Glassford, Robert *G. Application of a Theory of Games to the Traditional Eskimo Culture.* New York: Arno Press, 1976. Pp. v, 340, Notes, bibliography, appendix, tables, illustrations. $17.00.

R. G. Glassford has had a scholar's dream come true; his excellent dissertation has been published unchanged in book form. His challenging research examined changing organizational patterns of games within an Eskimo culture currently undergoing transition and related these behavioral changes to economic patterns of organization showing that both social phenomena similary reflect changing social norms. The theoretical touchstone of Glassford's work is that each culture is to be treated as a functionally interrelated system, and when change occurs in one part of a culture, this affects the cultural totality.

Before this interaction could be examined, three major prerequisites were completed: 1) the development of a theoretical paradigm for examining changes in patterns of organizations of games within the eskimo culture; 2) the compilation of detailed ethnographic reports on the Arctic Eskimo culture group; and 3) identification of the transition in economic organization patterns as evidence in behavioral differences of three generations of Eskimo males. The groups studied were: "traditional generation" (ages 50 or older) who were reared in basic life style of hunting, fishing, and trapping conditions; "culture-conflict generation" (ages 25-49) who have felt the impact of civilization's luxuries upon their basic life styles; and "new era generation" (ages 10-20) who have been reared in the world of government schools with intermittent parental contact.

Important to Glassford's research was the understanding of the cultural phenomenon of games. A student of sport will find the author's theoretical analysis an intellectual feast, for logic beyond description is always a rare delight.

Discussion ranged from Karl Groos' preparation for life theory to John Von Neumann and Oskar Morgenstern's theory of games utilized in economic behavior; the latter was utilized in Glassford's study. Von Neumann and Morgenstern approached the problems of economic behavior via a game model; stressing the attainment of an agreed-upon goal through strategies or rational choices by varying numbers of game participants. Games fall into two groups: competitive ''zero-sum" games in which everything that some one wins must be lost by some one else; and cooperative "non-zero-sum" games in which players coordinate their actions to attain by all participants, in part or in whole, a preferred goal or outcome. Demitri Shimkin proposed that varying strategies of human survival and economic behavior used to wrest a living from a culture's environment could fit the criterion of a game. In geographical regions where survival is tentative, as in the Arctic, "maximum" strategies are appropriate. Employing cooperative strategies, participants perform at low risk and high security, but gain goals or yields below optimum. Specific strategies and unspecific goals characterize these cooperative games. In other cultural groups, as in southern Canada, more highly competitive "minimax" strategies are employed by participants at high risk, low security, and high gain when successful. Unspecific strategies and specific goals characterize these competitive games. Glassford has incorporated these features in the following schematic.

Glassford's Classification of Play (P. 145)

	Specified Goals	Unspecified Goals
Specified Strategies	Games of individual self-testing e.i. jumping	Cooperative Games (non-zero-sum games) e.i. blanket toss
Unspecified Strategies	Competitive Games (zero-sum games) e.i. Eskimo Wrestling	Amusements or Diversions e.i. Eskimo yo-yo

Regarding game preferences by the three generations of Eskimos, Glassford hypothesized that, more than the other two generations: 1) the traditional generation would have greater preference for cooperative games; 2) members of the new era generation would prefer competitive games; 3) a greater number of games preferred by the traditional generation Eskimo would have been learned from parents; and 4) there would be a tendency for the traditional generation Eskimo to prefer competitive contests which were individual self-testing games having characteristics of low division of labor, few-step operations, simple game implements and low level of structure (all similar to economic behavior found in traditional life styles).

Participant observation field work was carried out by Glassford during July,

August, and November, 1969, in the Arctic MacKenzie delta region, Northwest Territory, Canada, concentrating in the rapidly changing Eskimo settlement, Inuvik, where 126 Eskimos cooperated in the study. Methods employed were observations; participation in village activities; and direct and indirect inquiry, including a five-point Likert-type scale questionnaire entitled ''Game Preference and Attitude Toward Game Activities.'' Data gathered included: 1) types of games preferred, where and from whom games were learned, when and why games were played; 2) attituded toward various game types, sportsmanship, parental and institutional responsibilities in teaching games to children; and 3) game descriptions gleaned from ethnographic reports and interviewees.

Results of the study showed that: 1) the traditional generation of Canadian Eskimo had a stronger preference for cooperative games than did the new era generation, while no differences were found between the two older generations; 2) stronger competitive game preference were shown by new era generation than by the two older generations; 3) the traditional generation learned their preferred games from their parents more than the new generation, but not significantly more than the cultural-conflict generation; and 4) the traditional generation preferred competitive contests which were individual self-testing games.

Glassford's work indicates that a game-preference profile can be structured upon the classification of games developed from a theory of games. Further, a change in the preferred games ratio might indicate a trend toward the adoption of new economic patterns and adaptive strategies. If proven to have predictive qualities, Glassford's classification would be a tremendous break-through in behavior estimation. However, his games classification appears to need further category delineation in exlusiveness and inambiguity. The paper and pencil attitudinal questionnaire might be less linguistically bound—if pictorial, projective or descriptive sketches were developed, obtaining more valid subject response. Unfortunate omissions in the book which appeared in the dissertation are Glassford's questionnaire and accompanying tables of original data. The volume provides descriptions of traditional Canadian Eskimo cultures and games, valuable tools for teaching and cross-cultural or historical research.

Glassford's exploratory attempt to substantiate the notion that changes in preferred game patterns of organization and economic behavior similarly reflect a culture's adaptive adjustment to nature and social environmental changes offers physical educators an exciting prototype—waiting to be retested.

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