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Reward Differences Between Adolescents From A Native American Community And
Adolescents From A Non-Native American Community

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Abstract

Differences in preferred rewards of male and female Native American and non-Native American adolescents were examined using the Native American version of the Survey of Rewards for Teens (SORT-NA). The SORT-NA is a self-report survey which examines preferences across eight domains: sports, food, entertainment, excursions, interests and hobbies, social activities, social related activities, and a miscellaneous category. Results indicated significant differences in reward preference across culture in two domains, and across gender in five domains.

Reward Differences between Adolescents from a Native American Community and Adolescents from a Non-Native American Community

In behavioral theory, reinforcement suggests the rate of a behavior changes as a function of its consequences (i.e., reward or punishment; Pierce & Epling, 1999). When rewarded, it is more probable that a behavior will be repeated. In settings such as schools, homes and communities, the reward for a behavior can be determined to some degree by those in positions of authority; however, the degree to which a reward is effective is determined in part by the individual. It would be presumptuous to assume all individuals would find a specific stimulus equally reinforcing. Similarly, if the level of reward varies across individuals, it seems logical that similar differentiation may occur across cultures, and perhaps gender. Cultural differentiation in reinforcer preferences has, in fact, been noted between Japanese, American, and Italian students (Galeazzi, Franceschina, Cautela, Homes, & Sakano, 1998).

There are numerous examples in the literature where behavior management has been employed to modify maladaptive behavior through reward (c.f., Hagopian, Wilson, & Wilder, 2001; Luiselle, 2000), assuming those rewards will be reinforcing (i.e., increasing the rate of an alternative, appropriate behavior). However, ineffectiveness of rewards may be the result of overlooking cultural diversity when selecting reinforcement.

The purpose of this investigation was to determine if Native American adolescents and Non-Native American adolescents differ in reward preferences. It is anticipated that significant differences in the levels of reported reward will exist between populations based on cultural identity and gender. The present research investigation adapted the Survey of Rewards for Teens (Houlihan, Jesse, Levine, & Sombke, 1991)

and used the modified version to assess what Native American adolescents find rewarding.

Methods

The Native American Adaptation of the Survey of Rewards for Teens (SORT-NA) was administered to Native American students aged 14 to 21 years ($n=135$) enrolled in a high school on a Chippewa reservation located in the upper Midwestern United States. Fifty-four percent of participants were female ($n=74$). The SORT-NA was also administered to a group of non-Native American high school students aged 13 to 18 years ($n=201$) enrolled in a parochial high school located in a medium sized urban Midwestern community. Fifty-two percent of participants were female ($n=103$).

Materials

The SORT-NA is a 69-item self-report questionnaire consisting of eight separate domains (Sports, Food, Entertainment, Excursions, Interests & Hobbies, Social Activities, School-Related Activities, and Miscellaneous). Instructions direct participants to rate the items according to how rewarding or pleasurable they are based on a 5-point scale. A complete survey is shown in Figure 1.

Procedure

As part of the study, the SORT (Houlihan et al., 1991) was administered to adolescents in the same Native American community where the present study was conducted. The findings of this preliminary administration conducted with 24 adolescents aged 15 to 18 (one year before this study), would provide the foundation for the modified SORT (i.e., SORT-NA). Based on this administration (Jollie, 2000), 15 items were deleted from the original SORT and 28 new items were added.

The researchers received permission to conduct the investigation from the district superintendent and the high school principal in a Native American community. A member of the Native American high school administration was designated as a liaison and logistical details were coordinated via that individual. Informed consent forms were mailed to the parent(s)/guardian(s) of each student involved in the study.

Participants in the study completed the SORT-NA after having read the instructions. Students from a parochial school in the Midwest were given the SORT-NA for comparison purposes. Again, proper procedures for gaining consent were followed. In both locations, researchers were available during the time the SORT-NA was filled out to answer relevant questions.

Results

A 2x2 ANOVA was conducted for each of the eight SORT-NA categories. Significant main effects in reinforcement values of rewards between cultures were observed in two of the eight domains (Interests & Hobbies, and Social Activities) as well as in five of the eight domains between genders (Excursions, Interests & Hobbies, Social Activities, School Related Activities, and Other). Interaction effects of reinforcement value were observed between gender and culture in six domains. See Table 1 for a summary of main effects and interaction effects.

Rank order comparison of SORT-NA domains for Native and Non-Native American Participants were shown in Table 2. Rank order differences were noted in Social Activities, Entertainment, Excursions, and Food. Similar rankings were noted in Sports, Other, Interests and Hobbies, and School Activities.

Discussion

The results indicate that culture was a significant factor in the differences between the levels of reward reported by the participants. Native American participants reported higher levels of reward for two domains, Social Activities and Interests and Hobbies than did Non-Native American participants. Gender differences were noted in five domains, Excursions, Other, Social Activities, School Activities, and Interests and Hobbies.

What may be most notable about the findings of the current investigation is that participants of this study are of two cultures not nearly as geographically diverse as those noted in Galeazzi et al. (1998; i.e., Italy, Japan, and the United States). Cultures examined in Galeazzi et al. did not share similar levels of interaction as did the Native American and Non-Native American participants in this study. This factor accentuates the significance of the findings of the current research. However, it is important to acknowledge that results from this study cannot be completely generalized to other specific Native American populations. Thus, the results of this study emphasize the importance of individual assessment of reinforcers due to variability of preference across cultures and gender. Further, the needed modification of the SORT to the SORT-NA also suggests that inclusion of culturally-relevant items may be valuable in identifying strongly preferred rewards.

References

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Native Rewards

Table 1

Summary of Significant ANOVA Main and Interaction Effects

| Effect | df | F | Reinforcement Value Means | | | |
|-------------------------|-------|---------|---------------------------|------|---------------------------|------|
| | | | Native American (NA) | | Non-Native American (NNA) | |
| Culture | | | | | | |
| Interests & Hobbies | 1,314 | 9.54** | 27 | | 23 | |
| Social Activities | 1,318 | 8.98** | 23.9 | | 25.8 | |
| Gender | | | | | | |
| | | | Male | | Female | |
| Excursions | 1,320 | 12.86** | 35.7 | | 38.3 | |
| Interests & Hobbies | 1,314 | 12.67** | 23 | | 26 | |
| Social Activities | 1,318 | 33.11** | 23 | | 26 | |
| School Activities | 1,321 | 11.01** | 34.9 | | 17.7 | |
| Other | 1,319 | 25.18** | 26 | | 28.5 | |
| Culture x Gender | | | | | | |
| | | | Male | | Female | |
| | | | NA | NNA | NA | NNA |
| Sports | 3,320 | 3.24* | 29 | 28.6 | 26.2 | 29.1 |
| Excursions | 3,320 | 4.56** | 35.7 | 35.8 | 38.9 | 37.8 |
| Interests & Hobbies | 3,314 | 8.51** | 24.2 | 22.5 | 29.2 | 25 |
| Social Activities | 3,318 | 16.18** | 24.6 | 22 | 26.9 | 25.2 |
| School Activities | 3,321 | 3.95** | 34.8 | 35.1 | 37.4 | 37.8 |
| Other | 3,319 | 9.07** | 25.1 | 26.4 | 28.1 | 28.8 |

Native Rewards

Table 2

Rank order comparison of SORT-NA domains for Native and Non-Native American Participants

| Domain | Native American | Non-Native American | Native American | | Non-Native American | |
|---------------------|-----------------|---------------------|-----------------|--------|---------------------|--------|
| | | | Male | Female | Male | Female |
| School Activities | 1 | 1 | 1 | 1 | 1 | 1 |
| Other | 2 | 2 | 4 | 2 | 2 | 2 |
| Social Activities | 3 | 6 | 5 | 3 | 6 | 3 |
| Entertainment | 4 | 5 | 3 | 5 | 4 | 4 |
| Excursions | 5 | 3 | 6 | 6 | 5 | 5 |
| Food | 6 | 4 | 2 | 4 | 3 | 6 |
| Sports | 7 | 7 | 7 | 8 | 7 | 7 |
| Interests & Hobbies | 8 | 8 | 8 | 7 | 8 | 8 |

Figure 1. The SORT-NA

Grade in school
 8th _____ 9th _____ 10th _____ 11th _____ 12th _____
 (Freshman) (Sophomore) (Junior) (Senior)

Age (on your last birthday) _____

Gender: Female _____ Male _____

INSTRUCTIONS: Rate the following items according to how rewarding or pleasurable you feel each is to you. Do this in the context of a situation where you might be given these by a parent or teacher.

| 1. Sports | Poor | Fair | Moderate | Very Good | Excellent |
|--------------------------|------|------|----------|-----------|-----------|
| a. Volleyball [1 hour] | 1 | 2 | 3 | 4 | 5 |
| b. Golfing [1 round] | 1 | 2 | 3 | 4 | 5 |
| c. Softball [7 innings] | 1 | 2 | 3 | 4 | 5 |
| d. Baseball [9 innings] | 1 | 2 | 3 | 4 | 5 |
| e. Exercise [1 hour] | 1 | 2 | 3 | 4 | 5 |
| f. Jogging [20 min.] | 1 | 2 | 3 | 4 | 5 |
| g. Bike riding [30 min.] | 1 | 2 | 3 | 4 | 5 |
| h. Basketball [1 hour] | 1 | 2 | 3 | 4 | 5 |
| i. Swimming [1 hour] | 1 | 2 | 3 | 4 | 5 |
| j. Other _____ | 1 | 2 | 3 | 4 | 5 |

| 2. Food | Poor | Fair | Moderate | Very Good | Excellent |
|-----------------------------|------|------|----------|-----------|-----------|
| a. Indian Taco [2] | 1 | 2 | 3 | 4 | 5 |
| b. Cheeseburger/Hamb. [1] | 1 | 2 | 3 | 4 | 5 |
| c. Ice Cream [2 scoops] | 1 | 2 | 3 | 4 | 5 |
| d. Sub sandwich [1] | 1 | 2 | 3 | 4 | 5 |
| e. Nachos [plate full] | 1 | 2 | 3 | 4 | 5 |
| f. Potato chips [1 bag] | 1 | 2 | 3 | 4 | 5 |
| g. Doritos [1 bag] | 1 | 2 | 3 | 4 | 5 |
| h. Pizza [1 large pizza] | 1 | 2 | 3 | 4 | 5 |
| i. Soda pop [6 pack] | 1 | 2 | 3 | 4 | 5 |
| j. French fries [1 serving] | 1 | 2 | 3 | 4 | 5 |
| k. Other _____ | 1 | 2 | 3 | 4 | 5 |

| 3. Entertainment | Poor | Fair | Moderate | Very Good | Excellent |
|------------------------------|------|------|----------|-----------|-----------|
| a. Sporting event ticket [2] | 1 | 2 | 3 | 4 | 5 |
| b. Going to a Pow Wow | 1 | 2 | 3 | 4 | 5 |

Native Rewards

| | | | | | |
|---------------------------|---|---|---|---|---|
| c. Going to a movie | 1 | 2 | 3 | 4 | 5 |
| d. Going to a dance | 1 | 2 | 3 | 4 | 5 |
| e. Watching TV [1 hour] | 1 | 2 | 3 | 4 | 5 |
| f. Fishing [3 hours] | 1 | 2 | 3 | 4 | 5 |
| g. Watching a movie on TV | 1 | 2 | 3 | 4 | 5 |
| h. Going to a concert | 1 | 2 | 3 | 4 | 5 |
| i. Other _____ | 1 | 2 | 3 | 4 | 5 |

| 4. Excursions | Poor | Fair | Moderate | Very Good | Excellent |
|--|------|------|----------|-----------|-----------|
| a. Having a nice car [for evening] | 1 | 2 | 3 | 4 | 5 |
| b. Going to a mall/shopping | 1 | 2 | 3 | 4 | 5 |
| c. Going camping | 1 | 2 | 3 | 4 | 5 |
| d. Going to a nice restaurant | 1 | 2 | 3 | 4 | 5 |
| e. Going on a date with someone you like | 1 | 2 | 3 | 4 | 5 |
| f. Going to an amusement park [1 day] | 1 | 2 | 3 | 4 | 5 |
| g. Going on a picnic | 1 | 2 | 3 | 4 | 5 |
| h. Horseback riding | 1 | 2 | 3 | 4 | 5 |
| i. Going on a family vacation | 1 | 2 | 3 | 4 | 5 |
| j. Other _____ | 1 | 2 | 3 | 4 | 5 |

| 5. Interests & Hobbies | Poor | Fair | Moderate | Very Good | Excellent |
|--|------|------|----------|-----------|-----------|
| a. Listening to music [1 hour] | 1 | 2 | 3 | 4 | 5 |
| b. Reading (books, magazines) [1 hour] | 1 | 2 | 3 | 4 | 5 |
| c. Going camping | 1 | 2 | 3 | 4 | 5 |
| d. Going to a nice restaurant | 1 | 2 | 3 | 4 | 5 |
| e. Going on a date with someone you like | 1 | 2 | 3 | 4 | 5 |
| f. Going to an amusement park [1 day] | 1 | 2 | 3 | 4 | 5 |
| g. Going on a picnic | 1 | 2 | 3 | 4 | 5 |
| h. Horseback riding | 1 | 2 | 3 | 4 | 5 |
| i. Going on a family vacation | 1 | 2 | 3 | 4 | 5 |
| j. Other _____ | 1 | 2 | 3 | 4 | 5 |

| 6. Social Activities | Poor | Fair | Moderate | Very Good | Excellent |
|----------------------------------|------|------|----------|-----------|-----------|
| a. Talking to a friend [1 hour] | 1 | 2 | 3 | 4 | 5 |
| b. Socializing at a Pow Wow | 1 | 2 | 3 | 4 | 5 |
| c. Meeting new people | 1 | 2 | 3 | 4 | 5 |
| d. Going to a party | 1 | 2 | 3 | 4 | 5 |
| e. Talking on the phone [1 hour] | 1 | 2 | 3 | 4 | 5 |
| f. Participate in prayer group | 1 | 2 | 3 | 4 | 5 |
| g. Visiting relatives | 1 | 2 | 3 | 4 | 5 |
| h. Other _____ | 1 | 2 | 3 | 4 | 5 |
| i. Other _____ | 1 | 2 | 3 | 4 | 5 |

| 7. School Related Activities | Poor | Fair | Moderate | Very Good | Excellent |
|--|------|------|----------|-----------|-----------|
| a. Receiving a diploma | 1 | 2 | 3 | 4 | 5 |
| b. Going on a class trip | 1 | 2 | 3 | 4 | 5 |
| c. Computer time [] | 1 | 2 | 3 | 4 | 5 |
| d. Going to prom | 1 | 2 | 3 | 4 | 5 |
| e. Having input into school decisions | 1 | 2 | 3 | 4 | 5 |
| f. Vocal support/praise from teachers or parents | 1 | 2 | 3 | 4 | 5 |
| g. Leaving school for lunch | 1 | 2 | 3 | 4 | 5 |
| h. Getting good grades | 1 | 2 | 3 | 4 | 5 |
| i. Educational field trips | 1 | 2 | 3 | 4 | 5 |
| j. Other _____ | 1 | 2 | 3 | 4 | 5 |

| 8. Other | Poor | Fair | Moderate | Very Good | Excellent |
|------------------------------------|------|------|----------|-----------|-----------|
| a. Getting an extended curfew | 1 | 2 | 3 | 4 | 5 |
| b. Doing volunteer work | 1 | 2 | 3 | 4 | 5 |
| c. Sleeping [1 hour beyond alarm] | 1 | 2 | 3 | 4 | 5 |
| d. Buying new clothes [\$50 worth] | 1 | 2 | 3 | 4 | 5 |
| e. Receiving money [\$5] | 1 | 2 | 3 | 4 | 5 |
| f. Writing e-mails | 1 | 2 | 3 | 4 | 5 |
| g. Playing with a pet | 1 | 2 | 3 | 4 | 5 |
| h. Other _____ | 1 | 2 | 3 | 4 | 5 |