1984).

In summary, these results suggest that there is a loosely shared model of the relative importance of appropriate friendship behaviors. However, individuals also possess personally distinctive models, and more importantly they share these most with their own close friends and to some extent with their associates from class. Notably, comembership in common social groupings, referenced by ethnicity, gender, and social crowd, does not predict greater agreement among individuals (and this cannot be explained by lack of statistical power or sample size).

Discussion

In this article, I argue that being competent in a specific domain of cultural activity, in this case knowing what behaviors are most appropriate among friends, involves more than replicating a uniform and broadly shared cultural model of friendship. Rather, competence involves forging friendship in a society of diverse individuals where partners communicate and come to understand their mutual expectations. What it means to be a good friend is linked with what one's circle of friends expects, and attempting to approximate some broad cultural norm may not only be unnecessary but also maladaptive in the sense that it draws one away from locally relevant models of appropriate friendship behaviors. In short, competence in the context of friendship involves effectively taking part in the "organization of diversity," whereby individuals organize their diverse strivings into mutually acceptable modes of social interaction (Wallace 1961).

This basic observation is corroborated by both students' talk and by quantitative patterns of sharing among friends. As noted in the introduction students generally agreed on the basic qualities of a good friend, but they also described conflicts and break-ups based on different priorities for friendship—such as trust and empathy or fun and excitement (Hruschka 2006). The quantitative analysis of students' friendship priorities confirms that such processes also leave an observable mark in the population. Despite some population-level sharing, close friends are much more similar in their friendship priorities. And there is an increasing effect by the strength of friendship, such that close friends are more similar in their priorities than are friends from class, who in turn are more similar than are nonfriends. These findings suggest that there are meaningful variations in friendship priorities and that individuals forge ties that generally increase congruence between partners.

More generally, models of friendship provide a particularly good example for how variation in cultural models can arise from a number of competing pressures. In the case of friendship, a broadly shared model supplies a framework for beginning relationships with relative

strangers and communicating about one's relationships with others. Indeed, students agreed on the broad set of behaviors that are appropriate and inappropriate among friends. At the same time, each particular relationship must satisfy individual goals and needs that often require elaborations or revisions of general models of friendship. Thus, variation in students' emphasis on fun and excitement, loyalty, or intimate communication reflects the push and pull of general cultural norms, the coordinative needs of specific dyads, and the goals, preferences, and life circumstances of partners. Although there is no single cultural task solution (Strauss and Quinn 1997) or answer key (Romney et al. 1986) in this situation, the patterning of knowledge is still "cultural" in that it is built from existing cultural materials, interpersonally shared, and used to solve common problems of cooperation and social coordination.

Contexts of Use and the Social Distribution of Cultural Knowledge

How knowledge, meanings, and representations come to be distributed across individuals in a society has been a recurring question in cognitive and psychological anthropology (D'Andrade 1995; Schwartz 1978; Sperber 1985; Strauss and Quinn 1997), as well as in anthropology more generally (Barth 2002; Rodseth 1998). This analysis shows that at least in the case of friendship expectations, an adequate cultural description cannot simply identify key informants who are most knowledgeable about a general model of friendship. It must also identify how patterns of social interaction organize differential knowledge among individuals (Barth 2002; Boster 1986; Roberts 1968; Wallace 1961).

The findings also demonstrate that we cannot simply assume differential social distribution of social knowledge by broad subcultural groupings such as gender or ethnicity (Handwerker 2002). In the case of friendship, where particular norms and expectations are most relevant within a dyad, it makes sense that sharing would arise most clearly at the dyadic level, rather than at macrolevel groupings (Wright 1988).

More generally, when the scope of use or social coordination is limited, as in the case of friendship dyads, families, households, and small groups (Barth 2002; Boster 1986; Roberts 1951; Swartz 1982), models may be most effective not when they best approximate some community norm but when they permit individuals in these small social ecologies to coordinate activity that meets the individual needs of their members in relatively efficient (although perhaps idiosyncratic) ways. For example, Richard Wilk describes the astonishing array of systems that U.S. households use to manage their budgets, with households using varying combinations of individual and joint accounts and diverse strategies for allotting responsibility for particular expenses (Wilk 1994:366). In the case of household budgeting, competence is best judged relative to the specific household system in which one participates, rather than approximation to some broad cultural norm. Indeed, the inability to adapt one's model to those of fellow householders could signal a lack of competence. A similar situation should arise in a range of activity domains, such as planning a family meal, splitting bills, playing by the house rules of Euchre, and acting appropriately toward

friends, where the major task of coordination is within a circumscribed social ecology, rather than with a wide range of partners.

The Power of Suitably Flexible Systems for Coordination

Cultural models can be useful because they are precise and efficient means for organizing individual thought and for communicating ideas between individuals (Wenger 1998). For example, Wallace describes how mathematical calculus (a very complex and refined cultural domain in modern society) provides a useful system for calculating rates of change and communicating these results to others (Wallace 1962).

Viewing cultural knowledge from a functional perspective, as I have done here, also raises the possibility that some cultural forms are useful precisely because they permit individuals' to adapt them flexibly to their local needs. As Barth describes of Hinduism in Bali:

> The power of such a system of knowledge should therefore be measured in terms of the productivity of its images, insights, and explanations that it provides for reflection and action on the complexities of interpersonal relations and of individual health and success and disaster, not in the rigour of its abstract generalizations about an impersonal, physical cosmos . . . Bali-Hinduism provides a singularly rich vocabulary and set of images for discourses and judgments on worshipfulnes and cooperation, virtue and evil, harmony and danger. [2002:8]

For Barth, Bali-Hinduism is powerful because it provides a general framework for particular communities to discuss, frame, and deal with specific issues of cooperation, harmony, evil, and virtue. Indeed, the utility of some cultural representations may lie in their semantic and practical flexibility, a property that permits individuals to co-opt and fashion collective representations to fit their idiosyncratic needs (Kohrt et al. 2004; Obeyesekere 1981, 1990; Turner 1967).

Models of friendship are particularly good examples of cultural representations that are useful because they permit partners to co-opt them in ways that meet personal and dyadic needs. Interestingly, the specific content of friendship models also provides a productive way for thinking about the use, sharing, and accommodation of cultural knowledge in more general terms. Specifically, in a range of contexts, children and adolescents appear to follow a common developmental path in social reasoning, whereby they first view friends in terms of shared activities, shared ideas and values, reciprocal behavior, and liking, and slowly develop increasingly abstract expectations of loyalty, mutual understanding, and trust. As individuals become more sophisticated in their understanding of friendship, they focus less on being similar in behaviors and ideas and more on understanding and accommodating each other's differences (Keller 2004; Selman 1981). Indeed, many of the students I interviewed argued that it is better when friends bring different interests, ideas, and values to the table. One student's comment illustrates this view.

> I don't want to hang out with someone who's thinking the same thing as me. I want to hear something different . . . that helps me see things in another way.

Of course, it is also important to have some foundation for coordination, and this is why we observe friends sharing notions of appropriate behaviors.

This model of friendship parallels a view of cultural knowledge and competence that embraces diversity and distinction, but also acknowledges that some degree of sharing can aid in everyday coordination (Wallace 1961). This perspective raises several questions deserving further study and discussion, three of which I raise here. First, when knowledge is highly distributed, what does it mean to be an expert? Is it even possible to characterize an expert in friendship? Second, how does between-individual diversity arise in the first place? For example, does the observed diversity in friendship priorities result from mismatched development (Selman 1981), adolescent preferences for nonconformity, stable personality differences, or a feedback between relationship and preference formation? Finally, under what conditions and at what scales would we expect diversity and sharing (and diversity in sharing) to arise through the active participation of cultural actors? Each domain of activity will involve particular tensions between centripetal and centrifugal forces as we see in the varying scales at which models of friendship among U.S. high school students, Bali-Hindu ritual knowledge, household accounting, and rules of the road become standardized and differentiated in society. Further analyses of particular case studies at varying social scales should provide a better understanding of the diverse ways that individuals adopt and transform cultural knowledge to get by in daily life and become competent, functioning members of society.

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Notes

1. The view of cultural competence as sharing, agreement, or approximation is common in both mathematical models of cultural variation (Romney et al. 1986) and in efforts to train service providers such that they know the concepts, language, and modes of reasoning of client groups (Kleinman and Benson 2006).

2. These are direct quotations from conversations with students prior to the formal study as well as free lists and open-ended interviews conducted as part of the study described in the methods section.

3. Quinn describes how people differentially emphasize common metaphors and concepts in reasoning about another common relationship—marriage (in Strauss and Quinn 1997:142–144).

4. Subsets of these 27 students participated in various portions of the study.

5. Ranking tasks were limited to eight items to limit respondent burden. The pile sort involved what amounted to a three-level rating task.

6. A supplementary pile sort equivalent to a three-category rating task permitted a comparison between ranking and rating (Krosnick 1999; McCarty and Shrum 2000; Ovadia 2004). They showed very similar results. Also, when one is interested in how students prioritize the importance of particular qualities in evaluating friends, it is useful to split negative and positive items (Freeman et al. 1981; Romney et al. 1979; Weller 2007).

7. This refers to a subculture tied to a particular style of alternative music, dress, and opposition to mainstream culture.

8. However, there are more powerful tests that may reject the cultural consensus model even if these criteria are met (Hruschka et al. 2008).

9. Here, I use UCINET 6.0 to fit the cultural consensus model. The application of the cultural consensus model to ranking data extends the method beyond the formal process model developed by Romney et al. (1986), which applies to dichotomous data. When Romney et al. (1987) generalized the consensus model to rank order and interval scale data, they called these extensions data models to distinguish them from the original model.

10. This suggests that students' rankings are moderately stable, but also that they exhibit a great deal of within-individual instability, which could result from competing internal models, changes over time, envisioning different friends at each time point as "reference points" and cognitive difficulties and instabilities related to the burden of fully ranking the items. In open-ended interviews, students suggested each of these as a possible reason for changes in individual rankings.

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