In Memorium
Professor John T. Howell
1921 - 1988

With a deep sense of loss we mourn the passing of **Professor John T. Howell,** long-time teacher and researcher. *We express our heartfelt sympathy to his family.*

We **Honor** John T. Howell for his steadfast service to Delaware State College and the Department of Agriculture and Natural Resources. *His tenure spanned four decades and embraced several generations of students.*

We **Acknowledge** his academic commitment to teaching and to research in Agriculture in his special fields of Horticulture. *His work continued despite many years of adversity.*

We **Praise** him for his concern for students both academically and socially.
He liked students and cared about their welfare.

We **Celebrate** his life as our friend. *He was always most courteous, gentle, and personable.*

John T. Howell will affect us long into the future; for like a pebble dropped on still water, *his enduring influence grows with us in ever-increasing circles.*

We proudly **Proclaim** John T. Howell, our **colleague, teacher, and friend.**

Resolved by:
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TABLE OF CONTENTS

TRADITION AND DEVELOPMENT: MODERNIZATION THEORY REVISITED

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I. INTRODUCTION

One of the most significant developments of this generation has been the almost universal aspiration for economic growth and development in the less developed countries of the world. In these countries, demands for economic development have become the major theme of the political pronouncements of their leadership. This quest for development has spurred scholarly research into the factors, processes, and problems related to the phenomenon and led to the formulation of different disciplinary theoretical perspectives on the subject.

From the perspective of traditional economists, capital formation is the chief problem and capital accumulation is the engine of economic development. They explain development exclusively through the interrelationships among such economic variables as capital formation, inflation, balance of payments, foreign aid, etc. From the perspective of Marxist political economists, the underdevelopment of the less developed countries is explainable in terms of international and domestic power relationships, institutional and structural economic rigidities, and the resulting proliferation of dual economies and dual societies both within and among the nations of the world. This perspective emphasizes external and internal institutional and political constraints on economic development and emphasizes, as a solution to the problem of underdevelopment, major new policies that will change the nature of the prevailing relationships between the "core/metropole" and the "periphery/satellite" countries in the new world economic order.

The perspective of psychologists is that economic development is heavily dependent upon individual personalities; that it takes certain types of personalities to initiate and implement the changes in the socioeconomic base of society required for economic development. The specific personality type needed to do this, though, varies from one theorist to another: for McClelland (1961) it is the individual with high need achievement (high n'ach); for Hagen (1962) it is the creative personality; for Lerner (1964) it is the emphatic personality.

The social structural modernization perspective sees the social structure, institutional arrangements and the values of a society as having an important bearing on the process of economic development in the sense that they can facilitate the process or impede it. It emphasizes that analyses of development should take a systematic account of its social context by specifying how a given range of identified sociocultural factors inhibits, promotes, channels, and determines its course. Scholars analyzing economic development from this perspective have generally concluded (a) that the value orientations, social structures, and institutional arrangements of the less developed societies are "traditional" and inhibit their economic development; (b) that successful economic development within the less developed societies would require the transformation of those traditional forms into "modern" ones to approximate those of developed, western, societies; and (c) that until such transformations are made, the less developed societies cannot and should not hope to achieve their aspiration for economic development.

The purpose of this paper is to review the modernization perspective of development, to evaluate its methodological and empirical validity as well as its theoretical adequacy, and to discuss its implications for developmental policy in the less developed societies.

II. THE LITERATURE ON THE MODERNIZATION PERSPECTIVE

A discussion of economic development in the less developed societies appears in the works of Karl Marx (1954). Stripped of the purely political and strategic appendages, Marxian theory of economic and social development sees economic development of the less developed societies to be associated with a series of social transformations which are identical with those postulated by Marx for the countries of the West. The theory postulates a unilinear process of social and economic development stating that all societies must go through analogous transformations of social structure in order to reach higher levels of productivity and economic organization.

The classification of behaviors and values as less developed (pre-industrial) and developed (industrial) also appears in the works of Max Weber (1965, 1968). Weber distinguished between traditional and rational economic behavior by treating bureaucracy as the most efficient form of modern organization possessing characteristics which maximize rational decision making. By extension, Weber's theory of bureaucracy implies a way of looking at organizations in less developed societies as well. These organizations are seen as lacking the requisite characteristics of bureaucracy; their decision making follows traditional, nonrational patterns. To develop their economies, Weberian theory implies that less developed societies will have to acquire the important organizational value of rationality; they will have to make rational rather than traditional economic decisions.

Hoselitz (1960) characterizes societies as different levels of economic development by describing them in terms of contrasting pairs of pattern variables as they were defined by Talcott Parsons (1951).[1] In a society experiencing depressed economic development, particularism, functional diffuseness, and ascription are the predominant variables regulating social structural and economic relations. Productivity in such a society is low because, among other things, there is little effective division of labor. The commonly held objectives of economic activity are the maintenance or strengthening of status relations; it is this hard core of custom and tradition which frequently determines the manner and the effects of economic performance. In contrast, an economically developed society is one characterized by universal norms which determine the selection process for the attainment of economically relevant roles; the roles themselves are functional and highly specific; the predominant norms by which the selection process for those roles is regulated are based upon the principle of achievement or performance; gains from economic activity are also distributed essentially on the basis of achievement. Economic development, Hoselitz concludes, may then be considered as being associated with a transformation of social behavior from a form which is orientated towards ascription, particularism, and functional diffuseness to a form of social behavior oriented towards achievement, universalism, and functional specificity. "The very needs of economic advancement must bring about a replacement of functional diffuseness by functional specificity and particularism by universalism" (Hoselitz, 1960:47).

The thrust of Hoselitz's argument is that the structural pattern variables that characterize the economically advanced societies are conducive to economic development; those that characterize the less developed societies are not. Ergo, for under-developed societies, economic development requires alteration of their pattern variables with a change in their social structural relations and institutional arrangements to resemble the economically advanced societies.

Wilbert Moore's and Phillip Hauser's analyses of economic development in the less developed societies involve detailed application of the Parsons/Hoselitz "model" to particular aspects of social structure -- the family by Moore and social stratification by Hauser.

Wilbert Moore (1961) contends that development requires something more than a pious wish for a better life. In addition to this wish and some simple tricks of technology and organization, Moore believes that certain other conditions have to be met; otherwise, the process of development is not likely to proceed very far nor very fast. The first component of these conditions is values. The value of economic development requires a fairly high degree of individual mobility and a recruitment/placement system based upon merit in performance. This requirement, though, is likely to come into conflict with some strongly supported values in less developed societies relating to the primacy of kinship and/or tribal position and obligations as a moral value. In this sense, Moore suggests, extensive value changes are the most fundamental condition for economic development.

Moore specifically maintains that economic development demands, among other changes, a breakdown of the extended family tradition. The family in the less developed society is generally an extended one, comprising many more people than man, wife and child/children. Relationships in these groupings are more complex with any one individual being responsible, for and to, many other individuals. This type of family is an impediment to economic development in the sense that (1) it leads to dispersal of savings which might otherwise be productively employed; (2) needless gifts are made to relatives; (3) the unemployed live parasitically upon wealthier kin tending to scorn jobs which seem below their status. The nuclear family of man, wife and children, Moore argues, is a prerequisite of economic development; for only when the family is isolated from the wide groupings of kin and descent can there be the geographical mobility that is essential if men are to move from one job to another seeking to use their talents to the utmost. Only in the nuclear family can a man pursue his occupational goals free from claims by his kin. The nuclear family breeds individualism, individual achievement, and innovation; all of which are positively correlated with development.

Hauser (1959) characterizes the less developed societies as having highly stratified social orders with very little social mobility. The social, economic and political status of an individual tends to be primarily a function of birth and tradition. This relatively rigid stratification tends to restrict the access of persons with the ability to education, training and opportunity consonant with effective utilization of human resources. There is a widespread tendency to restrict education, technical training and the better vocational opportunities to members of the elite. In consequence, such limited opportunities as exist for training are often made available on a nepotistic, familial, village, ethnic, religious, or personal basis rather than strictly on merit. Economic development requires an open class type of stratification, which assumes that inequalities will exist and simply stresses equal opportunity to take advantage of them. The strata are "open" because individuals may move into or out of them according to their merit. Statuses and roles are achieved rather than ascribed. Pushed to its logical extreme, the system supposedly gives all individuals an equal chance to advance in the social scale. The type of stratification which supposedly is conducive to development is, on the whole, identified with the modern developed society.

The significant conclusions of these and other[2] such theories is that existing institutions and values, which are the content of tradition of the less developed societies, are impediments to changes and are obstacles to their economic development. They accentuate the idea of change in the less economically developed societies as one which entails a linear movement from a traditional past toward a modern (western) future.

Modernization theories such as the ones discussed and referred to above raise questions of methodological validity: Is the method generally employed by modernization theorists for the study and analysis of economic development valid and appropriate? They also raise questions of empirical validity, theoretical adequacy and policy effectiveness; do the presently less developed countries today have to follow precisely the same basic path as did the now developed countries in their earlier days? Is it necessary to abandon traditional social structures, institutions, and values to achieve economic development?

III. METHODOLOGICAL VALIDITY OF THE PERSPECTIVE

The method generally employed by modernization theorists to analyze the relationship between social structure and economic development is the cross-sectional index-method where the general features of a developed economy are abstracted as an ideal type and then contrasted with the equally ideal typical features of a less developed, poor economy. It is doubtful if such a method lends itself adequately to the study of change which is the raison d'etre of the field of social and economic development on a comparative basis. Use of the method in comparative studies of development commonly involves the selection of countries at different levels of economic development. Statements are made either about the past of a developed society or predictions are made about future changes in less developed societies on the basis of conditions in the present-day developed society. Use of cross-sectional analysis this way is based on the following two assumptions: (1) that it can reveal past social structural patterns that can then be projected into the future, and (2) that social structure is a natural system with defined limits and invariant laws governing an equilibrating process. The methodological issue here relates to the validity of making future projections for the less developed societies on the basis of existing data of the developed societies. It is my contention that the study of economic development on a comparative basis must be based upon the assumption that social structure is a system of historical dimensions. To say that is to recognize that (a) external, often random, events and those resulting from situational choices of individuals intrude upon the system; (b) historical contexts influence the operation of seemingly invariant processes; (c) economic development is not a universal process that repeats itself with monotonous rhythm country after country; (d) each society is historically unique and (e) consequently, it is inappropriate to attempt to formulate generalizable propositions applicable to more than one society, culture or period. In terms of the form, direction, and conditions of economic development, there is a range of possibilities for any country. The issue then is to search for the conditions likely to produce one rather than another of these possibilities.

Secondly, use of the index method derives from the pattern variables theoretical

approach and the related convergence theory. Both theories are based on the assumption of similarities in social structure, institutions, and value orientations among developed societies and also on the assumption of development being an identifiable process of change whose main features are similar in all countries. Formulations, such as that ascription is dominant in less developed societies, suffer in that they are mutually exclusive classifications not reflecting variations in the phenomena being classified. The variables cannot take on the variety of true values that they possess in the empirical world. As a result, the classifications obscure our understanding of the real world. They hide the variety of differences and subtle interrelations among social meanings of categories. Even if one may assert that a developed society in its economic role exhibits orientations towards achievement, universalism and functional specificity, one is making a very general statement. The resulting concrete social relations, which may be subsumed under this very general description, may vary considerably. Who will deny that there exist significant differences in the social structures of the USA, Great Britain, Japan and Germany --societies which are all highly economically developed and present economic role structures which are oriented toward achievement, universalism, and functional specificity?

IV. THEORETICAL ADEQUACY AND EMPIRICAL VALIDITY OF THE PERSPECTIVE

The tradition vs. modernity polarity inherent in the modernization perspective characterized by the dichotomization of societies into 'traditional, less developed' and 'modern developed', and the accompanying suggestion that societies of the former type must change their 'traditional' ways to achieve development is a myth rooted in western ethnocentrism. It is another ploy to denigrate non-western societies which form the block of the so called "less developed" societies in order to create conditions of cultural disruption and disorganization in those societies, to encourage, if not force, their continued dependence on western sociopolitical, economic systems, and thus, to perpetuate their under-development. Regardless of how ethnocentric the suggestion of inevitable change is, it has serious implications for development policy and strategy in those less developed societies.

History provides ample evidence to suggest that the less developed societies do not necessarily have to abandon their 'traditional' social structure and institutional arrangements for them to develop their economies. In fact, the values and structures described by most experts as traditional may hasten development depending upon the social context and the use to which these are put. Indeed it can be said that development may be accompanied and even legitimized by appeals to traditional values and practices. In Germany and Japan, as in other societies, economic development did not entail the abandonment or destruction of traditional institutions and values.

A case in point is Japan. Japan drastically altered its economy but managed to reinforce the structure of village life and the extended family. The Meiji endeavored to "westernize" significant segments of their society. The government encouraged students to travel abroad for technical education. It abolished certain feudal practi-

ces, such as the torture of criminals, and they ordered civil servants to wear European clothes. They poured money and effort into the creation of a modern educational system, particularly technical schools. Within an astonishingly short period of time, these various measures produced a core of Japaneses equipped with modern skills and values. While the Meiji rules desired the human resources to staff their expanding industry, they did not, by any means, wish to disband traditional society. In fact, they deliberately tried to cement the ties which linked a person to his family, his community, his traditional values and to the Meiji emperor. Among other undertakings, the government defined the individual's responsibilities to his family and local village; the law made children responsible for support of their aged relatives (thus instituting an informal system of social security); the courts proclaimed, too, that the head of a family was legally accountable for the actions of any of its members. In addition, only after divorce had been considered by a full family council would the courts take action; each person had to register himself as a member of his family and the village of his own origin and legally he remained a part of these groups forever (Wilkinson, 1962). In its educational program too, the government ensured that the cultivation of modern aptitudes would not disrupt the traditional order by ordering all schools in 1872 to inculcate reverence of family and emperor as the prime goals of education. And in its industrial program, the Japaneses government emphasized light cottage industries, which were widely decentralized throughout the country. These small workshops produced handmade consumer goods and components which were later assembled in the cities. The Japanese thus integrated new productive processes into their old ways of making a living. The basis of their small industries was the traditional family. One might say, in fact, that economic development in Japan was "family-centered"; even today about thirty percent of Japan's labor force works in their own homes with their families. For those who enter the new factories, the government strove to create a social framework which would disturb traditional life in the least possible way. Workers usually remained permanently in the same productive group and were originally recruited on the basis of their previous status in the traditional order. Various criteria determined the worker's rewards and his position in a complicated hierarchy. As a whole, the factory system exhibited a pronounced paternalistic spirit; employers regarded workers as part of a large family (Abegglen, 1958).

To concern oneself with social structure is to analyze patterned relationship between roles and between institutions, associations, and groups as functioning entities. A social structure represents the framework within which persons act and organize to get things done. Any social structure can provide the basis for economic development. Lineage principles, of whatever form, can be used for the mobilization of capital and labor; the family structure of an African society can be as significant in the formation of enterprises as was that of Europe in the early days of the Industrial Revolution. For examples, Cyril Belshaw (1961) reports that when he appealed to individual acquisitiveness in Fiji to persuade villages to build him a small jeep bridge, they performed a shoddy job because their interests were somewhere else. When he was able to relate the same requirement to a contract based on structural relations between his own social unit and theirs, with the appropriate symbolic manipulations of structured ceremonial exchange, a first class piece of work was done. Holmberg's (1960) success with the Vicos Project was due to the fact that he gave "careful attention not only to the problem of modern techniques, but also the people and

their culture" (Holmberg, 1960:115). There is also evidence to indicate a compatibility of extended family forms with economic growth. Comhaire (1956) found, in the context of Indian economic growth, that the large extended families of the Tatas, Birlas and Dalmias were among the most striking instances of major industrial organizations growing out of, and supported by, traditional family units. Berna's (1959) study of entrepreneurship in Madras provides additional information that the extended family, operating as a small business, can accumulate major capital and provide a major source of savings.

It is my position that social structure does not in itself either inhibit or promote economic development. It does, however, have important bearing upon the forms of organizations employed for economic development. Thus, if economic planners can identify the principles of cooperation and adaptation which are inherent in their society, they should be in a position to mobilize them to provide vehicles for organizing economic development. To do otherwise would be to overlook an important creative potential.

By this, I do not mean to imply that traditional social structures in their pristine state contain within themselves all the forms of organization which are necessary for economic development to take place; rather, I argue that given an orientation toward economic development derived from other aspects of the cultural reality, adaptability is a prerequisite for success. Anthropologists have consistently accumulated evidence to show that traditional social structures are highly adaptable and flexible mechanisms. Dorothy Lee (1959), for example, has used ethnographies to show the ways in which individuals can act creatively and freely within apparently limited cultures. Raymond Firth (1951) demonstrates that the ideal description of a social structure can give a too static impression, for behind societal rules lie the interpretations of them as well as their manipulations for personal and group interest. It is necessary then to discover the adaptive forces in the society and to use these rather than ossify the society by the application of rules and methods that inhibit them.

Rationality, which Weber sees lacking in the less developed societies and partly at the root of their underdevelopment, is defined as the selection of the most effective means to achieve specific limited goals (Simon, 1957). Approached in this way, the effectiveness of various social practices and values for a less developed society will depend on the cost of shaking them from traditional structures to work for -- or at least not hinder -- modern economic development. In some instances, the costs will be so great that the traditional values and structural patterns must be abandoned. In other instances, the utilization of traditional behavior patterns and values may be the least costly means of development. In this case, to ignore or write off traditional values and practices is itself irrational.

Traditional social structures, behavior patterns and values may not, in their pristine state, provide sufficient forms of organization for instrumental effectiveness throughout the complex range of activities necessary for economic development to take place. In that case, certain functions necessary for development may either not be in existence or be inadequately developed to be performed. Therefore, the social structure must expand in scale and complexity through the creation of new institutions to fulfill those essential functions.[4] The new institutions, however, do not have to be those of the developed western nations. It may be simpler to copy those rather than innovate, but complying can only be successful when what is copied is consistent with social institutional arrangements and relationships within the copying

society. Belshaw (1961) applied that approach with the Fiji; Holmberg (1960) did the same in Peru. And Geertz (1963) found in his study of the relationship between economic growth and social institutions in Indonesia, that the social and cultural transformation required for economic development appeared to be less sweeping than the theoretical position identified with Weber, Talcott Parsons and others discussed in the literature part of this paper.

Any integrated social structure can become the basis for economic development. Whether in fact it does or does not depends on whether (1) innovation is directed toward expanding it in scale so that new functions can be performed, and (2) its component parts are related to goals and objectives which are consistent with economic development. The key to economics is to be found, not in the forms or principles of the social structure, but in the specifics of organization. In the field of social structure there are a few barriers to economic development and these can clearly be identified. The problem is not so much to destroy what might stand in the way but to build on what is there and to supplement existing arrangements where necessary. The particular form of socioeconomic change applicable to any one society can only be determined by a careful analysis of its social organization and the forces within it that tend to promote economic growth.

Traditional sociocultural structures, institutions, and values do not necessarily impede economic development. The capacity of old and new cultures and structures to exist without conflict and even with mutual adaptations is a frequent phenomenon of social change; the old need not necessarily be replaced by the new. Granted traditionalism, an unflinching commitment to the past and its ways, can have catastrophic effects upon economic change. However, tradition itself can in fact be a vehicle for economic change and need not be uprooted.

The common practice of pitting tradition and modernity against each other as paired opposites tends to overlook the mixtures and blends which reality displays. It, above all, gives birth to an antitradition ideology which denies the necessary and usable ways in which the past serves as support, especially in the sphere of values, to the present and the future.

V. CONCLUSION - IMPLICATION OF MODERNIZATION PERSPECTIVE FOR DEVELOPMENT POLICY

As they search, some desperately, for ways to achieve economic development, leaders of the less developed societies have three possible paths from which to choose. First, they could choose to uproot their traditions as it is prescribed by modernization theory; Secondly, they could hold on tenaciously to their age-old traditions; thirdly, they could take what Millikan and Blackner (1961) refer to as "the third choice - the gradual modification of the institutions, practices and structure of the traditional society in the direction of modernization while retaining some of its traditional cohesive features" (1961:49). Blindly following the prescriptions of the modernization perspective may create a cultural reaction (as happened in Iran) leading to confusion, tension, conflict, instability, and, in the long run, economic underdevelopment. In fact, the plight of the less developed nations today - the poverty, the economic corruption, the political oppression, and the political instabil-

ity evidenced by persistent coups d'e'tat and other forms of government overthrows - is to a very large extent explainable by the unquenchable desire of their political leadership to achieve a level of economic development similar to that of present-day western industrial nations and their belief that copying the socioeconomic institutional practices of those nations is the fastest way to achieve that goal. The second path characterized by holding on to their traditions (traditionalism) will only perpetuate stagnation and underdevelopment. The third path, although fraught with difficulties due to the presence of cultural mixtures, is the most practical path; it is the one that offers promise of peaceful, voluntary evolution toward economic development. Leaders of the less developed societies will be better advised to search within and around their individual nations to locate ingredients which are suitable for development in accordance with their sociopolitical and cultural traditions (Osia, 1987).

FOOTNOTES

[1] Parsons has perfected a widely used set of criteria with which he attempted to distinguish social systems on the basis of their value structures. These criteria, which he calls "pattern variables" or "dilemmas of orientation," are:

1) affectivity versus affective neutrality -- the saliency of public emotional ties versus the saliency of private emotional ties

2) collectivity-orientation versus self-orientation -- the primacy of group interests versus the primacy of individual interests

3) particularism versus universalism -- the basing of decisions on nonscientific, ungeneralized knowledge versus the basing of decisions on allegedly scientific laws

4) ascription versus achievement -- the assignment of people to statuses on the basis of who they are versus the assignment of people to statuses on the basis of what they do

5) function diffuseness versus function specificity -- a lack of role specialization versus role multiplicity and compartmentalization.

See W.W. Rostow, **The Stages of Economic Growth.** Cambridge, Cambridge University Press, 1960. Bill Warren, **Imperialism: Pioneer of Capitalism,** New Left Books/Verso, London, 1980.

For further examples of how the traditional family has been the basis of economic development see Samir Khalaf & Emilieshwyri, "Family Firms and Industrial Development -- The Lebanese Case" in **Economic Development and Cultural Change,** 15, 1966.

Among these functions are: effective decision-making in productive and distributive units, patterns of exchange such that the units can obtain the goods and services necessary as factors of production, provision for the "enskilling" of the managerial and labor force, availability of physical factors of production at suitable prices where increased consumption is indicated, provision of financial capital and credit facilities, a system of physical and technical/commercial information communication, a system of marketing products, and a system of pricing or evaluating transactions.

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SINGLE PARENT FATHERS: SOCIAL SUPPORT NETWORKS

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INTRODUCTION

During the past two decades, at least two major social changes have affected the lifestyle of the American family--the continually rising divorce rate and the feminist movement. The divorce rate increased 125% between 1960 and 1976 (Bureau of the Census, 1979). Estimates indicate that approximately 49% of the men and women ages 24-34 years as of June, 1980, had ended or will end their first marriage in divorce by the age of 75 years (Glick, 1984). Due to the impact of the women's movement, men have had to fill vacancies within the home left by women entering the work force (Chang & Deinard, 1982, Greif, 1985a; Hanson, 1985). As a result, there has been an increase in involvement by fathers in both divorced and intact families--Not only are fathers becoming more involved in providing care to their children, but they are also seeking custody of their children after divorce (Chang & Deinard, 1982; Greif, 1985a).

Immediately following a marital breakup is a time of severe stress for the individual (Goldsmith, 1982). In addition to coping with the feelings of depression, sadness, anxiety, anger, loneliness, and mood swings, the single parent also has to adapt to the new role of being the sole parent responsible for the care and welfare of the child(ren). The presence of a support network can enhance the coping of the individual during stress states (Cochran & Brossard, 1979; Power & Parke, 1984).

Social support viewed within the context of Brofenbrenner's ecological model of human development (1979) includes support from each system: micro--the family, exo-the neighborhood and community, and macro--state and federal agencies. Power and Parke (1984), in describing a social support model for predicting the ease of transition into the motherhood role, state that the transition into the role of a single parent is affected by the nature and availability of social supports. What are the major social supports that influence the transition to the single parent father role? Can the social network model (Cochran & Brossard, 1979; Power and Parke, 1984; Unger & Powell, 1980; Unger & Wandersman, 1985) be used to predict the ease of transition to single parent fatherhood? It is virtually impossible to answer these questions on the basis of the empirical literature in the area, since to date, no published report has addressed the major social support networks that influence the transition to the single parent father role.

In view of such a deficiency in the research it is evident that, with an increasing number of single father families in this country, it is important to understand the dynamics, stresses and areas of support for the father. When the single parent father assumes the role of single parent, he is placed in role conflict at a time when support from extended families is not always present and father oriented support groups are not available (Chang & Deinard, 1982). A characteristic that needs investigating in order to predict a single father's potential for parental effectiveness is his attitude toward social and kinship network systems (Hanson & Bozett, 1985). Once the social support networks and the father's attitudes toward these social networks have been identified, program planning to facilitate the transition can be formulated.

The Review of the Literature

Research on single parent families summarizes findings relative to the psychological, legal, social, and economic effects of custody as well as the father's motivation for custody, characteristics of fathers that seek custody, role adjustment, father support, and the characteristics of fathers that seek primary custody as compared to those who do not. This information is included to present a complete picture of single fatherhood so that factors that may influence the decision to seek or utilize social support can be considered.

Historical Perspective of Custody

Prior to the 1900's, the father was most likely to be a single parent. This practice was rooted in an ancient Roman law--**patria potestas**-- where the father had the right of control over his children, which included sole custody if the marriage was terminated. In the 1300's, paternal control was replaced by **parens patriae**-- "the King would protect all who had no protector." The father retained control over child custody and was entitled to the child's services in compensation for his maintenance and support (Morgenbesser & Nehls, 1981).

In the United States in 1939, equal power over the children was granted to both parents. During the industrial era, the father worked outside the home, which increased the mother's importance within the home. Industrialization and urbanization, in combination with the suffragist movement, and the work of Freud continued to stress the importance of the mother's role. By the mid-19th century, custody was usually awarded to the mother (Luepnitz, 1982).

The 1970's brought about the "Tender Years Doctrine"--children from birth to usually age four should not be separated from their mother. The mother was awarded custody unless deemed "unfit" (Woody, 1978).

Recently, the women's movement and the increased divorce rate have contributed to the change in sex role expectations. There has been a sharp increase in the number of one-parent families in the United States. One out of every five families with children under 18 years of age is a one-parent family (Norton & Glick, 1986). This represents an increase from one in ten families in 1970 (Norton & Glick, 1986). If the increased divorce rate continues, one-third of all children in 1990 will have lived part of their lives in a single-parent home (Glick, 1979). Fathers are becoming more involved in providing care to their children and seeking custody after divorce (Chang & Deinard, 1982); Greif, 1985a). Since 1970 there has been an increase of 180% in the number of divorced and separated single fathers raising children under 18 years old (Greif, 1985a). It is projected that by 1990 4.2% of all children under 18 years will live with a single-parent father as compared to 3% in 1981 (Glick, 1984).

Research on Single-Father Families

Since 1976, several studies have been reported that described fathers who are single parents. Mendes (1976) interviewed 32 single fathers to identify the problems single fathers encounter. The fathers interviewed were divided into two groups--the "seekers" (those who seek custody) and the "assenters" (those who do not seek custody). Mendes (1976) concluded that some single fathers lack role clarity and have the most difficulty in supervising and protecting their children, homemaking, meeting the emotional needs of the children, and rearing daughters. Of the two groups, the seekers were more adjusted to child rearing than the assenters.

Gersick (1979) studied the characteristics of 40 divorced men, 20 who were custo-

dial fathers and 20 who were not custodial fathers. Four variables had the strongest effect on the fathers' consideration of custody: (1) the relationship in the family of origin, (2) the feelings toward the departing wife, (3) the wife's intention about custody, and (4) the attitude of their attorneys. No difference was found between custodial and non-custodial fathers in their degree of participation in child rearing during the marriage. Dvoskin (1981) examined 41 fathers (20 custodial, 21 non-custodial) according to 83 variables and reported that the fathers in both categories were alike.

The twenty (20) single fathers studied by Orthner, Brown and Ferguson (1979) felt capable and confident in their ability to parent their children. These fathers received custody due to spousal allocation (mental illness, drug abuse, etc.) and reported a higher than average income. Finkelstein, Keshet and Rosenthal (1978) studied ten (10) "week-end" fathers from the Boston area who felt overwhelmed by cooking and household chores.

Chang & Deinard (1982) studied demographic characteristics and adjustment processes of eighty (80) single-father careproviders. Chang & Deinard attributed the increase in men seeking custody to the liberalization of custody laws, changes in women's and men's roles in society, and an increase in understanding of the father's role in child development. The fathers in this investigation felt that they had less difficulty in their parenting ability than the average single father. Prior to divorce, most fathers were usually involved in domestic functions (mostly playing with and disciplining children). Custody was sought because they felt that they were the better parent. The profile of the single-father careprovider was a white, middle-aged male with a vocational college education who held a professional or managerial occupation. The marriage of this typical single father ended due to the wife's change in lifestyle or increasing incompatibility.

The psychological, legal, social and economical effects encountered when fathers seek custody after divorce were described by Turner (1983, 1984). Two subgroups were identified from the twenty-six (26) fathers who had fought for and obtained custody: (1) fathers who sought custody at the dissolution of the marriage; and (2) fathers who sought custody at a later date [average time was two (2) years]. The profile of the fathers reported--primarily white, 29-50 years old with 11-20 years of education--were similar to the finding of Chang & Deinard (1982).

The largest study reported to date on single fathers was investigated by Greif (1984, 1985a, 1985b). In continuing the trend reported by Chang & Deinard (1982) and Turner (1983, 1984), Greif in his study of 1,136 single fathers reported that the majority had incomes and education higher than the national average ($28,325 and 14.6 years, respectively), and were white middle-aged males.

In examining the amount of satisfaction and comfort single custodial fathers feel in different areas, Greif (1984) found that a higher income was associated with satisfaction and comfort. It was also found that the higher the income, the more involved the ex-wife was with her children, and the greater satisfaction the father experienced in some of the areas explored.

The factors influencing the custody decision were addressed by Greif (1985a). The fathers were asked how it was decided who would have custody; the fathers could select up to two of 14 responses. Thirty-seven percent of the fathers responded that the custody of the children was decided by mutual agreement; 20% won custody following a court battle. The father's role and involvement with the

housekeeping and child care during the marriage was reported as being "typical". The majority of the housekeeping was handled by the wife; the child care involvement was shared equally or handled primarily by the father with the "breadwinning" function being primarily the father's responsibility. In evaluating the findings of this study, one must consider that all fathers surveyed were members of a self-help group and were self-selected. As members of a self-help group, fathers tend to be more motivated than fathers who are not members of self-help groups (Mendes, 1976). Because the fathers were also a self-selected sample, they may have biased their responses to provide a favorable impression of the single father with custody. Nothing is known about the fathers that did not choose to respond. This limits the ability to generalize the results to the larger population of single fathers.

During the last decade, the number of studies describing single fathers has increased. The findings have identified problem areas that have changed as society changed. In 1976, it was reported by Mendes that single fathers experienced difficulties in supervision of children, homemaking, and meeting the emotional needs of children. Keshet and Rosenthal (1978) reported that the fathers studied felt overwhelmed by cooking and household chores. With the changes in women's and men's roles in society, Chang & Deinard (1982) reported that the fathers in their study consistently rated themselves as experiencing less difficulty in their parenting ability than they thought an average single father would have. Now in 1985, Greif reports child involvement shared by the parents or primarily by the father as being "typical".

Studies since 1976 on single fathers have been consistent in their findings that these fathers are older, better educated, earning higher salaries, white, and experience little difficulty with homemaking skills. Hanson (1985) has further profiled fathers who seek custody as those who married while in college, whose wife stayed home while the husband worked and attended graduate school. When the wife became bored with the "traditional" role, the husband increased his involvement with the housework and child care. As this relationship continued, the marriage deteriorated. As a result, the single father is comfortable with child care responsibilities.

Social Support

Considerable attention has been given to social support during the last decade (Vaux, 1985). Literature suggests that the amount of support requested, provided, or received is influenced by gender (Burke & Weir, 1978; Burda et al., 1984; Caldwell and Bloom, 1982). Sex role orientation affects social interaction. The masculine role has been defined as instrumental with a focus on independence, competence, and rationality (Bem, 1974). The feminine role, on the other hand, has been defined as expressive with a focus on warmth, compassion, and supportiveness (Bem, 1974). Compared to males, females have better social support resources and can both provide and receive support better than their male counterparts (Vaux, 1985). Research also supports the importance of informal social support for adult functioning (Belle, 1982).

The literature on the transition to parenthood emphasizes that the introduction of the new child to the system is a stressful experience in the life course (Dyer, 1963; Hobbs, 1965, 1968, 1976; Hobbs & Wimbish, 1977; LeMaster, 1975; Russell, 1974).

Patterns of contact with, and support received from significant others change across the transition to parenthood in an effort to cope with this significant life change (Belsky & Rovine, 1984; Clarke-Stewart, 1977; Sparling & Lowman, 1983; Stevens, 1986). Although the literature supports the importance of social support by gender, no study has had as its primary focus the support network system utilized by the single father.

Several studies included, in addition to the major findings, information relative to social support networks and the single custodial father. As a group, fathers use entended family (Defrain & Enrick, 1981; Finkelstein, Keshet, and Rosenthal, 1978) and professional resources more than single custodial mothers (Santrock & Warshak, 1979). Further, fathers who wanted custody (the seekers) use social services and other resources more than those fathers who did not seek custody (assenters) (Mendes, 1976). Typically fathers' social activities are decreased due to lack of time and social ostracism (Gasser & Taylor, 1976). Santrock & Warshak (1979) and Hanson & Bozett (1985) both propose that fathers use community resources most immediately before and after the divorce.

Orthner & Lewis (1979) refer to two assumptions made concerning single-father families and social support. One position is that divorced men are less likely to receive social support which would result in isolation and stigmatized children. The opposing position is that fathers are not prepared for parenthood and, therefore, shift the child care responsibilities to mother substitutes. Orthner & Lewis (1979) also summarize studies by stating "most of the single fathers studied reported positive support from parents, friends, and others with whom they associate..." (p. 43), but the documentation for the studies is either not included or the citation is incomplete.

Power and Parke (1984) proposed a social support model for predicting the ease of the transition into the motherhood role. Four types of support were identified: relational, ideological, physical, and informational.

Relational support is defined as that support that is close, emotional and recreational. This support is primarily provided by husband, friends, and relatives. Persons providing relational support share the excitement of the transition, provide comfort in times of stress, and share mutual enjoyment in leisure activities.

Persons who provide ideological support are usually husbands, friends, work associates and relatives. These persons provide ideological support concerning the role decisions and allow one to engage in role behavior that is consistent with one's own beliefs.

Power and Parke (1984) define physical support as routine housekeeping, child care assistance and advice, help during illness or a financial gift. Husbands, friends, relatives, neighbors, and institutes are the primary sources that provide physical support to the transitioner.

The least of all social support networks, as defined by Power and Parke (1984), is informational support. Information or suggestions can be provided by friends, institutes (agencies, churches, schools), relatives, media, physicans, and support groups.

Summary

The changes in men's attitudes toward traditional sex roles and sex role behavior

represents a trend toward a more egalitarian social structure. As the father's role changes, the effect of fathers in children's lives changes. As the divorce rate continues to increase, more fathers who recognize both their parenting abilities and their potential effect on their children's lives will seek custody.

It is speculated that men who seek custody experience sex role strain, for, traditionally, men are taught "instrumental" functioning. Men who seek custody might instead have increased "expressive" functioning.

Because of the traditional sex role orientation men are supposed to be independent, competent and rational. The "expressive" function traditionally assigned to females allows the female to be dependent, compassionate and supportive. The resultant instrumental/expressive sex role conflict may inhibit men from developing and/or utilizing social support networks.

From the review of the literature it is hypothesized that (1) gender differences in the use of social support are more likely during stressful experiences than at other times (Caldwell & Bloom, 1982), and (2) gender differences in support are due in part to sex-role orientation (Burda et al., 1984). It is further hypothesized that the custodial father's transition to the single parent role require the same or similar support system as that experienced by mothers after the birth of the first child.

The paucity of research on the single custodial father has left many unanswered questions. Future research is needed to answer the following questions. Do single fathers experience sex role strain? Do fathers who are single parents develop and/or utilize social support networks? Are there gender differences in the use of social support? If so, are these differences influenced by sex role orientation? Do single custodial fathers utilize the same or similar supports as do mothers?

The single fathering trend is continuing, which will result in more children under the age of 18 being raised by the father. Social support in this population needs to be assessed so that effective intervention to faciliate the transition to single fatherhood can be developed.

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HANDWRITING:
A MISSING LINK IN LEARNING

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Abstract

While other areas of instruction have undergone rethinking and examination during the past few decades, the descent of handwriting quality has accelerated. This paper explores the literature to reveal the strong link between handwriting and the other language arts skills - reading, writing and spelling. This paper concludes that our educational systems must re-emphasize development of handwriting skills as a means of upgrading students' overall performance in the all-important language arts.

Handwriting: A Missing Link In Learning

"As brisk as a bee in conversation; but no sooner does he take a pen in his hand, than it becomes a torpedo to him, and benumbs all his faculties." Groff (1975) uses this quote of Boswell's Tom Birch to describe the reaction of many students to handwriting. While other areas of instruction have undergone rethinking and examination during the past few decades (Huitt, 1972), the descent of handwriting quality has accelerated. As Nash (1969) explains, "From the opening of the nineteenth century, the tendency of handwriting was down the path of relaxing discipline and ever looser models that disguised the essential forms of the alphabet" (p.3). It was a low priority which is obvious in the handwriting of many students (Kuipers & Riccion, 1975). Standards were lowered either because teachers lacked the knowledge for proper instruction or because educational policies maintained that instruction should take place only in the lower grades (Ediger, 1979).

Walter Barbe, Ohio State University professor and Barbe Reading Skills Check List author, describes handwriting as follows:

> Handwriting is a necessary skill that is too often taken for granted. It has been the medium through which the history of mankind has been recorded for thousands of years. The role of handwriting in the development and growth of the human race is incalculable.

The constituents of handwriting are the abilities that make humans unique among animal species: cognition, complex eye-hand movements, language competence, and aesthetics.

Handwriting is important not only as a basic skill, but also because of its relationship to other subject areas. It is easy to forget that knowledge of other subjects is most often demonstrated through handwriting. Whenever a child responds to a question in writing, both the knowledge of the specific subject and handwriting ability are put to the test. (1984, p.1)

Open-admission programs in colleges have attracted many under-prepared students to the college campuses; these students often lack the basic skills to handle college curricula independently. Some colleges have developed learning resource centers where the skills-deficient student can take basic courses in reading, study skills, writing (composing with ideas), mathematics and science. Only a few of these colleges have included handwriting instruction labs. As a result of clinical observation in the Learning Skills Center at Delaware State College, this writer recognized that many of the under-prepared students were also deficient in handwriting skills and needed a remedial lab. Materials were purchased from Zaner-Bloser, Inc. and an adult cursive handwriting lab was scheduled. Many of the students referred to the lab were those also experiencing exceptional difficulty with reading skills. In 1974, Strickling reported difficulties in handwriting and related skills in students demonstrating reading problems at the Reading Center for Prince George's County Public Schools. Approximately 90% of the children she tested over a three-year period had confusions and inaccuracies in handwriting skills: they did not know how to write some of the letters, and handwriting speed, motor speed and precision were below the expected normative level. Later, in 1983, Rogers' observation of handwriting difficulties in children with reading problems in the middle grades led to her study of the interrelatedness of reading achievement, cursive handwriting and visual motor integration of middle-grade children. She noticed some of the below average readers could not write some of the letters and were below grade level in geometric form-copying tasks. They had failed to learn handwriting and reading skills.

This research review will encompass studies bearing as directly as possible on the correlation of handwriting skills to the development of the interrelated language arts skills of reading and spelling (Stephens, Hartman & Lucas, 1982). It is important to note that consistent with the suggestion of Hall, Moretz and Statom (1976), this review will investigate the relationship between the ability to reproduce written symbols (handwriting) and performance of the visual discrimination tasks of reading and spelling. As Barbe (1977) reminds us, handwriting is a part of our language experience. It is a part of communication, which is the central goal of education.

Handwriting Defined

What is handwriting? Handwriting is a system of movements which involve touch -a very personal sense (Fairbank, 1970). Handwriting is a way of making language "mine." It is also the set of conventions of letter formation in any given language (Barbe, Lucas & Wasylyk, 1984), such as the method of writing the twenty-six letters of the alphabet which communicate the sounds in the English language (Vickery, 1961). In this country, we use the alphabet of Roman capitals, an alphabet approximately 2500 years old, directly derived from the Roman alphabet; the Roman alphabet was derived from a local form of the Greek alphabet, and the Greek from the Phoenician (Johnston, 1971). Two theories of expression exist: technical versus art. As a technical process, handwriting is labeled penmanship or chirography. Attention is given to slant, size, spacing and alignment. When the writer goes beyond communication and creates something beautiful, handwriting becomes an art called calligraphy (Monroe, 1976).

As recently as 1921, manuscript writing was brought to the United States by Marjorie Wise, and it became the preferable way to teach young children to write because of its relationship to printed letters (Hildreth, 1960; Koenke, 1986). When flowing strokes are used to join letters, the handwriting is called cursive from the Latin word meaning "running" (Larrick, 1965). There is an ongoing controversy about the introduction of cursive, with some researchers suggesting new forms of writing and others suggesting the substitution of a system of shorthand, typing (Groff, 1975) and word processing (Furner, 1985; Vacc, 1987). Moore (1986) supports the contention that cursive isn't necessary. "I wonder why so many curse-words

have negative connotations. We have cursory for work completed too quickly to be done well; curse is a way of casting bad things in another's path or undeleted expletive; and then there is cursive writing" (p. 139).

Most of the research on handwriting in America has addressed the legible formation of letters; however, European research has studied handwriting as a revelation of temperament, character, education, vocation and sex (Barbe, Lucas & Wasylyk, 1984). Until the 1960's, little attention was paid to factors such as how the writer's perception of his handwriting affected his willingness to write. In the 1960's and 1970's, Herrick and Okada (1963) and Askov, Askov and Otto (1970) began researching this area, while Addy and Wylie (1973) studied how handwriting was taught in the schools. Some research progress in all areas was made during the 1980's (Askov & Peck, 1982). Rice (1976) conducted a most interesting study, in which he tried to narrow the focus of future research by suggesting some of the more promising relationships between handwriting rate and academic achievement prediction. He concluded that handwriting rate is a significant predictor of language achievement and assignment completion. An instructor could modify goals and curriculum to fit the individual needs and abilities of the student, based on the variance of rate existing in a class.

Reading Via Handwriting

By examining the level of reading instruction we are able to identify elements common in reading instruction and handwriting instruction (Barbe, 1984). Reading and handwriting use a common graphic symbol system to represent the English language - the ABC's (Hildreth, 1963). In reading, word units are composed; in writing, the writer constructs the words. In reading the task is identification of words; in writing the task is thinking of letters to represent words. Readers and writers have the same set of phonic elements represented with the same graphic symbols. Hildreth believes that any experience with writing must be beneficial to the reader.

Scribbling, the most elementary form of handwriting, begins between the ages of two and five, when children begin to scribble pretend words - a readiness experience of reading (May 1986). It is well documented in the literature that scribbling should be encouraged (Durkin, 1978; Fisher, 1977). As progress advances from aimless scribbling to copying objects to copying words, the ability to read the words which have been written results (Chomsky, 1971; Kontos, 1988; Stendler, 1964). This suggests that, for some kindergartners, the easiest way into reading may be through handwriting.

Maria Montessori was an Italian physician and educator who developed an educational philosophy referred to as The Montessori Method. In a Montessori school, a child learns to write before he learns to read, and he learns with ease and pleasure (Montessori, 1967). The child first learns to control hand muscles by manipulating geometric shapes, and later by tracing sand paper letters with his fingers (Beck, 1967). This kind of sensorial preparation prepares the child for reading and writing (Hainstock, 1968). As the child traces the letter he sounds it because the transition to reading is easier if the child is aware that p-a-t makes three sounds. Nicholson (1958) believed that children become letter-conscious at an early age and studied pre-kindergartners' ability to match upper and lower case letters. He concluded that the development of this ability is an indication of reading readiness. Handwriting in-

struction reinforces this ability. In 1964, Durell and Murphy claimed that "most letter names contain their sounds and this assists the child in relating the phoneme in the spoken word to its form in print" (p. 143). Many researchers agree with Durell and Murphy that children who know letter names learn words more readily (Belmont, 1974).

No written form of thought is possible without the recall of letter forms and their standard arrangement in common words (Hildreth, 1963). When a child writes and copies words, he is forced to pay attention to the details in words: likenesses and differences, peculiarities and unusual features. Handwriting helps the beginner catch on to the make-up of that word. Discrimination of similar words (who, how; brook, broke) is sharpened by the writing process, according to Hildreth. It is a means of recognizing and concentrating on words which are phonetically irregular (tough, through). Russell and Fea (1963) indicate that reversals and other confusions can be prevented if children practice writing the confusing words (was, saw; b and d). They remind us that in writing words from memory the child must think of the succession of sounds within the words and try to call up a visual impression of the word parts, all valuable aids in reading.

Kontos (1988) identified the prereading skills necessary for first-graders: knowledge of letter sounds, sight word recognition, and phonemic analysis. If composing words by sounds to write them forces the child to say and see the parts in the words (Hildreth, 1963), it follows that by combining phonics instruction with handwriting instruction, teachers would be able to teach the name and sound of the letter at the same time they are teaching how to write the letter (Barbe, 1977). Faris (1984) evaluated manuscript writing samples and reading achievement scores of 131 first-graders and concluded that error type and frequency in beginning manuscript writing are helpful in identifying first-graders who may have difficulty learning to read.

Another essential reading readiness skill developed through handwriting instruction is left-to-right progression. If children are mentally prepared by adequate handwriting instruction, the time required to teach them the same skill in reading is minimized. Thus, eye-hand coordination in writing helps train the eye movements required in reading (Hildreth, 1963). Russell and Fea (1963) report that writers on the subject agree that children profit from instruction in this left-right sequence convention.

Fairbank (1970) describes handwriting as "... a dance of the pen" (p. 14). One reason that handwriting instruction relates directly to reading skills is that it is an active muscular response which produces word patterns perceived visually. This muscular response invokes employment of the kinesthetic memory, the longest memory a person possesses (Travers, 1981). This motor response aids in the memory of letter forms and words. Overt activity and the satisfaction of tangible results can often reclaim the attention of the child whose attention tends to wander (Hildreth, 1963). Hildreth has shown that passive children who are overwhelmed by the printed page will concentrate on letter writing. Russell and Fea (1963) reviewed kinesthetic research and listed Fernald & Keller (1921) and Schonell (1951) as the chief proponents. Similar to the Montessori Method, the Fernald Method consisted of having a child write a word in the sand while saying it aloud. Thus, the child learns through three types of memory: visual, auditory and kinesthetic. Roberts and Coleman (1958) investigated the role of kinesthetic factors in reading failures and showed

that those with poor visual perception can be helped by kinesthetic learning, but normal readers can not. French (1953) noted the relationship between retardation in oral reading and inferior kinesthetic recognition and suggested that kinesthetic recognition may be related to the normal process of learning to read. In 1958, Morris summarized the research to date and concluded that kinesthetic methods reinforce sensory impressions of words, develop left-right direction, and encourage systematic observation. As long ago as 1945, Baker showed that the act of handwriting spelling words aided in the recognition of difficult words on the Dolch list. One way to develop kinesthetic skills, advanced by Virginia Lucas (1976), is to write on the chalkboard because it requires large muscle movement, important to space utilization, which is followed by refinement of smaller muscle movement. Of all areas of language arts, according to Barbe and Lucas (1974), instruction in handwriting offers the best opportunity for kinesthetic teaching.

Writing Via Handwriting

Graves (1978) indicated that throughout the last few decades, handwriting has been thought of as punishing, mindless and mechanical, while composing with ideas is viewed as lofty and worthwhile. Barbe (1984) agrees with McKee (1939) that a good program in writing must be concerned with both the meaning and skill elements. Barbe argues that, although the message is an important element, it can be transmitted only if the act of handwriting does not get in the way. If the process is so awkward and difficult that it cannot keep up with the thought, or if the finished product is illegible, communication is ineffective. Koenke (1986) addressed the current emphasis on writing stories and essays with little regard for the fact that before these can be written children must learn handwriting, either manuscript or cursive. Kilpatrick (1983) cites a test of writing (thought processing) proficiency given to 53,000 ninth graders (May, 1986). One half of the students failed. According to school officials, one of the major causes was poor penmanship.

The physical act of moving the writing instrument across a page to form decipherable words is fundamental to writing skill (Odum, 1980). The brain sends the order through the nervous system to the arm, hand, and fingers, which together manipulate the writing tool; therefore, writing is the gesture of the pen which simply demonstrates what forms deep within the creative mind (Amend & Ruiz, 1980). There are those who feel that handwriting should really be labeled "brainwriting." de Ajuraguerra and Auzia (1976) researched the relation of thinking to writing and concluded that, until proficiency in handwriting develops, no elaborative thinking can take place. When Shaugnessy (1977) studied entering college freshmen, she concluded that it is not unusual to find freshman handwriting that belies the maturity of the student; and the content of that writing is often short and bare, reinforcing the impression of slowness or intellectual immaturity. Shaugnessy believes this kind of student has very limited access to his thoughts, and probably had a poor start in mastering the mechanics of handwriting. His problems will continue as long as the mechanical processes are difficult, since poor composition is not only the result of difficulties with articulation but also of stiffness with the writing instrument. The pen must become a natural extension of the mind because when writing is cramped or blurred so that the reader must puzzle out the shapes of the letters, the patience of the reader and the meaning of the writer are lost (Shaugnessy, 1977).

In 1984, Donald McAndrew examined the relationship between handwriting speed and syntactic complexity. He studied 60 college students in traditional college composition courses and basic writing courses. The results confirmed that fast handwriters produced more words, more clauses and more complex sentence structure than the other subjects; the fast handwriters had been placed in the traditional courses and the slower handwriters were those students required to take the basic courses. Graham and Miller (1980) emphasized that the way to reduce cognitive strain is to make certain subtasks, such as handwriting, so automatic that they require only minimal conscious attention; then, processing space in the short term memory is opened up and the writer can focus his attention on other important factors. For instance, development of lower-level skills of getting the language onto paper enables students to deploy more attention to high order processes: purpose, content and organization. Learning to write legibly is enhanced when the mechanics of handwriting are integrated with written communication. Nason and Karns (1961) believe that since one of the major reasons students fail is poor handwriting, automatization of handwriting should be the goal.

Spelling Via Handwriting

Spelling is an aid to writing (Odum, 1980) and handwriting is directly related to spelling, since poor handwriting confuses visual word images (Strang, McCullough & Traxler, 1967). Students who have not mastered handwriting can not concentrate on the process of spelling (Howell, Kaplan & Serapiclia, 1980). Thinking consciously about how to write each letter interferes with spelling; therefore, the length of time that a child must maintain sounding to write a letter or word has a bearing on accuracy (de Ajuraguerra & Auxias, 1976). According to Thomas Wasylyk, quoted by Johnson (1984), 20% of all spelling errors are really handwriting errors.

In a doctoral dissertation published in 1974, Strickling compared the oral and written spelling performance of 136 fifth graders. Another study conducted in the same year by Milne, Wilhide and Wasylyk examed the handwriting and spelling of 750 sixth-grade students. Results of these two studies suggest a strong relationship between handwriting and spelling. The studies concluded that children with legible handwriting spell better than children with illegible handwriting, possible because legible handwriting permits correction of errors. Good handwriting does not cause good spelling, but poor handwriting does prevent children from becoming competent spellers. Earl Wilson, a syndicated columnist, once told the story of a boy who brought home a note from his teacher which read, "Your son's handwriting is so bad we don't know if he can spell" (Askov, Askov & Otto, 1970, p. 109). Sometimes even if the word is spelled correctly, it may be marked incorrect by a teacher who cannot read it.

Conclusion

All of the research reviewed here concluded that handwriting is a vital, basic skill which must be valued and emphasized in the schools. It relates directly to a student's success in the areas of reading, writing and spelling, and is a tool which needs more emphasis in teacher preparation (Herbert, 1987). Because illegible handwriting reduces employability, decreases self-esteem and contributes to under-achievement,

85% of parents in one survey (Barbe, 1977) indicated that more, not less, handwriting skills were needed in the schools.

Handwriting will face a threat in the coming years as the need to write seems less urgent with the advance of "high tech" (Furner, 1985). However, the same claim was made when the typewriter and the printing press were invented. Perhaps "high tech" will encourage the development of handwriting skills by reinforcing the individualization of rate of learning, adjustment of difficulty feedback, and reinforcement (Lally & McCleod, 1982; Furner, 1985) which are the same instructional techniques important in perceptual learning. In 1981, Lally reported the use of computer-assisted instruction in handwriting, reading and concept formation for children with learning difficulties. He described a computer-assisted approach to the instruction of handwriting which employs a digitiser light pen and a special display screen. Following the handwriting instruction, computer-synthesized speech and a special input panel are used for teaching basic reading skills such as word recognition. This is similar to the computer application now being used in the skills lab at the University of Delaware (Johns, 1989). The development of the children using the computerized instruction was noted but no specific conclusions were drawn. Heyman (1983) studied the effects of a typing intervention program designed to assist learning disabled students. Fifth and sixth grade students were given instruction in touch typing. The subjects who completed the course demonstrated improved handwriting skills and completed an increased number of handwritten assignments.

Since psychological factors affecting academic achievement (Burmeister, 1978) include self-image and self-fulfilling prophecy, handwriting is important as an area in which children of all ethnic and socioeconomic backgrounds can succeed (Garth, 1931, 1939). Even that other minority, left-handers, have the ability to perfect the skill (Gardner, 1958; Petty, Petty & Becking, 1985; Shimrat, 1970). Success breeds success. Couvillion (1985) describes children seen in clinical settings who suffer from low self-esteem as a result of lack of fluency or speed in writing, which makes the completion of homework difficult. In 1966, Enstrom claimed that children who could not write legibly often felt inferior, insecure and ashamed. He suggested that teachers be trained in chalkboard writing to demonstrate correct letter formation for students to imitate. Nash (1988) cited Mrs. Helen Eadington, an area leader of North Tyneside, England's special education support service, who described the low self-esteem problems of pupils who exhibit poor handwriting skills. Fairbank (1975) noted that children who learn to appreciate their lessons in penmanship often show increased interest in other school subjects. Handwriting incorporates the keys to success in most subjects: practice, evaluation, motor involvement and self-expression. Askov and Peck (1982) agree that a child's success or failure with handwriting instruction often influences his feeling about other school learning.

In **Writing and Civilization,** the foreword to the catalogue of the First Exhibition of the Society of Scribes and Illuminators (cited in Fairbank, 1975), W. R. Lethaby wrote:

> First, we - that is, everybody - should recognize his own handwriting is an art - an amazing art really - to be improved rather than degraded. This partly for its own sake, and also because it is only from a general interest in, and recognition of art that any improvement of the things we produce, from pots to cities, can spring up. Common interest in the

improvement of ordinary writing would be an immense disciplinary force: we might reform the world if we began with our own handwriting, but we certainly shall not unless we begin somewhere (p. 90).

We may not reform the world, but perhaps we can illuminate the possibility that the kinesthetic skill of handwriting instruction may help to solve some of the literacy problems existing in our society today by beginning somewhere - by supplying a missing link: proficiency in handwriting.

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