

Naturally-Occurring Mentoring in Japan and the United States:

Social Roles and Correlates

Nancy Darling

The Pennsylvania State University

Stephen Hamilton

Cornell University

Teru Toyokawa

The Pennsylvania State University

Sei Matsuda

Aichi University of Education

Running Head: NATURALLY-OCCURRING MENTORING

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## Abstract

Although the word 'mentor' has traditionally been used to describe a relationship between an older adult and a younger person, recent work has extended its usage to relationships with peers and groups rather than with individuals and uncoupled the instrumental and affective qualities of the role. This paper examines (a) the extent to which adolescents' relationships with significant others in different social roles are characterized by mentoring and (b) the extent to which mentoring and other relationship functions covary. Adolescents' naturally occurring social relationships are explored in two very different contexts - Japan and the United States - that differ in the norms and patterning of social interactions. College students (N=365) used questionnaires to describe the extent to which relations with significant others were characterized by mentoring. Results indicate striking similarity in the patterning of results in the two countries and support the traditional view of mentoring. Mentoring is most likely to occur in relationships with adults (especially parents), rather than with peers, and with same-gender, rather than other-gender associates. Mentoring by parents appears to covary with other aspects of positive relationships, but be more independent in relationships with unrelated adults or peers. Although more of the variability in experienced mentoring is attributed to differences between associates than to differences between adolescents in both the US and Japan,, this is especially true of the United States. Results suggest that although 'classic' mentoring is most common in both countries, mentoring is somewhat less constrained by social role differences in Japan than it is in the United States.

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## Social Roles and Correlates

Just as the word ‘mentor’ derives from the older adult whom Odysseus charged with helping his son move into adulthood, research on mentoring has focused on the role that unrelated adults play in facilitating adolescents’ transitions to adult roles through strong, one-on-one relationships (Flaxman, Ascher, & Harrington, 1988; Philip & Hendry, 1996). Mentoring relationships have been conceptualized as including several aspects, including role model, teacher, and challenger (Hamilton & Darling, 1989) and described as “powerful, supportive, emotional ties between older and younger persons in which the older member is trusted, loving, and experienced in the guidance of others” (Klaw & Rhodes, 1995, p. 553).

Recently, this tradition has been broadened on at least two fronts. First, in a review of the literature on adolescents’ relations with unrelated adults, Darling, Hamilton, & Niego (1994) argued that research into the significance of unrelated adults in the lives of adolescents has over-emphasized the importance of the affective qualities of such relationships to the neglect of their instrumental functions. The authors suggest that adolescents’ ties with unrelated adults have a strong instrumental focus and that this focus changes both their character and the processes through which they influence adolescents. In this framework, unrelated adults are thought to influence adolescents by teaching skills, by changing the activities that adolescents engage in and the contexts in which adolescents spend time, and by strengthening the adolescents’ sense of instrumental competence. Darling, Hamilton, & Niego (1994) distinguish the instrumental aspects of mentoring from the affective aspects emphasized by Klaw & Rhodes (1995) and by others. This emphasis is underscored in their definition of mentors as role

models, teachers, and challengers. Further, Hamilton & Hamilton (1992) provide evidence that an initial emphasis on emotional bonding at the expense of instrumental goals and content may undermine the formation of strong mentoring relationships with unrelated adults in institutionalized mentoring programs.

The second front along which traditional ideas about mentoring have been broadened might be described as separating the image of the mentor from the act of mentoring. Philip & Hendry (1996) made this separation when they interviewed adolescents about mentoring and the relationships in which they experienced it. In addition to what they term 'classic' mentoring - a one-on-one relationship with an older adult who provides support, advice, and challenge - the authors identified four additional types that included both one-on-one mentoring relationships with peers (friend-to-friend mentoring) and mentoring provided by groups. By so doing, the authors broaden use of the term 'mentor' to encompass much of what might be called emotional and instrumental support. More importantly for the purposes of this paper, by describing friend-to-friend mentoring relationships, they raise the question of the extent to which mentoring should be studied solely in the context of relations with older adults. This opens the possibility that mentoring may be provided in many different types of relationships and that limiting it to relationships with adults may reflect traditional assumptions rather than the real life experiences of adolescents.

In this paper, we assume that a range of people may do some of the same things for adolescents that unrelated adult mentors do, and we examine both instrumental and affective aspects of adolescents' relations with significant others. We explore three questions about the nature of naturally occurring mentoring relationships. First, who mentors adolescents? More specifically, to what extent

are adolescents' relationships with significant others in different social roles characterized by mentoring? For example, are friends likely to provide mentoring or, as tradition has it, is mentoring a function primarily performed by parents and other adults? Second, what else do those who mentor do, or, to what extent do other relationship functions covary with mentoring? For example, to what extent are relationships with others who are described as high in the instrumental aspects of mentoring also high in the affective qualities traditionally associated with mentoring? Further, is this coupling of instrumental and emotional mentoring equally characteristic of adolescents' experiences with associates in different social roles, for example, parents, peers, and unrelated adults? Finally, are naturally occurring mentoring relationships the same in Japan and the United States? The literature on mentoring has focused on youth in the United States and Europe. We were unable to find any studies of mentoring in Japan or other Asian countries. Yet some qualities of social roles differ radically in different cultures. To what extent are adolescents' experiences of naturalistic mentoring similar or different in the two cultures?

### Social Roles and Functional Roles

These questions draw attention to two different senses in which the word 'mentor' has been used: as a social role and as a functional role. The term, "role", has great utility because it designates the connection between an individual and the surrounding social system. Perhaps because of this utility, it has been defined in many different ways. Levinson (1959) helped to clarify the term by distinguishing three senses in which the concept of role has been used and argued for maintaining the distinctiveness of each sense. One sense of role is the expectations or demands placed upon a person occupying a given position. Role demands are externally imposed. They define the behavior others expect of a person

holding a given position, such as mother or teacher. The second sense of role is the conception held by a person of what part she or he plays in a given social system. A person's role conception is influenced by role demands but is internally based. Thus, two mothers may define that role differently. Third is role performance, a person's behavior within the social system.

Social roles identify people by what they do and/or their relationship to someone else; e.g., "an electrical engineer," "her sister," or "my lawyer." Different social roles entail different role demands and conceptions, making it likely that they will result in different role performance. The social role of 'mentor' denotes an adult, usually unrelated, who takes on a socializing role relative to a younger person. In naturally occurring social networks, this role is likely to be informal. In other words, the individual who acts as a mentor is more likely to be thought of, and think of her or himself primarily from the perspective of their formal social role (e.g. teacher or aunt). A social role is defined by how persons occupying that social role are expected to function and how others are expected to function towards them.

As we use the term, social roles describe a person's position and imply a type of relationship with others. Functional roles, in contrast, describe what a person actually does with and for another person. For example, people who occupy the social roles of parents, peers, or unrelated adults may all perform mentoring functions. In this sense, mentor is a functional role - it describes the behavior of one person in relation to another. One might argue that in naturally occurring social networks, the informal role of mentor is better described as a functional role that might be filled by people in many different social roles, rather than as a social role with clearly defined role expectations or conceptions. For example, an upperclassman might act as a mentor to a high school freshman with regards to classes or

social behavior, although both would describe their relationship as one of friends. In contrast, programs that assign 'mentors' to less experienced individuals are using the word to denote a particular social role. For example, some high schools assign upperclass 'mentors' to new students. The expectation is that these assigned 'mentors' will help new students adjust to their new role and environment. The extent to which an individual filling the social role of 'mentor' performs the functional role of mentor may vary considerably.

Common use of the word 'mentor' in the empirical literature confounds social and functional roles by assuming that the functional role of mentor will be enacted only by a significant other in the social role of adult (Philips & Hendry, 1996). One might expect social roles and functional roles to covary for at least two reasons. First, the expectations and demands implied by a given social role might cause persons performing the social role to organize their behaviors around similar goals. For example, most women performing the social role of mother want their children to learn to behave in a socially acceptable manner. Because of this common goal, women in the social role of mother tend to act in similar ways because they believe those actions will accomplish this goal -- instructing their children in proper behavior and punishing them when they fail to meet the standards they have set, for example. Second, one might expect covariation in social and functional roles because subjects' attitudes toward associates in particular social roles could cause them to interpret associates' behaviors in accordance with the generalized expectations of that social role, whether or not the associate is actually performing the social role consistently with those expectations. Subjects may, in other words, perceive more consistency in the functional roles of people in given social roles than actually exists in their performance of those roles.

Partly because of the socialization expectations of different social roles, we hypothesize that adults will be more likely to be described as mentors than will peers and that parents and other relatives will be more likely to be described as mentors than will non-relatives. Note that the perspective adopted in this study is that of the adolescent. This perspective allows us to understand adolescents' subjective experience of their relations with others. Although the association of this subjective experience with objectively observed associate behavior is an important question for research, it is different from the question currently addressed and beyond the scope of this project. Relying on the adolescent's perception of the relationship is adequate and appropriate so long as the reader understands that when an associate is designated a mentor, that means that the subject described the associate as performing that functional role. Whether the associate shares this role conception or intends to perform the role is not addressed in this study. Because the social roles typically played by unrelated adults in the lives of adolescents (e.g. coach, teacher) have more limited role expectations concerning the emotional relationship between associate and adolescent than do the role expectations of parents or peers, we hypothesize that the mentoring ascribed to parents and peers will be more strongly associated with other positive relationship functions than the mentoring ascribed to unrelated adults.

#### The confounding of network differences with functional role differences.

Researchers interested in the extent to which associates in different social roles perform different functional roles have always faced a dilemma. If one allows adolescents to choose the associates who are most significant to them and allow social roles to vary, it is impossible to tell if observed differences in functional roles, such as mentoring, are due to differences in the composition of



their social networks or differences in the mentoring provided by associates in different social roles. For example, if one measures the average mentoring provided by unrelated adults and compares it with the average mentoring provided by same-age friends and finds a difference between them, how can this difference be interpreted? The difference may reflect true differences in the mentoring provided by associates in different social roles (i.e. a between-associate difference). Alternatively, the difference may reflect the difference between the mentoring experienced by the type of adolescents who name unrelated adults as significant others and the type of mentoring experienced by the type of adolescents who name same-age friends as significant others (a between-adolescent difference). To get around this problem, some researchers (e.g. Furman & Buhrmester, 1992), have asked adolescents to name and rate an associate in each of a set of pre-designated social roles. Because this strategy does not confound choice of associate with individual differences in social network composition, it has the advantage of simplifying interpretation. This strategy is advantageous if one wants to describe the 'typical' functions performed by individuals in different social roles. On the other hand, associates named in this strategy may not realistically reflect the significant others in particular children's social networks. For example, the mentoring score of an unrelated adult named by an adolescent who is not close to any unrelated adult does not realistically reflect the average mentoring of an unrelated adult named as significant. In other words, this strategy is better for describing the typical functioning of people in different social roles than for describing the social roles of people who typically mentor. One goal of the current research is to examine both between adolescent and within adolescent (between associate) differences in experienced mentoring. By contrasting the mentoring provided by different associates who vary in social role, but who are named by the same person, we avoid both the

confounding of social role and between adolescent differences while maintaining our focus on associates considered to be significant by the adolescents' involved.

Japan and the United States. The discussion of mentoring thus far reflects an underlying assumption that the relationship between social roles and functional roles is universal. One major goal of cross-cultural research is to examine the assumption of universality. Social relations in Japan and the United States differ markedly in several respects. Robert Smith (1983), a leading American scholar of Japan, contrasts the Japanese sense of self as embedded in and defined by the social context with that predominant sense in Europe and North America of the self as autonomous. One indication of this difference is found in language. While the pronoun, "I" refers to the self in all situations and all relationships, the Japanese equivalent varies depending upon the social context and relationship. He points out that this linguistic usage reflects a view of the self as defined in relationship to others rather than independently. Compared to social relations in the U.S., social relations in Japan tend to be more particularistic (i.e. social relations vary depending upon the relationship of the two parties involved), emphasize long-term and asymmetrical reciprocity over short-term, contractual reciprocity, place sharper distinctions between ingroup and outgroup members, make more use of informal, rather than contractual, intermediaries, and preferring overlap between personal and public relationships to separation (Yum, 1988).

These differences are often summarized by describing Japanese culture as 'collectivistic' and American culture as "individualistic" (Triandis, 1989). The collectivistic orientation towards group membership is reflected in Japanese child-rearing and early education practices designed to inculcate a strong identification with groups and a sense of mutual obligation among group members. American

observers of Japanese schools have described the many ways in which a group spirit is harnessed to further learning objectives and in which schools socialize Japanese children and youth for membership in other groups as adults (Rohlen, 1983; White, 1987). For example, students in Japan spend more time working in groups than students in the US and, when working in groups, are expected to subordinate their own learning styles to that of the group. In contrast, when US students work in groups, they are more like to work in groups as *individuals*, in which each student works at his or her own speed and on different tasks. In complementary fashion, teachers in Japanese classrooms tend to interact more with groups of students than with individual students and students tend to spend more time 'on task' when working in groups than as individuals. Teachers in US classrooms tend to interact more with individual students and students spend more time on task when working as individuals or with teachers (Hamilton, Blumenfeld, Akoh, & Miua, 1991).

The relationship between self and others and conformity and harmony with group goals is reflected both in Japanese society's emphasis on respect for elders and in its encouragement of strong peer group bonds. In contrast to the United States, where peer pressure is posed as a negative force, threatening parental authority and both individual and collective good (e.g., Coleman, 1964), parents and adults in schools and other institutions consciously foster the formation of a peer culture that reinforces societal values. However, the high degree of academic pressure faced by Japanese students, combined with more substantial homework commitments, makes the time Japanese youth can spend with peers outside of school much more limited than youth in the United States. Formal opportunities for interaction with adults differ in Japan and the US as well. Although many students in both countries participate in non-academic extracurricular activities, most of which are supervised by adults (Matsuda,

1989, Larson, 1994), students in Japan are much more likely than US students to be involved in formal academic instruction by juku teachers (preparatory or supplementary tutors). At the time of this study, approximately one half of 9<sup>th</sup> graders attended an academic juku in order to prepare for college entrance exams. In addition, many other students are engaged in cultural juku lessons in such areas as the martial arts, calligraphy, or music (Matsuda, 1989). Differences between adolescents in the US and Japan in the use and availability of leisure time and in the types of people individuals are likely to encounter in non-school settings change the context of social relationships as well as their likely function and structure.

One additional aspect of social relationships that differs markedly in Japan and the US is gender. In both the US and in Japan, adolescents are more likely to name same-gender than other-gender associates as significant others (Darling, Hamilton, & Matsuda, 1990, Furman & Buhrmester, 1991), but the difference between boys and girls is much larger in Japan than in the US. Social interaction patterns differ as well. Early adolescent boys are more likely to receive both negative and positive attention from teachers than girls are, but the differences in the amount of attention received is much larger in Japan than in the US (Hamilton, Blumenfeld, Akoh, & Miura, 1991). This difference appears to result both from teacher bias and from the evoking behavior of students. The behavior of girls and boys was statistically indistinguishable in the US. In Japan, however, girls were markedly more passive than were boys, as well as more compliant.

Difference between the US and Japan in the nature of social relationships, in the social roles of people with whom adolescents spend time, and in the strength of gender as a predictor of social behavior offers the opportunity to examine how mentoring functions in two very different cultures.

These comparisons are exploratory. We have found no study of natural mentoring in Japan or in any Asian country. This study, then, provides an initial exploration of the extent to which our assumptions about who provides mentoring, and the types of relationships in which it occurs, are comparable in a Western and non-Western culture.

## Method

### Sample and Procedure

Fifty-six male and 70 female college juniors from the United States and 119 male and 120 female college freshmen from Japan participated in the study. US subjects were recruited in equal numbers from those majoring in science, the humanities, and business, with the distribution counterbalanced for gender. Students were paid \$10.00 for participation. Japanese students were recruited from introductory education and psychology classes and were given class credit for participation. Student populations from the two countries thus differed in age, in distribution of major. The two populations also differed in the selectivity of the institution they attended. US students attended a large, Ivy League institution. Students in Japan attended a regional university. It is difficult to assess comparability of student populations, however, due to the greater accessibility of college in the US and Japan.

Groups of participants were asked to complete a series of questionnaires. First, we asked participants to name the ten most important people in their lives prior to the time they entered college. Lists of these important people were elicited as follows: "In this section, we are interested in learning about the people who had a strong effect on you (either for better or worse) prior to the time you went to college. These can be people you spent a lot of time doing things with, relatives, teachers, friends, or

anyone else who was important during this period." We refer to people named during this process as associates or significant others. This method of eliciting associates favors the naming of others with whom the adolescent had a relationship over a long period of time or those who were relatively recent.

Participants then completed a checklist describing their relationship and the activities that they participated in with each associate and provided background information about themselves and their families. Participants in the United States also completed a standardized academic aptitude test.

### Measures

Social roles. For each associate named, participants were asked who the associate was in relation to them (e.g., friend, grandmother), whether the associate was related to them and, if so, if it was through the maternal or paternal side of the family, the associates' occupation and gender, the age difference between themselves and the associate, and their own age when they had first met and last knew the associate. Associates were classified into six social role categories: parents, adult relatives, unrelated adults, siblings, cousins, and peers. Because of the relatively small number named in both countries, cousins were removed from these analyses. Associates were classified as parents if they were named as either a biological, adopted, or stepparent (1=parent, 0=non-parent). It was not possible to distinguish biological parents from stepparents in the Japanese sample because the sensitivity of the issue precluded asking about parental divorce status. Associates were classified as adults if they were over 18 years of age when the participant first met them (1=adult, 0=peer), and classified as a relative if the subject identified them as a maternal or paternal relative (1=relative, 0=unrelated). Both participant and associate gender was coded 0=male, 1=female.

Functional roles. Participants were asked to respond yes or no to a series of items indicating whether their relationship with each associate was characterized by different functions (27 items in the U.S., 29 in Japan). The list of functions was developed for this study to capture both positive and negative and both emotional and instrumental aspects of social relationships. The Japanese questionnaires were translated versions of questionnaires developed in the United States, modified by Japanese colleagues in recognition of cultural differences. An independent translation from Japanese back into English was performed after data collection. This backtranslation generally confirmed the accuracy of the original translation, but revealed some small differences in meaning in several items. Problematic items were deleted from the analyses.

Subjects' ratings of their associates on the 27 functions common to the US and Japanese questionnaires were analyzed separately for each country by subject gender. Because no important differences were found between males and females in the pattern of responses, they were combined and separate factors derived for Japanese and U.S. samples using non-orthogonal Promax rotation. Factor analysis with noncontinuous data has been shown to be robust to violations of underlying assumptions and in many cases can be applied to investigations where the interest lays in determining whether variables fall into “groups” (Eaton and Bohrnstedt, 1989; Mislavy, R. 1986). Although similar, the factor patterns for the two countries were not identical (see Appendices A and B). Factor 3 in the Japanese sample and Factor 1 in the US sample were interpreted as characterizing associates in terms of the functional role of ‘mentor’<sup>1</sup>.

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<sup>1</sup> Consistent with the theoretical perspective of the authors, the factors chosen to represent the mentoring construct reflect the instrumental and role modeling aspects of mentoring emphasized by Darling, Hamilton, & Niego (1994), rather than the affective functions also associated with the construct (e.g. Hendry et. al, 1992). The covariation of these two aspects of the mentoring construct

Because our questions focused on the extent to which associates in different social roles were described as performing the functional role of ‘mentor’ in both countries and on the extent to which the functional role correlates of mentoring are similar across social roles in both countries, it was important that a common measure of mentoring be created. Many considerations, both pragmatic and theoretical, must be taken into account when building a measure to be used in making cultural comparisons. We used the four items that were common to the mentor factor in both countries to build a measure of mentoring. The four items were: “I learned how to do things by watching this person do them;” “I acquired knowledge, information, or skills from this person;” “I got a lot of my values from this person;” and “This person served as a role model of achievement for me.” The number of items (functions) adolescents used to describe each associate was summed to create that associate's mentoring score (Cronbach's  $\alpha = .71$  total sample,  $\alpha = .72$  Japan,  $\alpha = .69$  US).

Four additional categories of associate functioning were assessed in this study based on adolescents' ratings of associates' performance of eight functions. Performance standards were measured with the items “This person pushed me to do a good job” and “This person gave me constructive criticism.” Positive emotions were measured using the items “This person was fun to be with” and “This person gave me emotional support, security and encouragement.” Negative aspects of the relationship were tapped with the items “I competed with this person” and “This person and I would get angry at each other.” Autonomy in the relationship was measured with the items “When we did things together, I usually took the lead” and “This person pushed me to do things on my own.” Each

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are empirically examined in this paper. It is interesting to note that these two aspects of mentoring do not load on the same factor in either Japan or in the United States.



function was assessed individually to respect potential cultural differences in the covariation of associate functions.

Analytic strategy.

This paper used a three-fold analytic strategy to address the questions of cultural and social role differences in mentoring and the association between mentoring and other associate functions. First, descriptive statistics were examined. Next, inferential analyses were performed to assess the sources and predictors of variability in mentoring. Finally, a series of analyses was performed to examine social role differences in the association of mentoring and other associate functions, focusing on differences among the three most frequently named social roles: parents, unrelated adults, and unrelated peers.

Analysis of the data was complicated by the non-independence of participants' assessment of associate functioning. Because each participant rated the functioning of up to ten associates, and these ratings are not independent, the data violate the assumptions of traditional techniques such as ANOVA, correlation, and regression, and thus artificially inflate the error terms. Hierarchical linear modeling (HLM), a technique specifically designed to decompose variance into common source (in this case, participant) and independent (in this case, associate) variance (Bryk & Raudenbusch, 1992), was used to assess the extent to which associate functioning varied depending upon characteristics of the associate (i.e. parent v. non-parent, adult v. peer, relative v. non-relative, and male v. female) and characteristics of the participant (gender). In these analyses, HLM parses variance into an associate component (differences between the associates named by an individual participant predicted by characteristics of the associate) and a participant component (differences between different participants' in the mentoring provided by their associates predicted by participant gender). Put another

way, one reason that ratings of associate mentoring vary is that different participants vary in the extent to which they experience mentoring in their relationships. This is the participant component. Another reason that ratings of associate mentoring vary is that the different associates that an individual participant rates mentor to a greater or lesser extent. This is the associate component.

HLM analyses provide two types of information: (a) an estimate of the component of variance in the outcome measure (mentoring) that can be attributed to individual differences among participants and to differences within participants across associate relationships, and (b) information about the extent to which each variance component can be predicted by its respective predictors. Because an initial three-level HLM analyses revealed that only 2.9% of the variance in mentoring can be attributed to differences between countries, this level of analysis was omitted and subsequent analyses were performed separately for the US and Japanese sample. In the US sample, these analyses rely on data from 1029 associate relationships described by 125 participants. In the Japanese sample, these analyses rely on 1950 associate relationships described by 237 participants. The models adopt the assumption of traditional regression models that the relationship between associate characteristics and mentoring is uniform across participants. Associate gender is centered around the grand mean. All associate-level predictors are centered around the group means.

## Results

Descriptive Analyses. Mean levels of mentoring (i.e., number of mentoring functions) were calculated for associates in each social role by country, participant gender, and associate gender.

Results are reported in Table 1. In general, these descriptive findings support the hypothesized pattern:

parents are rated as higher in mentoring than non-parents, relatives higher than non-relatives, adults higher than peers, and same-gender associates higher than other-gender associates.

Predicting Mentoring. HLM analyses were performed separately for the US and Japanese samples to assess the extent to which mentoring varies as a function of participant gender and by associate gender, adult v. peer status, and relative v. non-relative status. Gender differences in the relationship between associate characteristics and mentoring were also tested. Results of the analyses in the US sample are reported in Table 2.

Reading and interpreting a conventional HLM table is not necessarily intuitive. Table 2 reflects the results of a series of HLM analyses. Although the most important results are reported at the top of the table, critical diagnostic information is contained in the middle and bottom. The first question the analyses address is how much of the observed variation in levels of mentoring reported can be explained by differences at the associate level (that is, to the differences between the associates a given participant names), and how much by individual differences (that is, between participants). Baseline model statistics (lower portion of Table 2) indicate how much total variance can be explained by the model whereas the current model shows how much our model is actually explaining. Examination of the baseline model indicates that 18% of the variance in associate mentoring can be explained by individual differences between participants in experienced mentoring, while the remaining 82% is attributable to differences between associates plus error. In addition to providing insight into the relative proportion of variance attributable to participant and associate differences, these baseline figures are also important because, in an HLM analysis, the ability of variables to predict the outcome is judged against only that proportion of the variance at the same explanatory level as the variable. Thus the proportion of

mentoring variance that can be explained by associate factors is taken as a proportion of the variance within participant attributable to characteristics of the associate, rather than of total variance. Similarly, the success of participant gender in predicting mentoring is assessed relative to the between-participant variability. The Variance Explained column indicates the proportion of variance at that level that is explained by the current model, based on the proportion of variance that is possible to be explained.

The top of Table 2 provides information to test our hypotheses about social role differences in US participants' perception of mentoring. This part of the table can be read similarly to a multiple regression equation. The estimated coefficient for base mentoring (1.95) represents the mean level of mentoring across all associates. The estimated coefficients for participant and associate gender, adult status, and relative status are the regression coefficients representing the relationship between each variable and mentoring. The interaction terms test whether the relationship between each associate characteristic and mentoring vary by participant gender. At the individual difference level, results indicate that there is no relationship between participant gender and associate mentoring. As hypothesized, associate social roles are an important predictor of mentoring. Associates who are adults and relatives are rated as providing more mentoring than peers or non-relatives. Same-gender associates are rated as performing more mentoring functions than other-gender associates. As can be seen in the lower section of Table 2, this set of associate-level predictors predicts 43% of the 82% of variance attributable to associate differences in mentoring in the US sample. Participant gender predicts none of the 18% of variance attributable to between-participant differences in experienced mentoring. The information in the center section of the table indicates that there is more between-participant variance to be explained ( $F=500.3, p<.00$ ).

Identical analyses were performed on the Japanese sample. Results are reported in Table 3. Examination of the baseline model indicates that 36% of the variance in associate mentoring can be explained by individual differences between participants in experienced mentoring, while the remaining 64% is attributable to differences between associates plus error. Thus more of the variance in the mentoring experienced by Japanese participants is attributable to differences between participants than was found in the US sample. The hypotheses about the relationship between social roles and mentoring were supported in the Japanese sample. Although there were no differences in associate mentoring as a function of participant gender, adults and relatives were more likely to perform mentoring functions than were peers or non-relatives. Same-gender associates were more likely than other-gender associates to perform mentoring functions. Associate social role characteristics predicted 8% of the 64% of variance in mentoring attributable to associate-level differences in the Japanese sample. None of the 36% of mentoring variance attributable to participant-level differences was explained by participant gender. There is additional variance in the data to be explained.

These two sets of analyses support our hypotheses about the relationship between social roles and mentoring and indicate that, in both countries, more of the variability in experienced mentoring is attributable to differences among associates than to differences among participants. Although the predictors of associate mentoring are identical in both countries, these analyses also suggest that a smaller proportion of the variability in the mentoring experienced by Japanese participants is attributable to associate differences and more to differences between participants than is true of US participants. In addition, less of the variability in the mentoring experienced by Japanese participants can be explained

as a function of social role. Thus our Japanese models explained less about a smaller proportion of variance than do our US models.

Association of mentoring with other functional roles. The previous section focused on differences in the mean level of associate mentoring participants experienced as a function of characteristics of their associates and of themselves. In this section, we report a series of analyses performed to address the questions of (a) how mentoring covaries with other functions associates perform, and (b) whether this covariation is the same for associates in different social roles. Analyses were performed separately by country. The relationships between mentoring and other associate functions were analyzed for associates in the three most frequently named social roles: same-gender parent, same-gender unrelated adult, and same-gender peer. Separate regression analyses were performed to measure the association between participants' ratings of their same-gender parents' mentoring and their parents' performance of eight associate functions (i.e. mentoring was regressed on each function separately). Because most participants named several same-gender unrelated adult and peer associates, parallel HLM analyses were performed to assess these same relationships for same-gender unrelated adults and for same-gender peers. Because all associate functions other than mentoring were coded 0 (does not perform the function) or 1 (does perform this function), the calculated slopes in both regression and HLM equations are equivalent to differences in the mean mentoring score of associates who do and do not perform the function. The t-test associated with the slope is a test of the hypothesis that these means differ and that mentoring and the functional role covary. Results are reported in Table 4.

In both the US and Japan, participants' ratings of mentoring by same-gender parents covaries with more functional roles than it does for either same-gender peers or same-gender unrelated adults. Parents who were rated high in mentoring are more likely to be described as setting high standards, providing constructive criticism, fun to be with, supportive, and encouraging independence ( $p \# .001$ ). In Japan, parents who were rated high in mentoring were also more likely to be described as making participants angry ( $p \# .05$ ). Neither competition nor leadership by the participant were associated with mentoring in either the US or Japanese sample ( $p \# .05$ ). In both the US and Japan, same-gender peers who were rated as high in mentoring were more likely to be described as setting high standards (US  $p \# .05$ , Japan  $p \# .001$ ), providing constructive criticism ( $p \# .001$ ), and encouraging independence (US  $p \# .001$ , Japan  $p \# .05$ ). Japanese participants were also more likely to describe the peer as supportive if they were high in mentoring ( $p \# .001$ ). Participants in both countries were less likely to describe themselves as taking the leadership role in the relationship if they described the peer associate as high in mentoring ( $p \# .001$ ). There is less consistency between the US and Japan with regard to same-gender unrelated adults. In the US sample, same-gender unrelated adults who were high in mentoring were more likely to be described as setting high standards ( $p \# .01$ ), providing constructive criticism, and fun to be with ( $p \# .05$ ). In the Japanese sample, same-gender unrelated adults who were high in mentoring were more likely to be described as setting high standards and encouraging independence ( $p \# .01$ ).

HLM analyses were used to test whether the association between mentoring and other functional roles is the same for same-gender parents, unrelated adults, and peers. Results are reported in Table 4, with equivalent mean differences indicated by shared superscripts. In both the US and Japanese sample, the association between mentoring and setting high standards, being competitive, and

encouraging independence is equivalent for same-gender parents, unrelated adults, and peers ( $p < .05$ ).

In the US, the association between mentoring and experiencing anger in the relationship and perceiving oneself as the leader is also equivalent for same-gender parents, unrelated adults, and peers ( $p < .05$ ).

When the association between mentoring and functional roles differs across social roles, unrelated adults tend to fall between parents and peers. In other words, the relationship between mentoring and functional roles is equivalent for parents and unrelated adults and for unrelated adults and peers, but different for parents and peers.

### Discussion

Although we intentionally asked about mentoring behaviors among a range of associates, rather than about mentors as they have traditionally been defined, our results support the traditional view of who mentors. In both Japan and the United States, participating adolescents were more likely to ascribe mentoring functions to adults than to peers, to relatives than to non-relatives, and to same-gender than to other-gender associates. The fact that unrelated adults fell between parents and peers, as hypothesized, indicates that the functions we identified with mentoring are done more by parents and less by peers. The HLM analyses separated the variance in perceived associate mentoring attributable to differences among adolescents and differences in the associates each adolescent named. This has an important implication for the interpretation of these findings: differences in mentoring ascribed to associates in different social roles cannot be attributed to differences in the types of associates named by adolescents who perceive more or less mentoring because these analyses test the differences in associate mentoring within participants. In other words, although adolescents who name more



unrelated adults as significant others may also be more likely to experience mentoring, this selection will not bias the results of these analyses.

The findings in the US and Japan are strikingly similar. The similarities are consistent with the assumption that mentoring relationships are relatively universal and suggest that cross-national comparative research on mentoring is feasible because it appears to assume a similar character in two very different cultures. These results are especially significant given the differences in the two samples above and beyond culture (i.e. age, major, and type of institution). It may be especially fruitful to engage in research on the contribution of mentoring to the transition of adolescents to adulthood in different cultures. Despite this similarity, several observations about the variability in mentoring cross-culturally are worth noting. First, although there are mean differences in the level of mentoring ascribed to associates by participants in the US and Japanese samples, very little of the observed variance in associate mentoring (3%) can be attributed to these cultural differences. In other words, the differences between the two countries are much smaller than the differences among subjects within those countries, which are still smaller than the differences in mentoring different associates provide. Differences between participants in the extent to which they perceive their associates to act as mentors can be attributed to two different phenomena: real differences in the mentoring characteristic of different individuals' social networks and individual differences in how adolescents use the mentoring scales. To the extent that these individual differences reflect real differences in associate mentoring, one potential avenue of research is into the characteristics of adolescents who evoke mentoring. For example, Werner & Smith (1982) noted that one characteristic of resilient children was their intense interest in hobbies or activities and their ability to engage the interest of adults through those activities. Who are

the adolescents who are most likely to experience mentoring and what is it about them or their social context that induces their associates to enact this functional role?

The analyses presented in this paper suggest that in Japan, individual differences are much more important determinants of associate mentoring than in the US. Conversely, associate differences appear to be more important in determining the level of mentoring experienced by adolescents in the US than in Japan, and social roles more important determinants of differences among associates. This may reflect the greater importance of peers for Japanese youth, relative to unrelated adults or parents, which is reflected in the distribution of social roles named as significant others by Japanese and US adolescents. For example, the protocol used in this study to elicit names of significant others allowed participants to name up to ten significant others. With no guidance on how to distribute these ten choices, participants in Japan named more than twice as many peers on average as did participants in the US (3.79 v. 1.45). This emphasis on peers is consistent with emphasis Japanese educators place on the peer group and peer group activities in learning (Azuma, 1998; Rohlen, 1983). The greater similarity of associates from different social roles evident in Japan compared to the US may also reflect a greater orientation towards horizontal collectivism among Japanese students (Singelis, Triandis, Bhawuk, & Gelfand, 1996). One characteristic of horizontal collectivism is the tendency to see oneself and others in the social system as similar to one another. This may be reflected in a greater tendency of Japanese adolescents to rate all of their associates similarly.

In addition, Japanese society identifies several different forms of friendship, each of which constitutes a different social role. In a qualitative study of Japanese friendships, White (1993) identified best friends, group friends, and a third type of peer relationship-- *senpai/kouhai* -- in which the

relationship between peers was explicitly hierarchical. In *senpai/kouhai* relationships, the *kouhai* uses honorific language and behavior when interacting with the *senpai*, who may only be a year older. In turn, the *senpai* provides the *kouhai* with opportunities to learn necessary social skills. Thus in Japanese society, the potential for peers to function as mentors within the peer culture is explicitly recognized. Unfortunately, our data do not allow us to determine how many of the peers nominated by Japanese adolescents are *senpai*.

Stronger differentiation in functional roles by social roles also may reflect the constrained nature of informal interactions between adolescents and unrelated adults in the US (Blyth, Hill, & Thiel, 1982; Galbo, 1986; Hendry, Roberts, Glendenning, & Coleman, 1992). This interpretation too should be investigated. For instance, rural communities are more likely to bring youth into contact with adults in informal settings more frequently than suburban communities (Schoggen, 1989). Is mentoring less differentiated by social role in such contexts? Note that this is a different question than whether mentoring is more common in such contexts, as one might suppose. Because the analyses were performed separately by country and these results reflect the patterning of associations rather than mean differences, they are unlikely to result from biases in analytic technique, although they may reflect biases in interpretation of the data collection task by participants. Note that these hypotheses about the relationship between contextual and individual characteristics (e.g. collectivism and social network makeup) can be explored both within cultures as well as across them. Further work is needed before we can develop a clearer understanding of the processes underlying such observed differences. Examination of social role differences in mentoring among peers in Japan appears especially promising.

In both Japan and the US, mentoring was most strongly tied to other positive relationship functions in adolescents' descriptions of parents. Mentoring was most closely associated with other functions, notably with affective ties, in parents and friends, suggesting a greater gap between the instrumental and affective aspects of mentoring provided by unrelated adults than is traditionally expected. This finding is important, in that it suggests that unrelated adults may serve as mentors to adolescents even in the absence of strong positive emotional bonds (i.e. support or being 'fun'). It is possible that the association of mentoring with strong emotional bonds comes from the traditional association of mentoring with substitute parents. These results support the notion that adolescents are able to recognize the important influence unrelated adults have on them and accept mentoring from them, regardless of how much they 'like' the unrelated adult. Further work is needed to investigate whether mentoring is equally or more effective when associates also maintain strong positive emotional bonds with adolescents as when they do not. Such questions are important in the design of intervention programs in which mentors are assigned. If such programs are relatively structured and center around the acquisition of concrete skills that are desired by adolescents (such as apprenticeship programs), the affective quality of emotional relationships with assigned mentors may be less critical than their ability to enact mentoring functions effectively. Results from the two countries show great similarities, but also some intriguing differences that could repay future research.

Finally, it is important to note that there was no evidence that experienced mentoring varied by gender of the participant. This is consistent with Hendry, Glendinning, & Shucksmith's (1996) observation that although the transition to adulthood is highly gendered, social relations critical to successfully negotiating that transition may not be. Differences in the people with whom adolescents

associate appear to account for the greatest amount of variation in how much mentoring an adolescent receives. The causes of those differences, in terms of characteristics of adolescents and their environments, and in terms of characteristics of adolescents' associates, warrant further investigation.

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Correspondence concerning this paper should be addressed to Nancy Darling, Department of Human Development & Family Studies, 110 Henderson Building South, The Pennsylvania State University, University Park, PA 16802 e-mail [ndarling@psu.edu](mailto:ndarling@psu.edu).

Table 1

Mean Associate Mentoring Score by Country, Student and Associate Gender, and Social Role

Associate Social Role	United States					Japan			
	Male Students		Female Students		Male Students		Female Students		
	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	
<b>Males</b>									
Fathers	3.02 (1.2)	57	3.03 (1.2)	68	2.12 (1.4)	86	1.63 (1.4)	103	
Adult Relatives	2.69 (1.1)	16	2.07 (1.2)	14	2.33 (1.4)	21	1.00 (0.8)	14	
Unrelated Adults	2.56 (1.1)	64	1.96 (1.1)	69	1.67 (1.3)	159	1.72 (1.1)	98	
Brothers	2.10 (1.5)	40	1.55 (1.3)	62	1.26 (1.4)	46	1.21 (1.3)	42	
Unrelated Peers	1.14 (1.3)	97	1.31 (1.4)	42	1.37 (1.3)	374	1.14 (1.3)	72	
<b>Females</b>									
Mothers	2.49 (1.2)	59	3.16 (1.0)	70	1.83 (1.4)	83	2.34 (1.4)	108	
Adult Relatives	1.55 (1.4)	20	2.13 (1.4)	31	1.80 (1.8)	20	0.67 (1.1)	27	
Unrelated Adults	2.09 (1.2)	23	2.07 (1.1)	69	1.00 (1.1)	66	1.55 (1.3)	76	
Sisters	1.33 (1.4)	30	1.63 (1.5)	40	0.97 (1.4)	34	1.30 (1.4)	50	
Unrelated Peers	0.94 (1.0)	36	0.98 (1.1)	107	0.57 (0.8)	82	1.12 (1.2)	362	
<b>Total</b>	<b>1.96 (1.4)</b>	<b>449</b>	<b>1.95 (1.4)</b>	<b>580</b>	<b>1.44 (1.4)</b>	<b>984</b>	<b>1.41 (1.3)</b>	<b>959</b>	

Table 2

Results of HLM Analyses Predicting Associate Mentoring from Participant Gender and AssociateCharacteristics - US Sample

<i>Fixed Effects</i>	<i>Coefficient</i>	<i>se</i>	<i>t-ratio</i>	<i>p-value</i>
Average associate mentoring	1.95	.07	28.4	.00
Participant Gender	.00	.14	.03	.98
Associate Gender	-.17	.07	-2.3	.02
Adult	1.13	.07	15.4	.00
Relative	.65	.07	8.7	.00
Associate Gender * Participant Gender Interaction	.54	.15	3.7	.00
Adult * Participant Gender Interaction	.15	.15	1.0	.33
Relative * Participant Gender Interaction	.21	.15	1.4	.17
<i>Random Effects</i>	<i>Parameter Estimate</i>	<i>df</i>	<i>P<sup>2</sup></i>	<i>p-value</i>
Associate Intercept (Level 1)	1.08			
Participant Intercept (Level 2)	.66	123	500.3	.00
<i>Proportion of Variance Explained</i>				
Model	Associate Level Model		Participant Level Model	
	Variance	Variance Explained	Variance	Variance Explained
Baseline	1.66		.37	
Current	1.16	42.7%	.37	0.0%

\* 18.2% of the variance in mentoring is attributable to stable differences between participants and 81.8% is attributable to associate level differences plus error.

Table 3

Results of HLM Analyses Predicting Associate Mentoring from Participant Gender andAssociate Characteristics - Japanese Sample

<i>Fixed Effect</i>	<i>Coefficient</i>	<i>se</i>	<i>t-ratio</i>	<i>p-value</i>
Average associate mentoring	1.45	.05	28.1	.00
Participant Gender	-.06	.10	-.6	.54
Associate Gender	-.24	.06	-4.0	.00
Adult	.49	.06	8.0	.00
Relative	.26	.06	4.07	.00
Associate Gender * Participant Gender Interaction	.69	.12	5.7	.00
Adult * Participant Gender Interaction	.03	.12	.24	.81
Relative * Participant Gender Interaction	-.11	.13	-.86	.39
<i>Random Effect</i>	<i>Parameter Estimate</i>	<i>df</i>	<i>P<sup>2</sup></i>	<i>p-value</i>
Associate Intercept (Level 1)	1.13			
Participant Intercept (Level 2)	.68	235	927.46	.00
<i>Variance Decomposition (percentage by level)</i>				
Model	Associate Level Model		Participant Level Model	
	Variance	Variance Explained	Variance	Variance Explained
Baseline	1.38		.45	
Current	1.28	8.0%	.45	0.0%

\* 36.3% of the variance in mentoring is attributable to stable differences between participants and 63.7% is attributable to associate level differences plus error.

Table 4

Mean Differences Between Mentoring Provided by Associates Who Do and Do Not Perform Each Function Calculated Separately by Associate Social Role and Country.

	Parents <sup>1</sup>	Unrelated Adults	Unrelated Peers
<b>United States</b>			
standards	.91***a	.65**a	.84**a
critical	1.32***a	.64*ab	.68***b
fun	.95***a	.59*ab	.26b
supportive	1.43***a	.19b	.06b
competitive	-.01a	-.86a	.02a
angry	.26a	-.36a	-.05a
independent	1.00***a	.36a	1.09***a
I lead	-.37a	-1.00a	-.47**a
<b>Japan</b>			
standards	1.00***a	.12a	.74***a
critical	1.21***a	.84**ab	.70***b
fun	1.23***a	.22b	.16b
supportive	1.54***a	.29b	.41***c
competitive	.37a	.47a	.18a
angry	.46*a	.79ab	.04b
independent	.85***a	.83**a	.33a*
I lead	.77a	.24ab	-.58***b

1. US n=127 parents rated by 121 participants, 133 unrelated adults rated by 82 participants, 204 peers rated by 121 participants; Japan n=194 parents rated by 194 participants, 235 unrelated adults rated by 132 participants, 736 peers rated by 194 participants.

Table Notes:

\* association between mentoring and functional role within social role  $p \leq .05$ ; \*\*  $p \leq .01$ ; \*\*\*  $p \leq .001$ . Within each functional role, social roles which share superscripts do not differ in that functional role at the .05 level. Those which do not share superscripts, differ at  $p < .05$ . For example, the associations between mentoring and setting standards for parents, unrelated adults, and peers do not differ in the Japanese sample. The associations between mentoring and giving constructive criticism for parents and unrelated adults and for unrelated adults and peers do not differ. The association between mentoring and giving constructive criticism for parents differs from the association for peers at the .05 level.

## Appendix A

Japanese Associates: Loadings of Functional Role Items on Five Factors

	Factor				
	1	2	3	4	5
Factor 1					
This person protected me from getting hurt emotionally	.82	.06	-.24	-.05	-.02
This person gave me emotional support, security, and encouragement	.67	.11	.03	.00	.11
This person gave me advice about my personal life	.60	.05	.27	-.06	.00
This person pushed me to do a good job	.59	-.17	.22	.01	.02
This person gave me constructive criticism	.53	.03	.09	-.09	.34
I admired this person's qualities as a human being	.37	-.11	.30	.01	.21
This person pushed me to do things on my own	.33	-.22	.28	.28	.07
Factor 2					
We talked together and shared ideas	.07	.78	.09	.02	.02
This person was fun to be with	.01	.77	.02	.01	.19
We did things that were new and exciting	-.16	.72	.13	.08	.01
We shared a lot of interests in common	.06	.70	-.04	.04	-.04
Factor 3 (Japanese Mentoring Factor)					
I learned how to do things by watching this person do them	.07	.04	.69	.03	-.02
When we did things, this person usually took the lead	-.29	.08	.67	-.05	.15
I acquired knowledge, information, or skills from this person	.05	.21	.65	.07	.04
This person served as a role model of achievement for me	.21	.01	.52	-.01	-.05
This person introduced me to new ideas, interests, and experiences	.14	-.01	.49	.00	.00
I got a lot of my values from this person	.29	-.15	.43	.06	.03

	Factor				
	1	2	3	4	5
Factor 4					
I taught this person quite a bit	-.05	.04	.01	.77	.06
When we did things together, I usually took the lead	-.11	-.03	.00	.74	.12
I helped this person learn how to do things	-.01	.23	.00	.70	.08
I served as a source of emotional support for this person	.32	.24	-.26	.36	.07
Factor 5					
This person and I would get angry at each other	.04	-.09	.06	.10	.71
This person had some negative influence on me	-.12	-.26	-.08	-.02	.62
This person challenged my ideas	.26	.30	.09	-.11	.50
I competed with this person	-.08	.33	-.03	.01	.46

## Appendix B

United States Associates: Loadings of Functional Role Items on Five Factors

	Factor				
	1	2	3	4	5
Factor 1 (US Mentoring Factor)					
I learned how to do things by watching this person do them	.74	.07	.03	-.13	.10
I acquired knowledge, information, or skills from this person	.71	.03	-.01	-.10	.01
This person pushed me to do a good job	.62	-.21	.04	-.06	.03
This person pushed me to do things on my own	.58	-.16	.02	.04	.01
I got a lot of my values from this person	.57	-.12	.09	.28	-.02
This person served as a role model of achievement for me	.49	.04	-.12	.00	-.07
I admired this person's qualities as a human being	.47	.19	.09	.14	-.27
This person gave me constructive criticism	.42	.13	-.00	.06	-.03
Factor 2					
This person was fun to be with	.07	.72	.04	-.05	-.16
We shared a lot of interests in common	-.00	.69	.08	-.02	-.01
We did things that were new and exciting	-.03	.61	.02	.01	.06
We talked together and shared ideas	.00	.61	.07	.11	.09
This person introduced me to new ideas, interests and experiences	.29	.34	-.18	.09	.02
Factor 3					
I helped this person learn how to do things	.05	.12	.67	-.03	.09
When we did things together, I usually took the lead	-.13	.09	.64	-.10	-.06
I taught this person quite a bit	.06	-.00	.63	.12	.12



	Factor				
	1	2	3	4	5
Factor 4					
This person protected me from getting hurt emotionally	.10	-.05	-.02	.61	.01
I served as a source of emotional support for this person	-.13	.15	.31	.43	.13
This person gave me emotional support, security and encouragement	.24	.15	.01	.40	-.09
This person gave me advice about my personal life	.06	.33	-.06	.34	.10
Factor 5					
This person had some negative influence on me	-.10	-.15	.02	.04	.53
This person and I would get angry at each other	.18	-.02	.25	.04	.50
When we did things, this person usually took the lead	.29	.13	-.33	.08	.36
I competed with this person	-.19	.35	.14	-.14	.34