The Linkage between Theory and Research in Family Science

There is a need to make theory a more explicit part of empirical research as family science moves beyond a purely positivist philosophy of science. The purpose of this article is to advocate for a tighter reciprocal interaction between theory and empirical research in family science. Specifically, it is suggested that we would build our consensual knowledge base and serve the needs of family science more effectively if this interaction were made more explicit in research reports. A systems model of scientific activities in family science is presented, and the practice of utilizing family theories in empirical research is discussed and illustrated by reviewing research publications in the family field.

Recent thought about the nature of science has made continued evaluation of the relationship between research and theory in family science of paramount importance. In their chapter on the rise of family theory in The Handbook of Marriage and the Family, Thomas and Wilcox (1987) predicted that family science will move—though not without difficulty—toward a postpositivist perspective where scientific knowledge will increasingly be seen as created rather than discovered and where a consensus criterion of scientific knowledge will be employed. Since measurement is never without error and is always made from a limited perspective in a specific sociohistorical context, scientific “truth” or “knowledge” is seen as “created consensus” of the scientific community rather than as discovered objective reality. Thomas and Wilcox (1987) suggest that the relationship between research and theory will increasingly become central to the study of families.

Williams, Olson, and Knapp (1989) examined the prevailing paradigm in family science and found it consistent with the positivism, empiricism, and structuralism of the physical sciences. They argue that the current paradigm is lacking because it “grants methodological rigor precedence over conceptual understanding in matters of knowledge” (p. 14). These scholars then called for a new “hermeneutic paradigm” in family science which emphasizes human beings as interpretive agents in sociocultural contexts and stresses that “the adequacy of our theories and conclusions is always a fundamentally open question which we as a community of scholars, in genuine partnership with the human beings we seek to understand, must jointly resolve, and constantly re-evaluate” (p. 22).

As family science moves into the brave new worldview of postpostivism, the explicit use of theory, at all stages in the research process, must be increasingly emphasized; for in this worldview, all descriptions of “reality” are recognized as inherently theory-laden. Toward this end, it would be helpful to examine how theory is now used in...
empirical research and to suggest ways to strengthen the link between theory and research. A brief review of the development of theory in family science will be followed by a conceptual model of the theory-research linkage in the field.

More than 30 years ago, Hill and his colleagues (Hill, 1955; Hill, Katz, and Simpson, 1957) concluded that "most current research is sophisticated in method but needs to grow in theoretical relevance." This observation, and Hill's enthusiastic interest in advancing family theory, have led to a marked growth in theoretical activity and productivity in what has become family science, which is indicated by the following occurrences: identification of conceptual frameworks used in studying family phenomena (Hill and Hansen, 1960); comprehensive reviews of theoretical frameworks and their application to the study of the family (Christensen, 1964; Nye and Berardo, 1966; Sussman and Steinmetz, 1987); establishment of NCFR's Theory Construction and Research Methodology Workshop (1971); development of strategies for constructing family theory (Aldous, 1970; Burr, 1973; see also Burr, Hill, Nye, and Reiss, 1979a: 9–10); and a continuous interest in the reciprocal interaction among research, theory, and application (Burr, 1973; Burr, Mead, and Rollins, 1976; Olson, 1976; Schumm, 1982; Sprengle, 1976). The decade review of family theory in the 1970s reported "a phenomenal, explosive and amazing" growth of theories about the family and declared that "theory is alive and well" (Holman and Burr, 1980: 7). Recently, however, family scholars have argued that the theory-research link is not very strong in family science (Nye, 1988; Sprey, 1987, 1988). Nye (1988) found that 80% of empirical research reports published in the Journal of Marriage and the Family from 1937 to 1987 did not use theory.

In the development of theory in family science, the two volumes of Contemporary Theories about the Family (Burr, Hill, Nye, and Reiss, 1979a, 1979b) may be considered a major cornerstone. This work laid the foundation for an effective integration of family theories and research: the theories were reviewed in light of empirical research and at the same time they were stated in a way that further research would be facilitated (Burr et al., 1979a: 12).

Implicit in these efforts is a strong commitment to scientific principles: the belief that a reciprocal interaction between research and theory is necessary for advancing family science, that better-developed theory will facilitate more relevant research, and that research which is more directly linked to theory will allow us to better understand families and thus allow for more appropriate, empirically based recommendations for therapists, educators, and policy makers. Thus it would be useful to examine the practice of integrating contemporary theories about the family in empirical research. Specifically, given the impressive growth of family theories, the questions are: to what extent these theories are explicitly used as underlying frameworks in guiding empirical research and to what extent research findings are used to support, refute, revise, or extend family theories. While Nye (1988) presented data on the research-theory linkage over time, this article focuses on one volume of JMF, giving examples of how theory is currently being employed in empirical research reports, and suggests how the theory-research linkage may be made more explicit.

As a framework for the discussion of these issues, a systems view of the relationship between empirical research and theoretical activities in family science is presented. This is followed by a discussion of the use of theory in research reports and by some evaluation of the uses of theory in contemporary family research. But first, a brief clarification of the use of the term "theory" is in order.

A Note on the Term "Theory"

There is great variety in definitions of what exactly constitutes a theory. From a positivist perspective, it generally agreed that a theory consists of a set of concepts and propositions used to explain social phenomena, and that it should include a context for verification. There is debate as to whether a body of interrelated concepts and propositions constitutes a theory if it is not lawlike and formulated, if it lacks predictive-explanatory power, or if it is not yet "researchable." Radical-critical theorists do not accept that theory should consist of formal-logical deductive statements. However, Osmond (1987) states that "at a basic level, contemporary radical critics call for sociological theory to be a body of explanations that 'make sense' of the social world" (p. 104). For radical critics, theory can serve to give illumination, as a method (such as ethnemethodology), as a model of interpretation, as a critique of the
social world, and as a statement of what should be (Osmond, 1987).

Theories differ in their scope and in their level of abstraction. Reynolds (1971) discussed different forms of theories (set-of-laws form, axiomatic form, causal process form), and Madsen (1968), referring to psychological theories, classified them by strata (descriptive stratum, explanatory stratum, and epistemological or met,stratum). Family sociologists traditionally have used the term theory broadly and generally rather than narrowly and precisely (Hill, 1966). Hill refers to theory not just as a body of laws but also as a body of generalizations of lesser explanatory power.

Broadly speaking, two types of theories have emerged in describing and explaining family phenomena: general theoretical frameworks and substantive theories (Holman and Burr, 1980). The former type seems to have emerged from what Hill and Hansen (1960) called "conceptual frameworks." Although Hill and Hansen recognized that conceptual frameworks are not in themselves theories, and although the usefulness of conceptual frameworks in developing family theory has been debated (see Klein, 1980; Rodman, 1980), attempts have been made to go beyond conceptual frameworks as classificatory schemes to begin to build general theories. Some of the theories described in Volume 2 of Contemporary Theories about the Family demonstrate this direction of theory development, although it has been stated that this project was not successful in generating general theory (Sprey, 1988; Thomas and Wilcox, 1987).

The second type of theories that are being developed in family science are more limited in scope; they are substantive theories, or what Merton (1957) called "theories of the middle range." Holman and Burr (1980) noted that middle-range theories received increased, though uneven, treatment in family science in the 1970s. Merton suggested that these theories are intermediate to the minor working hypotheses evolved during the day-to-day routines of research and the all-inclusive master conceptual schemes. Merton believed that "it is the theories of the middle range which hold the largest promise, provided that, underlying this modest search for social uniformities, there is an enduring and pervasive concern with consolidating the special theories into a more general set of concepts and mutually consistent propositions" (p.10).

Here we refer to theory in the broadest sense of the word, whether or not general theories, or middle-range theories, possess all the qualities of "theory." However, because we wish to encourage theory development, we limit the use of the term to those theories that have been published at some point in the professional literature and exclude "armchair theories."

A SYSTEMS VIEW OF SCIENTIFIC ACTIVITIES IN FAMILY SCIENCE

That a scientific field develops to the extent that its theories and empirical research are intertwined is not a new idea. Practically every social research textbook alludes to the logic of this scientific approach. In a postpositivist world the theory-research linkage takes on even more importance. In recent years, several models have been used to demonstrate the scientific cycle where theory and research build upon each other (Babbie, 1983; Mitroff and Kilmann, 1978; Olson, 1976; Wallace, 1971). Although a thorough review of scientific procedures is not needed here, a systems model of scientific activities, applied to family science, is presented as a tool to help illustrate the relationship between various concepts and processes in the discipline and as a general framework for the discussion that follows. The model, depicted in Figure 1, contains three systemic components: (a) Theoretical Framework (TF) refers to a body of interrelated concepts and propositions about family phenomena in general, such as symbolic interaction, choice and exchange, and general systems theory; (b) Middle-Range Theory (MRT) refers to lower-order and more limited-in-scope theories about specific substantive areas, such as mate selection, violence, and intergenerational continuity, or to theoretical models, such as the ABCX model of family crisis; (c) Empirical Research (ER) refers to the various methods of data collection and analysis.

At a macro-level analysis of the scientific system’s operation, the environmental input to the system is unexplained family phenomena and its output is explained phenomena. Since an important goal of science is a systematic explanation of phenomena (positivist) or consensual knowledge (postpositivist), it may be argued that the system operates well as long as it produces,
refines, or extends theory. ¹

From a systems theory point of view, the scientific process can begin or end at any subsystem. The model, therefore, describes any scientific activity in family science: building or refining a general theoretical approach, building middle-range theoretical models, and conducting empirical research. Each type of activity inputs the environment (family phenomena) differently and has its own "rules of transformation" (e.g., strategies for theory building; research methodology).

Although each subsystem has its output, which may be of value in and by itself, a continuous feedback loop among the system’s components is necessary for the system’s optimum operation. In other words, each component in the system is able to generate some information about family phenomena, but it is the interaction among the components that leads to a "systematic explanation of family phenomena."² In theory development, for example, activities at the TF’s "subsystem" have produced general theories about the family (e.g., exchange theory, symbolic interaction, family development, systems theory). At the same time, activities at the MRT "subsystem" produced a large number of substantive family theories, such as marital quality and stability, intergenerational transmission, family stress and coping, fertility, and mate selection. Each subsystem thus produced an "output," but it is the interaction and feedback loop between these subsystems which produce a better understanding of family phenomena. A general theoretical framework may, for example, produce important and interesting conceptual schemes, sets of assumptions, or propositions, but this "output" is limited in its contribution to the total scientific goal unless the theory is testable and is able to interact with other subsystems. Attempts to advance this interaction have been well demonstrated in the two volumes of CTAF (Burr et al., 1979a, 1979b): Volume 2 exemplifies the output of TF’s interaction with various MRTs, while Volume 1 shows the useful-
ness of MRT’s interaction with the general theoretical frameworks.

It can be argued that a similar interaction between research and theory (either TF or MRT) would enhance the whole “scientific system’s” output. And it is this linkage between theory and empirical research with which we are concerned here, namely, the degree to which theory serves as an input to research and the degree to which the output of empirical research serves as a feedback to theory.

**Linkage of Theory and Research**

Reynolds (1971) discussed three ways that theory and research can be linked. In a “theory-then-research” strategy, the primary goal is to test a theoretical proposition or to examine alternative explanations of two different theories. In this type of research, a researcher begins with theory and inputs it to ER together with the “environmental input” (a family phenomenon). The output from ER is then fed back to theory in terms of support, refutation, or modification. Clearly, both input from theory and output back to theory are essential in this type of research. In a “research-then-theory” approach, on the other hand, the environmental input (research problem, family phenomenon) is processed through ER without input from theory. For example, in exploratory or descriptive research it is assumed that existing theories are irrelevant or that they are unable to guide the investigation. However, since exploratory studies are aimed at generating new propositions, the system’s operation would be enhanced if ER’s output is fed back to theory.

The third strategy, “composite approach” (Reynolds, 1971), is most commonly used by social researchers. It involves an interplay between the research problem (environmental input) and theoretical explanations. Typically, the investigated family phenomenon (e.g., adjustment to widowhood) is processed through ER’s rules of transformation, but the “scientific system” operates best when there is also (a) an input from, and control by, theory, and (b) an output from ER which is fed back to theory. Input from, and control by, theory involves placing the research problem within the theoretical context and utilizing theory as a guide in a series of decisions that need to be made: choice of unit of study, choice of variables and measures, choice of research methods, means of data collection, methods of data analysis, and presentation of research findings. Output and feedback from ER to theory involves implications of the research findings for the existing body of propositions about families in general (feedback to TF) and/or the investigated phenomenon in particular (feedback to MRT). As Hill (n.d.: 7) put it, “like lenses which make some things clear and others fuzzy, they [theories] set limits on what one sees in order to illuminate still the sectors of the problem on which the frameworks focus.”

From the positivist perspective, the input and control functions of a theory in the empirical process, as discussed by Merton (1957) and others (e.g., Denzin, 1970; Williams, 1960), may be summarized by the following points: (a) it guides the selection of facts in terms of their pertinence; (b) it provides a framework for coherent organization and arrangement of facts and thereby increases the scope of their significance; (c) it provides better grounds for making predictions; (d) it increases precision by requiring that concepts and propositions be sufficiently precise to be determinant or testable; (e) it provides a cumulative function in scientific endeavor because it points the way to additions to a system of interrelated propositions; (f) it increases the fruitfulness of findings, including their fruitfulness for practical applications; and (g) it reveals gaps in knowledge and hence serves as a guide for future research.

From the postpositivist perspective, the explicit linkage of theory with research serves to notify the reader of the theoretical and sociohistorical perspective that informs the empirical work. It also reminds the scientist of the thin, permeable line that exists between facts and theory in science.

The theory-research feedback loop is essential for the scientific system’s operation. If input from theory to research is interrupted or is missing, it causes a study to be limited in scope, its output possibly being only limited information about a limited phenomenon in a specific sample. If research output is not linked back to theoretical concepts and propositions, it impairs its most important function—to support, revise, or extend the construction of our consensual knowledge base.

**Spelling Out Theory-Research Interaction in Research Reports**

In the previous sections, research and theory were
discussed in abstract terms. In practice, both research and theory become part of the body of consensual scientific knowledge via scientific publications (journal articles, books). Research serves its purpose only when it is reported and becomes part of the "public knowledge."

In terms of the systems model of science (Figure 1), the "input" to research is represented in the Introduction section of research reports. Typically, researchers introduce the research problem as a system's input, together with previous related findings. If theory is utilized to place the study within a broader framework (substantive or conceptual), if the study tests specific theoretical propositions, or if hypotheses are deduced from more abstract theoretical propositions, one would expect to find a discussion of the problem within the broader theoretical scope, and a statement of how theory may be useful in guiding the study (hypotheses, design, and analysis). Ideally, there would be an explicit reference to an identified theory (general or substantive), and the research problem would be presented by using the theoretical concepts; the hypotheses and research questions would be linked to theoretical propositions; measures would be shown to be appropriate operationalization of concepts; and the design and data analysis would take into consideration the important theoretical variables for use in the research model, including control variables.

Likewise, if theory is utilized to guide empirical research, one would expect to find explicit reference to it in the Discussion section—the research "output." This section thus is used not only to summarize major findings but also to discuss them in terms of empirical generalizations, arrange and interpret them within the theoretical framework, and indicate the implications of the results to theory (i.e., discuss how findings may fill theoretical gaps and help to support, refute, modify, or clarify concepts and theoretical propositions).

As mentioned earlier, this theoretically oriented output and feedback is of major importance not only in verification research. Exploratory studies are particularly important because of their "serendipity function" (Merton, 1957), that is, their role in generating new propositions. In these kinds of studies, where theory seems to be unable to guide the research and hypotheses cannot readily be deduced from existing theoretical propositions, a significant contribution to the scientific system's goal (systematic consensual knowledge of family phenomena) may come from an explicit reference to the theoretical implications of the study.

Why do we emphasize the explicit spelling out of underlying theory in research reports? Besides the logic of scientific procedure discussed earlier, it is the explicit reference to underlying theory that facilitates succession, continuity, and accumulation of consensual knowledge rather than a smattering of empirical studies with common interest but with no common frame. For example, different studies that may seem unrelated (e.g., effect of chronic illness in the family, transition to parenthood, unemployment) may all be organized by a unified theoretical framework (e.g., family stress theory) that serves as a link between "pieces of information" and gives accumulated meaning to seemingly unrelated studies.

It may be argued that the theory-research linkage may be done over time, such as in decade reviews, rather than in each single study (Klein, 1986). From this point of view, researchers would best serve the scientific endeavor if they produce reliable and valid data and let other scholars put all the findings into theoretical context and decide how all the facts, over time, fit together. Of course, this is a positivist approach which assumes that design, instrumentation, sampling, and analyses are not related to theory and that findings are simply "facts" that can be integrated into theory later. We maintain that in the process of building our consensual knowledge base, it is essential for scholars to try to place their own work in theoretical context. It is more efficient for scholars to create their part of the edifice of consensual knowledge, and indicate where it may best fit, than it is to create at random and wait for decade reviewers and theory constructors to decide where the work best fits.

There are additional benefits from explicit reference to theory in research reports. First, it requires a researcher to be more precise. It assures to some degree that a researcher is aware of key assumptions and is knowledgeable about key concepts. It serves as a control over the use of unrelated, undiscovered concepts, and over making diffused interpretations (Merton, 1957). Second, explicit theory makes it easier for the reader to place a study within a broader context, to link the study to the "accumulated knowledge." At the same time, it does not impose upon the reader the
task of discovering the relation between the assumptions and arguments embodied in the text. Third, readers can objectively judge the logic of research design, measurement, assumptions, predictions, data analysis, and interpretation of results. And a final, practical benefit: explicit reference to theory simplifies integrative endeavors, such as decade reviews, theory construction, and meta-analysis. As Klein and his associates (1969) have noted, the task of sorting articles by theoretical relevance is sometimes quite frustrating when theory is not explicitly stated.

In sum, if research-theory integration advances science, and if knowledge is accumulated via research reports, it is reasonable to argue that family science will develop to the extent that this interaction is made explicit in research articles. In other words, it seems that spelling out explicitly underlying theory as input to research, and explicitly feedbacking research output to relevant theory, will facilitate the development of a systematic consensual explanation of family phenomena.

### The Use of Theory in Research Reports

To evaluate the use of theory in current family research, a review of 75 research papers published in the *Journal of Marriage and the Family* in 1985 was conducted. The purpose of presenting these data is to illustrate how the theory-research link has been made in the most influential journal in the field. Included in the survey were articles and research reports that could be classified as "empirical-theoretical" (Klein, Calvert, Garland, and Poloma, 1969; Hodgson and Lewis, 1979). Articles that were primarily theoretical essays or methodological discussions, or that were concerned primarily with the presentation of descriptive data, were excluded from the review. Forty-nine of the articles were subjected to a closer review of theory utilization in the research "input" and "output." This review was guided by two questions: (a) to what extent researchers explicitly refer to theory as an input and in the output of their research reports; (b) to what extent there is reference to identified theories about the family.

The review indicated that empirical studies can roughly be classified into three levels of utilizing theory as an input (theoretical relevance of the research problem) and/or output (implications of the findings to theory): explicit reference to identified theory, implied theory, and no use of theory. With three levels of utilizing theory in a research input and output, studies were classified into nine cells (see Table 1). As Table 1 shows, 27% of the articles utilized theory in both the input (theoretical relevance of the research problem) and the output (implications of the findings to theory). Seven additional studies referred explicitly to theory only in the input (10%) or in the output (8%).

<table>
<thead>
<tr>
<th>Research Output</th>
<th>Research Input</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Theory Explicit</td>
</tr>
<tr>
<td>Explicit linkage</td>
<td>27</td>
</tr>
<tr>
<td>Implicit linkage</td>
<td>10</td>
</tr>
<tr>
<td>No linkage</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
</tr>
</tbody>
</table>

Note: Entries are percentages of total number of studies (N = 49).

In 27 research articles (55%), theory was not spelled out explicitly either as an input or as an output. Nearly one-third of the articles (28%) presented the research problem in a way that underlying theory could only be implied, and 35% linked the research problem to previous research only, without any linkage (explicit or implicit) to theory.

*Explicit theory* was identified when an underlying theory was used in the Introduction section to discuss the phenomenon (within conceptual or substantive context) and guide the research. The underlying theory could be a general theoretical approach, a middle-range theory or a theoretical model identified within contemporary theories about the family or a related field (e.g., sociology, psychology, communication). In the research output, explicit use of theory was identified by empirical generalizations that clearly and explicitly were fed back to a theory.

The articles that explicitly spelled out their underlying theory differed in the way theory was linked to the empirical research. In some cases the research problem was linked to a specific middle-
range theory or a theoretical model (e.g., Stephen; Vera, Berardo, and Berardo). In other cases, more general theoretical frameworks were used in explaining the phenomenon studied (e.g., Booth and Edwards; Rosenthal), or a linkage was made explicitly to both a middle-range theory and a theoretical framework.

This latter type of study represents the three-way linkage shown in Figure 1, namely, a linkage of an empirical research to both MRT and TF, as well as a linkage of a higher-order theoretical framework to explain the lower-order substantive theory's propositions. Yoge and Brett, for example, studied the relation between perception of housework distribution and marital satisfaction. Two theoretical frameworks (exchange and equity) were tested as alternative explanations of predictors of marital quality. The theoretical frameworks and the substantive theory (marital quality) were explicitly stated and used in discussing the phenomenon and in guiding the design and data analysis. As research output, results were discussed in terms of support of theory, so that the theories were used as a framework for coherent organization of the findings.

A few other examples of this kind of integration, though not an exhaustive list, are Stoller's use of exchange theory to study informal support networks of the elderly, Callan's discussion of choice and exchange theory to explain models of fertility decision making, Herzberger and Tennen's use of social learning theory to study parents' perception of discipline severity, and Sabatelli and Cecil-Pigo's study on interaction between relational interdependence and commitment from social exchange and equity perspectives.

Implied theory was indicated when the research problem was reviewed and presented conceptually in such a way that the theoretical relevance could be implied by the concepts used, but there was no explicit linkage to any identified, relevant theory. In the research output, results were transformed into empirical generalizations, and/or theoretical implications were noted but not clearly linked to theory.

Research articles that did not clearly spell out theory differed in the degree to which theory seemed to guide empirical research. Nearly one-third of the reviewed studies presented the research problems in such a way that theoretical relevance could be inferred. However, they lacked a clear linkage to any particular theory, and therefore it was left for the reader to assume the underlying theoretical framework.

A great majority of these studies could have been conducted so as to enrich existing family theories. For example, Swenson and Trahaug studied the relation between commitment and marital stability but did not link the study (explicitly) to any theoretical framework. This study may be compared with that of Sabatelli and Cecil-Pigo (mentioned earlier), who studied a similar phenomenon, but discussed it explicitly from the social exchange perspective and theorized about marital stability. Likewise, Strait's study on college women's fertility values was linked to "factors that dominate contemporary explanations of low birth rate" but not to family theories about fertility (e.g., Cogswell and Sussman, 1979). McAuley and Nutty studied life cycle stages, residential satisfaction, and community integration. The main concepts were introduced so that theoretical relevance could be implied. Although McAuley and Nutty suggested that the study was exploratory, some of the research ideas could have been conceptualized, and predictions could have been made, had the study been linked more closely to a family developmental framework or to the concept of residential stability within social networks theory (Lee, 1979).

Another way that theories were implied was by explicitly referring to theoretical concerns without actually identifying them. For example, Ikels's study on the impact of cultural values on parental expectations of their adult children clearly states the theoretical concern (change of cultural values). This otherwise well-conducted investigation could be studied, at least partly, within the theories of generations and intergenerational continuity (Troll and Bengtson, 1979). Similarly, Weingarten discussed the phenomenon under investigation by referring to theoretical explanations (e.g., crisis framework, institutional-structural) but left it for the reader to decide what crisis framework (or other explanatory theories) were referred to, and how these theories guided the investigation (i.e., the selection of control variables in the analysis).

No use of theory was seen when the input of a research report was primarily a review of previous research about the phenomenon. Underlying related theory was not stated nor implied. The output usually was a discussion of results with no the-
Theoretical Implications.

These studies represent a greater gap between theory and empirical research. While some such studies were not likely to be related to any existing theory about the family, others could have been readily linked to theories such as sexual permissiveness (e.g., Weis and Jurich), social networks (Rempel), or marital stability (Maneker and Panik).

The case of research on marital quality/stability suggests what we may be missing by not making the most out of the integration of research and theory. The various studies on this subject touched on a wide range of family phenomena, such as marital status, dual-career families, age heterogamy, religious homogamy, older families, illness, and more. A variety of concepts were used to describe marital quality and stability, and the phenomena were studied at both macro and micro levels. These studies, if explicitly conducted within a unified theoretical framework (e.g., Lewis and Spanier, 1979), could have contributed systematically to the development of the theory. As Merton (1957) noted, it is through systematic use of theory in research that consecutive and cumulative research is done rather than with a buckshot array of dispersed investigations.

Why Is Theory Often Avoided?

Nye (1988) found little use of theory in empirical research reports published in JMF over the past 50 years. Our brief review indicated that while some researchers explicitly tie their research to family theories, most researchers do it either implicitly or they do not use theory at all. Assuming that family researchers are committed to advancing scientific study of family phenomena, several explanations for the relative lack of theory-research linkage may be considered. They may be roughly classified into two categories: the "theory factor" and the "researcher factor."

The Theory Factor

The reason for not using theory may be attributed to deficiencies in our theories themselves. There are three arguments to consider here. First, it is possible that our contemporary theories do not touch upon the real issues that draw researchers' attention, and researchers may thus find that existing theories are not useful enough for guiding their study. Second, some theories, especially the general theoretical frameworks, are not testable. They include useful orienting concepts and assumptions, but they cannot be linked to empirical research in any direct way (Klein, 1986). Third, many of the theories, even the more advanced substantive theories, are expressed in relatively imprecise verbal language, which makes them hard to link to specific research questions (Walters, 1986). Furthermore, for many researchers the language of theory is difficult to comprehend; theory can be a foreign language that is hard to read, let alone speak.

The issue of "fit" between contemporary theories about the family and the kinds of family phenomena with which researchers are interested must be examined first. With the growth and development of family theories in the past decade or two, there is now a collection of middle-range theories that presumably were written to facilitate research. Are they relevant for researchers? Our review indicated a reasonably good "fit" between research interests and contemporary theories about the family. Sixty-one of the research articles we reviewed (81%) were related in content to existing substantive theories (CTAF, Volume 1), suggesting that contemporary theories about the family could be used, at least partially, as frameworks and guides in conducting these studies.

Yet, some theories may still be too vague, imprecise, or untestable to be useful for empirical research. The editors of CTAF (Burr et al., 1979b) have made the observation that "even though much has been done in the first phases of theory construction, most theories about the family have some distance to go" (p. 208). It may be suggested, however, that further refinement and clarification of theories, including the precision of their language and their testability, will most likely be achieved by a deliberate attempt to link theories to empirical research. Specifically, it seems that some of the flaws in theories will surface through researchers' efforts to translate propositions and concepts into hypotheses and variables.

The Researcher Factor

Besides serious deficiencies in theories, it is possible that theory is not used explicitly by researchers because most scientists are trained to be good researchers but not good theorists. The researcher factor thus becomes a matter of awareness of the
place of theory in the research process and ability to relate theory to research. It appears that while some researchers may begin their study from a theoretical question, most get the research idea from an "environmental input," a problem in the "real world." In practice, nearly all researchers carefully review recent research on the phenomenon they study. Probably relatively few include in such a review a deliberate search for a theory which may guide their study and give it a broader context. As Hill (n.d.) observed, the most difficult stage for researchers is the translation of the research idea into a research problem that has both theoretical relevance and some possible practical usefulness.

Perhaps it is unrealistic and unreasonable to expect scholars to be both good researchers and good theoreticians, given the wide range of theories and the complexity and power of modern research methods. One need not be a theoretician, however, in order to use theory explicitly in the research process. As we have noted earlier, many of the articles that did not use theory dealt with family phenomena that may, at least partially, be explained (or described) by existing theories. For example, the research on marital quality and stability suggests that it is not a lack of theory that accounts for the lack of research-theory integration. More likely, it is lack of emphasis on the central role of theory in guiding research. Furthermore, it has been suggested (Walters, 1986) that the ability to conduct research is more important in getting published than is the ability to use and contribute to theory. Thus, it is not surprising that researchers sometimes avoid the hassles of reviewing relevant theories and of carefully integrating them in the research process.

**Conclusions and Recommendations**

The call for a tighter reciprocal interaction between research and theory is hardly new. Merton (1957: 4), reflecting on his own interest in consolidating the relations between social theory and social research, noted that this interest is suspiciously irreplicable: "Where will one find a social scientist disclaiming the desirability of the 'integration' of theory and empirical research?" The focus of this article is on the role of family researchers in consolidating the relations between theory and their research practices, acknowledging the impressive rise of family theory over the past three decades. More specifically, we have argued that our goal of producing a better consensual knowledge base—not just for the sake of knowledge, but knowledge that will provide a more valid basis for intervention and action—will be facilitated by an explicit reference to theory in research reports.

If we want to make the best out of research, it will be helpful if researchers make themselves more familiar with theories about families. Specifically, it seems that we need to sensitize ourselves and teach our students to "think theory" while doing research, and then to be clear and explicit about it when research is reported. Practically, it means that in designing a research project and reporting it, we should include a careful discussion of relevant theory (or alternative theories) as part of the literature review.

Since consensual knowledge is accumulated through research reports (e.g., journal publications), editors and peer reviewers also have a role in maintaining the theoretical relevance of empirical research. They are the "watchdogs" of the practice of theory-research integration. They can judge to what degree empirical research is not only well conducted methodologically, but also integrated within the "scientific system." It is believed that by so doing they can influence, over time, the practice of research-theory integration.

The key for better integration, however, is not so much in screening criteria but in the process of reminding ourselves that research—as good as it may be—is only a part of the scientific cycle and is only able to supply limited information. It is theory that gives meaning to research findings, and it is theory that enables the development of systematic consensual explanation of family phenomena.

**Notes**

This article is a revision of a paper, "The use, non-use and misuse of contemporary family theories in empirical research," presented to the Theory Construction and Research Methods Workshop at the annual meeting of the National Council on Family Relations, Dearborn, Michigan, November 3, 1986. David Klein and Lynda Henley Walters served as discussants in this session. Their excellent comments and suggestions are thankfully acknowledged. We also appreciate the helpful comments of Wayne Caron, D. Cooperman, Bill Doherty, Robert Friedmann, and Ira Reiss, and two anonymous reviewers.
1. In emphasizing theory construction as a goal of science, we do not mean to underestimate the practical objectives of family scientists—to help individuals and families. However, we believe that, because research always is limited in scope and generalizability, practitioners would ideally “go through a theory” rather than attempt to apply findings from research directly to an applied setting (Burr, Mead, and Rollins, 1973).

2. Although the model is used here mainly for descriptive purposes, it is clear that it has systemic characteristics beyond those discussed. For example, there is a hierarchical control order among the system’s components (see Broderick and Smith, 1979: 123). Additionally, the system can be described as semiphen, interacting with other scientific systems. It is also a subsystem of a broader scientific system, controlled by hierarchically higher systemic levels. Dynamically, there are some interesting systemic questions. For example, what happens in the system if there is an overflow of research output that cannot be absorbed by the theoretical subsystems? These characteristics are beyond the scope of the present essay.

3. Greenwald, Pratkanis, Leippe, and Baumgardner (1986), on the other hand, have warned against too tight a linkage between theory and research in these types of studies, arguing that theory may be the most obstructive of the research process and theory-building enterprise. Specifically, they warned against the “confirmation bias” that results from researchers’ tendency to interpret data in an overly consistent manner with their theories. Of course, Greenwald and his colleagues do not suggest that theory and research should not be linked in the scientific process, but that theory should be used wisely.

4. Needless to say, theoretical input to ER may come from either MRT (e.g., family stress theory), or TF (e.g., developmental framework), or from both. Likewise, output from research may be fed back to either, or both, TR and relevant MRT. However, since not all TFs are searchable, and since MRTs are more closely related to the minor working hypotheses (Merton, 1957: 10), it is more likely that ER would interact with a middle-range theory than with a theoretical framework.

5. For a detailed description of the review procedures, see Lavee, 1986.

6. Articles from the Journal of Marriage and the Family (Vol. 47, 1985) mentioned in this section are referenced in the body of the text without year of publication.

7. We are indebted to David Klein (1986) and Lynda Henley Walters (1986) for their insightful discussion of these points.

REFERENCES


Hill, Reuben. n.d. “Strategies in designing and executing family research.” Mimeograph, University of Minnesota.


